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ST

REVIEW

ISSUE 30

SEPTEMBER 1994

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**ST REVIEW ISSUE 30
SEPTEMBER 1994**



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Published by: Euromag Publications Ltd,
Europa House, Adlington Park,
Macclesfield SK10 4NP
Tel: 0625 878888 Fax: 0625 850652

Chairman: Derek Meakin
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Distribution: COMAG
Telephone: 0895 444055

Subscriptions: MRM Promotional Services,
PO Box 500, Leicester LE99 0AA
Tel: 0858 410510 Fax: 0858 434190

Six issue subscription: UK: £18.99
EEC/Rest of world: £26.49
Annual subscription: UK: £41.99
(13 issues) EEC/Rest of world: £54.99

Member of the Audit Bureau of Circulation.

Atari ST Review is an independent publication. Atari are not responsible for any of the articles in this issue, in whole or in part, or for any of the opinions expressed.

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PUBLICATIONS

Printed by Duncan Webb Offset (0622 759931).

COVER FEATURE BLACK MAGIC!

PAGE 14



How often have you seen a great colour picture and be-moaned the fact that your favourite word processor or desktop publisher can only display in black and white? Or wondered how you can use some of those great image manipulation features that colour programs offer – but in mono so that you can output to your printer? Well here's the answer...

This month *ST Review* turns its attention to this issue. The second cover disk proudly presents various image processing utilities including *Eclipse* which allows you to process colour images and then save in black and white. *Creative Images* (page 24) explains some of the more popular effects while *Practical Images* (page 26) creates the kind of pictures you could use.

Read – and start experimenting!

ST SOURCE

... the source of all information! This is where you'll find the best tutorials, your opinions and our answers to your questions...

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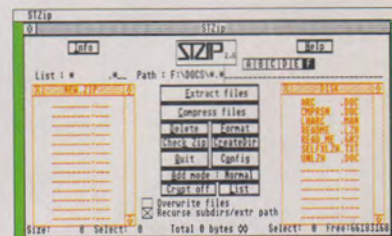
You ask the questions – *ST Review's* panel of experts provide the answers.

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Speak out and see your opinions in print on our Letters pages.

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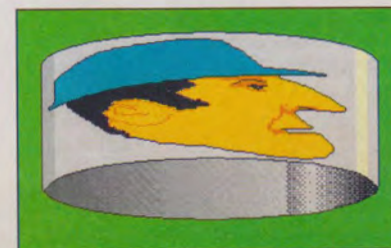
Missed any of our issues? Order them from here, but hurry – they're rapidly disappearing...



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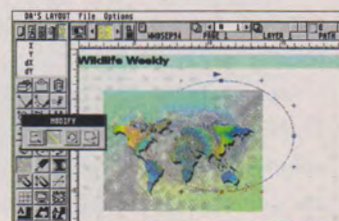
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The latest PD and shareware for your computer.



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**NEXT MONTH'S
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AUGUST 30**



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Be informed – the *ST Review* way!

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The true definition of a closed shop! It's the Clams – page 53.

Check out our Premier Manager 2 preview – page 52



ON THIS MONTH'S COVERDISKS

ISHAR III

... a playable demo of one of the best ST games to be released this year! You're in the forest and it's time to cast your spells and do battle.

See page 51 to get started.

ECLIPSE

... an excellent image processor for any ST or Falcon! Lots of filters and special effects – our tutorial starts on page 14.

Plus

Spectra – 24-bit image editing (page 16)

Imagecopy 3 demo – see page 22.

SuperSam – Falcon sample editor (page 13)

and more...



CRISIS? WHAT CRISIS!

What do the following programs have in common: Calamus SL v2, Clarity Falcon, DA's Picture, DA's Vector Pro, Diamond Back 3, EZ Art Pro, Harlekin 3, Imagecopy 3, Kobold, MagiC, MUSiCOM 2, Papyrus, PixArt, Rainbow, Thought!, Truelmage and Vidi ST? They've all been released within the last six months – that's seventeen quality products at a time when the ST market is supposed to be fading away into obscurity. And there's more to follow – Arabesque 2, DA's Layout TC, Prottext 6.5, That's Write 3, TrakCom, Write On 2... just who's kidding who? Where are the comments about a "dead" market emanating from? More to the point, are you starting to believe them? Because if you are, then you're inadvertently contributing to the demise of our computer platform. Many of the above programs are among the best ever written for the Atari but will such support continue if sales slump below the point where not even development costs are covered? Of course not.

Even the full-priced games side has not entirely disappeared – we've had Cannon Fodder, Elite II, F1, Goal!, Rock 'n' Roll Clams and now Ishar III.

The future of Atari software is very much in our hands. As editor of *ST Review*, I make certain that all viable products are reviewed in a fair and honest manner. You know that you can rely on my writers' unbiased comments. Now it's up to you and there are two possible options: jump ship and move to a different platform or stay put and support your Atari computer. *ST Review* will continue to do the latter.

Do you ever wonder whether an ST can *really* be used in business? Then read *Fit For The Fight* on page 38 where Roger Derry explains how he acted as Press Officer for a budding Euro MP – with a bog-standard ST. It'll certainly open your eyes...

Finally, I was watching ITN News on the morning of writing this editorial and saw a news piece on Silicon Graphics (SGI). The company now has a 150 degree wrap-around screen and was demonstrating an incredible trip aboard a Cobra helicopter with talk of a virtual reality themepark. Best of all was the comment from David Hughes of SGI; when asked *how* such complexity could be achieved, he answered: "it's just software." Which brings me back to where I started...

Now go and enjoy our Ishar III demo!

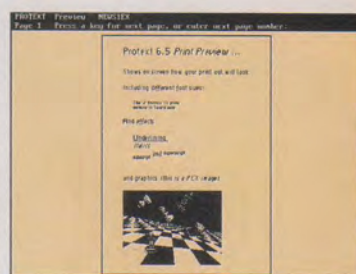
V. Lermont

Editor



PROTEXT PROGRESS

To celebrate its tenth anniversary, Arnor (0733 68909) has decided to enhance its *Prottext* word processor. Version 6.5 offers a number of major enhancements including the long-awaited addition of a WYSIWYG display referred to as a "graphical page preview". This shows a whole page of the document on-screen, including the correct fonts, styles and images. Also incorporated within the new version is a graphics viewer that supports .GEM, .IMG, .PCX, .GIF and .IFF files.



What you see – Prottext 6.5 sports a true page preview including fonts and graphics.

Two of the changes are intended to simplify the everyday use of the program: *Auto-Correct* modifies common typing errors and includes a *capitalisation* feature that hunts for lower-case letters at the start of sentences and corrects them; *abbreviations* allows you to use shortened forms of commonly-used words which are then substituted for.

On the text side, disks can be searched for key words and text can even be replaced in a number of files by a single operation. The spell checker has been improved and can operate automatically on finding an unrecognised word; the ensuing dialogue box includes a list of possible alternatives. Additionally, a "learn" facility has now been included.

Competitively priced at £99, current users can upgrade from 6.0, 5.5, 5.0 and 4.2/4.3 for £35.25, £47, £58.75 and £76.38 respectively. Full review next issue.

ROLL A DEXTROUS!

Black Scorpion Software (021-414 1630) is currently putting the finishing touches to *DEXtrous*. Referred to as a "Cyber-Iconic File Manager", this object-oriented, Falcon-specific program uses a custom operating system (PACE) which incorporates multi-tasking but will still load standard GEM programs.



DEXtrous is very visual; a simple double-click on most graphics files shows them from the desktop and thumbnail icons can represent each file – somewhat better than an eight-character name! This lets a user enter a directory and literally "move" around.

In a similar vein, fonts and animations can be seen and music files heard and to further enhance the visual side, various textures for backgrounds and slider bars are included. Price is expected to be between £39.95 and £49.95 with an Autumn launch planned.

Also available very shortly will be *BSS Debug*, a symbolic 68030 debugger for the Falcon, priced at £39.95.

Desirable DEXtop – the wood background and stone slider bars front DEXtrous' powerful operating system...

OLD FOR NEW...

Gasteiner Technologies (081-345 6000) is currently offering users the chance to "upgrade" any complete, working 20Mb, 40Mb or 50Mb hard drive against the purchase of one of their 525Mb "All New Gasteiner Hard Drives". The 525Mb model is priced at £649 but a discount of £150 is being offered to those who trade in their old unit.

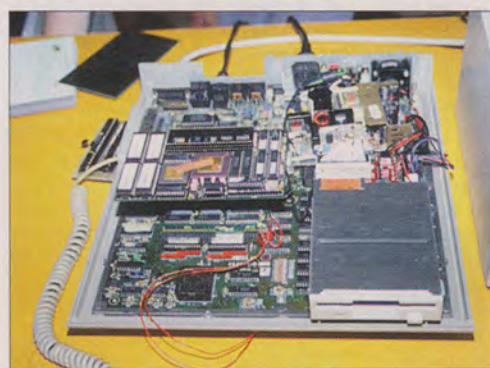
Following in the footsteps of its *ST Review* "Best Hard Drive of 1993" award-winner, features include auto-booting and auto-parking, SCSI icon selector switch and dual SCSI ports. Other drive capacities within the range include 170Mb (£299), 270Mb (£379), 340Mb (£449), 1080Mb (£949) and 1800Mb (£1349). The equivalent drives for TT and Falcon are available for £50 less, regardless of capacity. Drives are supplied complete with cables, manual and formatting software.

PAK UP YOUR TROUBLES

Impressive accelerator board to be available in the UK...

System Solutions (081-693 3355) has decided to distribute and support a long-established German accelerator board for the entire range of ST-based computers, including the MegaSTe. PAK 68/3 is based on an old DIY project from a German computer magazine.

The key to the PAK 68/3's performance is the addition of 32Kb of



Power-packed – fitting a PAK 68/3 means never having to complain about a slow ST again...

PERFORMANCE TEST

Test	Falcon	TT	PAK 68/3
Gem Dialogue Box	141%	168%	200%
VDI Text	144%	127%	146%
VDI Text Effects	178%	201%	229%
VDI Small Text	143%	148%	208%
VDI Graphics	256%	392%	360%
GEM Window	107%	157%	127%
Integer Division	582%	1168%	1168%
Float Math	0%	427%	334%
RAM Access	293%	485%	819%
ROM Access	277%	453%	779%
Blitting	160%	107%	72%
VDI Scroll	151%	149%	137%
Justified Text	150%	134%	132%
VDI Enquire	157%	244%	279%
Average	210%	311%	356%
Graphics	158%	182%	189%
CPU	384%	633%	775%

Test reference (100%): Mega ST with Blitter and maths co-processor in high resolution. PAK 68/3 includes 33MHz 68030 and 68882.

external RAM cache. Running at 33MHz, the accelerator outperforms both Falcon030 and TT computers according to tests with *GEMBench 3.10* (see table). The two most important figures, RAM Access and Graphics average clearly show that the PAK 68/3 is an accelerator to be reckoned with.

The board requires TOS 2.06 to function and TOS 3.06 is recommended due to its 32-bit wide bus and support for the PMMU (Paged Memory Management Unit) in the 68030 chip; a version especially patched for the PAK 68/3 is available. The latter will support memory protection when multi-tasking with *MultiTOS* and virtual memory programs for using part of your hard disk as memory.

Due to the size of the board, PAK 68/3 cannot fit within the standard ST or MegaSTe casings although the Mega ST does have sufficient space. Either DeskTopper and Freekeys (as reviewed last issue) or a Tower system can be used.

By utilising second-user 68030 processors and 68882 maths co-processors, System Solutions has managed to keep the prices down to an affordable level. Three different kits are available: the basic PAK 68/3 (without TOS 2.06) costs £299 while the special TOS 3.06 EPROMs add a further £60 and a 33MHz 68882 maths co-processor brings the price up to £399.

An optional switch to return your computer to its 8MHz 68000 mode costs £10.

JAGUAR AT CES

Atari unveiled its long-awaited CD-ROM drive for the Jaguar at the Chicago CES last month. Manufactured by Philips, and containing a double-speed CD-ROM mechanism, the Jaguar CD can store 790Mb of uncompressed data on a single disc as opposed to the 660Mb industry standard. Cinepak technology enables full screen, true colour, full motion video with audio to be played back at 24 frames per second and Video CD-format titles are supported by use of an optional MPEG cartridge. The unit can also play the audio and video portions of CD+G encoded disks as well as standard music CDs. A number of CD-based products are already under development with six Atari-badged titles scheduled for release by Christmas.

Blue Lightning is a high-speed aerial combat game featuring high-quality animations of landscapes and enemy fighters. Mission status, high scores and character information may be saved to an optional cartridge. *Battlemorph*, a 3-D warfare type game, lets you control a fighter, tank or submarine in one of 50 texture-mapped virtual worlds. *Jack Nicklaus Golf*, set on the Muirfield Golf Course, features digitised sound and full motion video shots of Jack Nicklaus.

The other three Atari titles are *Highlander*, *Creature Shock* and *Demolition Man*. A number of third party releases are expected to follow shortly

afterwards. Another big announcement at CES was that Atari has now signed up over 150 Jaguar licencees including several small, well known, companies like Sinister Developments, Denton Design Ltd, Michtron Inc. and Silmarils.

Thanks to Jeff "Llamasoft" Minter, the Jaguar CD-ROM comes complete with a built-in Virtual Light Machine. This light synthesiser reads the data from an audio CD, produces a spectrum analysis from the incoming sound and then assembles it into a frequency map for translation into complex visual effects on-screen. The Jaguar's 64-bit architecture allows these effects to be created in perfect time to the music – party time!

The Jaguar CD-ROM (\$199.95) will be available in the States in time for Christmas. Expect to see it in the UK early next year.



Ever green – Scotland's Muirfield is the setting for Jack Nicklaus Golf, a Jaguar CD-ROM game currently under development.

FLYING THE STANDARD

Inconsistent keyboard shortcuts could soon be a thing of the past...

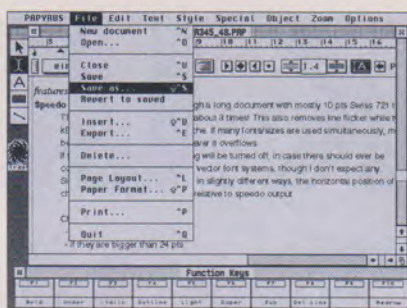
A group of about 100 independent Atari programmers, guided by ST Review's own Ofir Gal, is currently devising a new GEM style guide document. This is in response to Atari's own document and to guidelines as laid out in *The Atari Compendium*, a popular programming reference book.

The guidelines tell programmers how menus should be arranged in a program, which keyboard shortcuts they should use and also address other user-interface issues. The introduction of the style guide by Atari has caused some confusion as some of the points raised go against the current trend of German programs such as *CoNnect* and *Papyrus* which employ advanced user interfaces,

stretching GEM to its limits.

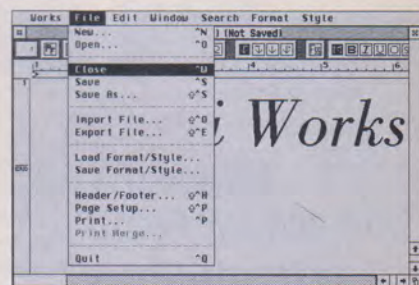
The group maintains communication via the Internet with a little help from Lexicor, the American company, which has volunteered the use of its computer system to enable this global discussion. The main idea is to bring together the so-called German and American standards and bridge the differences between them to a point where one standard emerges.

After several weeks of discussion, the group, which includes prominent programmers like Wilfried Behne, author of *MagiC* and *NVDI*, and Dan Wilga, the man behind *NeoDesk* and *Geneva*, has reached a point where a general agreement has been realised. Voting is now taking place on the various parts of the first document



Papyrus is the first GEM program to support the new emerging standard. The keyboard shortcut for Close - <Control><U> - is in accordance with the German standard.

Atari Works was born along with the Atari style guide. One issue that simply refuses to die is the keyboard shortcut for closing a document - <Control><W> by Atari's standard but not so according to German developers...



which outlines the use of keyboard shortcuts in programs. Next on the agenda is a method to provide users with a way of customising keyboard shortcuts globally. A separate

program will be supplied free of charge to all Atari computer users via cover disks and magazines to enable them to change the shortcuts in all programs.

NO REQUIEM FOR THE WICKED!

Daze Marketing (071-328 2762) is continuing to support the ST in a big way. Hot on the heels of *Ishar 3* are *Robinson's Requiem*, a 3-D survival simulation by Silmarils, and *Stardust*, described as "one of the greatest shoot-'em-ups ever made".

Robinson's Requiem is a rather unique survival simulation. You are on a reconnaissance mission to an unknown planet but soon discover that this is an inter-galactic penal colony and your mission is bogus - in fact it's a trap set by your own government! As you bail out of your ship into the dense jungle, your objective is clear: escape or die...

The game involves encounters with other prisoners, extra terrestrials and wild animals; food, water and your medical needs are top of the survival list. The game is so bizarre that if you develop gangrene through a festering open wound, you have to perform the necessary amputation - deep joy!

The 3-D universe's graphics are created in real time and good use is made of texture mapping and interpolation of altitudes; the sprites in the landscape have been precalculated at every angle of vision and extensive use is made of lighting and shading, which are calculated relative to distance. If that's not enough, your enemies are raytraced and also animated in 3-D.

Robinson's Requiem (£32.99) is due for release on the ST shortly and *Stardust* (£25.99) is set to follow some time in September. A Jaguar version of *Robinson's Requiem* is currently under development.



Legless - talk about an unforgiving landscape, and as for his left leg...



... it's currently doing the rounds inside this beastie somewhere!

NEW LINK

ICD's Link 2 is now available from Ladbroke Computing (0772 203166) for £89.95. Link 2, like its predecessor, draws its power from the attached SCSI device; an illuminated LED indicates that the unit is receiving sufficient power for reliable operation.

Also included is the latest revision of ICD's hard drive software which has been updated to handle parity correctly. The new software also supports the reading and writing of SyQuest cartridges; data written on an ST can be read on SyQuest drives attached to a PC or Mac.

IN BRIEF

● Ladbroke Computing had to close down its operation temporarily due to a fire on July 7. Due to smoke damage, it took a couple of weeks for them to get up and running again.

● The JagDaptor plugs into the Jaguar for connection of RGB and composite video monitors. It also has separate video/audio signals, and S-Video support. Contact MARS Merchandising, 1041E St Charles Road, Lombard, Illinois, USA. Tel: +1 708 627 7462.

● Janus, a powerful ST emulator for the PC from ST specialists Maxon, claims to run at a maximum of 12 times the speed of an ordinary ST. The board includes a 16MHz 68000 processor but also uses the PC's hardware. Cost is DM800; contact Maxon Computer GmbH, Schwalbacherstrasse 52, 6236 Eschborn, Germany. Tel: +49 6196 481811; Fax: +49 6196 41885.

● A new Atari support group has been set up. Known as Manchester Atari Group (MAG) it will provide free technical support, regular meetings, a newsletter, a free Public Domain service (through CyberStrider), and reduced shareware fees on selected software. For more information, contact Danny (Denesh) on 061-796 5864 (evenings) or email danny@micros.hensa.ac.uk.

● The Falcon FacTT File is now accepting applications from TT owners, hence the slight change of name. For more details and a questionnaire, send a stamped-addressed envelope to: The FFF, 11 Pound Meadow, Whitchurch, Hampshire RG28 7LG.

● Atari is licensing Falcon030 technology to C-Lab GmbH of Germany to continue development of a pro-audio/music multimedia workstation. We'll keep you posted...



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S + requires double sided disk drive
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NEWS UPDATE

COMMERCIAL

Report by Ofir Gal

Compo UK (0487 3582) has been busy! The long-awaited *That's Write 3* upgrade is now imminent; upgrade price has yet to be set, but the program has an impressive list of new features including Speedo font support. Improvements have been made to the spell checker and the program now boasts dictionary-based hyphenation. The user interface has also been enhanced – including context-sensitive “help”. The upgrade includes a selection of high-quality Speedo fonts – full review next issue! *MUSiCOM 2* (see page 46 for review) is also available at an upgrade price of £29.99 from previous versions.

Version 2 sports automatic fade in/out, a playlist window and even a spectrum analyser. The user interface has been drastically improved and the program now supports the Compo digital I/O interface for the Falcon.

Yes, you guessed – another *Diamond Back* improvement (v3.10) from HiSoft (0525 718181)! The latest update costs £5, but is free to Gold Support customers. The main improvements relate to Falcon-compatibility, and several tape drive models are now fully supported.

SpeedoGDOS v4.2 is also finally available at an upgrade fee of £5. The new version is the official Atari release and deals with several bugs found in previous versions. The update is only required if you have experienced problems with the old version...

FaST Club (0602 455250) has

Catch up on all the latest commercial, shareware and public domain upgrades...



Music master – *MUSiCOM 2* moves a step closer to being a professional product...

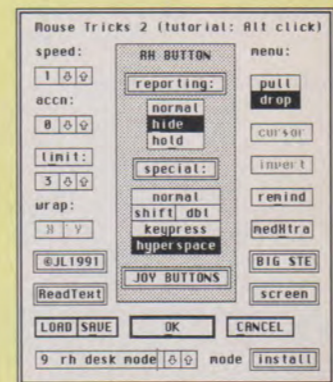
upgraded *Calamus Assistant* to version 1.80. The main improvement is in the Help text, and the manual has been re-written as well. The program now runs in a GEM window that can be moved and resized. Upgrade price is £3.95.

Mortimer Deluxe v3.09 is now Falcon, TT and TOS 2.06 compatible. The long list of new features include keyboard shortcuts in the file selector window, free RAM display and conversion of PIC, PAC, PI? and IMG image file formats. The calculator can be called from within the editor and moved around the screen, and new file search facilities have also been added. A new notepad and alarm function have also been added. Upgrade is £12.95.

Fonty can now be upgraded to v1.09 for £3.95. The new version allows drag and move operations to be aborted at any time and curve calculations/kerling routines are said to be four times faster than in previous versions. Also, linking control points

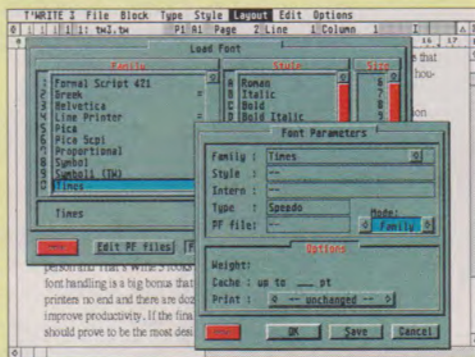
between curves can be turned on and off. Other improvements have been made to the Undo function and batch conversion of fonts.

Finally, v1.05 of *MultiPrint* and v2.01 of *Mouse Tricks* are now Falcon-compatible; upgrade cost is £5.00 per program.



New tricks – the latest *Mouse Tricks 2* upgrade is falcon-compatible...

Write on time – *That's Write 3* boasts Speedo font support and a vastly improved user interface.



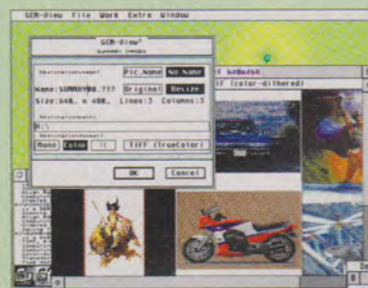
PD AND SHAREWARE

Report by Nial Grimes

Barely a week goes by without some form of *GEMView* update, but this month sees the release of quite a major revision. The feature that stands out above all others in version 3.05 is the ability to produce “thumbnails”. In essence this means you can give *GEMView* a whole batch of images and it will squeeze them all down into a single picture – very neat! A slideshow option has also been added, but it's rather limited at the moment, simply displaying one picture after another in the usual GEM window (what happened to full-screen?)

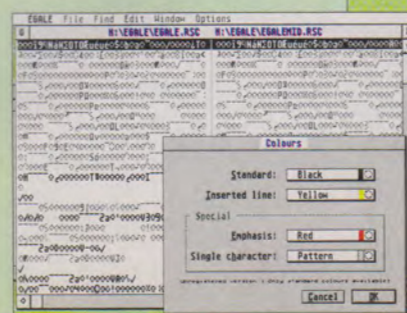
Perhaps the most exciting arrival though, is *OMEn*. Beta versions have been doing the rounds for some time now, but the first official shareware release (2.46) is now available to the public. As you probably remember, *OMEn* won't run normal ST programs, but it is a full multi-tasking operating system and the demo includes a few bits of software to get you started. If you do feel like giving it a try, it can be downloaded from CIX BBS and no doubt will be surfacing in your local PD emporium before too long.

Before Dawn, the popular Mac-style screen saver has also been given a little facelift. At the moment, the prompts are in German only, so it's a bit hard to see exactly what improvements have been made in 1.35, but the interface has certainly changed. No doubt an English version will appear soon to put us out of our misery! And finally *Égale*, the ever-popular file comparison utility has reached the heady heights of version 1.52. It's quite a major upgrade, offering a host of new features and an improved interface. It's also capable of producing “patch” files to update software – very handy for software developers. The registration price has jumped up to £10, but existing users don't pay a dime (*ahem... Ed*)...

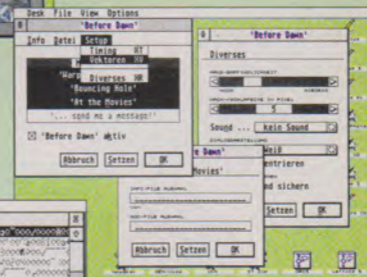


Pretty pictures – blank your screen in style with *Before Dawn 1.35*.

Thumbing a lift – *GEMView 3.05* packs an even greater punch thanks to the addition of a thumbnail facility.



Spot the difference – *Égale 1.52* boasts an improved interface, patching facility and much more besides.



LOOK WHATS NEW

PAK «68/3» ACCELERATOR

We are proud to present PAK 68/3, the affordable hardware accelerator for all ATARI ST, STfm, STe, Mega ST & Mega STe computers. The key to PAK's unbelievable performance is the addition of 32Kb of external secondary cache. PAK 68/3 running at 33Mhz is more than 7x faster than the 8Mhz Mega ST with Blitter, clearly out performing the TT030 computers. And PAK can run even faster - Most PAK's can run at 40Mhz and some at 50Mhz if the basic computer is suitably modified. PAK68/3 is stable and highly compatible. Virtually all software for TT & Falcon computers will be PAK compatible.

- ★ 68030 Processor running at 16, 33, 40 or 50Mhz ★ 32Kbyte external second level cache ★ Optional 68882 math co-processor ★ Space for optional 32bit wide operating system
- ★ Optional switching to 68000 - 8Mhz ★ Graphic card compatible
- ★ Expansions under development....

1. PAK 68/3 with 33Mhz CPU, requires TOS 2.06 - £299.00
2. PAK 68/3 33Mhz CPU inc. TOS 3.06 - £359.00
3. PAK 68/3 33Mhz CPU, 33Mhz FPU & TOS 3.06 - £399.00
4. PAK 68/3 Board only - £249.00

To fit PAK 68/3 you may need Freekeys, and/or Desktopper, or a Tower TOS 2.06 is required as a minimum, but we recommend TOS 3.06

Falcon S/PDIF - interface and DataDat software - The digital interface for DAT recorders, CD players and D2D programs. Sample rates of 44.1kHz and 48kHz are supported. Optical and coaxial in and out-puts are available.

£199.00 +VAT

Falcon FA8 - eight-way analogue expander - Converts eight digital channels into eight analogue outputs or six outputs and two inputs. Essential for high quality, click free audio.

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Coming Soon

ST-IDE Controller - to connect 2.5" and modern 3.5" PC-IDE drives to a standard ST. Ask for details and CD-Rom option.

System Solutions

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To order and for further information telephone or write to:
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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

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For small items please add £3.50 P&P
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The plastic top of your ATARI is simply replaced with the "DESKTOPPER". The keyboard is easily disconnected for fitting in the "FREE KEYS" keyboard case.

- * Use as solid monitor stand.
- * Allows connection of 3.5" IDE Drives to the Falcon.
- * Existing hard disk drives are easily fitted in the Desktopper.
- * Solder free conversion. Detailed instructions supplied.
- * 4.5cm headroom above the computer board for expansions and add-ons.
- * Two 3.5"/5.25" drive ports on the front and one internal 3.5" fitting space allows the fitting of all modern SCSI & IDE Hard Drives, SyQuest removable and Magneto Optical drives, CD-Rom and Tape Streamers.

Desktopper - £69.95

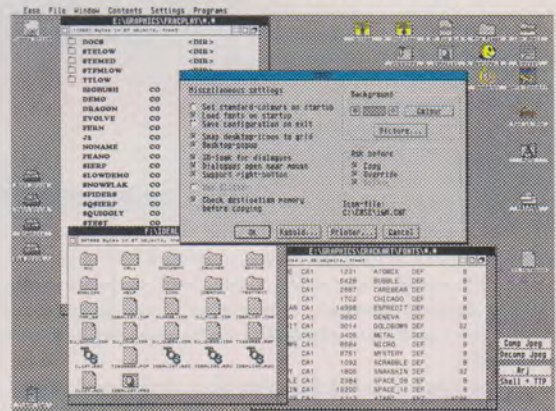
Freekeys - £39.95

Power Up - £14.95

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Features Include:

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- Colour Icon Editor and 3D look
- Right mouse button to launch Programs

+++ much more, phone for info sheet.

Introductory Price - £39.95 - RRP £49.95 inc.

T28 ST and STe

68000 CPU running at 28MHz

The new redesigned T28 for the Atari ST is now available, as well as the long awaited STe version. Performance and price are sensational. The T28 with a 28MHz clock is 3.5 times faster than the original ST's clock. The use of the original 68000 processor guarantees near perfect compatibility. CPU caching is switchable for added compatibility with the cartridge port devices. DTP, Graphics Software and Cubase show a fantastic speed increase. Compared with a standard ST with NVDI and without Blitter, Gembench gives the following results:

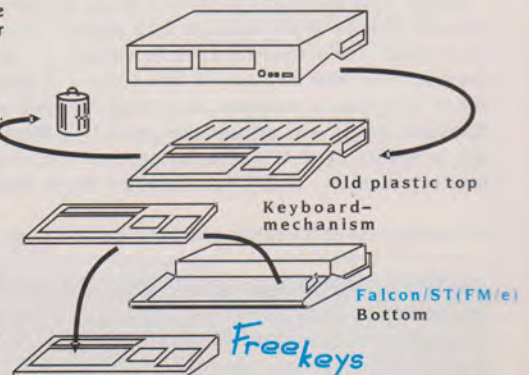
NEW		
	ST(FM)	T28
	CPU 100%	299%
	Graphics 100%	949%
	Average 100%	763%

The combination of the T28 and NVDI transforms the humble ST into a powerful graphics workstation - a dream come true for all those who want more speed at an affordable price.

The STe version includes a 64 pin DIL adaptor for use with AT-Speed or similar add-ons.

T28 STe - £199.00 T28 ST - £169.00

No more cable chaos
.....and fitting is so easy



Floppy Drive Kit - £19.95

Hard Drive Kit - £19.95

Desktopper and Freekeys - £99.95

TOP MARK

*Speedo 5 is
on its way...*



Although people go on holiday, we still have busy Summer days in the shop – and in the German Atari market. Atari has signed a contract with Compo which means that *SpeedoGDOS 5* will now be finished. As you probably know, *SpeedoGDOS 4* added scalable fonts to any application using GDOS, and as these fonts were in Bitstream Speedo format, this version was called *SpeedoGDOS*. Version 5 now adds the capability to handle two other important font formats:

- PostScript Type 1, a high quality font type used in PC, Mac and Unix computers – and even in some Atari applications like *PageStream*, *CompoScript*, *DA's Layout* and so on.
- TrueType, which may not be known to the Atari market but is responsible for hundreds of cheap fonts on the PC/Windows and Apple Macintosh.

Many new drivers for monochrome and colour printers will apparently be shipped with it – HP Deskjet 500C, Deskjet 550C, the Canon Bubblejets, HP Laserjet 4 and more.

Just a week after *Speedo 5*, a further announcement was made. *NVDI 3*, now supporting Speedo and TrueType fonts (but not PostScript Type 1) will ship in August. An interesting development, especially as the new *SpeedoGDOS* version actively supports *NVDI*!

Signum 3.5 has been announced. This now has a built-in calculator, giving the program some computational functions, a short-cut facility, sorting of selected lines, and a statistical function (counting characters, syllables, words, lines and paragraphs).

Over at ROM Software, Ulli Ramps recently announced on the German BBS network *Maus* that further *Papyrus* development is taking place on the Next Step operating system. *Papyrus 3.5* is now being shipped with many new functions – spell checker, mail merge, GEM Metafile support, a one-level table of contents function, support for the XACC protocol (which *That's Address*, *Formula-X* and *Connect* use), a table editor and text around pictures.

Trifolium, a German Atari dealer, now has *triLingua*, a Falcon-based language lab using the Falcon sound system to train, record/play-back your own pronunciation and compare it with the original words spoken by native speakers as provided by the program. The basic lesson, including grammar, is now being shipped.

Locate it, another Trifolium product, is a translation program/desk accessory for English to German with about 12,000 words and three to five translations per word. It will also be made available for Spanish and French.

Other new products include *F-Drum*, a sample drum machine for the Falcon with built-in DSP effects and lots of envelope functions. Then there's *LDW Powercalc 3*, announced for late August. The new release of the *Lotus 1-2-3*-compatible spreadsheet now has a modern, user-friendly look and feel with real dialogue boxes and support for *MultiTOS*, *MagiC*, *SpeedoGDOS* and any graphics card. It's also faster than the original version with higher precision – and 100Kb smaller! More details on that soon.

So enough for this month – time to go to the pool...

Manfred Bäcker is 27 years old and works in a computer shop in Cologne. He's been programming Atari computers since 1985 for his private needs and is active on the various bulletin boards in Germany.

NEXT MONTH

TOUGH TRIO

Next month we bring you full reviews of the latest programs to hit the Atari scene:

● *That's Write 3*: the ultimate document creator? Find out as we put it through its paces.

● *Protext 6.5*: finger-tapping good word processor? Read our in-depth report.

● *Xenomorph 2*: a unique graphics package? Our results will provide the answer.

EXCLUSIVE
– SPEEDOGDOS 5
PREVIEW!

SUPERCHARGE YOUR ST

PAK it with power! Read our full review of the superb PAK 68/3 accelerator for the ST including one of *ST Review's* famed photographic step-by-step tutorials on how to install it!

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NEXT MONTH

MORE ON-BOARD...

... the ST Review cover disk, including an excellent Falcon sound sample editor!

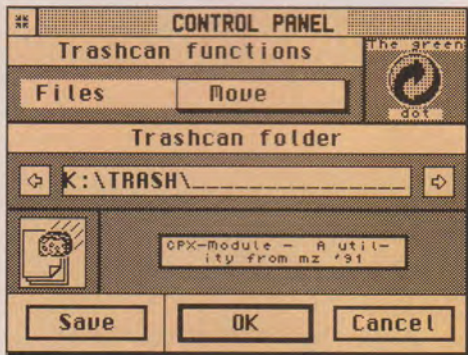
TRASH

FREWARE • MICHAEL ZUHL • ALL RES.

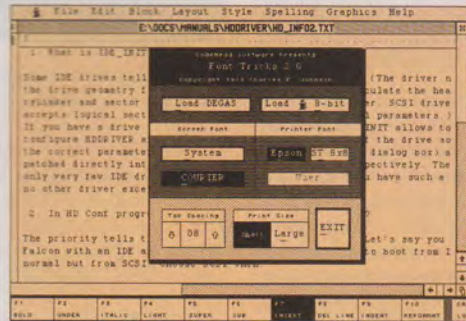
The recoverable trash can...

This program implements a Mac-like recoverable trash can. Deleted files are simply moved to a temporary directory so that they can be recovered quite easily. It can work on a floppy-based system, but is best installed on a hard disk.

To install, first copy **TRASH.PR** to your **AUTO** folder and **TRASH.CPX** to your **CPX** folder. Next, create a folder called **TRASH** on drive C. Reboot the system, select the **Trash Utility** from the **Control Panel** and set the trash can folder to **C:\TRASH**. All file deletes will now be diverted to this folder. You can clear the trash can "for real" by clicking on the icon at the bottom left of the **CPX**.



Prevent accidental file deletes with this recoverable trash can.



Fonttrix replaces the system font - here 1st Word Plus is shown using a courier font.

FONTRIX

PUBLIC DOMAIN • CHARLES F. JOHNSON • HIGH/MED. RES.

Replace that boring system font...

This handy desk accessory enables you to replace the system font with another Degas font of your choice. Copy **FONTRIX2.ACC** to your boot disk and reset the system. The desk accessory will then become available from the **Desk** menu on the left.

Select **Load Degas** from the dialogue box and select a font file from the **FONTRIX2** folder on the cover disk. Once loaded, you can preview the new font by selecting the **User** button. Click on **Exit** to install the new font or revert to the standard font by selecting **System** and then **Exit**.

USING STRBAKUP.TOS

Always back up your cover disk and keep the original in a safe place. Run **STRBAKUP.TOS** and follow the on-screen instructions; the program even formats the disk for you. **STRBAKUP.TOS** is not recommended for any other use.

GENERAL DISK PROBLEMS

In the unlikely event that your cover disk won't load or gives you any other problems, disconnect any peripherals, switch your computer off for at least 20 seconds and try again. If this doesn't solve the problem, return your disk, with a stamped addressed envelope, to:

P.C Wise Ltd,
Dowlais Top Business Park,
Dowlais, Merthyr Tydfil,
Mid Glamorgan CF48 2YY.

PC Wise will test your disk and send a replacement as quickly as possible. You can contact the PC Wise Helpline with any urgent problems concerning faulty disks on 0685 350505 between 10.30 am and 12.30pm, weekdays.

Should you require technical help, call the **ST Review Helpline** on Friday afternoon between 2pm and 5pm on 0625 859766.

SUPERSAM

SHAREWARE • DANIEL HASTINGS • HIGH/MED. RES. • FALCON ONLY

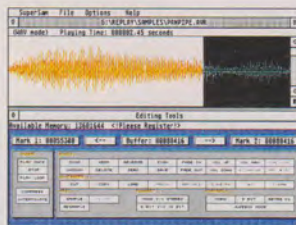
Get into sample sound editing with SuperSam...

SuperSam is a powerful sample player, recorder and editor for the Falcon. It can be used to record your own samples using the microphone input on your Falcon, edit them to create the weirdest sound effects and convert between different file formats.

Due to space restrictions, **SuperSam** is provided as a self-extracting archive. Copy **SUPERSAM.TOS** to your hard drive and double-click on it - make sure you have about 200Kb of free space available. The archive will create a folder containing three files.

To get started you might want to play a sample file. You can find some on our **Replay Stereo** cover disk or in any good PD library. Select **Open** from the **File** menu and choose from the file selector.

The sample is displayed in the waveform window along with some information about the file. The bottom window provides all the editing functions, most of which are self-explanatory. You can limit a function's effect to just part of a sample by defining a block: click once with the left mouse button to

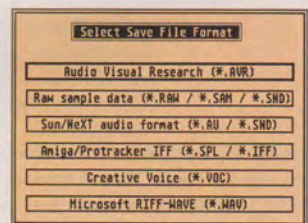


SuperSam uses a friendly GEM interface for digital sound editing on the Falcon.

mark the start of the block, and right-click to mark its end. You can now try some of the functions by clicking on the appropriate buttons in the **Editing Tools**.

SuperSam is also a capable recorder, although sample length is limited by the amount of free RAM. Click on **Sample** in the **Editing Tools** window to display the sampler parameters. Adjust the input level and view the waveform in real-time by enabling the **DMA Oscilloscope**. Click on **Start** when you are ready to record; when sampling is complete, click on the **Return** button at the top right corner of the window. The resulting sample is then displayed and can be edited and saved.

A nice additional feature is the **Jukebox**, a very quick way of checking out a folder full of samples. Select this from the **File** menu and click on the **Path** button in the dialogue box. From the file selector, point the program at the required folder and click on "OK" to audition the samples in that folder.



The program supports a number of sound file formats including the .WAV format as used by many PC owners.

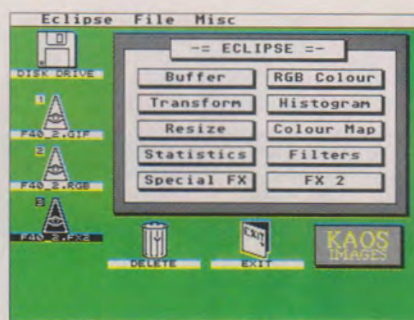
SuperSam can also record sound samples using the Falcon's microphone input. It even works in stereo and has a colourful oscilloscope display.

This month's cover disk comes complete with a powerful image processing suite.

Nial Grimes shows you how to make the most of Eclipse...

Traditionally, Image Processors are a complex affair. Packages like Repro CD and Atari Image Manager are stunningly powerful, but not the sort of thing you would want to use for fun. Eclipse provides many of the features of these high end packages, but hides them behind a friendly GEM interface that works as well on the ST as it does on the Falcon. With a little trickery it even manages to make highly colourful pictures look stunning on a standard machine!

Not only that, but the package works with 24-bit colour internally. What this means to you and me is that true colour pictures can be loaded and manipulated. The display Eclipse provides is just a thumbnail of the real picture – when it is saved it will retain every single shade it ever



The Eclipse desktop is very intuitive and can be controlled through menus or icons.

possessed; now that's clever! Enough teasing – let's explore...

DESK ACCESSORIES

A swift double-click on ECLIPSE.PRG (or ECLIPSO30.PRG if you own a Falcon or TT) and its desktop appears after a short delay. Eclipse's interface

is designed to look as much like Atari's own desktop as possible, and it works in a very similar way. The menu options at the top of the screen are fairly self-explanatory, but it's worth noting that most operations can be carried out through the icons. For example, to load an image, just double-click on the drive icon; to

TOTAL ECLIPSE OF THE ART...

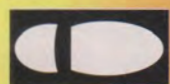


The brightness of each colour component can be controlled through this dialogue box – for a balanced effect, adjust the "Overall" percentage.

INSIDE INFO

Two versions of Eclipse are included on the cover disk – one for the standard ST and another for the Falcon and TT (entitled ECLIPSO30.PRG). In order for the program to run properly on either of these higher spec. machines, you need to start it from the correct screen resolution.

On the TT, this means using ST low resolution, whereas Falcon owners should plump for 40 column true colour with line doubling on/interlace off (depending on your monitor type). The program will run from other resolutions, but problems can occur. Also note that Eclipse is incompatible with NVDI on the Falcon – unless you disable NVDI, attempts to view a picture end up with a blank screen...



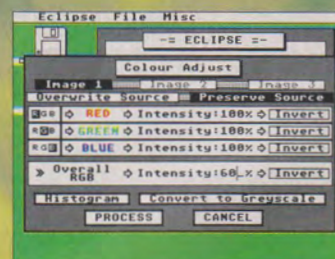
STEP BY STEP GUIDE

HOT WHEELS!

In addition to out-and-out effects, image processors can also be used to digitally restore poor quality pics. For example, let's see what we can do with the F-40 picture on this month's cover disk...



1 First load up F40.GIF from the cover disk and display it by double clicking on the image icon. As you can see, the picture is very good but poorly defined and far too light.



2 In order to correct the brightness problem, move to the "RGB Colour" dialogue box and reduce the "overall intensity" to 60% (see main text).



3 Click on "Histogram", make the source image "2" and choose overwrite. Now click on "Enhance Contrast" and repeat the process three or four times.



4 And here we have the finished article – a Ferrari that any millionaire would give his bottom dollar to own!

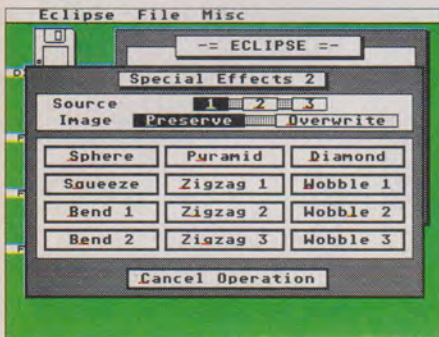
PARTY TIME!!

How do you fancy winning some money for simply playing with *Eclipse*? Buried in the *ECLIPSE* folder on this month's cover disk you will find a picture of our beloved editor (*VIC.GIF*) and the aim is simple – distort or filter it in the most imaginative way possible. You can be as creative or destructive as you see fit and feel free to use *Spectra* to add a few finishing touches if the mood takes you (*oi, I didn't agree to this!... Ed*). Twenty-five smackers goes to the winner – and we may even publish the pics...

Send your entries on disk (in Targa-24 format) to:

**Virtual Plastic Surgery Compo, Atari ST Review,
Europress Publications, Europa House, Adlington Park,
Macclesfield SK10 4NP**

All entries must be received by August 31 – and multiple entries are permitted!



To apply an effect, simply select the source image at the top of the dialogue box and take your pick!

remove an image from memory, drag its icon to the trash can – I'm sure you get the idea.

Up to three pictures can be held in memory at any one time and these are represented by triangular icons on the desktop. Look carefully and you'll notice that each picture has a little number at the top. This is the image buffer number and it comes into play when you actually start to work with effects. To demonstrate, load up one of the demo pictures on the cover disk and click the **FX 2** button. You'll notice that you can choose which buffer, and so picture, is used and once the effect has been processed, a second image icon will appear on the desktop. If you'd prefer not to create a new image, simply click on the **overwrite source** button in any dialogue box. Be warned though: there's no going back once you've overwritten a picture!

To view the fruits of your labour, double-click on any picture icon on a colour monitor. You can choose from three methods of dithering: the

default is Floyd-Steinberg, which offers superb quality, but dithering can be disabled if you want to speed things up. In all cases, *Eclipse* uses palette-switching techniques to squeeze hundreds of colours on-screen.

As you've probably already noticed, the package offers to resize every picture it loads. Obviously, it can deal with virtually any size of image and the cursor keys can be used to scroll around the "canvas". However, for the purposes of experimentation it's usually best to resize to 320 by 200 – in this way, effects are processed swiftly and the whole picture can fit on screen comfortably.

WRECKS 'N' EFFECTS!

With the interface safely under your belt, it's time to really put the package through its paces. For instant results, the best place to start is the effects menu, or **FX2** to friends. Here, *Eclipse* offers to squeeze any image in memory into a set of predefined



Very often, multiple filters must be used to achieve good results – here, "Emboss" has been followed by conversion to greyscale.

shapes. Once again, you are given the choice of which picture to modify and whether to create a new image or overwrite the original.

The built-in filters come a close second in the "jaw-dropping" stakes. Several have more than one level of operation – for example, a *Sharpen 1* will be much milder than a *Sharpen 3*. To give you even greater control over the resulting image, the percentage of the filter can also be specified. As always, the best way to learn exactly what each filter is capable of is to experiment. You'll find that some work best when combined – for example, the *Emboss* filter leaves a nasty colour shadow that can be easily removed by converting to greyscale.

The **Colour Adjust** dialogue box (**RGB Colour**) ties in very closely with the filters and allows you to lighten or darken each colour component individually. For example, to raise the

red tones in our *F40* picture, simply enter a figure greater than 100% in the **Red Intensity** box. Adjustments to all three RGB components can be made in the **Overall Intensity** section.

With a stunning picture on hand, the final step is to save it to disk. To do that you can either drag an image to the floppy disk icon, or click **Save** in the **File** menu. All of *Eclipse*'s save formats are uncompressed and therefore take up a sizeable amount of disk space. Remember though, you can always use *GEMView* to convert to a more compact format such as **JPEG** or **GIF**.

This month we've just scratched the surface of *Eclipse* – effects are only a small part of an image processor's duties. Next issue we'll focus a little more closely on filters and create a few magical transformations with the help of the **RGB Colour** dialogue box. See you there...

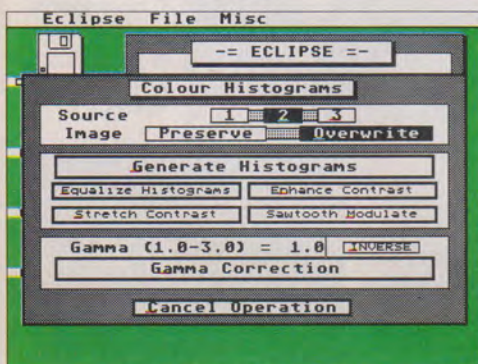
MORE FOR LESS

If you find the shareware version of *Eclipse* useful, it is worth obtaining the registered version which includes:

- Removal of the load-up screen
- An active **Special FX** section containing *Motion Blur*, *Pixelate* and *Noise* effects
- An on-disk manual

To register your copy, just fill in your details and forward a cheque or postal order for £7.99, made payable to P. Hannington, to:

**STR Eclipse Registrations, 82A Mancroft Road,
Caddington, Beds LU1 4EL**



If you reach the three image limit, you can always opt to "overwrite". Be careful though, as there's no going back!

Please send me the registered version of *Eclipse*. I enclose a cheque/postal order to the sum of £7.99 made payable to P. Hannington.

Please deliver my goods to:

Name _____

Address _____

Postcode _____ Daytime phone _____

SPECTRAL SORCERY

ST desktop publishing fanatics get a bit of a raw deal when it comes to dealing with full-colour pictures. Even art packages that can load the TIFFs and Targas of this world usually dither them first – you end up working with little more than a weak imitation of the original.

Andrew Sage's *Spectra* is a software solution to this problem. It allows you to edit pictures containing thousands of colours on your ST and save them again without losing any definition. Naturally, the better the image you have to start with, the better the mono conversion will be and taking this route means that your retouched pictures can always be included in a colour document at a later date.

CHASING RAINBOWS

Spectra is very easy to use; the only thing you do need to bear in mind when getting started is that pictures must be equal to, or smaller than, the screen size.

All of the action takes place in the **Edit** menu. The most interesting option is **Pixel Edit**, which provides a means to play with the picture in memory. With the magnified section on screen, the left mouse button is used to change pixels.

The colour sliders at the top of the screen will be familiar to anyone who has used an ST art package; the difference is that there are lots more shades to play with – over 16 million

Spectra opens the door to true-colour retouching on any ST. David Nilson strikes an artistic pose and guides you through your first expedition into a world where colour knows no bounds...



STEP BY STEP GUIDE

WOT, NO GUN?

To show you that greyscale retouching is indeed a possibility, let's relieve our cover disk soldier of his trusty weapon...



1 Convert the picture (see *Inside Info* box), load it and then enter the "Pixel Edit" screen. Move the box over the tip of the gun and press the left mouse button.



2 Pick up the dominant colour around the area you want to remove by clicking the right mouse button, then scatter a few darker pixels around to blend in the gap.



3 Now simply repeat the process until the gun is no more. Finally, put a little work in on the hand to add some fingers and you are just about finished...

INSIDE INFO

Spectra is an extremely effective editing tool, but it is a bit

fussy when it comes to dealing with image formats. The Raw and Targa standards it supports are both fairly well-known, but neither are renowned for their petite size.

Rather than waste disk space on uncompressed images, we've used the popular .GIF format on this month's cover disk. In order to load these pictures into *Spectra*, you will need to convert them to Targa format first. *Eclipse* does the job nicely – just load up each of the pictures and save them in "Targa-24" format. *GEMView* can also be used to perform this chore, although if you are using floppies remember that each converted picture will take up approximately 200Kb of disk space.

to be precise! You can pick up colours from the picture itself by clicking the right mouse button. In this way, it's easy to find most shades: if you want to darken an area, pick up an existing shade, lower the levels and paint away.

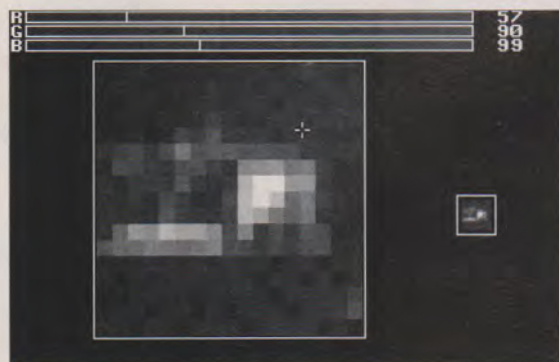
The next two tools in the line-up lean more towards image processing. **Smooth** blurs pixels and can be applied to certain parts of an image, or the whole lot in one go. *Spectra's* idea of "dithering" does not fall into

line with the rest of the computing world. Rather than converting your work of art to mono, it takes pixels and randomises them, producing an almost impressionist result. I'm sure the **brightness** and **flip** buttons need no explanation.

SHOW ME!

With all of the changes made, the picture can be viewed from within *Spectra* by using the **Display** button

from the main menu. Once you are satisfied with the preview, *Eclipse* can throw together a better idea of what your picture will look like in full colour. At first, retouching in greyscale can seem like an impossibility, but believe me – it's not that difficult. Learn to pick up existing colours with the right mouse button, practice with the pictures on the cover disk and you will be astonished at just how good the results can be!

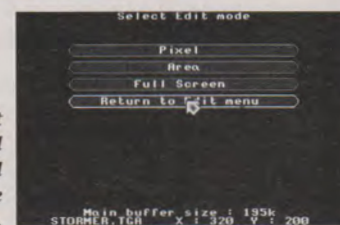


Colours can be lifted directly from the picture with the right mouse button, and adjusted through sliders at the top of the screen.



Spectra specialises in editing, but it also sports a nifty range of image processing effects.

Each effect can be applied to a limited area or the whole image.



TRUE TO IMAGE

First previewed back in issue 20, HiSoft's long-awaited image processing program is finally here. Andrew Wright looks at the finished version...

When TruePaint was first launched, shortly after the Falcon hit the streets, Truelmage was supposed to follow close behind. It has been held up largely by the writing and production of the manual which gives a good indication of the depth of the program and its capabilities.

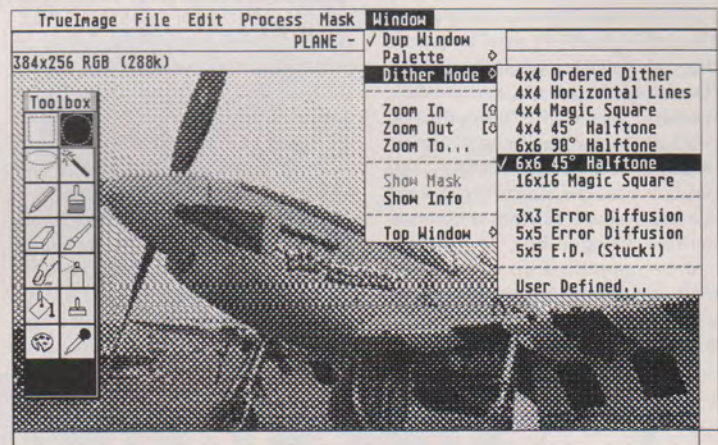
Where TruePaint is for people who like messing about with colours and creativity, Truelmage is aimed at those with a more demanding approach. It has all the tools necessary for creative imagery, photo-retouching, creating montages plus the editing and processing of images prior to exporting them for use with DTP packages and word processors.

In fact, of all the image processing programs on the market, it probably has the widest range of features. Considering it is up against the likes of DA's Picture and Chagall, that's no mean feat.

Although Truelmage will probably appeal more to the owners of Falcons, TTs and graphics card-equipped STs, it runs on any 2Mb ST in any resolution, so you needn't rush out and upgrade your hardware straight away if you fancy dabbling in image processing. Two versions of the program are supplied: one for the Falcon (which uses the DSP chip to speed up some effects) and an ordinary ST version.

CLEAR THE DECKS

The interface is a straightforward GEM one with very few surprises apart from the small floating toolbox



Truelmage is great for DTPers...

KEY FACTS

Product:
Truelmage 1.61
Company:
HiSoft
Contact:
0525 718181
Price:
£99.95

SYSTEM

Minimum Memory:
2Mb (ST/TT), 4Mb (Falcon)
Resolution:
Any
Computer:
ST/Falcon/TT

FILTERS

Truelmage has an excellent range of filters. There isn't the variety present in Studio Photo, for example, but the ones it does have are far more useful. In fact, it puts even DA's Picture to shame in terms of flexibility, particularly when considering output to black and white printers via DTP or word processors.

The configurable threshold filter



Interesting results with the mosaic effect...

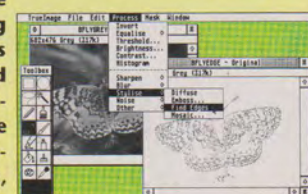
Image enhancement and retouching filters include the excellent equalise filter, which can breathe life into a dull life image by spreading the brightness values and increasing the contrast. There are also user-configurable sharpening and blurring filters, noise filters such as despeckle, median and adding noise, and various background removal effects. Creative filters include the mosaic, embossing, diffusion and custom filters, the latter offering a three by three matrix for experimentation and so allowing you to extend the range of filters considerably.



The diffusion filter at work.

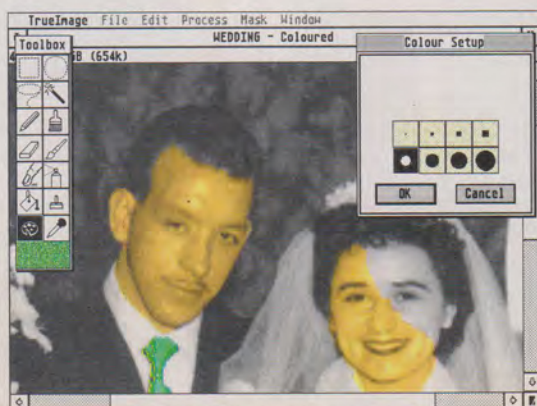
– which is additional to the contrast and brightness filters – posterises greyscale and colour images to black and white without dithering, while the edge-finding filter produces superb “pen and ink” results. The embossing, inversion and edge sharpening filters are also useful for monochrome work.

Image enhancement and retouching filters include the excellent equalise filter, which can breathe



Finding edges – excellent for artistic conversion to line art.

Colourising a greyscale image leads to interesting results.



with 15 icons for the painting and masking tools. This tends to get hidden rather easily, particularly when zooming in on an image, as the program automatically resizes the window to its maximum possible size. Pressing the <F2> key brings it back on top but it can be irritating. The menus are lengthy – perhaps overly so – with several nested submenus.

Many of the tools have associated attributes that are accessed and changed by <Control> or <Shift> clicking on their icons. The changeable attributes appear in easy to understand dialogue boxes that can be moved around the screen for convenience.

Images are displayed in their own GEM windows and the number you can have open at any one time depends on the operating system, the size of the images and available memory. Overscan is supported on the Falcon, too, so images can be displayed in full at up to 768 by 512 pixels in size. The cursor keys control the zoom level, as does a comprehensive dialogue box, and images can be magnified up to 16 times their original size for pixel-level editing. *TrueImage* also allows you to undo and redo most operations such



Undithering, or converting to greyscale.

as filter effects and the like, simply by pressing the <Undo> button. Although there is only one undo level, if you find you have gone overboard on special effects or mis-edited, you can select *Revert* and reload the original image again.

Files can be loaded in several different formats using the modular EFM system first used with *TruePaint*. Saving offers slightly fewer formats, though this shouldn't cause any problems. When saving an image for

the first time, the program automatically prompts you to select a file type; various parameters are offered, including the type of palette, colour depth and dithering.

TrueImage can load monochrome, greyscale and RGB colour images, in the formats that allow them, and can even convert mono and greyscales to full colour formats, though it obviously can't add information that isn't there. The program has a number of other powerful image conversion

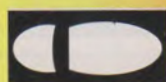
tools, including undithering (extrapolating dither patterns to form true greyscales), rescaling and resizing.

IMAGE OPERATIONS

TrueImage's tools can essentially be divided into four groups: toolbox functions such as mask, paint, draw, stamp and fill; editing functions such as cut, paste, crop and rescale; filtering effects ranging from sharpening to embossing; dithering, halftone and palette manipulation facilities.

The toolbox contains four selection tools for drawing masks and cutting out areas of an image. There are two regular ones, one square/rectangular and the other circular/oval. There is also a lasso tool for irregular shapes and a magic wand that automatically selects areas of brightness according to the user-defined threshold figure.

The selection and masking facilities are fairly basic and the lasso, in particular, is hard to use. Masks can't easily be edited on-screen and a single mistake in tracing an outline means you have to start again. The magic wand isn't particularly special either, in that it selects areas only on brightness but it can be used to select areas on individual colour



STEP BY STEP GUIDE

THAT SPECIAL TOUCH...

To illustrate just what *TrueImage* is capable of, we'll take you through a typical retouching session and add some special effects to a photograph.



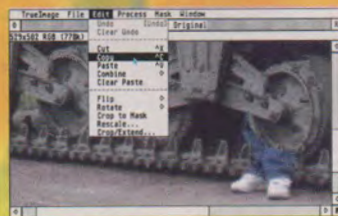
1 This image was loaded from a Kodak PhotoCD using *TrueImage's* import module and saved as a Targa for convenience. I need a picture of a Sherman tank for a project – but without my son in front of it or the French unit markings!



2 To use the stamp tool, simply hold down the <Shift> key and click on the part of the image that is to be copied. The stamp can then be pasted somewhere else simply by clicking on the image as with any other drawing tool.



3 By continuing to use this tool, most of the offending parts can be removed – or should that be covered over! The results can be very effective...



4 ... but it may be quicker to cut a complete section from an image and then paste it elsewhere, as with the wheel here. You can then use the smudge tool – or a suitable filter such as blur – to smooth the changes.



5 With the retouching out of the way, the tank outline is cut from the edited image and pasted onto a plain background. I've lengthened the gun barrel by cutting, pasting and smoothing. The special effects were achieved by finding the edges using the dedicated filter...



6 ... and colourising a greyscale version. In other words, the image has been converted to greyscale, then back to RGB colour and finally colourised.

FILE TYPES

TrueImage supports a fair old range of image types...

- **Loading:** Art Director, .GIF, Degas, DR Doodle, two varieties of .IFF, three of JPEG, .IMG, Kodak PhotoCD, MTV Raytracer, .NEO, .PCX, Prism Paint, Spectrum, TIFF and Targa as well as the proprietary .TPI format.

- **Saving:** Art Director, DR Doodle, .IMG, Imagelab, three qualities of JPEG, MTV Raytracer, Prism Paint, TIFF and .TPI.

channels with the same mask used on the entire image. Masks can be saved for future use, inverted and even blurred at the edges to blend them in with new backgrounds.

The toolbox also includes two different brush tools, a pencil and eraser, which behave much as you'd expect. Each painting tool can be assigned an opacity between 0 and 100. There is also an effective though somewhat slow airbrush and a fill tool with configurable opacity and threshold.

The retouching tools include the smudge or finger and the all-important stamp. This works extremely well and allows parts of an image to be cloned and placed elsewhere – one of the most powerful tools in the image processing armoury. Another exciting tool is known as the palette.

This is, a tinting tool that allows you to apply a new colour to an image while keeping the same brightness values. It works particularly well on greyscales – with care you can turn them into hand-tinted colour images or simply use the tool to add a sepia or other tint.

The editing functions are soundly implemented and images can be rotated in 90 degree increments, flipped horizontally or vertically, resized and rescaled quite easily.

The most unusual range of features are the colour depth and dithering facilities which make *TrueImage* an excellent tool for ST owners, who are naturally restricted to 16 colours, and desktop publishers needing to turn colour images into monochrome ones. To start with, single bit images (such as those scanned by mono hand scanners) can be converted to very respectable greyscales with 5,

17, 37 or 65 grey levels while colour and greyscale images can be changed to monochrome, using various different dot patterns, including diffusion patterns, halftone effects and ordered dithers. As the current zoom level is taken into account, images can be turned into halftones at the precise size required for DTP work.

IN COLOUR

Most important for ST owners without the benefit of high colour displays are the palette manipulation tools. When *TrueImage* is told to load an image with more colours than the screen can show, it works out the best way of displaying it, taking into account the file format and screen colour depth. Invariably this means some form of dithering but if it doesn't work (and the default never seems to work properly, for my money) there are four ways of choosing the palette. These can be combined with the dither patterns to produce a wide range of special effects as well as the best screen representation. For ST owners, the result is an excellent rendering of images in 16 colours, particularly where those of predominantly one colour are concerned as the palette can be optimised for that particular picture.

TrueImage actually stores colour images as three separate files, one for each colour component, red, green and blue. A separate copy of the image is created for the screen and it is usually dithered to match the current video mode if more colours are present than are available on the screen. Any toolbox or filter operation is carried out on the internal 24-



TrueImage's cut and paste tools let you create good-looking montages.

SUMMARY

GOOD POINTS:

- Full range of tools
- Excellent filter and dithering effects
- Standard, intuitive GEM interface

BAD POINTS:

- Needs a lot of memory
- Poor true colour performance
- Unimpressive masking

FINAL WORD:

"HiSoft's new image processor runs true to form – an all-rounder that offers plenty of value for money."

bit representation and the screen display is then updated and redithered.

Add another copy of the image in the undo buffer – and an optional screen cache to speed up redraws – and you can see how much memory *TrueImage* needs in practice! On a 4Mb Falcon running in true colour mode or a 2Mb ST, the practical limit is one decent sized image (around 1Mb) if you want to work safely and comfortably.

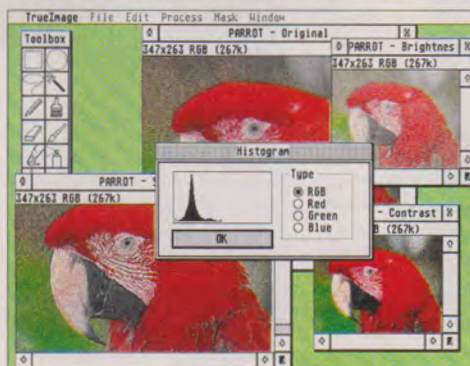
Programs like *NVDI* help the screen updates enormously in palette modes but, unfortunately, *TrueImage* won't work with *NVDI* in true colour mode. There were a number of other problems in true colour mode, including tools not writing to the screen until the image is forcibly

redrawn. Many of the program's problems are related to the memory requirements, and while the program can be configured quite readily in terms of memory usage, it takes some experimentation to get the right settings. More than once I found myself unable to save an image after several operations, on a 4Mb Falcon in 256 colours, despite clearing the undo buffer (which, incidentally, can't be permanently disabled).

VERDICT

Many image processing programs only offer token support for ST owners, which may well be why it still tends to be the domain of Falcon and TT owners. *TrueImage* could change all that. It's a good all-rounder that has everything that most users will ever need. The masking is adequate, the paint tools good and the dithering and palette display options are second to none.

The emphasis of the filters is on the useful rather than the exotic, which will probably broaden its appeal even more, and apart from sluggish screen redraws, the general level of performance is acceptable. Despite the lingering doubts over its memory demands and behaviour in true colour modes, *TrueImage* should prove to be a popular choice for the ST owning fraternity...



Various filter effects and the useful histogram tool – dithering in 256-colour mode is excellent.

PERFORMANCE

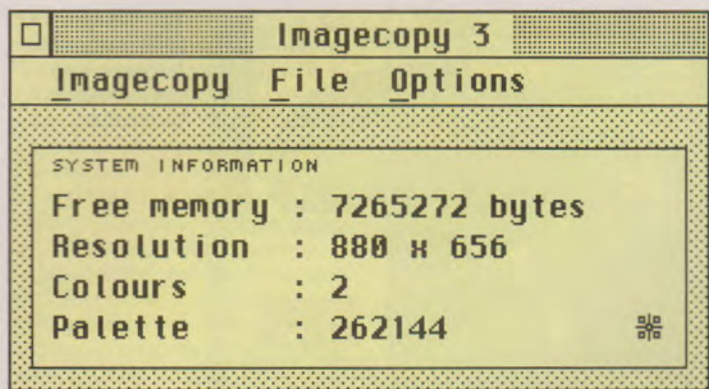
OVERALL

EASE OF USE	✓✓✓✓✓✓✓✓
DOCUMENTATION	✓✓✓✓✓✓✓✓
EFFECTIVENESS	✓✓✓✓✓✓✓✓
VALUE FOR MONEY	✓✓✓✓✓✓✓✓

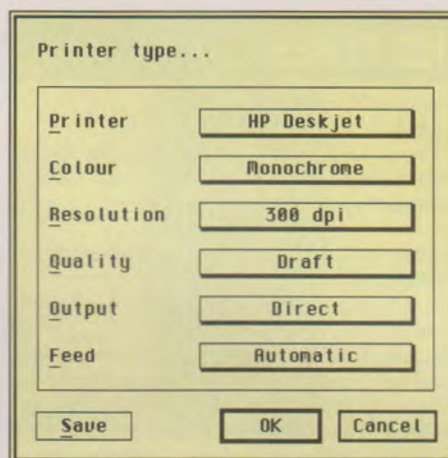
80%



Dithering on an ST is very good indeed...



Imagecopy 3 runs in a GEM-friendly window, all functions being available from three pull-down menus.



Imagecopy can print colour images on almost any printer. Monochrome printers are catered for by using colour separation and a three or four pass printout with colour ribbons or cartridges.



PERFECT COPY

Can Imagecopy 2 be improved upon? Mike Robinson decides to find out...



The success of Imagecopy 2 with its colour printing support has prompted Jeremy Hughes, the programmer, to work on version 3. This brings the program up to date with multi-tasking support, JPEG image compression and many other features.

Imagecopy is a multi-purpose image utility that started life as a snapshot program and evolved into a multi-featured image processor. It allows you to view, print and convert a wide range of image file formats, employing a number of dithering techniques to provide top quality printouts on suitable printers.

The package consists of a single disk and a 100-page manual which takes you from the basic use through to the more technical aspects of image file formats and colour separation printing. On disk are both program and desk accessory versions along with some other utilities such as Password which enables you to protect your hard disk from unwanted "visitors".

Much has changed since version 2, but the layout and design philosophy remain the same. At the top left of the screen, Imagecopy displays a small window containing a small menu bar which gives access to all the features and options, just as in version 2.

WHAT'S NEW?

Several new file formats have been added to the ever-growing list of supported images as well as supporting greyscale viewing and conversion. JPEG handling has increased the size of the program and memory requirements now approach 400Kb, but it's still a welcome addition especially as it supports the public

domain Brainstorm DSP decoder for faster JPEG decompression on a Falcon. Images can be converted into JPEG with full control of compression and quality: a 5Mb TIFF can be squeezed down to 500Kb or even less without any noticeable difference. Unfortunately, no DSP encoder is available yet, so this process is done using the main processor. Nevertheless, JPEG conversion of a 1.2Mb true colour TIFF took less than a minute on a standard Falcon.

The user interface has been improved to fall in with current trends, supporting hierarchical menus, modern-style radio buttons and configurable keyboard shortcuts. The program now supports the WinX/MultiTOS method of cycling windows and can also work in the background, converting or printing complex images while you carry on with something else. This works best under MagiC and MultiTOS, but can also be used under Geneva or standard TOS.

Imagecopy also supports Selectric - you can select several files to view, convert or print in one go. Even without Selectric, you can still use wildcards to load a number of images

one after the other. When processing multiple files, a text log file is created and reports back on any errors.

The new slideshow option offers a handy way of wading through clip art collections and is certain to be popular at computer shows! This can run inside a window or use the full screen; parameters include a time delay between slides and the inclusion of a filename in the display.

A print catalogue facility lets you catalogue your clip art and images. Up to 40 files can be squeezed onto a sheet of A4 and images can have their name printed underneath using a custom font. New printing options include the addition of user-defined text above each image, more powerful scaling options and an increased range of halftone filters for improved colour reproduction. The quality options of draft, normal and best now cover all printers.

Additional dither options now mean that viewing true colour images in 256 colours is much improved. Equally, 256-colour images can be reduced to 16 colours with a surprising degree of accuracy. Crazy Dots graphics card owners are directly supported now and this

KEY FACTS

Product:

Imagecopy 3

Company:

FaST Club

Contact:

0602 455250

Price:

£29.95 (£10 if upgrading from v2)

SYSTEM

Minimum Memory:

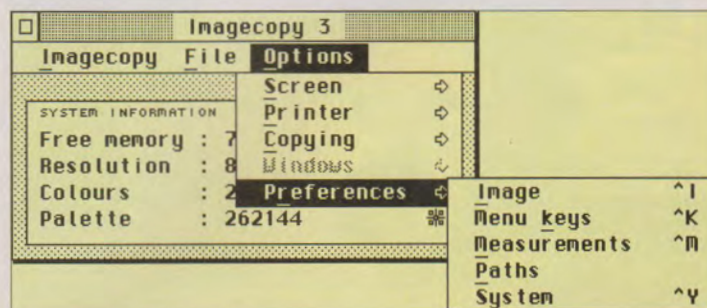
1Mb

Resolution:

Any

Computer:

Any



Hierarchical menus give easy access to a multitude of options and functions.

FORMATS

Imagecopy 3 can read an impressive list of different image formats, namely: Calamus Raster Graphics (CRG), Deluxe Paint ST, Doodle, PIC, JPEG, Portable Bitmap, PC Paint, Pixart, Prism Paint, RSC images, True Paint (TPA) and compressed Windows Bitmap.

It can also save files in one of nine different formats: GIF, IFF, JPEG, PCX, Prism Paint, Targa, TIFF LZW, Windows Bitmap and XIMG true colour.



The dithering options in *Imagecopy* can produce stunning results. This true colour image was reduced to 256 (left) and 16 colours. You can see that even in 16 colours, the image still retains much of its natural colour.



Slide show...

OK

☒ Full screen

Cancel

☐ Window

Save

☐ Reverse order

☒ Hide mouse

☐ Show file names

☐ Lock slide show

Interval : 6 seconds

The slideshow dialogue box lets you set the time delay between images. Also note the new style buttons and that each action is accessible via a keyboard shortcut.

option seems to work for other cards as well and when running on a Falcon with an RGB monitor, *Imagecopy 3* can switch to overscan mode automatically for full screen viewing.

may look at *GEMView* as an alternative, but for the serious user both programs are invaluable and many options missing in one are found in the other.

I can truly recommend *Imagecopy* to anyone who has the need for a powerful image manipulation program.

VERDICT

As good as *Imagecopy 2* was, this new version is even better. It's an essential tool for taking screen grabs, converting image files and printing out in high quality. Also, the new JPEG support can transfer huge images onto a standard floppy disk. The manual is excellent and goes to some length to explain how to achieve the best results from your printer; the author takes his work very seriously and includes tips about various printers, which colour ribbons are best and even the paper type to use! Other chapters help you understand the rather complex subject of colour dithering and halftoning. The only feature I truly missed was PhotoCD support. Potential buyers

SUMMARY

GOOD POINTS:

- Very user-friendly
- Supports a wide range of image formats
- Highly reliable
- Multi-tasking friendly

BAD POINTS:

- No PhotoCD support
- Some functions can be a little slow

FINAL WORD:

"*Imagecopy 3* is a quality product and essential for anyone who is interested in graphics."

JPEG COMPRESSION

The Joint Photographic Experts Group (JPEG) was faced with the task of finding a way of compressing image files so that they could be transferred via modems or similar means. True colour images, as used for professional colour reproductions, can take up staggering amounts of storage space. The image on the left is a standard true colour TIFF that takes up 1.2Mb of disk space. Other images can use 50Mb or even more.

Using standard compression techniques, image files can be reduced to approximately half their size without any loss of detail. The JPEG file on the right occupies a mere 38Kb and yet looks identical to the original.

The JPEG compression scheme intelligently removes information which is deemed unnecessary. This is known as "lossy" compression where some detail is discarded in the process. Through careful study of what the human eye can see, the group was able to determine what detail could be safely removed without any noticeable effect. The JPEG system goes even further by allowing you to choose how much quality you are willing to sacrifice in order to achieve a better compression ratio. At a setting of 100% quality, there is hardly any difference between the original and compressed image – with a saving of 80 per cent. A quality setting of 75 per cent, which was used for the image on the right, is considered adequate for most purposes and results in a saving of over 95 per cent! Lower settings result in poorer quality but are useful for long term storage of images – a 1.2 Mb file could be reduced to just 16Kb...



This is a 1.2Mb true colour TIFF...



... while this is the same file after being JPEG'ed – 38Kb worth...

Convert...

Colours = 16777216

Format JFIF

Compression JPEG

Colour type Colour

Colour depth 24-bit

Quality : 75%

Save

OK

Cancel

JPEG compression support is one of the new features. This dialogue box is used to set the quality ratio as well as a choice of greyscale or true colour images.

PERFORMANCE

OVERALL

EASE OF USE

✓✓✓✓✓✓✓✓✓✓

DOCUMENTATION

✓✓✓✓✓✓✓✓✓✓

EFFECTIVENESS

✓✓✓✓✓✓✓✓✓✓

VALUE FOR MONEY

✓✓✓✓✓✓✓✓✓✓

91%

As you've seen from the review, *Imagecopy 3* is a powerful image utility that can be used to view and print monochrome and colour images on any ST or Falcon with at least 1Mb of RAM. The cover disk demo version has no features disabled, but displays a copyright message whenever you view, print or save an image.

GETTING STARTED

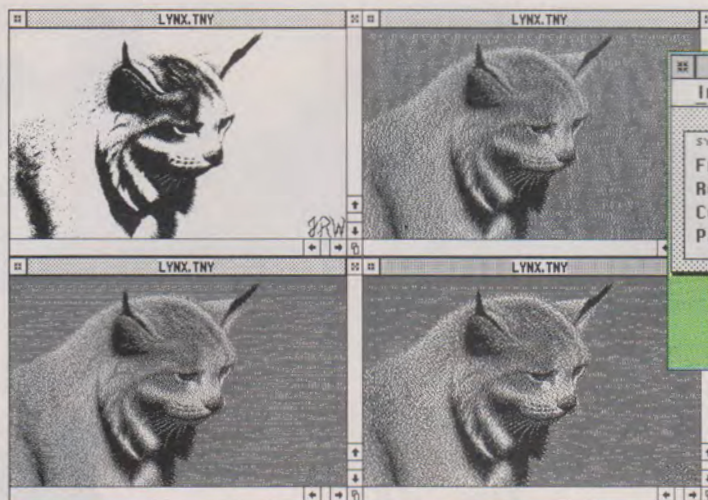
The program works in any screen resolution, but use a colour mode to obtain the best results. Switch to low resolution if running on an ST and either 256 colours or true colour on a Falcon. That said, *Imagecopy 3* runs equally well on a mono system. Double-click on *IC3DEMO.PRG* to run the program.

From the demo copyright message, press the <Return> key to continue. *Imagecopy 3* now displays its dedicated window which contains a menu bar with three titles. The first one to try is the **File** menu. Click on this to reveal the menu and select **View**. This brings up the file selector from which you can choose an image to view. Most of these will not fit into the standard GEM window: *Imagecopy 3* provides a full screen viewing mode which is activated by pressing <Esc> on the keyboard.

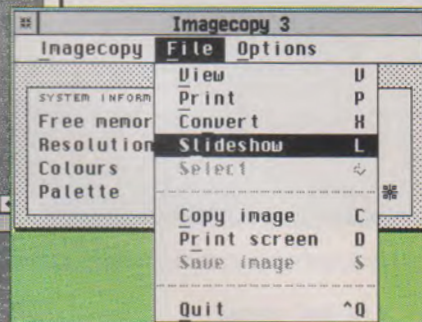
VIEWING MODES

Many images contain more colours than can be displayed on an ST. In fact, some may contain as many as 16 million colours, yet *Imagecopy 3* can display pretty good approximations to these by using the 16 available colours in ST low resolution. How? By using a clever technique called "dithering".

The dithering options are not used



16-colour pictures can be shown on a mono monitor by using various dithering options. The top left image is not dithered, while the others are displayed using some of *Imagecopy 3*'s dithering methods.

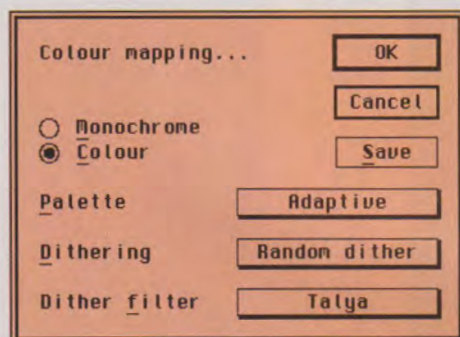


Imagecopy 3 uses its own menu bar inside a window. Each menu item has a keyboard shortcut – pressing **I**, for example, on your keyboard starts the slide show.

TRYING TIMES...

*Can Imagecopy 3 really be that good?
Find out for yourselves!*

by default, so click on the **Options** menu title and move the mouse over the **Screen** item. This will reveal a sub-menu; select the **Mapping** entry. In the **Colour Mapping**



To get the best colour display, use these settings with an ST running in low resolution on a colour monitor or a TV set...

Imagecopy 3
ST Review Demo
FAST Club
0602 455250

... and this is a true colour image as displayed in ST low resolution using these options.



THE SLIDE SHOW

One handy feature of the program is its ability to run an automatic slide show. Select the appropriate entry from the **View** menu, go to the *IMGCOPY3.DEM* folder and manually type in ".*". This will cause *Imagecopy 3* to load all the image files in the current folder. Click on "OK" to exit the file selector and "OK" again in the Slide Show configuration dialogue box. *Imagecopy 3* will now switch to full screen mode and then load and display the images one by one. Press <Undo> at any time to stop the show.

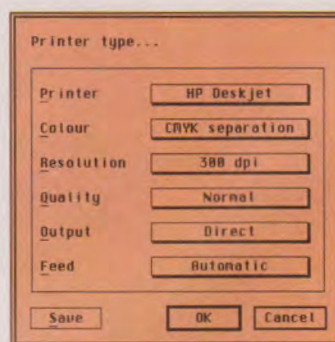
though – it takes a little time for the program to work out the best colours to use.

PRINTING

Colour printing is almost an art form, but you can have a go at it here. First, select the **Options** menu and place the mouse over the **Printer** entry to reveal the sub-menu. Next, select **Printer Type** and choose your printer from the pop-up menu – *Imagecopy 3* can print to mono or colour printers.

If you have a mono printer, you can still print full colour images by using colour separation which involves three or preferably four passes where the colour components are broken into black and the three process colours. This requires separate colour ribbons or ink cartridges for each pass. The actual process is beyond the scope of this tutorial, but the *IC3DEMO.TXT* file on the cover disk provides more instructions.

Select **Print** from the **File** menu and print your image. As with viewing, various dithering options are available to let you get the best results as well as control over brightness, contrast and colour saturation.



A wide range of printers are catered for, ranging from mono 9-pin printers to the latest colour inkjets

dialogue box, first select between Monochrome and Colour, depending on your monitor, and then set the **Palette** to **Adaptive**, **Dithering** to **Random Dither** and finally, the **Dither** filter to **Floyd-Steinberg**. Exit the dialogue box by clicking on "OK".

If you now view some images, you will immediately notice that colours appear to be far more realistic. In many cases it will be quite a surprise to see how well a mere 16 colours can represent a true colour image.

Dithering does have one downside

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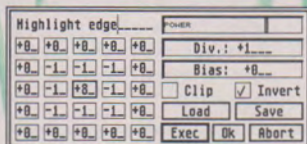
A GOOD IMPRESSION

Image processing is an integral part of creative graphic design as Andrew Wright discovers...

DIY FILTERS

Believe it or not you can actually create your own convolution filters with programs like DA's *Picture* and, to a lesser extent, with *Truelmage* and *Studio Photo*. Convolution is an image processing term for filters that are defined by a matrix of numbers, usually 3 by 3 or 5 by 5 with two additional optional values called the scaling or division factor and the offset or bias.

The convolution matrix (with 9 or 25 entries in total) is "laid" over a group of pixels and the values of each individual pixel underneath is then adjusted according to the values in the matrix. In a greyscale image, the value is between 0 and 255. In a colour image, the matrix is calculated separately for each of the red, green and blue components.



A simple 3 by 3 convolution in DA's *Picture* – this one highlights edges.

If there is one topic in particular that can really be said to have taken off in recent months, it must surely be image processing. Much of the impetus was provided by the Falcon, of course, but even with an ST there is plenty of scope for creativity. Image processing is not just about retouching photographs or editing and filtering them for use in a DTP program; it has become an essential part of creative design.

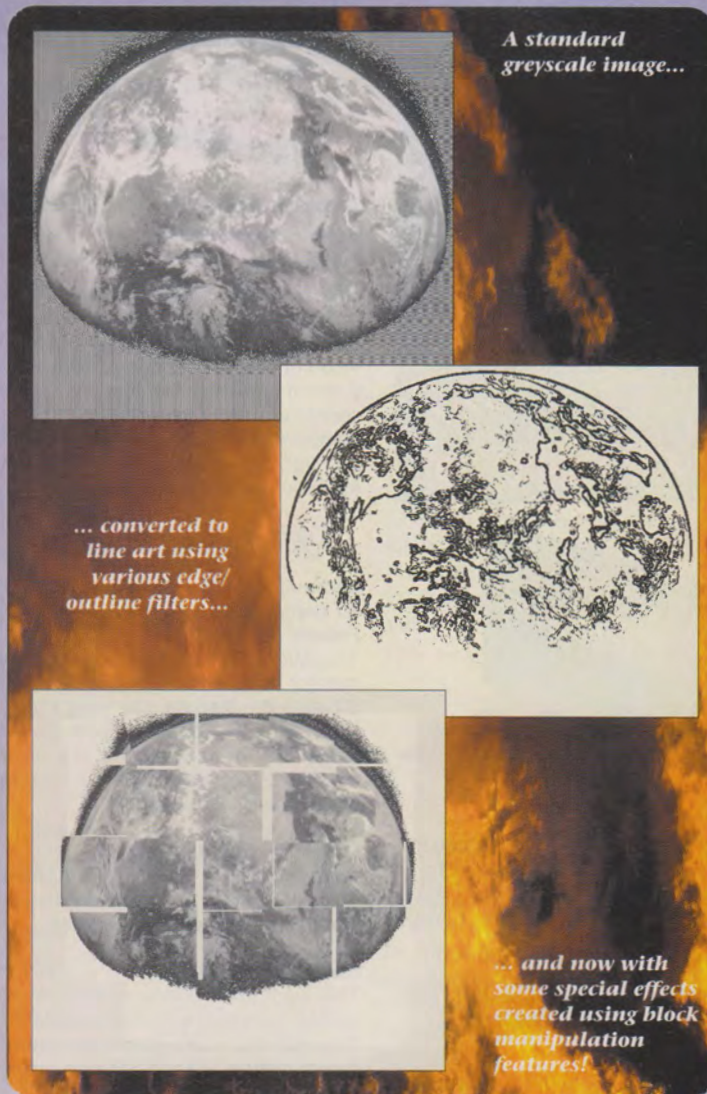
Top-end programs like DA's *Vector* can import and manipulate images as if they were vector objects and has endless possibilities for applying bitmap textures to objects such as text and 3D shapes.

Powerful image processing programs like Compo's *Studio Photo* and DA's *Picture* can produce weird and wonderful results from almost any image. On this month's cover disk, you'll find an excellent ST image processing program with a wide range of equally entertaining special effects. These are produced using what are called filters: mathematical operations carried out on each pixel in an image.

Image processing as a creative tool is a relatively new field for the home computer enthusiast, so there are no rules laid down about how to do this and that. All you need to do is experiment with your software and get to know what it is capable of. Remember too that special effects are cumulative – you can combine two or more filters to get a unique image and even use the same filter twice to increase the effect.

You must also have a clear idea of what you need. Is your finished image going to be incorporated into a graphic or laid out as it is in a DTP document? The latter isn't as strange as it might sound. Anyone can import a scanned image into a DTP program but unless you happen to have a very good quality printer (600 dpi plus) or a sophisticated halftoning program like DA's *Layout*, the results can be pretty average, to say the least.

Add a special effect to a prominent image, perhaps just a simple rotation, a simulated tear or a curl at the edges, and you can transform your document from an everyday newsletter to something really



A standard greyscale image...

... converted to line art using various edge/outline filters...

... and now with some special effects created using block manipulation features!

special. There's another aspect to creative image processing too. Most DTP documents are printed on monochrome printers with an output resolution of 300 dpi or less. Any photorealistic image such as a scanned photo will have to be dithered by the printer or, if your DTP package supports it, turned into a halftone for photocopying. Even with a lot of effort, low resolution printers can't really do justice to greyscale images.

Image processing can offer some answers. By applying one or two special effects the photo can be turned into something more closely representing a stylised graphic. The

printer's crude dither patterns or coarse halftones become less noticeable and less important while the image can often become far more striking and effective. This is particularly true of images which are turned into line art, using the techniques shown below. They can even be turned into very smooth vector graphics using autotracing programs like *Convector* or DA's *Vector*.

SPECIAL EFFECTS

Let's have a look at some of the standard effects that are on offer – even in *Eclipse* on our cover disk...



A posterised image (left) and the original...

• **Brightness/Contrast:** While brightness and contrast appear to be more to do with retouching than creative imagery, many filters will produce excessively light or dark results that subsequently need adjusting. Also, turning up both the brightness and contrast often improves the results from an emboss, edge, contour or outline filter.

• **Posterise/Threshold:** Posterisation means decreasing the number of colours in an image without compensatory dithering. It's a good way to turn well-defined colour images into useful clip art for printing on monochrome printers. If you don't have a specific posterise or threshold filter, you can always use the colour curves or increase contrast to maximum.

Take a look at the picture of the statue above: the brightness was increased to prevent the posterising filter from picking up the background

and the contrast was enhanced to make the image clearer.

• **Invert:** Inverting an image produces a negative which can be handy as a special effect on its own. It can also be used in conjunction with other filters like embossing and posterising to help produce clear black and white images.

• **Edge Filters:** Edge-finding filters are among the best for converting colour and greyscale images into line art. Indeed, they were originally developed by US scientists for satellite photography and used to spot missile silos! The best equipped program in this arena is *TrueImage* although it is possible to create edge sharpening filters using the user-defined filter options in *DA's Picture* and *Studio Photo*.

The so called emboss filters are also a type of edge filter (referred to as the "relief" filter in *Chagall*): they



A pixelated image – just like *Crimewatch* uses!

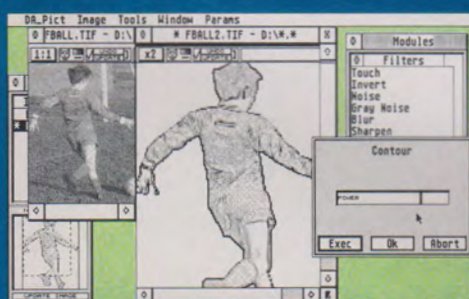
TONING IT DOWN

There will be times when you want to take a superb, sharp picture and make it look as though it was taken with a box Brownie on a foggy day! This is often the case when you intend to overlay text on the image or you want to use the image as part of a composite graphic or montage. In each case, a bright focused image can distract the viewer from the text or other message.

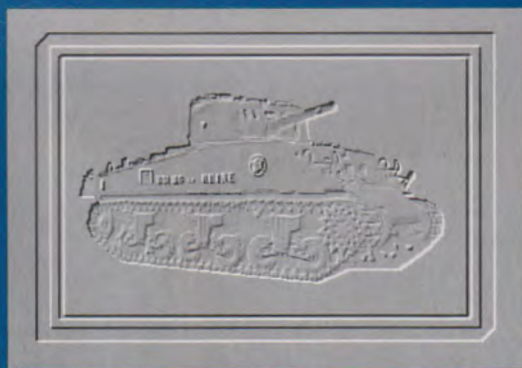
Various filters can be used in combination, including adding noise, blurring, increasing or decreasing brightness, adding or removing contrast and pixelate or mosaic. The object is to tone down the image so that, while it is still recognisable, it becomes the background rather than the focal point. Although the image you choose to use can often be directly relevant, it can sometimes be a simple landscape or even a texture type image such as clouds, water or rock.



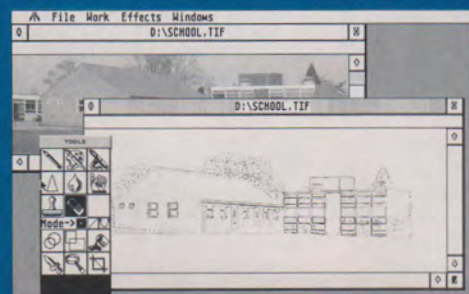
Compare the difference – the bottom image has been "toned down" to let the text stand out.



DA's Picture's contour filter has variable power to get the effects just right.



An embossed image, created by cutting out the tank from a scanned photograph and pasting it onto a plain background. Two borders were then added, using standard drawing tools, and an emboss filter applied to the whole image.



A neat, mono graphic created using various *Studio Photo* filters.

give images a raised 3-D effect which is very good for special effects.

Outline and contour filters are still further variations on the edge filter idea. *DA's Picture's* contour filter is particularly effective when the image background is removed using careful masking. One or two filters can be applied, finishing off with contour, to create a stylish graphic that will reproduce well in print.

• **Pixelate/Mosaic:** Anyone who has watched *Crimewatch* will know all about this one. It's the filter that is used to disguise people in videos to avoid recognition. Again it can be quite handy in design. In the example shown, it is used to remove the distracting background and focus attention on the central feature. It looks a lot better when output in monochrome.

• **Add noise:** Adding noise creates a granular effect that adds texture to a flat image. It is particularly useful for adding a kind of "newsy" feel to action photographs or giving them a more graphic appearance. Added noise can also help unfocus the images for use in the background.

Filters are very useful in improving the quality of colour pictures, but their effect can sometimes be difficult to see in mono.



FADE TO BLACK

Image processing adds impact to your documents. Nial Grimes takes a practical look at using Eclipse to make the most of your mono word processor and DTP programs...

Colour printers may be moving closer towards the realms of affordability every day, but for most of us black and white is a fact of life. Eclipse is a master at manipulating colour pictures, but the problem is that hardly any ST desktop publishers and word processors are capable of dealing with colour at all, and those that are often leave a lot to be desired quality-wise.

The good news is that there are ways to successfully transform image-processed pictures into mono. The software you need is affordable and for the most part is included on this month's cover disk! Are you sitting comfortably? Then we'll begin...

MASTERFUL MATHS

Before we actually go into using Eclipse in this way, it would be nice to outline exactly what "image processing" means and what these packages are capable of doing.

An image processor is basically a program that applies mathematical

formulae to pictures. As mundane as this description may sound, the reality of image processing is impressive, bordering on magical. Poor pictures can be improved beyond all recognition and careful use of effects can turn an uninteresting image into a veritable work of art. The tasks the image processor performs can be broken down into three neat sections:

- **Effects.** An "effect" can be anything from squeezing a picture into a sphere shape to adding a motion blur. In design terms it's usually best to keep a check on the number of drastically altered pictures you use within a document. Used properly, they can have tremendous impact; overuse them and you're likely to confuse the reader.

- **Filters.** Once again, filters can produce a very wide range of effects. They can be used to enhance the detail in a picture, to defocus, contrast and many other things besides.

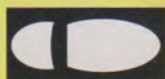
- **Colour levels.** Each picture is made up of red, green and blue components (through which the whole spectrum of colours may be created) and any good image processor will allow you to adjust these separately.

Of course, adjusting the individual colour levels is pretty pointless if the document is going to end up in mono.

However, pictures reproduced on low resolution printers (and that includes 300dpi inkjets and lasers) are invariably too dark, and therefore increasing the brightness of all of the colour channels can drastically improve your picture in print. In order not to "wash out" the picture though, it's wise to beef up the contrast just a little.



Image processing effects can be stunning and with a little effort, your pictures needn't lose too much impact when converted to mono.



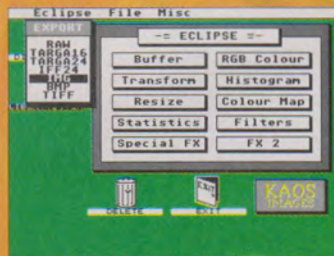
STEP BY STEP GUIDE

NEW YORK, NEW YORK!

Well, we've explored the theory in detail. Now let's look at a practical example of transferring a good colour picture into a mono document with the help of Eclipse...



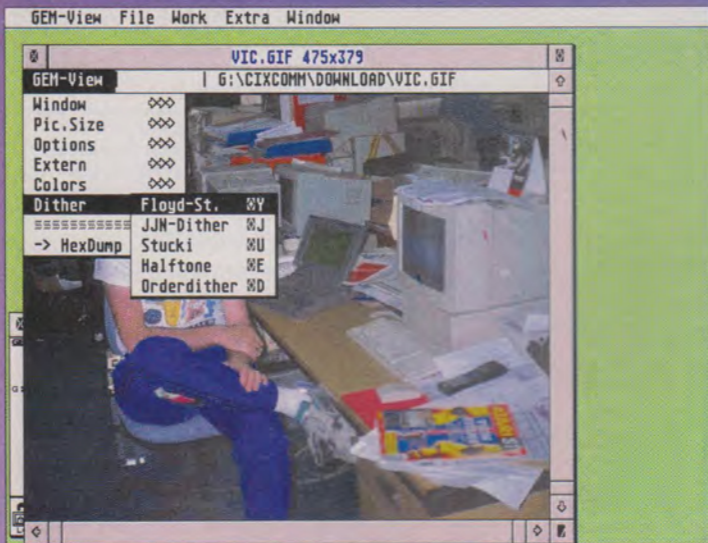
1 Start by applying the effect you want to use. In this case, we've "Embossed" the Statue of Liberty picture and converted it to greyscale through the RGB Colour dialogue box. Emboss is an effect that converts very well to mono - others might be less striking. It's just a case of being prepared to experiment.



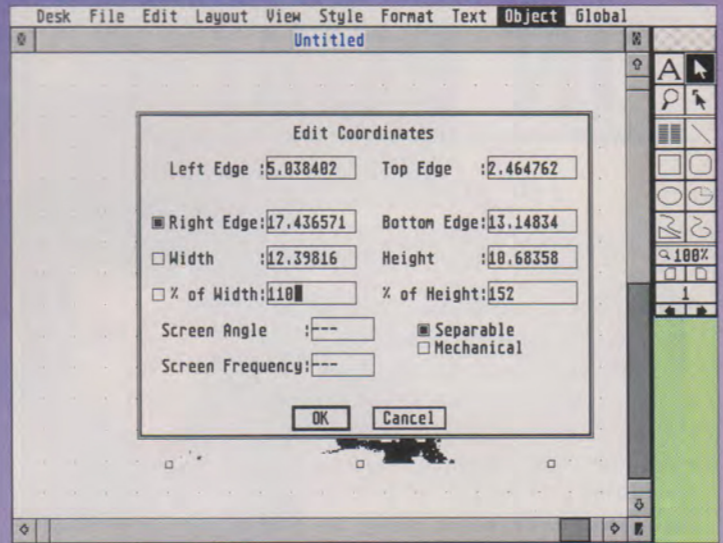
2 Now click on the "Resize" button and double the width and height of your processed picture. Drag the enlarged picture to the disk drive icon and save in .IMG format. If you have GEMView, you can skip this step; if not, jump down to step 4 now.



3 Load the processed picture into GEMView and either it using the "Halftone" menu option or the Floyd-Steinberg method, doubling the size first with the "Bitmap double" module. Save the picture in a format your program can handle - .IMG is a safe bet.



GEMView provides a huge range of dithering options – the picture is automatically doubled when you use halftoning.



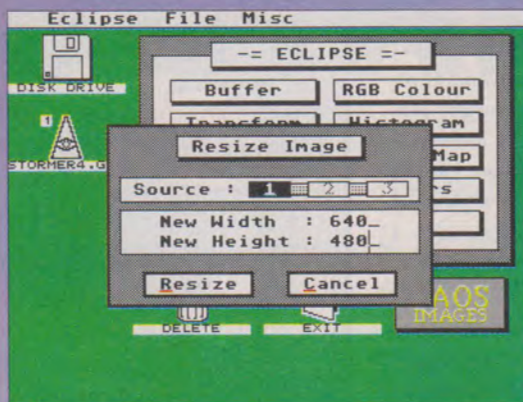
Most desktop publishers can adjust pictures to printer or screen resolution – in PageStream's case, use the "Edit Coord" dialogue box.

LIGHTER SHADE OF PALE

As most of us are forced to use mono printers, anything we do with *Eclipse* is going to have to make the trip to black and white at some point along the line. Now, you're probably wondering "why bother with colour pictures at all?". The answer to this question lies in the way images are converted to black and white, a process known as dithering.

Dithering takes each pixel in an image and interprets it into a pattern of dots. Once a picture has been dithered, there is practically nothing you can do to it beyond simple editing. After all, the image processing software relies on colours to do its job – it cannot work with an illusion of colour (in this case, varying shades of grey)! Therefore, the longer the picture stays in colour, the better.

Having used the image processor to bring out the best in your picture,



For dithering to work well, double the size of the picture then save it as an .IMG picture from Eclipse.

The top picture was doubled in size before being saved, and the lower was saved "as is" – rather speaks for itself!



the next step is to actually convert it to black and white. There are a number of different methods of dithering available. The *Ordered* approach uses a specific pattern for each tone in an image, while *Floyd-Steinberg* attempts to detect a blend between colours and adjust its patterns accordingly. A third method, called *Halftoning*, is used in newspapers and relies on varying the size of the dots in the dither pattern. On professional quality printing equipment, halftoning can't be beaten, but as far as we are concerned, it's a no-score between this technique and Floyd-Steinberg.

Of course, the next consideration is software – what do we actually need to convert these pictures from colour into dithered mono? As a nice easy start, you can use *Eclipse* itself; the .IMG files it saves are black and white. Before you do so though, double the picture size – this gives the dithering process more room to breathe.

Good ol' *GEMView* 3 can also be relied upon to dither pictures in a huge number of ways. Once again, it makes sense to double the size of your pictures before using the standard dithering methods, but *GEMView* thoughtfully does this for you when halftoning is used. All of these dithering methods can be accessed through *GEMView*'s

window-based menu and if you are looking to add a distinctive style to a picture, try a custom dither. The package is supplied with a wide variety of samples and while they may look strange on screen, they are very effective in print.

The final stage is to actually import the picture into your desktop publisher or word processor. The thing you must remember here is to respect the dithering that has been done beforehand. We are now dealing with that illusion of colour again – dots forcing the eye to see shades of grey. When a picture is sized below the resolution of your printer, the program is forced to remove dots, the dithering loses its impact and you could end up with unsightly patterns, called *moiré*, instead of smooth blends. One sure-fire way to avoid the problem is to size the picture to the printer resolution and work up from there. Most desktop publishers allow you to do this.

You owe it to your documents to make the very most of the pictures they include. By using an image processor and taking control of the dithering process with a package like *GEMView*, you can improve the looks of your work beyond all recognition. Effort is involved, but "it's sure as bloomin' hell worth it guv'nor" as Blackadder might say...



4 Finally retouch the image with a mono paint package and import into your preferred desktop publisher or word processor. Remember that if the image is enlarged too much, it will become grainy – too small and terminal *moiré* patterns could set in...

INSIDE INFO

One of the hardest parts of image processing, unless you happen to own a colour scanner, is finding good quality images. So, where do you look? Well, a good place to start is the public domain, which is bulging at the seams with quality pictures. Both Floppyspace and Goodman International stock a good range of categorised art disks and in most cases a converter is included to deal with the tricky JPEG format.

If you are lucky enough to own a CD-ROM drive, disks such as *GIFs Galore* and *GIF Galaxy* provide thousands of images for just a few pounds. In addition, some PD libraries have access to these CD-ROMs and compile floppies full of the best images they contain.

IN PUBLIC

The end of
an era...

The news of Commodore's demise a few weeks ago put me in a nostalgic mood. Before I knew it, I was browsing through the enormous collection of computer magazines that fill my office and reminiscing over the last few years in computerland. Of course, seeing the Pop (Popular Computing Weekly) news item that announced the release of the ST, complete with the infamous Degas bee was fascinating, but the articles that made the best reading were the opinion columns.

An ideal example is an Amiga column in a certain computer weekly. Atari had just announced the release of the MegaSTe and the argument that processor speed meant virtually nothing at all was almost believable at times. In 1994, it's easy to forget just how much rivalry there was between ST and Amiga owners – forget rational thinking! And even in late 1991 there were people who were convinced that 16-bit computers were just a passing fad. "All of the best gameplay was on the 8-bits" they cried – I wonder whether people will look back on ST games in a similar way in five years' time?

As far back as 1989, industry pundits were predicting that CD-ROM would be "the next big thing". Rumours about a new wonder-machine called CD-I were beginning to circulate; journalists had seen the future and it was interactive! Meanwhile Atari was confidently predicting the release of its Panther console in 1991. It's incredible just how many ground-breaking ideas have fallen before or just after the first fence.

My favourite quote over the ten or so years' magazines though came from Atari's Bob Gleadow. When asked to describe the most important thing for Atari's future in 1991, he replied: "Evolution rather than revolution". A little higher up in the pile of magazines I spied an advert for the Falcon. The slogan? – "Revolution, Not Evolution". Sometimes I wonder who is playing who!

Oh, and I suppose you expect me to make some predictions now, don't you? Okay then: In five years' time, the Internet will still be limited to computer users – ask the man in the street to give his views on the "information superhighway" and he will think you are talking about the new London ring-road. Jaguar 2 will be released between March and June 1996 – and will be at least six months late. The ST will still be around, there will still be a thriving public domain industry and the console press will have decided that Saturn wasn't really that hot at all and start advising everyone to wait for Jaguar 3. Some things never change...

If you are reading this in the future... Nial Grimes is currently taking a three-year vacation in a *Star Trek - The Generation After The Next Generation* total immersion video game. Would-be correspondents who can speak Klingon are invited to send mail to nialg@cix.compulink.co.uk.



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The Citizen ProJet II is one of the most stylish looking printers I've ever come across. If you want to look the part, with futuristically styled peripherals, this is probably the one you want! It's a 300 dot per inch inkjet printer with built in HP DeskJet Plus emulation, capable of printing at 180 characters per second in draft mode (300 by 150 dpi) and 120 cpi in letter quality mode which translates into 2 or 3 pages per minutes depending on complexity.

The neatly-styled case curves gently towards the front and the paper in and out trays are discreetly placed at the back along with the power on/off switch and the Centronics parallel interface. Weighing in at only 8.8 lbs (4kg), the ProJet is compact too, with a modest footprint of 14 inches (360mm) wide by 14 inches deep, including the folding paper tray. It stands only 11 inches (280mm) high.

It's also ideal for those who are terrified of buttons or can't be bothered with them. There are three tiny grey buttons on the front right hand side of the printer, one for switching it on or off line, a second for a line feed and a third for a form feed.

The printer test functions are available using various combinations but there's power under the bonnet if you want to tinker, in the form of a bank of 33 easily-accessible switches covering the different characters sets, internal fonts and various print modes.

GOOD DESIGN

The printer itself consists of the box itself and two removable trays for paper in and out. The mechanism is hidden under a fixed lid and is easily accessed for cartridge and print head changing.

A comprehensive manual is supplied, covering several languages, and provides a lot of detail on

KEY FACTS

Product:

ProJet II

Company:

Citizen

Contact:

0753 584111

Price:

RRP - £304; Typical - £250

SYSTEM

Minimum Memory:

0.5Mb

Resolution:

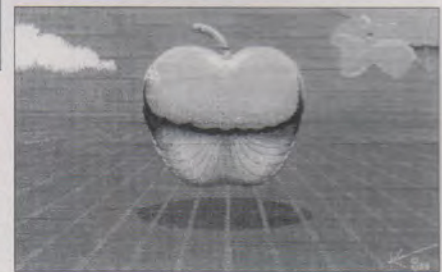
Any

Computer:

Any



Here's our usual test pic...



... and here's the ProJet II's result. The banding appears to be due to a lack of full DeskJet/Plus compatibility.

JUMPING JET

Andrew Wright looks at a DeskJet competitor with a rather futuristic design...



programming, control codes and character sets. The print head arrangement is unusual, with two items to be replaced instead of the DeskJet's one. This includes an ink cartridge, costing £7 for two and lasting for up to 400,000 characters, as well as a print head costing around £20 which will need replacing with every twelfth cartridge.

The cartridges have 50 nozzles and the 400,000 characters which should

average out at around 400 pages of text, making it very cheap to run indeed for an inkjet. With a rather sharply curved paper path, paper can come out slightly warped. The paper feed tray holds 70 sheets of 80gsm paper but there is a manual feed tray at the front so you can feed in thicker sheets or special letterheads with much less warping. Envelopes can be fed in one at a time.

The ProJet will print in portrait and landscape modes and features different bitmapped internal fonts for each orientation. The list includes: Courier, Letter Gothic, and Times Nordic in portrait mode; Courier and Letter Gothic in landscape mode. Print density can be varied from 75 to 300 dpi.

If used with applications such as Protext and That's Write, with standard DeskJet drivers, it can access the proportional internal fonts as and when you need them but in the main, standard word processors like 1st Word Plus and the like will have to be content with plain, monospaced Courier or Letter Gothic and even then you'll have to do some fiddling

with the internal switches. If you need alternative emulations, Epson LQ850 and IBM Proprinter cartridges are also available.

VERDICT

The ProJet II looks good and for those with limited desk space it could be just the job. It is also likely to be very economical in everyday use, making it ideal for a home printer especially as the street price will be nearer £250. Quality of text output is just about adequate when compared with the new DeskJets and it's a good deal slower but it's still a good choice for word processing and DTP - and a big improvement on dot matrix.

However, the greyscale output is a big disappointment. We couldn't get rid of the distinct banding which rather spoils the results - and two different print heads were tried to ensure that this wasn't simply a problem with our review model. It appears likely that full DeskJet/Plus compatibility is limited only to text output - a shame.



Classy chassis - easy on the eye and cheap 'n' easy to run...

PERFORMANCE

OVERALL

EASE OF USE

✓✓✓✓✓✓✓✓

DOCUMENTATION

✓✓✓✓✓✓✓✓

EFFECTIVENESS

✓✓✓✓✓✓✓✓

VALUE FOR MONEY

✓✓✓✓✓✓✓✓

68%

TECH TALK

Why don't
Atari DTP
packages
use Speedo?



The Atari scene never ceases to amaze me. On the one hand we get all the scare-mongers claiming that the ST is dead, while on the other we see a continuing stream of new and powerful programs being released along with a multitude of multi-tasking operating systems. The latest news indicates that very soon we will have two font engines capable of handling TrueType fonts which are more or less the standard font format on the Mac and PC. One of these two new products even claims to support PostScript type 1 fonts as well.

Compo Software, in conjunction with Atari, has developed *SpeedoGDOS 5* which is based on the original *SpeedoGDOS* but adds support for the above font formats. This opens up the Atari DTP market to a truly staggering range of fonts, from those freely available in the public domain to high quality commercial fonts. Of course, the pessimists will claim that this is too little, too late – but is it?

Several programs such as *Papyrus*, *That's Write 3*, *Easy Text Vector* and *Atari Works* already support *SpeedoGDOS* and will automatically work with the new version. Instead of being restricted to expensive Bitstream fonts, users will be spoilt for choice – and most for free. But there is a rub: none of these offers true DTP features.

2B, the software house that brought us *NVDI* and *MagiC*, has announced *NVDI 3* which, like *SpeedoGDOS 5*, supports TrueType fonts but lacks the type 1 support. The claim that the system is four times faster at rendering fonts is probably true going by their record on speed so far.

No matter how good *Speedo 5* or *NVDI 3* are, the whole effort is hampered by the fact that the ST's main DTP packages do not support it. When *GDOS* was first launched, it was so slow and incapable that DTP programmers had to come up with their own propriety font engines to provide decent scalable output. *Calamus* is a prime example.

If the new systems work as advertised, the market desperately needs a top-end DTP program that supports *Speedo*. It doesn't look like *Calamus* will follow this path, but I am sure that there are dozens of programmers out there up to the job. *Papyrus* appears to be the likeliest candidate, since it is already verging on DTP territory as it stands.

A TT or Medusa running this "imaginary" DTP package under the new *Speedo* with a PostScript driver could mean the end to incompatibility with the outside, Mac-dominated world of desktop publishing. It could be just what the ST DTP scene needs to stop the migration to the Mac and possibly even bring new pro-users into our camp....

Ofir Gal is ST Review's main technical voice. The band in which he plays guitar and sequences keyboards, *Kry*, is about to have its first single released on the Columbia label – today ST Review, tomorrow *Top Of The Pops*...

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Andrew Wright
 previews DA's
 Layout TC, the
 top of the range
 DTP package from
 Digital Arts.

CALAMUS KILLER...

It might have been a long time coming, but it looks as though the wait has been worth it. Following its success with *Didot Professional*, Digital Arts has upgraded its prestige package to work in full colour and added dozens of bells and whistles into the bargain. DA's Layout TC now works in true colour on the Falcon or STs equipped with graphics cards, a big step forward for Digital Arts' devotees.

It has to be stressed that the version we were supplied with by UK distributors CGS was a pre-release version and while not as stable as it perhaps might have been, had relatively few significant bugs. There's no manual yet and the on-line help is still in German.

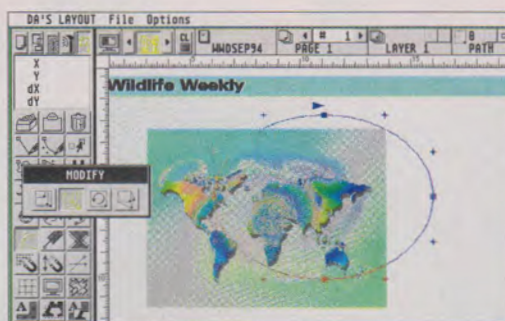
CHANGES

The first and most obvious change is in the interface with a new 3-D look for all the icons and dialogue buttons. The structure of the interface has also been rationalised, with all the icons for changing mode now placed on their own at the top of the screen and additional icons included for the various add-on modules.

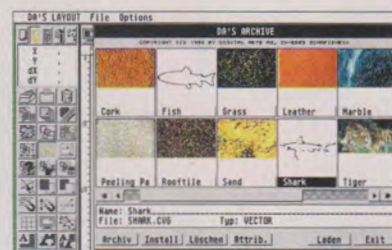
Other much needed changes have been made too. The program is far more configurable; the position of the icons can be customised using drag and drop, the window can be resized for multi-tasking and the dialogue boxes can be moved around the screen.

Many of DA's Vector's unique features have been incorporated into DA's Layout TC, including the ability to search and replace object attributes such as fills, line colours and widths throughout the document.

The font editor is largely unchanged but the vector path mode has been enhanced with new commands for automatically welding separate vector objects together to produce a single shape, and outlining existing shapes. The autotracing



Vector shapes can be used to clip images.



DA's Archive is an excellent image cataloguing module.



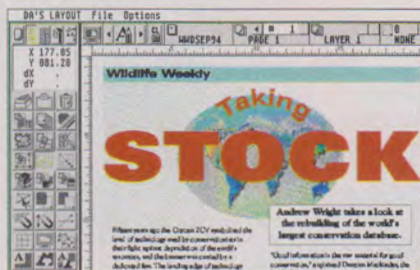
module has also been upgraded in line with the one in DA's Vector.

The text editor has been turned into a sophisticated tool with much better editing facilities, including the ability to inspect the style of individual words. It now displays information on reformatting text and there are symbols showing spaces, tabs and hyphenation breaks. The editor can also be resized to fill the screen using a new window gadget.

MODULES

Three modules were provided with the preview version: one for barcoding, another for superimposing an object on a bitmap image (the compose module) and a third for archiving and storing images, objects and fills. The latter makes life many times easier as whole hard disk's full of clipart and objects can be viewed and selected very quickly.

The compose module is an interesting design aid giving the program the capability to produce unique special effects. Perhaps the best news for existing users is that the majority of the irritating bugs and problems seem to have been fixed. Text flows



The ability to see colours on-screen will certainly help designers, though running in true colour on a Falcon offers few advantages over 256-colour mode due to the way gradients are displayed.

from frame to frame just as it always should have done and there are now more ways to get from one dialogue box to another. For instance, the style macros can be accessed instantly from the text editor. Frame selection is still a little erratic but importing filled objects from DA's Vector has been fixed too.

The page mode has also been revamped with more flexible text column handling and instant conversion from normal columns to free-form ones. Pages can now be rotated in increments of 90 degrees and frames or groups of frames and objects can be duplicated easily with the duplicate button rather than having to resort to multiple pasting from the clipboard.

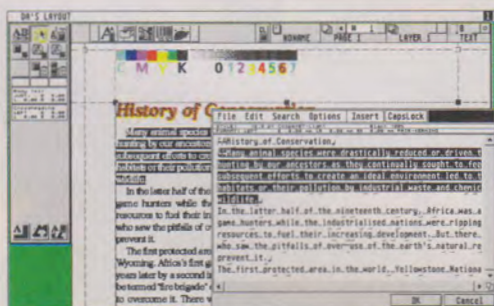
Key frames are automatically copied from page to page and can be used for headers and footers, for

example. The image and colour handling is now much better. Colour gradient fills are improved and the direction of the fill can now be specified as well as the start and end points. Images can also be clipped with an irregular path or object such as a character rather like DA's Vector's image fill feature.

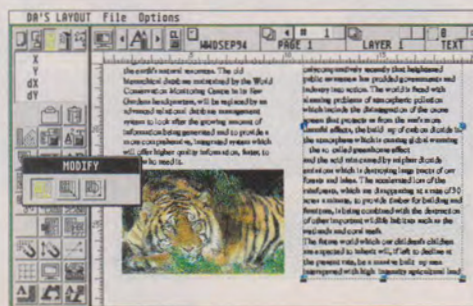
PROMISE

There's little doubt that this will be the most desirable upgrade yet for existing *Didot Professional* and DA's Layout users. On-screen colour is a big bonus for professionals, removing the need to constantly print proofs or look up colour charts. For others, it will be the numerous fixes and enhancements that will hold the most attraction Calamus killers go, this one must surely be a giant.

The text editor is much improved...



Many of the icons have pop-up menus attached.



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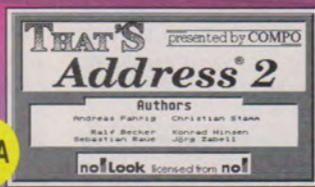
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WRIGHT ISSUES

Us and them...

Comparatively, we review very little Falcon-only software. What gives a false impression to Mr Irate from Poddington-on-the-Hill in his monthly letter about us going over the top is the preponderance of Falcon screen-shots, particularly in reviews of software capable of running on all models. Obviously this is purely a reflection of the machines the contributors use; I own a Falcon and I'm darned if I want to switch it off and plug in my old ST unless I really have to!

Now I've given you some ammunition to throw back at me. If I review a word processor on the Falcon, I'm working on a 16MHz 68030 machine which might well perform three times better than a standard ST. I might not notice that the spellchecker is slow. I couldn't agree more. I'm a shoddy excuse for a journalist. Fire me. Review everything on STFM's with single floppy drives and a megabyte of memory. Never mind firing me - I'll resign!

We, the writers, review products because we know the market, we know the alternatives and, by and large, we know our STs inside out. If we'd stuck to 1040s and floppies, we wouldn't be experts, would we?

What it boils down to is the old debate about whether a product is better reviewed by an end user or a professional. We journalists have our faults. We can be indifferent about new technology and because we're already running pretty good systems, we're left unmoved by many new products. We also have to review products quickly as they come to the market, so you can decide to buy them or not. A review is not a long-term test and it doesn't pretend to be.

On the other hand, we know what you want from the questionnaires, from speaking to buyers and sellers at shows and invariably by chatting on-line to other users all over the world. It's our job and we're paid to do it.

Now take Joe Bloggs with his expanded 520 and the handful of programs he's bought over the years. He's got a dot matrix printer and uses *1st Word* for all his letters. What's he going to do when he first sees something like *Protex*? His limited knowledge of the market means he's never seen anything similar so he'll give it 10 out of 10. Not having used *Papyrus* or *That's Write*, he has no yardstick as to what alternatives are available. That review will be meaningless - except to a few other Joe Bloggses.

No, I'm afraid you'll have to put up with Falcon screen-shots. It's the price you pay for being better informed...



Andrew Wright is a full-time journalist and reviewer and has been contributing to *ST Review* since it began. He'll be in Majorca by the time you read this. Let's hope Joe Bloggs doesn't pinch his job...

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DISKS OF THE MONTH

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FF001 - STORM This well reviewed shoot-'em-up is available from Merlin. STE Only£3.00
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MPD2019 - POV Raytrace 2. A 2 disk set which lets you develop photo-realistic pictures£2.50
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We also stock **Budgie** and **Shoestring Educational Software** ranges of licenceware

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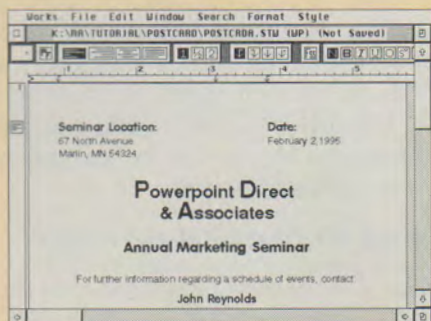
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A HELPING HAND

KEY FACTS

Product:
Mastering Atari Works,
Mastering Calligrapher
Company:
FaST Club
Contact:
0602 455250
Price:
£29.95 each
SYSTEM
Minimum Memory:
2Mb
Resolution:
Any except ST low resolution
Computer:
Any

Having problems with Calligrapher or Atari Works? Ofir Gal looks at a couple of products that may be right up your street...



A large number of sample documents and template are provided on-disk including examples of how to lay out anything from a postcard to a newsletter or brochure.



One of the sample documents for Calligrapher really shows the power of the program – layout ideas for your own documents?

linked and there are no highlighted “keywords” to click on in order to move around the help text.

While the user interface leaves a lot to be desired, the actual text is very useful and was obviously put together by someone who knows Calligrapher and Atari Works very well. I have been using Calligrapher for several years and yet still found some useful tips.

In addition to finding help by selecting items from the clone menu, an alphabetical-ly-organised index is also available where you simply click on an item to read some help text about it. Many items include useful tips and refer you to specific pages in the user manual for more information.

All functions are available via keyboard shortcuts and include a trace option that takes you back through all the text you have browsed so far. Other options include printing or saving a topic.

VERDICT

The idea is certainly good and the text is helpful, especially if you're not the manual reading type. But the main criticism concerns the design of the desk accessory, which does not follow well-established standards and lacks true hypertext support. With a little more work on the user interface, this line of programs could carve a useful niche for itself.

Programs are becoming more powerful – user requests and competition have led to more and more features being added. Sometimes this reaches a point where you simply cannot find out how to perform the most basic of operations. Manuals are often written by programmers and not by end users and can get a little too technical, too quickly. Enter two new programs from the FaST Club – Mastering Atari Works and Mastering Calligrapher.

WHAT YOU GET

Each of the programs is supplied on a single floppy disk along with a 50-page manual. The programs are described as a “Hypertext Guide” and run as desk accessories so that they can be accessed at any time.

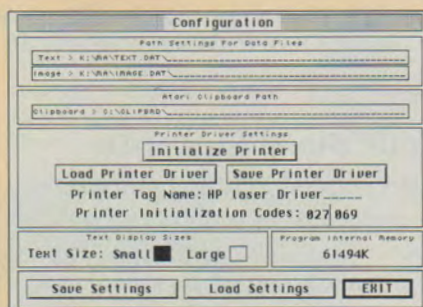
Installation involves copying all files from the master disk to the boot drive – and yes, a hard disk is mandatory along with about 150Kb of spare RAM. Regrettably there is no installation program and some of the files are provided as self-extracting archives which you must run before you can use the help system. The

Atari Works version actually comprises of two separate desk accessories: one dedicated to the word processing section and the other to the database.

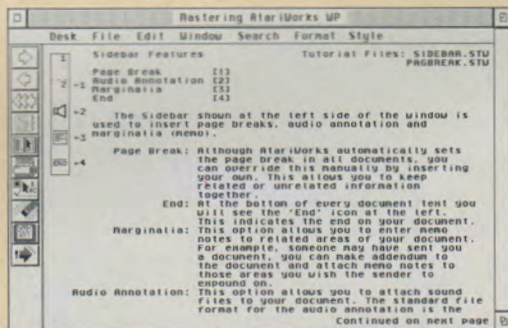
The desk accessory displays a menu bar almost identical to the program. Selecting a menu item displays some text and perhaps graphics to explain its function. A column of icons on the left serves as a quick way of navigating your way around the help text, printing it or copying it into the clipboard.

The system is easy to use and, indeed, only the first ten pages of the manual actually explain the use of the accessory; the remainder is dedicated to hints and tips on using Calligrapher or Atari Works. Each disk includes dozens of sample documents to demonstrate just what you can do if you put your mind to it.

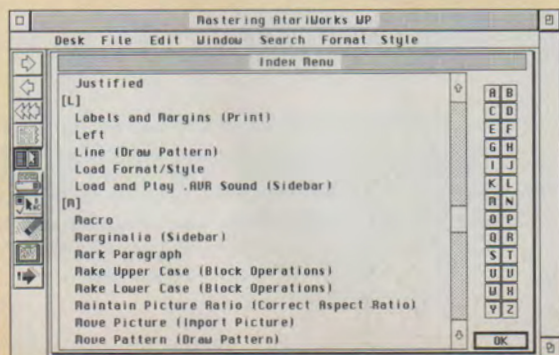
However, this is certainly not a true hypertext system. Texts are not cross-



Help data files can be moved to another partition. You can also switch between the two font sizes and send “init” strings to your printer.



Some help screens include graphics, but unfortunately there are no context-sensitive links between topics as found in systems like ST Guide.



The index system supplements the mock menu bar, enabling quick access to any help topic.

PERFORMANCE

OVERALL

EASE OF USE ✓✓✓✓✓✓✓✓
DOCUMENTATION ✓✓✓✓✓✓✓✓
EFFECTIVENESS ✓✓✓✓✓✓✓✓
VALUE FOR MONEY ✓✓✓✓✓✓✓✓

72%



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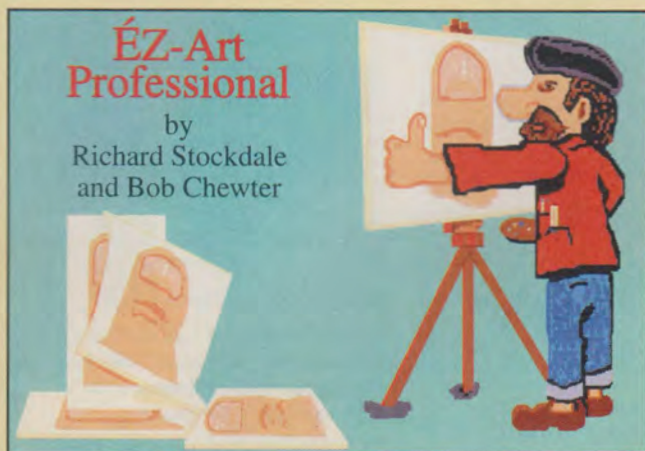
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- * Supports the STE's extended palette, even on an ST(FM)!
- * Over 20 different types of shape are built into the package
- * Over 20 different effects may be applied to blocks
- * Range Editor creates pseudo ray traced effects with shapes.
- * Supports pictures bigger than the 320x200 screen size
- * 256 colour pseudo palette available for most operations
- * Irregular blocks may be 'carved' out of your picture
- * Uses Fontkit fonts

*Extensive file support including Degas, NEO, Spectrum 512 and IFF (incl LBM and HAM)!

Awarded "Essential Buy" status with a rating of 90%

ST Review's August 1994 issue

EZ-Art Professional costs only £29.95. Postage free in UK, £1.50 for Europe (incl Eire), £3.00 rest of world.

DEMO VERSION: We can supply a usable demo of EZ-Art Professional for only £1.00.

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**Trace Your Blood Line with
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Family Roots is a program designed to assist those of us who indulge in the pursuit of tracing our ancestry or 'family tree'. Unlike similar products, Family Roots is not merely a customised database. It lets the user to link each individual into the family tree graphically on the workscreen, whilst allowing easy access to its integrated database. Family Roots II is out now at a cost of £29.95 and comes complete with fully illustrated manual. Postage free in UK, add £1.50 for Europe (incl Eire), or £3.00 for rest of world. Existing users of Family Roots I should contact us for details of how to upgrade.



DEMO VERSION - A working demo of Family Roots II is available for just £1.00.

Other Products

Floppyshop also stock a number of other top quality commercial products. These include the following:-

ST Handbook - An essential read for all ST owners - £2.50 (UK Only)

Easy Text Pro (needs 1 Meg) - Budget priced Desktop Publishing package for ONLY £29.95

Easy Text Pro Vector (Needs SpeedoGDOS, 2 Meg and a hard drive - 2.5 Meg if you don't have a hard drive) £29.95

The Beginner's Guide To STOS Basic - A simple to follow programming course for STOS enthusiasts (STOS Basic not included) - ONLY £32.95.

Mr. Smart's Big Time - Twenty-five educational games for 6 to 12 year olds. Awarded 'Essential Buy' by ST Review. You simply must buy this one to help pass the time in the Summer holidays! - ONLY £24.95

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Does your ST or Falcon monopolise the tabletop? Then you need DeskTopper, as Ofir Gal has been finding out...

GETTING ON TOP

Case design, or lack of it, was a major complaint on the launch of the Falcon. The expectation had been for a higher quality separate keyboard, instead of the same old STe offering with its notoriously spongy feel. Besides, the compact design makes it very difficult to add any internal hardware such as a graphics card or accelerator.

The answer lies in a Tower system, as featured a couple of issue ago, but this has the unfortunate drawback of price.

Is there a budget alternative? Yes: DeskTopper, from System Solutions, aims to solve this problem at a fraction of the cost of a fully-fledged tower. The system is also fully

compatible with STs and STes. When you buy DeskTopper you get a metal frame, that forms the new case for the ST or Falcon, and FreeKeys, a keyboard case into which the original keyboard fits.

Additional options include the PowerUp kit, allowing you to move the power and reset switches to the front of DeskTopper, and a floppy kit for positioning the floppy drive at the front instead of the standard right side location.

MORE POWER

DeskTopper is large enough to take two SCSI hard disks but unfortunately, the original ST power supply is not

powerful enough for the job. A more up-to-spec 40 watt power supply is available if required.

Unlike the tower case kit, DeskTopper is very easy to install: no soldering or previous experience is required, just a little patience.

The ST or Falcon top cover and keyboard are removed and DeskTopper is simply mounted on top of the computer.

You only need to connect the keyboard socket to your Atari before using four screws to secure DeskTopper into place.

The keyboard kit, or FreeKeys as System Solutions calls it, is equally easy to install. The original keyboard simply slides

into position, the connector is plugged in followed by the plastic cover which is held in place using the screws provided.

Lastly, a cable is used to connect DeskTopper to the keyboard kit – it's as simple as that!

WORTH IT?

The joys of DeskTopper are twofold: it's very easy to fit and gives you a convenient resting place for your monitor – and at the right height to work with it.

Just think about it; a decent computer "workstation" will cost you almost as much as DeskTopper.



STEP BY STEP GUIDE

1 The kit comprises the DeskTopper case, a replacement metal shield and the FreeKeys keyboard case. The metal shield is placed inside the outer case and the keyboard socket inserted into position.



2 The computer's top plastic cover, metal shield and keyboard are removed. DeskTopper is then mounted on top and the new keyboard socket is connected to the keyboard connector on the motherboard. In the picture right the optional PowerUp kit was used to move the power and reset switches to the front.



3 Fitting the keyboard kit involves plugging in the keyboard connector and simply screwing on the plastic cover. No soldering is required at any stage.



SHOW ME THE WAY...

Fitting DeskTopper is a breeze – this is a solder-free zone!



4 The final kit helps to keep your desk uncluttered and serves as a monitor stand. The panels at the front can be removed or cut to fit additional hard drives.

PRICES

All items are available from System Solutions (081-693 3355) at the prices below:

DeskTopper:
£69.95

FreeKeys:
£39.95

DeskTopper with FreeKeys:
£99.95

PowerUp:
£14.95

Floppy Kit:
£19.95

Falcon SCSI2 cable:
£39.95

ST Translator:
£69.95

Fan:
£9.95

40W power supply:
£49.95

WARNING!

Opening up your Atari computer invalidates your warranty. Unless you are certain of your own abilities, it is recommended that the DeskTopper modification be carried out by a specialist.

The Atari ST is sometimes accused of not having enough serious applications. Yet there can be few more serious tasks than taking part in a Parliamentary Election; my ST and I found ourselves as the Press team for one of the candidates in the recent European elections.

The essence of the operation was to write, print and distribute press releases during the campaign. Most of the distribution to the local press was by fax, backed up by occasional direct mailings.

I was working with Jim Barnard, Liberal Democrat MEP candidate for Bristol, Kingswood, Woodspring and Northavon – so the first thing I did was to save that mouthful of a description as a keyboard macro within *Harlekin*! This vital phrase had to appear in every document; by using *Harlekin*, this was available to every program merely by pressing <control><shift><Alternate><j>.

THE MOTHER OF INVENTION

The Lib Dems are not a rich party, neither are we great believers in centralisation. Bristol was not a target seat and we were left largely to our own devices which meant that quite fundamental things had to be found from scratch – such as the Liberal Democrat logo in computer form.

Here the CIX conferencing system came up trumps. I appealed for help in the CIX *LiberalDemocrat* conference using the shareware *CixRead* and *CixComm* programs and within 24 hours I had been sent two files. Although neither exactly fitted my requirements, they were useful starting points.

Being a European election, I wanted to add the 12-star emblem from the EU flag. *The Making Of A Star* box shows how this was achieved and the stars were combined with the "Bird of Paradise" logo within *Kandinsky* to create a Euro Election logo. The candidate's name was incorporated as circular text, manufactured using the *FlexText* module within *Calligrapher*, and combined with the stars and bird within *Kandinsky*.

NOW FOR THE FAX

The *STraight FAX!* software and a Supra V.32bis fax/modem were the heart of the communications side. This combination allows up to 14,400 baud transmissions although only the *Independent* newspaper had a fax that could receive at that speed! *STraight FAX!* has the essential facility of sending to multiple destinations. These can be scheduled to be sent at a later time – even in your absence. The scheduler was often used to prioritise destinations so that broadcasters with instant deadlines received press releases before newspapers with deadlines a week away.

Calligrapher has been my document processor of choice since its very early "Don't press the <Tab> key or I'll crash" days. Fax files are easily created by "printing" with the *STraight FAX!* GDOS driver although there is a snag: it only produces high resolution (198 by 198 dpi) files that take double the amount of time to send compared with a normal fax machine. Single destination faxes were left in high resolution; for multiple destinations (faxing all the local newspapers and broadcasting organisations), I used *GemView* to convert to normal resolution (96 by 198dpi) as this is much easier than within *STraight FAX!* itself. Even so, a typical multiple send took over an hour as fax machines were often busy and had to be redialled. Imagine having to do that manually with an ordinary fax machine! With the trusty ST handling everything, I managed to get on with the important things – like cups of tea and meals.

By the way, when you are used to ordinary faxes, the quality you can get from computer generated faxes is quite remarkable – on a couple of occasions, Jim photocopied high resolution faxes and obtained quite acceptable quality hand-outs.

STraight FAX! also handled Mercury cost codes for broadcast faxes. It has a simple but useful shortcut code system that I used to incorporate the cost centre code as well as the PIN (Personal Identification Number).

MERCURY COST CENTRE CODES

One type of account available from Mercury allows you to allocate "cost centre codes" to your calls. This is a two or three digit code that you allocate yourself after your PIN number. When the Mercury bill arrives, the fully itemised statement divides the different codes onto separate sheets.

For the election I used codes 30 and 31 which allowed me to differentiate between "Party" calls and calls to the Press. The itemised statements let me accurately claim my telephone expenses. Using Mercury to dial local calls is usually not a good idea but in this case it provided cost-effective itemised and timed information. I used my *NameNet* address manager program automatically to dial voice calls with the appropriate code; *STraight FAX!* looked after the fax call coding.

This system does not encrypt the PIN and so is not secure but as I am the only one with access to my computer this was not a problem.

Harlekin's editor was used to keep notes (as ASCII text files) of things I wanted to tell Jim. Being part of a desk accessory, it was always available and ideally suited to making notes on the spur of the moment. At the end of the day they were faxed to Jim with *STraight FAX!* converting them on the fly. Sometimes I used other people's faxes as scanners. For example, I needed Jim's signature for some publicity material which was faxed straight into my ST. I converted it into a cropped image file using *GemView* and incorporated it into the *Calligrapher* file. Sometimes I was

sent other people's faxes which I received with *STraight FAX!* and then re-broadcast with no loss of quality!

For short direct mailing runs, I output directly to my Hewlett Packard Deskjet 500 printer using *Multiprint*, loaded when needed using the *Chameleon* desk accessory. *Multiprint* captured *Calligrapher's* output and then reprinted the document any number of times so eliminating *Calligrapher's* "thinking" time for each page. Long runs were taken to the local copy shop.

WHAT'S IN A NAMENET?

To keep track of addresses and telephone numbers as well as generating mailing lists, I used *NameNet* – well

So the ST is just a games machine, eh?
Find out how Roger Derry used
his Atari set-up to fight for his
local Euro MP...

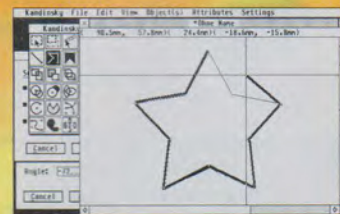
FIT FOR



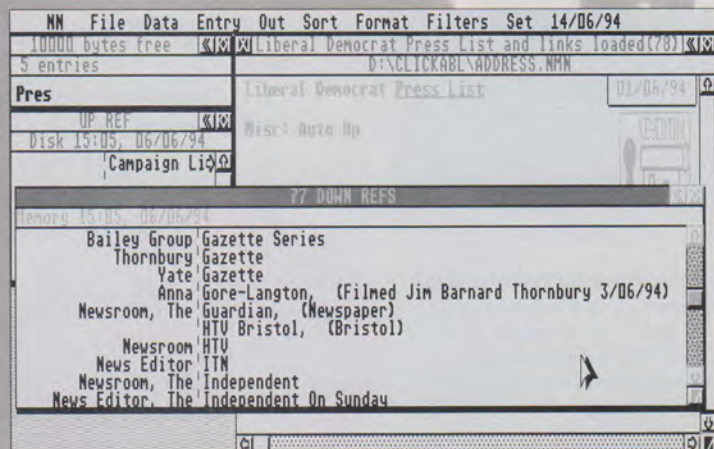
STEP BY STEP G

THE MAKING OF A STAR...

... or the European Union flag group of stars to be more precise!



Start with a polyline "V" in *Kandinsky*, copy it four times, rotate each copy by 72 degrees and trace the star with a polyline.



NameNet showing the master campaign list using a "down link" window sized to give extra information.

as I wrote it, you would hardly expect otherwise! By the end of the campaign I had over 200 entries ranging from activists to national newspaper fax numbers. To keep track of telephone expenses, each entry was allocated either the party or the press cost centre codes. Calling someone was as simple as selecting their name and double-clicking on the telephone number. NameNet then dialled the number via Mercury, complete with the correct cost centre code.

A SUCCESS STORY?

Calligrapher coped magnificently with almost everything I threw at it. My colleagues were so pleased with its DeskJet output that I was asked to produce letters and flyers as well.

Only once did it need a little help. I needed to create tick boxes around some text and this is not one of Calligrapher's party tricks.

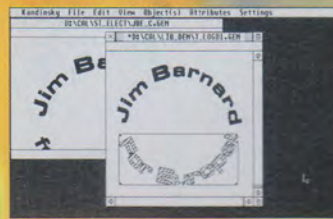
The answer was to print the Calligrapher file as a 300dpi image, import it into a DTP package, add



STEP BY STEP GUIDE

LET'S GO LOGO

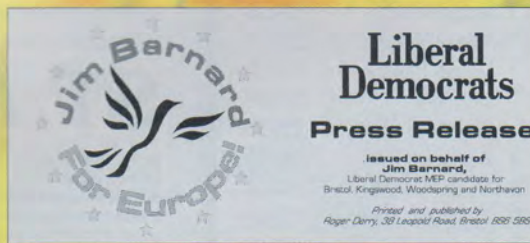
With the ring of 12 stars complete, the text and Liberal Democrat "Bird of Paradise" finish off the logo...



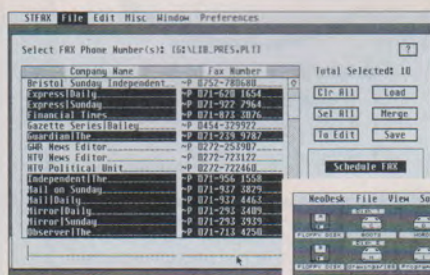
1 The relevant lettering is placed into a circle using Calligrapher's FlexText module. Then the fills are modified within Kandinsky.



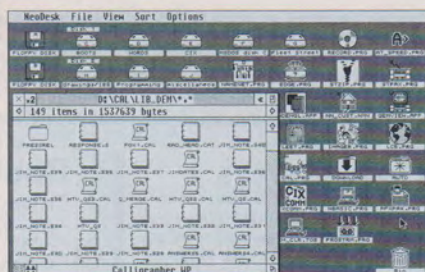
2 Easy Draw makes simple work of the "Bird of Paradise" logo which is then placed inside the stars and text circle in Kandinsky...



3 ... to end up with the final Lib. Dem. logo on the top of the standard fax and letter header!



Typical STRAIGHT FAX! telephone directory; the inversed numbers are dialled in sequence at the scheduled time.



NeoDesk 3 allows quick movement between applications either by clicking on an icon or via keyboard shortcuts.

the boxes and then print the final artwork. I still use Fleet Street Publisher 3 but any package that allows .IMG files and GEM objects to be combined would have done.

Yes, the ST holds its own very well for serious use. I was constantly dealing with people who had PCs and Macs and yet was often asked to do things that they could not on their own machines.

While we did not win, it is worth noting that statistically we did better than in any other Labour-held constituency.

The ST merely a games machine? Only if you think politics is a game...



Paddy Ashdown paid a visit in support of Jim Barnard.

ST PRESS KIT

So what does the serious ST'er use for press work?

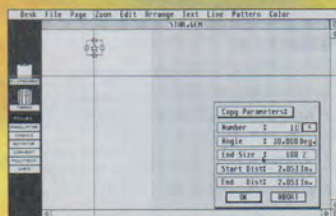
• **Hardware:** HP DeskJet 500, Supra V.32bis Fax/Modem.

• **Software:** Calligrapher, GemView, NameNet, STRAIGHT FAX!, Multiprint, Harlekin, NeoDesk 3, CixComm, CixRead, Kandinsky, Easy Draw, K-Roget, Chameleon, Fleet Street Publisher 3

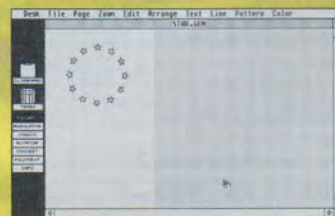
THE FIGHT



2 The resulting polyline star is offset from the traced original, converted to a filled polyline and saved...



3 ... for loading into Easy Draw where the Circular Copy function is put to good use...



4 ... to create a set of 12 stars. However there is a problem; each star is effectively rotated by 30 degrees so...



5 ... the image is loaded back into Kandinsky where each individual star is rotated back to its correct position.

FaST Club

For users of Atari ST & Falcon computers

7 Musters Road - Nottingham - NG2 7PP
Tel: 0602-455250 - Fax: 0602-455305

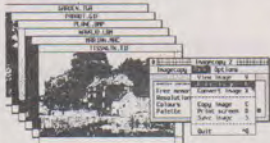
Software

- | | | | |
|---|-------------|--|--------|
| <input type="checkbox"/> Address 1.6 | £12.95 | <input type="checkbox"/> Imagecopy 1 (Mono) | £ 9.95 |
| <input type="checkbox"/> Astronomy Lab | £24.95 | <input type="checkbox"/> Imagecopy Colour | £14.95 |
| <input type="checkbox"/> C-Font2 | £ 9.95 | <input type="checkbox"/> Key Master | £ 6.95 |
| <input type="checkbox"/> CalAssistant | £19.95 | <input type="checkbox"/> Molgraph 2 | £24.95 |
| <input type="checkbox"/> CalAssistant SL | £29.95 | <input type="checkbox"/> Mouse Master | £ 9.95 |
| <input type="checkbox"/> Clip Art Catalogues (2) | £ 4.00 | <input type="checkbox"/> Mouse Tricks 2.15 | £ 9.95 |
| <input type="checkbox"/> TW Clip Art Catalogue | £ 2.95 | <input type="checkbox"/> Multiprint | £ 9.95 |
| <input type="checkbox"/> TW Clip Art Sets | £ 8.50 | <input type="checkbox"/> PageAssistant | £29.95 |
| <input type="checkbox"/> Catalogued Clip Art | £ 8.95 | <input type="checkbox"/> Redacteur 3.15 | £99.00 |
| <input type="checkbox"/> Easy Text Plus DTP | £19.75 | <input type="checkbox"/> Redacteur Lite | £69.00 |
| <input type="checkbox"/> Easy Text Pro DTP | £34.95 | <input type="checkbox"/> Redacteur Junior | £39.00 |
| <input type="checkbox"/> EdHack | £ 9.95 | <input type="checkbox"/> Trimfont | £ 9.95 |
| <input type="checkbox"/> Fontkit Plus 4.1 | £24.95 | <input type="checkbox"/> Ultimate Virus Killer 6 | £12.95 |
| <input type="checkbox"/> Fontpac Plus | from £ 6.95 | <input type="checkbox"/> Universal Item Selector III | £14.95 |
| <input type="checkbox"/> Fonty: Calamus Font Editor | £11.95 | <input type="checkbox"/> Warp 9 | £29.95 |
| <input type="checkbox"/> FontGDOS and Drivers | £ 2.95 | <input type="checkbox"/> X-Debug | £24.95 |

What a picture

- ☐ Imagecopy 2 £19.95

There is no better way to grab, view, convert and print images on your ST or Falcon. Supports 9-pin and 24-pin Epson compatibles, Cannon BJ, HP Deskjet and Laserjet mono and colour printers. Many more features - write or phone for details.



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- ☐ Imagecopy 3 Upgrades:

- ☐ Upgrade D: from Imagecopy 1.xx: £22.95
☐ Upgrade E: from Imagecopy 1.5x: £17.95
☐ Upgrade F: from Imagecopy 2.xx: £12.95
Return master disks for upgrades please.

An essential Atari program ... no serious Atari user should be without, Atari ST User, Aug '94.

Only the best

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View text, picture and animation files, play sound samples, and even view and extract ARC and LZH files all from the desktop. "The most useful utility ever written" said ST Format.

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Our professional quality range of Calamus fonts.

Calligrapher Tamed

- ☐ Mastering Calligrapher £29.95

The Hypertext Personal Guide for Calligrapher that offers quick referencing to all commands with concise screen summaries and tutorials, including tips and tricks.

Mastering Calligrapher is ideal for both novice and advanced users alike. Novice users will find the simple step-by-step approach an easy way to lessen the learning curve, while advanced users will benefit from the referencing feature.

Each command is explained in detail with all of the necessary information given on how to use it correctly. Tips and tricks are offered throughout the guide to give you ideas on how to exploit each command to its fullest. Just a few of the topics covered are: quick print, header, footer, define several clipboard buffers, page numbering, text alignment, drop capitals, and more. Requires a hard drive. Also available from the same author is Mastering Atari Works, price: £29.95

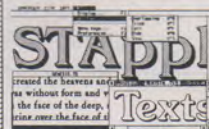
Textstyle

- ☐ Textstyle £19.95

Another cracking program from Jeremy Hughes, author of Imagecopy. Enter your text into Textstyle, select a Calamus or GEM font, add text effects and justification, and the resulting picture file can be imported into a whole range of packages. Great for generating headlines for wordprocessors like First Word Plus, Redacteur or Write ON; or use it with an art package such as PixArt to make posters, banners, greetings cards, etc. Thousands of applications.

- ☐ Textstyle bundle £14.95

Order Textstyle at the same time as Imagecopy2 or PixArt and save £5.



ST Applications

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The best budget word processor is about to have a major upgrade – Manfred Bäcker had the chance to take a first look...

RIGHT ON TARGET



While *Write On* has established itself as one very popular word processor, the quality of German programming has moved on and *Write On 2* is intended to mirror this.

Dialogue boxes and window elements appear in *not Look*, a standard look and feel used in many new programs and developed by *not Software*. Even better, you can select different styles of interface – you can decide whether your program looks like the old *Write On*, or have 3-D buttons and dialogue boxes. These settings are then valid for all applications installed on your system.

The toolbar, window sliders and tabulator line can be switched off to give maximum screen space, even in medium resolution on a colour system.

Every function can be accessed by the mouse or via keyboard short-cuts for which there are two options. *SysKey* uses the first control command as the function set (like G for Goto) and the second as the function (like P for Page).

So <Control><G><P> would result in "goto page". This is easy to learn and very flexible as there are not that many keys on the keyboard! Alternatively, you can use the standard 13 Atari single-keystroke commands.

TEXT 'N' PICTURES

Write On 2 can format text in two ways. **Direct** formatting is the classical way for small documents – for

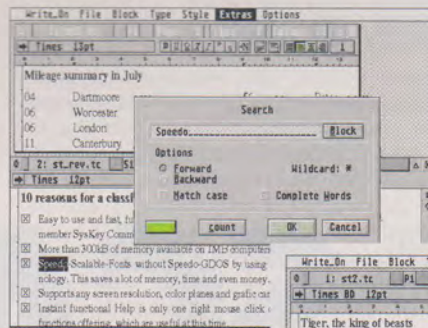
instance, a click on the "centred" symbol and the paragraph or line containing the cursor is centred. Or if you select a block, this affects all lines and paragraphs inside the block. **Layouts** is already used in *Write On*: lines and paragraphs get a layout "style", a list of attributes that are valid for all elements with the same name. For example, all headlines get a common layout so changing the font only requires a simple alteration to the style sheet.

An important new feature is that of overlaying pictures and text. Various different formats are supported, each with its own driver for ease of updating. The drivers detect the file format by themselves and a selector appears if there is more than one driver option for a certain picture.

HELP!

Write On 2's active Help uses the right mouse button or the <Help> key for an interactive feel. For instance, to find the command to enter the date at the cursor position, just press <Help>, select Document and then long or short date. The result is 060>Control><D><D> as Date is a so-called "document function". Pressing <Help> twice activates a "classical" Help system.

A right-click on the file name lets you change the name of the file; a right-click on the page allows you to enter a page number to go to.



Write On 2 now sports an impressive Search facility.

Pictures can be incorporated with text – and eight different formats are supported.

NEEDS

Although vector, bitmap and printer internal fonts are supported, *Write On 2* still works in 1Mb of RAM, helped by the internal Speedo font scaler. Only for a 600dpi printer do you have to have more than a megabyte of memory.

Mono, colour (medium resolution), graphics cards, hardware accelerators, screen enhancers like Overscan or Screenblaster – *Write On 2* appears to handle them all without trouble. It works well on a Falcon and the new Medusa and TT owners can use all of the machine's memory – even mixed ST and TT-RAM. While you don't need a hard disk, life is certainly faster with one as *Write On 2* has its own font cache for screen display and printing. Pre-scaled fonts can automatically be stored on hard disk.

Write On 2 supports all the standard Atari features: <Control><X>/<C>/<V> for cut, copy and paste as well as "Drag and Drop" for images and text when multi-tasking and double-clicking to mark a word. The XACC protocol with accessories and programs is also supported.

PRINTING

There are drivers for almost any existing printer. HP DeskJet, LaserJet, Epson and compatible printer drivers make use of data compression for printing graphics and there are one-pass drivers for inkjet printers and fax drivers for all fax programs. Up to 36 fonts can be used at the same time.

Printing appears to be very

efficient. Documents are loaded faster than before and the speed of scrolling is noticeably faster. Using a new vector font for the first time is a little slower, but once it is cached the print speed is as fast as with a bitmap. Also, vector fonts make use of the Bitstream pair kerning, where certain character pairs are overlapped by a small amount for legibility – for example, "VA" overlap while "TB" do not.

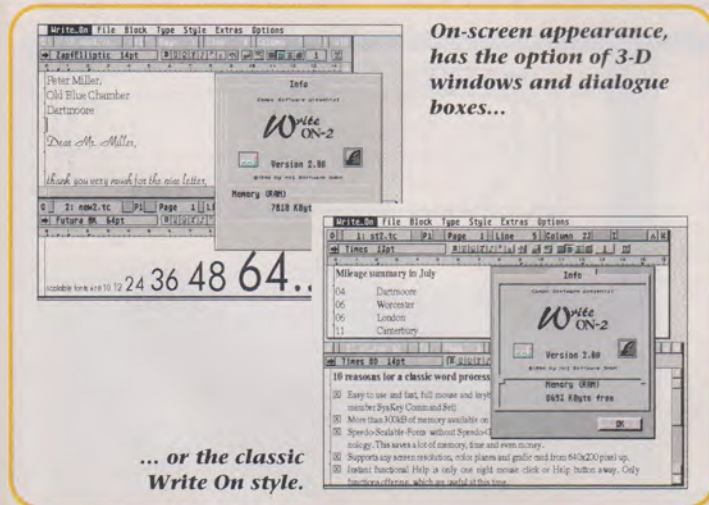
Best of all perhaps is the fact that screen layout follows the printer output, a similar facility to the one in *Papyrus*. True WYSIWYG at last!

Write On 2 should be shipping by early Autumn; look out for the full review – in *ST Review* first...

IMAGE FORMATS

Write On 2 can recognise and load eight different picture formats:

- IMG – mono GEM Image;
- X-IMG – colour GEM Image;
- TGA – Targa;
- BMP – Windows Bitmap;
- PCX – PC-Paintbrush;
- PBM – Unix Portable BitMap;
- PI? – Degas;
- PAC – STAD.



On-screen appearance, has the option of 3-D windows and dialogue boxes...

... or the classic *Write On* style.

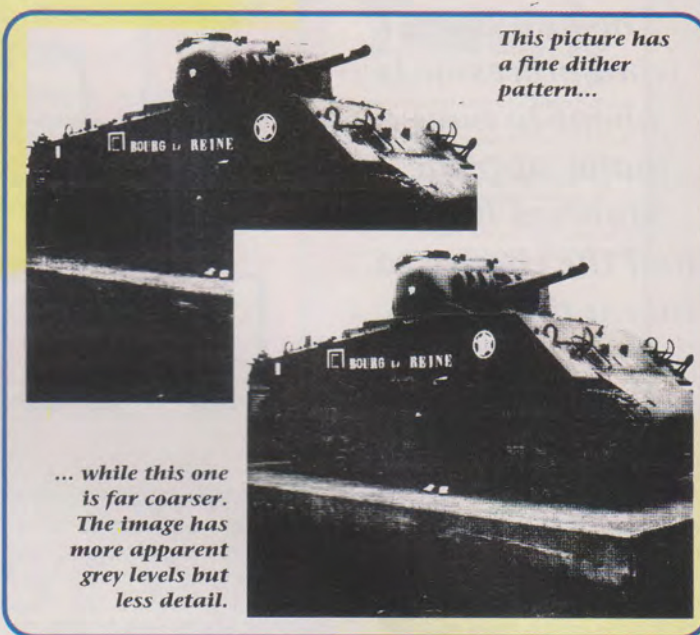


This picture has excessive contrast which means that the face and shirt will have very little detail.

Last month we looked at the theory behind hand scanners; this month we'll put what we've learned into practice. Using a hand scanner is a relatively straightforward operation and many of you would be forgiven for querying the necessity for devoting a two-page spread to it. However, the vast majority of scanned images are fairly average, to say the least, because not enough effort has gone into learning the techniques properly and experimenting to get the best settings. It's an unfortunate fact that many PD clip art collections are of very low quality, simply because a lot of images have been scanned in very quickly.

1 QUALITY PHOTOS

Using faulty originals is probably the commonest error with monochrome scanning. With care, the average non-professional can take reasonable



This picture has a fine dither pattern...

... while this one is far coarser. The image has more apparent grey levels but less detail.

Following on from last month's introduction, Andrew Wright looks at ten ways to improve your hand scanning techniques...



SCAN THIS

pictures with a half-decent camera but it is important to remember that a hand scanner magnifies any picture's shortcomings, not least because no hand scanner can be expected to cover the complete range of greyscales present in the original image.

Examine your photograph carefully before you decide to use it. A common problem occurs when a person's face is very bright without much detail while the background is very dark, usually when a flash has been used. This may not worry you when casually looking at a colour original but once scanned the lack of detail will become twice as obvious.

However carefully you set the brightness level, you won't get much of a result, even with the best image retouching software in the world.

2 BRIGHTNESS LEVEL

When scanning a photograph or other continuous tone image, the best way to get the optimum brightness setting is to repeatedly scan the darkest part of the image while reducing the brightness gradually until the area appears black on screen.

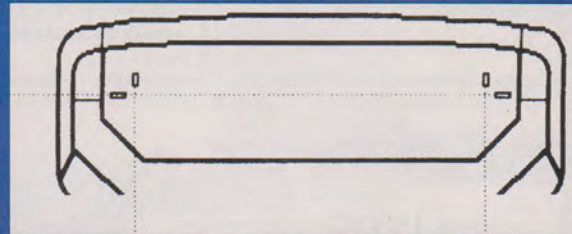
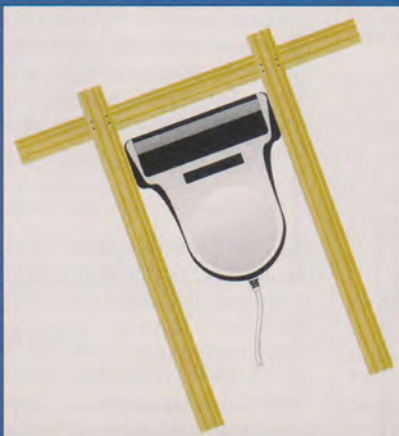
Alternatively you can do the opposite with the brightest area. This will give you the maximum contrast in the final scanned image.

The amount of ambient light can also affect the quality of the scan. The worst possible situations are to scan in the evening by the light of a poorly positioned desk lamp, or by day in very bright sunlight. This will often distort the finished scan and cause some areas to be brighter than

normal. Incidentally, changing the dots per inch settings on some scanners can also affect the brightness, so you should recalibrate the brightness level whenever you change resolution. Also, if you're planning on converting the image to a greyscale using *Touch-Up*, ensure you choose a slightly higher brightness than normal because the conversion process tends to darken the image.

3 SCANNING MODES

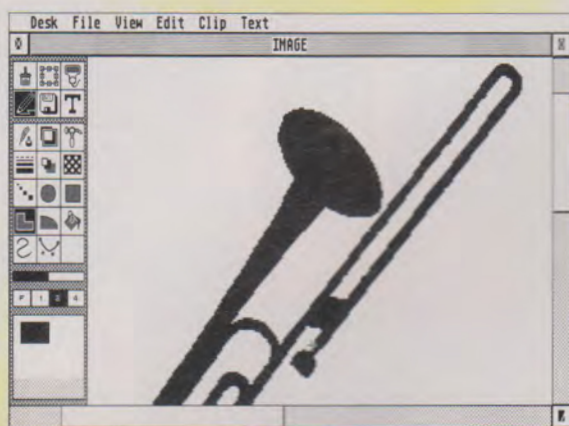
Hand scanners have at least two scanning modes: one for text and line art and the other for continuous tone images such as photographs. In fact there are usually two or three settings for continuous tones, using different dither patterns.



The scan position markers on the Naksha hand scanner.

Three pieces of wood may be crude and simple – but very effective!

The best approach here would have been to turn it round 45 degrees and then scan with the head moving with the lines of the image rather than at an angle.



Experimentation is often the only way to find out which works best for a given image and printer combination. In general, the human eye perceives more grey levels when larger dot patterns are used but this does result in less detail.

4 POSITION MARKERS

Some scanners, such as the Naksha hand scanner, have markers in the clear plastic on the underside of the head that protects the elements from damage. These markers, which can be seen through the translucent window on the top of the scanner head, show you exactly which part of the picture you are picking up. Learning to use this feature can save a lot of trial and error.

5 DECENT SURFACE

If the image has a glossy finish, the scanner head is more prone to slipping and sliding. On the other hand, if you use the (arguably) better-looking matt finish, you can sometimes see strange patterns appearing in the scanned image, particularly with high resolutions and fine dither settings. Often a sheet of clear plastic or acetate paper over the photograph will provide a more stable surface.

Although most photos are printed on very thin paper, when rolling a scanner head over the edge, you can often feel a pronounced bump. This is often reflected in the scanned image as a horizontal glitch.

The best way to avoid the problem is to build up the area around the photograph until it is all the same height above the desk or table top and then use a clear plastic sheet again.



Dirt caused the white line in this image.

6 UNDER PRESSURE

The height of the scanner head above the source image affects the brightness. This means you must be careful not to press downwards on the scanner head and you should maintain an even pressure as you roll the head along.

7 CLEAN HEAD

Small particles of dust can attach themselves to the clear plastic on the underside of the scanner head. If you start getting vertical streaks in your scanned images, this could be one explanation.

Use a very soft cloth, of the type used to clean spectacles, to gently clean the plastic.

8 STRAIGHT EDGE

Scanner wobble is the commonest cause of imperfect images. If your scans are distinctly angled or your hand doesn't seem to be able to scan in a straight line, consider using a straight edge to guide the scanner head.

A raised ruler is often all that's required, but if you really want to get good results you can make a custom ruler using two straight-edged pieces of wood nailed together with a crossbeam that provides just enough separation to hold the scanner head without any lateral movement. Even better is the Migraph Scantray – see the box for more information.

9 FOLLOWING LINES

When scanning images that already have straight lines in them, such as line art and illustrations, be very careful to get the angle absolutely right. If an image has lots of lines at a particular angle, don't be afraid to scan it in the same direction. The important thing is to avoid scanning across lines whenever you can as they can start to look very jagged.

If you're scanning an illustration, it is sometimes an idea to edit out the straight lines afterwards – especially bounding boxes – and then add them as vector lines inside your DTP or other graphics program.



Migraph's scantray may be a little pricey, but the improvement in scan quality is quite substantial.

MIGRAPH SCANTRAY

Migraph's scanner tray (£54.99) is aimed at hand-held scanner owners who want to get a little bit more out of their equipment. It is a large white moulded plastic tray, 54cm by 30cm in size, with a separate cradle for the scanner head which moves on rails on either side of the tray itself. The scanner head can only move in one direction, the direction that you want to scan, and not from side to side, so eliminating the annoying lines that invariably mean you have to scan the image again. There is also a depression in the tray for the original image and a clear plastic cover that serves both to protect it and to make a smooth surface for the head.

The cradle is designed to take several different scanner heads including the Naksha, Pyramid, Golden Image, Marstek 105 (as used by Power and Evesham Micros), all Logitech models, Genius DFI and, of course, Migraph's own.

Two programs are supplied with the tray. *Scan & Save* is a fairly basic but useful scanner driver that works either as a stand-alone program or desk accessory while *Merge-It* is a clever little program that joins together two separately scanned image strips to make a complete A4 page. The combination of the rock-steady scanner tray and the *Merge-It* software means you can comfortably consider scanning large A4 images.

This has to be one of the best scanner add-ons there is. It might sound expensive but the difference it makes to a £100 hand scanner, in terms of output quality and flexibility, makes it well worth considering. Available from Compo (0487 3582).



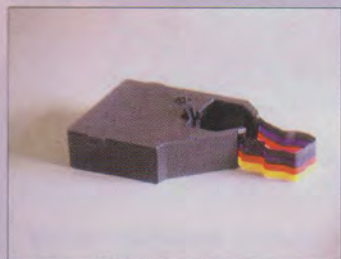
Merge-It is excellent for joining strips together to make large scans.

10 CLOSE TO THE EDGE...

It can be very difficult to scan from bulky objects like books, especially when you get to the bottom of the page and the scanner head takes a sudden tumble! You can build up the surrounding area to the same height, using other books, but this can be time consuming. There are two things you can do: scan the page the wrong way up or scan "backwards". If you turn the book around and start at the bottom of the page, you'll end up with an upside down image which you should be able to rotate using your scanner software or an art package. Alternatively, you can scan the image by pushing the scanner head rather than by pulling it. This means you can get pretty close to the edge of a page before the forward roller comes off. Again the image will be upside down but at least you'll have a good quality scan!

Everyone happily watched black and white television until colour came along in the '60s. However, even though traditional colour printing has been around for hundreds of years its use with computers is still at a very crude level.

It is true that anyone with a 4Mb STe or Falcon and a scanner can import full colour images and play around with them digitally – but



Close up of a Star LC10 colour ribbon. Note the horizontal bands of colour.

while these images look super on the screen, how can they be output to do them justice?

Black printing is now good enough for top quality text output but amateur colour printers are really still just a novelty. Yet considering that the extra price premium for colour is now so low, many of you are experimenting with such a printer. Home use of colour is available in three main forms: dot matrix, inkjet and thermal wax transfer. The way in which each of these works is quite different, with advantages and drawbacks.

Successful colour printing is still firmly in the hands of the professionals with all their attendant specialised equipment. Even with all this kit, they still find it difficult to produce consistently high quality work. Modern high specification PCs and Macs running top-end software continually run into problems regarding colour images and most users still leave photos to the print bureau to scan in.

FIT TO PRINT

PART THREE: COLOUR PRINTERS

In another hint 'n' tip filled extravaganza, Paul Rossiter explains all about colour printers...



Even with care, it's often difficult to match the colours of a scanned original...



By printing a scanned photograph onto glossy paper from a 550c, high quality results are obtainable...



... but cheap, plain paper results in a patchy printout and a lack of detail in the colour areas.

And even with the advent of PhotoCD, offering a cheap and interesting way to get photos scanned in at incredible resolutions, printing after manipulation is still virtually impossible for the home user.

DOT MATRIX

The dot matrix printers covered in the July issue normally use a black ribbon to produce their output. The ribbon can be exchanged for a multi-coloured version in which case the printer outputs a line in one colour, moves the ribbon vertically and prints the next colour. This is then repeated for the remaining two colours so completing a line. The drawbacks to this are

slow printing and patchy colours. While quite acceptable for coloured text and shaded areas of solid colour, any attempt at process printing for true colour usually gives very poor results.

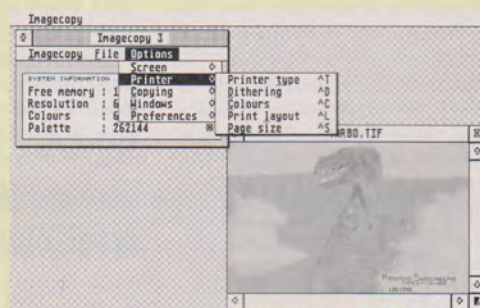
INKJET

As seen last issue, an inkjet printer simply squirts small globules of ink at the paper; if the colour of the ink is changed then very acceptable colour output is achievable.

Later models (HP 550, 550c and 560c) all have, as standard, a tri-colour cartridge that holds the three primary process colours, Cyan, Magenta and Yellow (CMY). Each colour has its own

POOR MAN'S COLOUR

Imagecopy 3 now offers a host of printing options, including dithering type and filter, and different colour modes.



For those stuck with a black-only inkjet printer, help is at hand. System Insight and other reputable suppliers can provide colour refills to allow striking colour printing at a minimal cost. In principle, process colour printing can be achieved as follows:

- Fill three old black cartridges with the three process colours.
- Using a program such as *Imagecopy 3* (a demo of which is on this month's cover disk), send the paper through the printer three times changing the cartridge each time.

Considering the effort involved, it is unlikely to be very useful but surprisingly good results can be obtained...



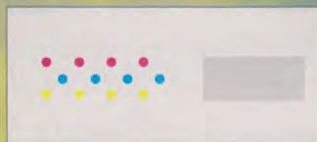
STEP BY STEP GUIDE

SPOT OR PROCESS COLOUR?

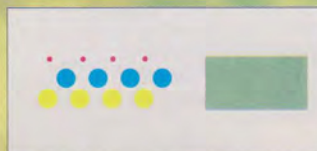
To give some extra "bite" to computer printing, a splash of colour can make all the difference. Colour printers are very good at producing areas of just one different colour over part of a page. This is termed "spot colour" and by using a colour printer, many different areas of the page can be coloured differently. Low-cost colour printers are excellent for this; graphs come to life and text can be made to stand out well. The drawback is that print runs can only be a few pages due to the time and expense producing each copy.

To reproduce scanned images such as photographs is far more difficult and so a different method is required. A colour image can be created by mixing the three process inks together to represent the range of colours in a photograph. If this is carried out carefully, by using many small dots of colour, the results can be very impressive. If, however, a crude printer is used with large dot patterns, the result is a mess. This method of mixing colours using Cyan, Magenta and Yellow is termed "process printing". For at least the next few years, the only way to get high-quality printing will be the old-fashioned and expensive drum scanner and offset traditional printing press – with minimum print runs in the thousands.

The quality of the output is dependent on the distance between adjacent lines of coloured dots. High quality magazines use a line "screen" of 150 lines per inch while a typical inkjet printer can only manage about 30 lines per inch, resulting in a much poorer quality.



1 By using small, equal-sized dots, a pale shade of grey is obtained...



2 ... while larger cyan and yellow dots lead to a bright green hue...



3 ... and making the magenta and yellow dots larger produces a bright red.

The drawback is the printing price – a colour page can cost around £2!

The professional printer who requires proofs uses a dye sublimation printer. These printers use special solid sticks of coloured wax that "sublime" (change from solid to gas when heated without turning to liquid in between) and are sprayed onto the surface in a similar manner to an inkjet. The main difference between these and the other printers is that the three process colours mix together while solidifying on the paper so producing a continuous – as opposed to a "dotty" – effect on the paper. A good dye sublimation print is virtually indistinguishable from a photograph, but such printers are very expensive.



Close up of a tri-colour HP DeskJet 550c cartridge – three separate ink containers are used.



Hewlett-Packard's latest, the DeskJet 560c, has an improved resolution of 600 by 300 dots per inch.

nozzles and can be controlled simultaneously for fairly high speed output. As the cartridge has three outputs, scanned full colour images can be reproduced at fairly good quality as long as the settings are optimised.

Mixing the three process colours together in equal amounts gives varying shades of grey, but it is difficult to get a decent deep black – and attempting to do so uses up a lot of ink. The 550c and 560c printers also have a black cartridge as well. This is used to enhance contrast, saving money and producing good clean text. While it is preferable to use the black ink wherever possible, this can cause its own problems. For some unknown reason, the ink used is not made from the same chemicals as the coloured inks, the result of which is that if the two types of ink touch each other on the paper, they flow into one another causing a horrible sploidy mess. To try and get around

this problem, most printer drivers can "draw" a white line around the black areas so that the inks cannot touch each other. The alternative is to only print using CMY colours, but as noted above, the "black" made from mixing these has a definite dark green hue and small text becomes very fuzzy.

THERMAL WAX

The only printer in the amateur price bracket that uses this technology is the Star SJ-144 (reviewed in issue 26, May 1994). As an option, this printer has a special ribbon coated with coloured wax in bands across it. The print head works like a dot matrix but instead of hammering the wax, it heats up and melts a tiny blob onto the paper. The advantages of this method are much better plain paper colours and a shiny surface instead of the flat appearance of inkjet colour.

TEN HOT TIPS

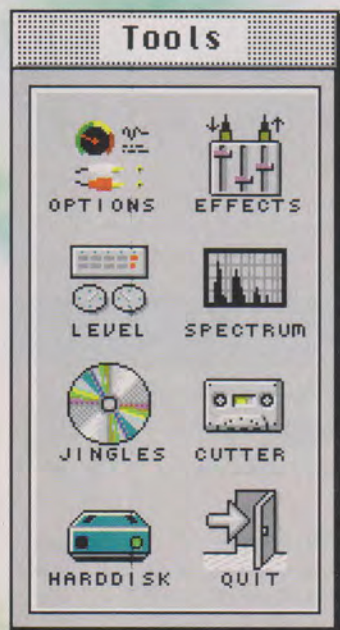
- Only use good quality refill inks – clogged jets ruin cartridges.
- Try printing on the opposite side of plain paper, it can make quite a difference.
- If changing the colour of a cartridge, flush out the old colour with the utmost care – just a few drops of black can totally change the colour of a five-litre can of paint!
- Experiment using different paper types; results can vary tremendously.
- Only use colour ink on expensive, coated, colour paper. Black ink just sits on the surface and runs all over the paper.
- Programs such as *Imagecopy 3* allow many variations in the control of the printer. Try different dither patterns, line angles, screens and resolutions to see which settings are best for different types of image.
- To get almost photographic quality on a 550c or 560c printer, try the HP glossy colour paper. It's expensive at around 70p for an A4 sheet but the results are stunning.
- If trying multi-pass work, make sure the ink has dried first – some papers can take a few minutes to dry properly.
- For those lucky enough to have a colour scanner, it is pointless scanning at higher than your output resolution. Once dithering is accounted for, there is no need to scan at above 100dpi – files get larger but the output quality stays the same!
- The appearance on-screen can bear little resemblance to the printer's output – try lightening the screen image for good results.



The Falcon's built-in DSP chip enables it to perform many processor-intensive functions without the need for any additional hardware that would be required by other computers. This includes direct-to-disk recording and *MUSICOM 1* was one of the first Falcon disk recording systems to be released. While it was certainly the cheapest, it wasn't really aimed at the serious user. *MUSICOM 2* is still the cheapest system around but the program is now several degrees more sophisticated and could well catch the eye – and ear – of the semi-pro and perhaps even the professional musician.

The most obvious improvement is the interface which is windows-based and menu-driven.

You can have several windows open at the same time and most of the common functions can be quickly selected from the Tools window as well as from the menus.



It's quicker to use the Tools window than to select functions from the menus...

KEY FACTS

Product:

MUSICOM 2

Company:

Compo Software

Contact:

0487 3582

Price:

£79 (Upgrade from MUSICOM 1: £29.99)

SYSTEM

Minimum Memory:

4Mb

Resolution:

Any

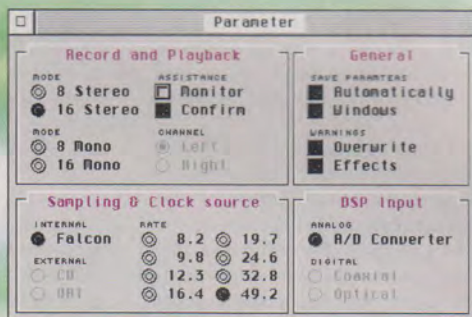
Computer:

Falcon with hard disk
(and lots of free space!)

MUSIC TO

... especially if you own a Falcon! Ian Waugh puts MUSICOM 2 through its paces.

Select the sample rate, resolution, input source and various general settings in the Parameter window.



beats contained within a marked block or use the Metronome gadget to specify the number of beats per minute. Having specified the timing you can then use "snap to" functions when adjusting the position of blocks to make sure they sit on the beat – a very useful feature.

To prevent degradation, there's an oversampling routine that converts a sample recorded at one rate or resolution to another – like a 16-bit stereo

sample into 8-bit mono, for example. This allows *MUSICOM 2* to be used as a dedicated sample conversion utility.

FIRST STEP

A visit to the **Parameter** window lets you set up the essentials such as the sample rate. You can record an analogue signal through the Falcon's audio input or a digital signal if you have a hardware interface attached.

The **Peak Level** window is used to balance the input and output signals. It can be a bit tricky to get right, depending on the level of the signal, especially if you're using the Falcon's Mic input. Unlike tape, digital audio is not at all forgiving and if you push the levels too high, "buzzing" distortion certainly occurs.

The **Disk Tools** window lets you select a hard drive to record on. Also on show is the amount of free space and the length of the recording time available based on the current settings in the **Parameter** window.

CUTTING EDGE

At the heart of the program is the **Cutter**. Here you record, playback, load and edit the waveforms. It has the usual tape recorder-style controls and two boxes to the right of the waveform display give you precise information about the recording.

A block in a waveform can be marked by clicking and dragging and this automatically affects both left and right channels. You can't edit the channels separately although you'll



The Cutter window – recording and editing takes place and you can construct a Pattern or playlist.

usually want to edit both at the same time. You can play a block and save it to disk as a separate waveform file. *MUSICOM 2* uses its own MSF sample file format but it also supports the popular AVR format. You can place up to 64 Markers in a sample, enter them on the fly and name them. Markers are saved as part of the sample file.

Other useful edit functions are the Zoom buttons although they read the data off the disk each time they are activated so screen updates can take a second or two.

KEEPING TIME

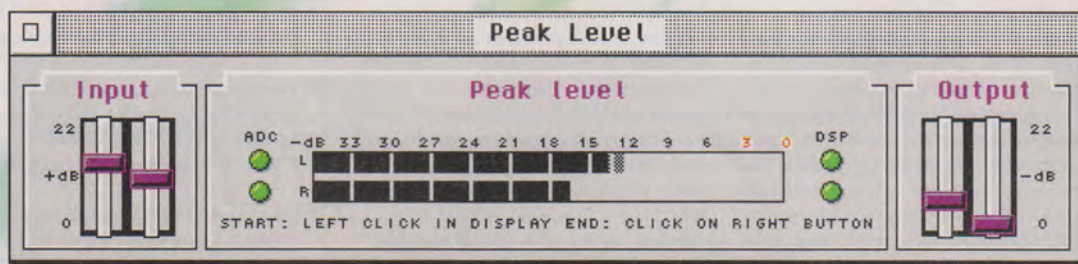
There are two ways to tell *MUSICOM 2* the tempo of the recording: use the Clock gadget to enter the number of

PATTERN MODE

In **Pattern mode** you specify a list of MSF files to play consecutively. It's what other recording programs generally call a "playlist". The names of the recordings appear in a box to the right of the waveform display and you can add and remove these by clicking and dragging.

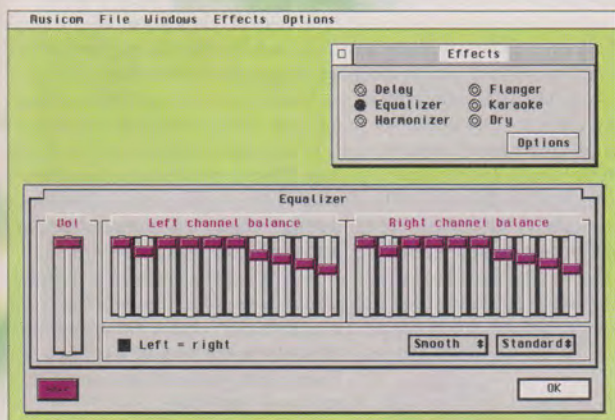
This is used to build up a song from shorter recordings. The combined sample can be manipulated and played just as if it were a single recording. Clicking on an item in the list causes it to be marked as a block and you can insert pauses between sections and copy sections to the clipboard.

When recording, it's a good idea to start a little before the beginning of the signal to make sure it is all captured and then trim the start and end points afterwards. However, *MUSICOM 2* has no direct cut, copy or paste functions. To cut a section you have to select the portion you want to keep, save it to disk, then load it again and delete the original file. This is fiddly – and it requires that you have as much free disk space again as the recording itself.



The Peak Level window is used to set the optimum input and output levels.

YOUR EARS...



The Effects selection window and the 10-band graphic equaliser controls.



You can place and name up to 64 markers in a sample by dragging them into the waveform area.

EFFECTS

MUSICOM 2 has five effects – Delay, Equaliser, Harmoniser, Flanger and Karaoke. The latter tries to remove a singer's voice from a record, but there's still no reverb...

Each effect has its own range of parameters although you can't adjust them on the fly during playback. However, you can apply an effect during play-back and save the recording with the effect added. This permanently alters the waveform but you do get a strong warning before the operation is carried out.

The effects work quite well although the most useful will probably be the equaliser. It's a ten band stereo graphic EQ and you can adjust the left and right channels together or separately. The frequency ranges vary according to the sample rate but unfortunately these aren't shown beneath the sliders.

Other features include a Spectrum Analyser that shows the frequencies of the incoming signal. You can adjust the response range and select four different types of display; the manual suggests you could use it with a test signal to make adjustments with a graphic equaliser.

Finally, the Jingles function lets you play a number of samples either consecutively or individually without first having to put them in a Pattern. This facility certainly lends itself to radio adverts or DJ-style

SUMMARY

GOOD POINTS:

Easy to use

Powerful two-track editing functions

Nice range of digital effects

Useful sample conversion

Good value for money

BAD POINTS:

No reverb effect

No direct cut/copy/paste function

FINAL WORD:

"MUSICOM 2 is an excellent program for those who want to delve into hard disk recording – time for the big boys to look over their shoulders..."

jingles and is worthy of serious consideration.

MANUAL

The manual includes a brief introduction to sampling, sound conversion and frequency rates. It's been translated from German into English and the job is a pretty good one. The clarity of a few sections could be improved, usually by the addition of a diagram, and some function names don't tie up with what's on screen.

A couple of small functions didn't seem to work (review version was 2.10) such as saving the windows layout on quitting although this may be down to a conflict with a desk

accessory. While running, some functions take over the Falcon completely which is a tad unfriendly.

Final gripe is the fact that some values can only be altered from the keyboard and not with the mouse. These tend to look like information lines so it's not obvious that you can alter them unless you read the manual...

VERDICT

MUSICOM 2 is streets ahead of its predecessor and an excellent

program if you want to explore hard disk recording on your Falcon. However, the addition of a digital interface turns it into a more sophisticated editing tool altogether – you could download a recording from DAT, edit it and save it back to DAT without the data ever leaving the digital domain.

It lacks a few frills but at the price you certainly can't complain and it will definitely give some of the other direct-to-disk programs – that cost three times as much – something to worry about...

PERFORMANCE

OVERALL

EASE OF USE

✓✓✓✓✓✓✓✓

DOCUMENTATION

✓✓✓✓✓✓✓✓

EFFECTIVENESS

✓✓✓✓✓✓✓✓

VALUE FOR MONEY

✓✓✓✓✓✓✓✓

85%

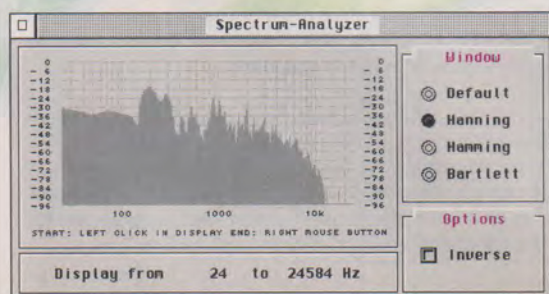
RATES 'N' RESOLUTIONS

With any form of digital recording there is always a trade-off between sound quality and the space required to store the data. The two parameters that determine the quality are the sampling rate and resolution.

The AD (Analogue-to-Digital) converter reads the incoming signal and measures or "samples" it so-many times each second. This is the sampling rate which is given in kHz or a number of thousand samples per second. The higher the rate, the more samples will be recorded (using more disk space), the more accurate the digital representation of the sound and the better the quality.

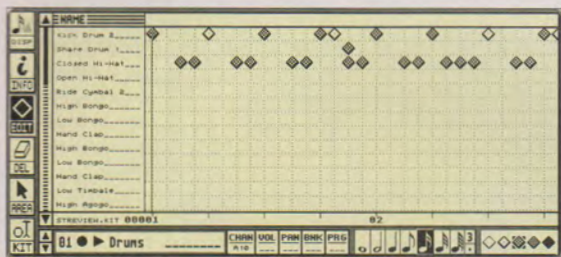
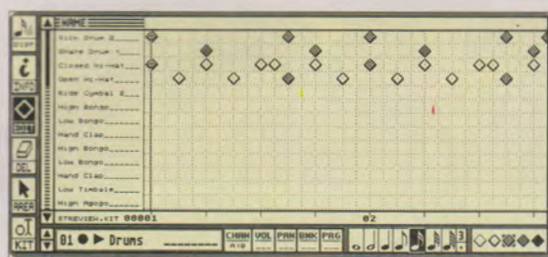
The sampling resolution is the fineness of the measuring scale and is given in bits. The more bits that are used to store the data, the more accurate the result – and, again, the more disk space they require. For professional use you will want to use 16-bits but 8-bits may be acceptable for less demanding applications such as games and multimedia.

CDs use a sampling rate of 44.1kHz and 16-bit resolution while some DAT (Digital Audio Tape) recorders use an even higher rate of 48kHz. Without any external hardware, MUSICOM 2 and the Falcon support eight sampling rates from 8 to 49.2kHz but the Falcon's internal clock cannot generate 44.1kHz or 48kHz. You need to add an external clock unit to get these rates. Compo is about to release such a unit but the program also recognises Steinberg's FDI (Falcon Digital Interface).



Click in the middle of the Spectrum Analyser window to start the analysis.

Figures 1 & 2: two basic bass drum, snare and hi-hat patterns.



NO RIGHTS AND WRONGS

Dance encompasses a wide range of styles so there is no definitive Dance rhythm. What we've done is to take an archetypal root pattern, probably more akin to House than anything else, and included a range of toppings that you can add as the mood takes you.

Unlike most pop and rock styles, the essence of the pattern in Dance comes not from the bass and snare drums, but from other instruments such as hand claps and bongos. We're using Software Technology's *Breakthru* to show the patterns with the display set to 1/16th notes. The darkness of the hits indicates their velocity – the darker they are, the louder they sound. Figure 1 shows one basic bass drum, snare and

hi-hat pattern; figure 2 shows another. You can't quite see the end of the second bar in the diagrams but the second bar is identical to the first in both examples except for an additional bass drum hit in figure 1 that occurs on the fourteenth 1/16th beat (that is, the second 1/16th hit of the fourth beat) of the second bar. Some of the toppings are two-bars long, however, so do program a full two bars.

Figure 3 shows two sets of high and low bongo patterns. The top set is a single pattern that runs over two bars (there are no hidden beats at the end of the second bar). The lower pattern only shows one bar but copy it to the second bar as well.

Figure 4 shows two sets of hi-hat patterns. Again, the top one runs over two bars and there are no hidden hits at the end of bar two. The lower pattern should be copied so it runs over both bars.

TESTING TIME

To test the patterns, program 8 or 16 bars. If you can mute individual drums, you'll be able to test each of the toppings individually and in combinations with each other. Alternatively, record or copy each drum onto its own track and mute the tracks instead.

More hints and tips next month when we look at the core pattern of 1001 rock songs!

LET'S DANCE!

Behind every hit song is a killer rhythm. Ian Waugh starts a series of tutorials aimed at helping you groove...

There's a saying that every keyboard player is a closet drummer. At least they like the idea of sitting on a drum stool and bashing away at the skins. The trouble is, creating good drum patterns is not quite the same as creating good keyboard licks. No doubt that accounts for the popularity of drum pattern disks!

But creating patterns for your own music makes it that much more individual. So, over the next few issues

we'll look at the process of creating drum patterns and we'll have some hints and tips that will help you write even better grooves.

We'll start with an all-embracing category: Dance. This covers a multitude of styles such as Rave, Techno, House, Acid and so on, but although it may be considered very modern it's actually based on rhythms that have been used for years. What is new are the sounds used in the music and the way the patterns are played.

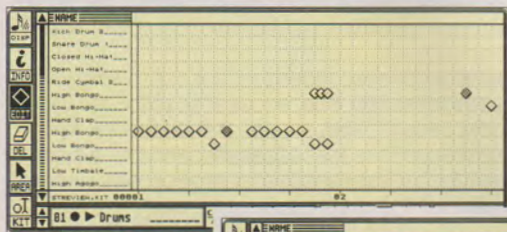


Figure 3: a couple of useful high and low bongo patterns...

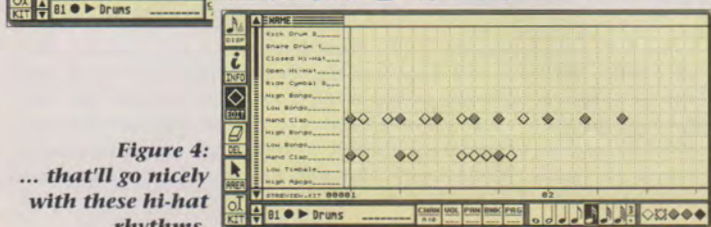
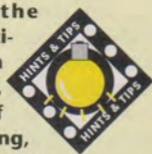


Figure 4: ... that'll go nicely with these hi-hat rhythms.

DANCE TIPS

- To quantise or not to quantise? That is the question. Most people would say that full quantisation takes away the human element of a music line and makes it mechanical. However, that is exactly what we need for most types of Dance since one of its aims is to create a pulsing, robotic rhythm that people can dance to. If you're creating your patterns in a drum editor or in step-time, they will be fully quantised anyway. If you're recording in real-time, see what difference quantisation makes.
- If you want some vestige of human creation in your pattern, use velocity to add accents to hi-hat and bass drum hits.
- You really don't want any wet sounds in a Dance rhythm track. Switch off the reverb and go for thudding bass drums and deep snares.
- Depending on your instrument, you may be able to lower the pitch of a drum by applying some pitch bend. If your sequencer has a graphic controller editor, draw some pitch bend into a track. If it doesn't, record some pitch bend live. See how it affects the drum sounds. This may need some experimentation but you may be able to create some brilliant effects such as changing the pitch of a drum as it's playing.
- A lot of Dance rhythms are quite busy and complex – and often physically impossible for a drummer to play! In other words, they are the true creation of a sequencer-based music idiom. If you want to create a rhythm in a busy mechanical style, program a few sets of four consecutive 1/16th hits to keep things busy.



CUBASE POWER USER'S GUIDE

by Peter Buick • Intrinsic Technology • £11.95 (or £15 with Hotkey chart) • 081-761 0178

It's nice to have an interest. The author of this book and Intrinsic Technology seem to have a particular interest in red paper – the book contains 127 pages of it! Not that it's difficult to read, unless you're strolling through the red light district, and it is well laid out, well written in a light style and contains a good number of diagrams and some witty illustrations. I suppose you could say it's rather idiosyncratic but in a nice way.

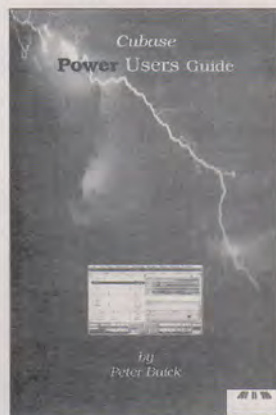
As the title says, it's a book for Cubase users who want to get more out of their sequencer although it's in no way a replacement for the manual. It highlights and summarises various aspects of the program in a mixture of "how to" functions and some "try this" ideas. It was written primarily with Cubase v3 in mind although there is also a very substantial chapter on Cubase Audio, particularly for the Falcon, plus an Audio Tutorial and a Power Tips section.

Some sections are simply bullet points but then the reader is assumed to have some knowledge of the program. However, as if to dispute that, there is also a newcomers' guide to MIDI and sequencing which, I suspect, most Cubase users will be well beyond.

But I'll bet even seasoned users will pick up a few hints, tips or ideas from the book. To cap it all, there's a quiz at the end; if you complete it and send it in you'll get the answers plus an addendum. You can also get 10% off a selection of various bits of software. Another three quid on the price of the book will also get you a Hotkey chart although the book includes a list of hotkeys so you may prefer to save your dosh. The main niggle is lack of an index. Well, it

does have an index but it's arranged by chapter rather than alphabetically – I thought that was the job of the index.

Do you buy it? If you reckon you've plumbed the depths of Cubase and could write a book on the subject yourself then probably not. However, if you can glean wisdom from philosophical tips such as: "If all you have is a hammer, you tend to see everything as a nail", then you'll love it!



ST REVIEW COMMENT: "An alternative Cubase guide, well worth reading to remind yourself of the functions you've forgotten and for the hints, tips, and guides to creativity."

★★★★

Dedicated to Cubase users everywhere...

TECHNO GROOVES

Heavenly Music • £16.95 • 0255 434217

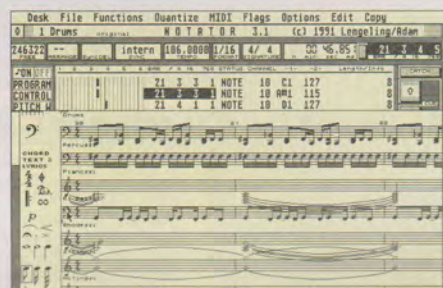
Before you play these files, close the windows (unless you want to annoy the neighbours) and crank up your amp! There are 15 files on the disk, each between 20 and 70 bars long and all fairly full arrangements of around 10 tracks. The files contain some Roland SysEx messages for setting up GS instruments but the patterns sound fine on other GM units, too.

Most of the arrangements follow the usual Techno format where various instruments take turns to solo over piano or orchestral lines. They are all very effective and quite convincing. The on-disk docs include a full drum map and some hints and tips, although these are standard with most HM files.

The only question, I suppose, is how would you use them? Assuming you buy these because your own programming abilities are a little limited in this area, the arrangements are so full that there's not an awful lot of room left for you to do your own thing! But you could easily copy and paste a few of the sections together to create a three or four-minute song and then add your own melody and/or lyrics.

However, would that then be your own work? Apart from which, there's the usual HM licence agreement that obliges you to obtain another licence if you use any of the files for commercial purposes.

Which is not to detract from these files at all. They are truly excellent, as we've come to expect from Heavenly Music. But better, I think, to use selected lines from the tracks and add your own parts to them. The

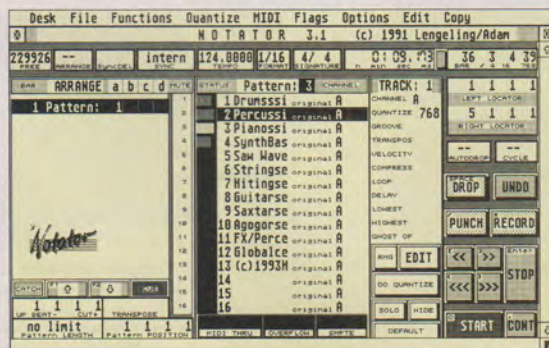


A typical Techno groove with lots of drums and bass underneath piano and strings chords.

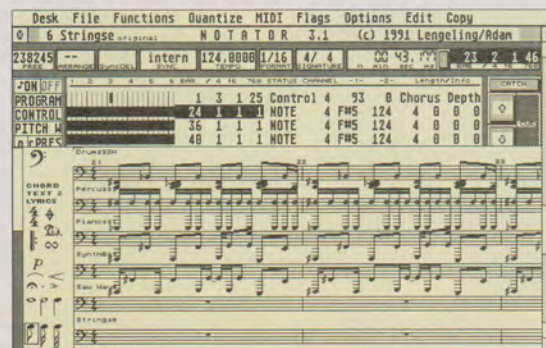
amazing thing is the way the GM sound set has been adapted to make all those analogue-type beeps, sweeps and sound FX that help characterise Techno music. There's also the solid bass drum, the squelchy bass line and percussive agogo-type patterns. However, true Techno people will undoubtedly want to use sounds more true to the Techno ethos – let's remember that GM is a middle-of-the-road standard.

ST REVIEW COMMENT: "A very convincing collection of Techno grooves recommended to fans of the genre everywhere."

★★★★



All the Techno files contain around 10 parts.



Most of the Techno patterns have a lot of parts in the bass clef!

New Age PDL

£1.75 EACH

Unless otherwise stated

All disks require a COLOUR system unless: 'H' - High resolution monitor required, 'A' - Any setup suitable.

FALCON 030 - ALL HD DISKS

- FALC 2 - Falcon Boot 1.2, Backward 2.24 (ST emulator), New Depack, Text Files, Desk Copy, Desktop 1.05, Sysinfo, DC Xtract 2.1, Revive, SpinEd 1.3 (utils).
- FALC 9 - Grotesque (Excellent), Gaurad, Speeder, Plasma 30 & 50, Intel + more! (demos).
- 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 35 - NetHack 3.1.1 - 2 Meg memory+ Brilliant dungeons and dragons game.
- FALC 36 - RDE 3.1, Towin 1.4, Uto 2.22, Zoo 2.1, Zip 2.3, Gem Bench 3.25, Good Backup 1.13, Boot Init 1.1, Frontal, Shout 1.3 (utils).
- FALC 37 - Fractal Playtime, Gemview, Delapoint, Gix Gif, Binario 2.0 + more! (art).
- FALC 52 - System Audio Manager 1.1 - assign samples to events, Digilope 2 demo (music).
- 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), Fullers 1.01, Swabs, Ddlock 1.0, Fuzzy Clock 1.14.
- FALC 96 - When Demons Become Reality (RGB), Warum (RGB), Inconvex (RGB) (demos).
- 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. (games).
- FALC 106 - Falcon Flight Demo - real time zooming demo over fractal landscape + great music.
- FALC 107 - Crime by the DNT crew, Magnet by Alphatech, Bobs 1. All RGB/TV only! (demos).
- FALC 109 - DMB icons - two large sets of replacement icons, Before Dawn screensaver 1.25.
- FALC 110 - Vidal - easy to use TGA viewer, Rainbow demo 0.5 - Truecolour art package.
- FALC 112 - Mahjong II - German version of this classic tile game. Disk approx 1/2 full.
- FALC 113 - Margo demo (4meg+) - digitised pictures of a woman modelling a skimpy bikini!
- FALC 114 - Multi Dialogue 1.3, Master Browse 3.2 - excellent text file viewer, T-Cache 6.0.
- FALC 115 - Octalys 0.8 - another 8-track tracker ported from the STE + docs & source code.
- FALC 116 - Papa was a Blade Runner (4meg+) new demo by EKO, very good. RGB/TV only.
- FALC 117 - POV Raytracer 2 on 2 disks, zipped & expands to nearly 5 meg! £3.50.
- FALC 119 - Moving Pixels Demo (VGA) - 4 meg+ - a mega-massive demo that requires 10 megabytes of hard drive space! From Australia, this basically shows off the Falcon itself - the sort of thing you'd see in a shop window, covering graphics, sound and productivity. Very good. Five disks - £8.00!

GAMES

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! AMAZING VALUE FOR MONEY.

117 GAMES - JUST £14.95!

- GAME 168 - Napoleon - a 'Risk'-style game of war and strategy. 'H'.
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- GAME 186 - Tetrix - new Tetris type game. 'H'.
- GAME 11 - A Question of Snooker, Pinball, Devastator, Roll n Nudge, Ranger.
- GAME 78 - Popeyed - a pop music game with an adult theme.
- GAME 83 - Grandad & the Holy Vest - superb animated adventure. 1 Meg+.
- GAME 104 - Blat! - A very nice version of Tetris. STE ONLY.
- GAME 117 - Fast Freddy - lovely platform game with superb graphics.
- GAME 131 - Glass Buttock of Thor - save the land from the evil buttock! - 1 Meg+.
- GAME 132 - Psycho Pig - two disk platform game, very cute. £3.50.
- GAME 139 - Grandad II - the sequel to Game 83, comes on 2 disks 1 Meg+ £3.50.
- 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 157 - Bomb the buildings, F-16 - very good flight game, 8 missions.
- GAME 178 - Argon, Out, Codename Bomb, Pyramid, Disk Hunt, Sinter, Turbo, War Jeep, Lumber, Picker, Planet Man, Uboat, Ypsilon - 13 games!
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- GAME 180 - Mystic Well, Deep Lair, Football, Harris Goes Skiing, Haunted House, Invaders, Jumper, Room, Stoneage Deluxe, USA, Zym, Firestorm.
- GAME 181 - Utopias 1.5 - very slick STE only Oids/Gray type game, Endurance - 3D game.
- GAME 183 - Towers - a great new Dungeon Master Clone - the best yet! 2 disks (1Mb+) £3.50.
- GAME 187 - Karate Champion, Hector and the Mutant Vampire Tomatoes - nice platform.
- GAME 188 - Premier Mahjong II - excellent version of this superb tile game. 60Hz only.
- GAME 189 - Cud Lee's Quest - platform game for kids, Mindmelt - roleplaying fantasy game.
- GAME 190 - Quest for Knowledge - quiz type game set in a maze arena.
- GAME 191 - Walls of Illusion - yet another Dungeon Master Clone, good one though. 1 Meg+.
- GAME 193 - World Fighting Championships - beat up opponents from all over the world.
- GAME 198 - Roll-It - ingenious puzzle game with 40 levels, a sort of ball/file game. 1 meg+.
- GAME 199 - Skulls - A flash STE only version of Minesweeper from the PC, good. 1 meg+.
- GAME 201 - It's A Mug's Game - good overhead view boxing game with nice graphics etc.
- GAME 204 - Gone to the Dogs - bet on the races! Grav - good arcade game based on Oids.
- GAME 209 - Money Mania - collect all the money from each screen, loads of nasties etc. Good.
- GAME 210 - Ruffless, shoot em up, Spherical - good platform game, Serendipity - good puzzler.

BUDGIE GAMES - £2.75 EACH

- BUGAM 89 - Horse Racing Simulator for 1 to 5 players. Buy/sell and bet!
- BUGAM 104 - Jetpack - another faithful clone of a classic Specy game.
- BUGAM 113 - Football Tactician - formerly a £20 release! Excellent!
- BUGAM 121 - Super Scramble - take a trip to the 8-bit days with this shoot 'em up.

DEMOS

- DEMO 356 - Kuba Club Culture Mix Pack 1 - 6 great bits of club music.
- DEMO 355 - The Brace Demo - nice auto-running multi-part from Diamond Design.
- DEMO 351 - The Edge of Panic Demo - a good STE only demo by ACCS.
- DEMO 350 - Exhaust demo - another good STE only demo by ACCS, 1 meg EXACTLY!
- DEMO 342 - Sid James Demo - clips from the films - STE only 1 meg+, 2 disks £3.50.
- DEMO 335 - Reality is a Lie - a 13 screen demo by Psychomix, very good. 1 meg+.
- DEMO 333 - Cemetery demo - a good dig-music demo.
- DEMO 330 - Beginning of the Ending - this demo actually plays in the background of a game of breakout which is played with 5 balls! Hows your concentration.

ART & GRAPHICS

- ART 1 - A disk full of 23 miscellaneous utilities including wiggl! 1.2.
- ART 51 - Crackart 1.36 - latest version of the best ST art package! 1 Meg+.
- ART 128 - Gemview - 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 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 STE 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 209 - Erotic Dreams slideshow 1 - all pictures of Supremodel Cindy Crawford.
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SOUNDTRACKER MUSIC

- TRAC 129 - Four, Proglunk, 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 II, Hope Part 2, Lotus Turbo 2, H-Metal.
- TRAC 125 - The Loader Final, Artificial, Finally 1 Play, Space Journey, Still.

WORDPROCESSING & DTP

- WORD 1 - ST Writer Elite, EDI Text, Zap ST, ST Page, Typist, Desk Accessories. 'A'.
- WORD 4 - First Word + tools, Grammar checker demo, Spell Binder, Text Filter. 'A'.
- WORD 5 - Calamus Demo, no save function but you can print. 'H'.
- WORD 8 - DB Writer 1.4 - very slick wordprocessor with many features. 'H' 1 Meg+.
- WORD 9 - Calamus Support disk - loads of utilities for Calamus and fonts etc. 'H'.
- 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+.

BUSINESS

- BUSI 2 - Sheet 2.0, Dbase One, First Base 1.6, Home Budget Template. 'A'.
- BUSI 4 - Opus 2.2 - brilliant spreadsheet. 1 Meg+.
- BUSI 6 - Double Sentry Book Keeping System, Address Book. 'A'.
- BUSI 7 - Astubank 1.1at - complete home accounts system - colour only.
- BUSI 11 - Compact Office Management Program 2.05 - for businesses, tons of features. 'A'.
- BUSI 12 - Inventory PRO - keep track of stock levels, GP Patient Care for GPs. 'H'.
- BUSI 14 - Data Techniques 1.41 - easy to use but powerful new shareware database system. 'A'.

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UTILITIES & APPLICATIONS

- UTIL 2 - Startgem, Head Start 1.1, DC Clock, Disk Checker, Hard Disk Utils, Ram Disks, Hack 'n' Copy, Turfio 3.2 (HD backup), Megafomat, Memory Test. 'A'.
- UTIL 4 - Pools 2.5, ST init 3.4, Switcher - loads programs faster, 20 DC utilities. 'A'.
- UTIL 5 - F-Copy 3, DC Showit, Desk Manager, Disk Scan, Mono Emulator 5, Spool, DC Stuffer (loads 32 accs), Speech Synthesiser, Mouse Accelerator. 'A'.
- UTIL 6 - James The Butler, London Phone Codes, MenuSYS, Pinhead, Super Calendar Batch Startup, Auto Sort, Postmortem, No Bombs, E-Disk, 9 Quick Utilities. 'A'.
- UTIL 12 - Jan Packer 4, Wind-EX (Modulator control panel), Satellite 4.01, Clock Set. 'A'.
- UTIL 13 - German to English translator, fast Print, DC Salvage, MINT, Macsal 3.0. 'A'.
- UTIL 14 - Printer Drivers inc Canon Bubblejet, Qume Daisywheel, Brother + Epson. 'A'.
- UTIL 16 - Chameleon - loads and unloads accessories without having to reboot. Slicker 3.0 (H).
- UTIL 19 - Definitive File Selector, Super Virus Killer, Benchmark. 'A'.
- UTIL 19 - Your Second Manual, Jokes, GDOS info, Bombs info + several magazines. 'A'.
- UTIL 30 - Superboot 8.1, Build Your Own Scanner, Report Writer, Disk Cleaner. 'A'.
- UTIL 35 - Cheetah 1.1 (high speed copying util), Rainbow TOS patches, Unrar 2.2. 'A'.
- UTIL 38 - Printer Drivers inc: KXP 1124, Star LC24, NEC Pinwriter, Brother, Canon, Citizen, HP Deskjet, Oki, Qume, Taux, Toshiba, Riteman, Atari. 'A'.
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- 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. 'A'.
- UTIL 46 - STOS Shoot em up builder kit 0.6 - colour only.
- UTIL 53 - TOS Version 1.0 - allows you to run programs that don't run on your TOS. 'A'.
- UTIL 54 - Message Scroller, Archiver Shells, Envelope Printer Demo, Mega Cracker. 'A'.
- UTIL 57 - Revenge Disk Displayer 3.0, Wordfinder 3.0, Desktop.inf configurator. 'A'.
- UTIL 58 - Career Themes Inventory and Personality Tester - great fun!
- UTIL 59 - Needsex patches - upgrades 3.01 to 3.02 and 3.02 to 3.03. 'A'.
- UTIL 60 - JC Label 1.3, Jan-Dos 1.7, Flowchart Compiler, Boot Time 2.0, Multisync. 'A'.
- UTIL 62 - BJ Chrome 1.1, Desk Master, Grocery Lister, Silk Mouse, Auto Load, Blitz. 'A'.
- 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! 'A'.
- 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, SpinEd 1.3, Die UHR. 'A'.
- UTIL 74 - Award maker - easy to use program to create certificates with nice fonts, borders.
- UTIL 75 - Idealist 3.4 - file printer that saves up to 80% of paper used! 2 disks £3.50. 'A'.
- 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. 'A'.
- UTIL 80 - Terradisk 1.38 (latest), X-Jet 097, Curtains - protect your ST from snoopers. 'A'.
- UTIL 82 - Bepress 2.6 - create posters, banners, gift cards, letters etc. 'H'.
- UTIL 83 - Spectrum Emulator 2.07 - latest version - 2 disks + example progs. 1 meg+. £3.50.

MUSIC & MIDI

- MUSIC 1 - Noisetracker 1.5 - a popular soundtracker creator with samples & source.
- MUSIC 11 - Arpeggiator, Zeppelin, MIDI Beat, Project, Jukebox, MKS-50. 'A'.
- MUSIC 12 - Henry Cash Sequencer, Composer. 'A'.
- MUSIC 16 - Yamaha PSS790 Editor, includes loads of sample voices.
- MUSIC 22 - Alchemie Junior 2.2 - sequencer with real-time, multitasking etc. 'H'.
- MUSIC 23 - Sound Merlin - good ex-commercial program, Mozart's Dice Waltz - compose music without musical knowledge. 'H'.
- MUSIC 24 - Octalys 8-track tracker - STE only, Pratracker 2.1, YM Tracker.
- MUSIC 26 - PSS Utilities disk, loads of programs including patch editor, librarian etc. 'A'.
- MUSIC 27 - Casio CZ sounds, 32-track sequencer, Kawai K1 editor, MIDI menu. 'A'.
- MUSIC 29 - Kawai K1 synth sounds. 'A'.
- MUSIC 31 - SOX 1.0, Midi Mover, TR81z Editor, Real Drumming. 'A'.
- MUSIC 32 - Tri-Sound Sequencer (Not STE), Disc Play 2.45, In control.
- MUSIC 34 - SOS 64, Guitar Professional, Uniplay, Play Em 1.0, YM2149 Editor. 'A'.
- MUSIC 35 - Roland 'D' Series Sound Banks for DS, D10, D20, D110 and GR synths. 'A'.
- MUSIC 36 - Final Score 2.0 - score writing system. 'H', EKSEQ 1 - 100 track sequencer. 'A'.
- MUSIC 38 - TPO Dump. ST Sound 2 - record, play, compress and edit samples.
- MUSIC 39 - SSP PD Voicepack - patches for the Roland GM-70, TX81z, Roland D110.

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- EDUC 1 - Kid Music, Kid Notes, Kid Piano, Kid Puzzle, Kid Graph, Rebus Writer.
- EDUC 7 - Michael's Big Adventure - colourful graphics, easy to play. Age 8+.
- EDUC 9 - Bodyshop, Computer School 2 & 3, Butterfly in the Park.
- EDUC 21 - G.C.S.E. Higher Maths Grade Tutor, Franglois 3 - French Tutor.
- EDUC 22 - G.C.S.E. Chemistry Tutor - all you need to attain grade 'C' or above.
- EDUC 23-26 - CIA World Factbook - four disks - crammed with information on hundreds of countries + weights & measures and a complete chemistry reference book! £6.50.
- EDUC 39 - Mini Magic Storybook - cut down version of the successful commercial packages.
- EDUC 43 - Professor Clever 2 - teaches kids aged 5-11 about numbers, spelling and time.

PROGRAMMING

- LANG 1/2 - Sazoban C Compiler release 2. Includes documentation, shell etc. £3.50.
- LANG 5-9 - GNU C++ Kit - Hard Drive + 2.5meg required, not for novices! 5 disks £8.00.
- LANG 13 - Professional GEM guide - 17 chapters of tutorial with C source.
- LANG 16 - STOS Tutorial and various Basic programs.
- LANG 27 - GFA Basic v2.0 - GFA Expert - a nice GFA Basic tutorial.
- LANG 29 - STOS Tracker - adds a new set of STOS commands for Soundtracker.
- LANG 36 - STOS Extensions: Missing Link, Misty, Blitter, MIDI, STE, + 7 more!
- LANG 37 - STOS Software pack 1 - millions (almost!) of routines etc.
- LANG 41/42 - STOS 3D - brilliant extension allowing you to program in 3D. 2 disks £3.50.
- LANG 43 - A disk crammed to the brim with STOS ACSs.
- LANG 44 - STOS Adventure Creator 1.03 - write your own graphic adventures. 'C'.
- LANG 45 - 'Heat' 'N' Serve Sazoban C - a very easy to install version of this compiler. 'A'.
- LANG 48 - STOS Extra Extension 1.91a - adds about 52 new commands to STOS. 'A'.
- STOS 15 - The latest issue of STOSSER disk magazine, tutorials, articles, reviews etc.
- BUPRO 2 - 68000 Programmers Library - hundreds of routines for games. £2.95.
- BUPRO 4 - Moving Bytes 1 - more routines for screen effects, music, scrolls. £2.95.
- BUPRO 16 - ST-68K Reference 3 - includes full data on ST internals, excellent. £2.95.

THE ST HANDBOOK - £2.50

A brilliant new magazine dedicated to PD and Shareware with stories, articles, news, reviews, competitions, charts and lots more! Issue four is now out and this issue comes with a free cover disk full of games and utilities. New Age PDL are official stockists of the ST Handbook - order your copy now! A bargain at just £2.50. Please state which issue.

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INTO BATTLE!

These Kendorians just can't seem to keep out of trouble can they? Having been rescued from the jaws of wizard Morgoth's evil offspring on no fewer than two occasions, they now face yet another hideous enemy. *Ishar 3 – Seven Gates of Infinity* is the latest adventure in the series. You and your rag-tag band of muscle-men and Elves must once again overcome the magical evil that has filled the land.

The game is quite straightforward to play and the version on the cover-disk allows you to explore one whole scenario – the forest. Towards the top-right of the screen you will find a panel of icons that can be used to

The world of Kendoria is once again in peril and only you can save its people. David Nilson slips into his Elf costume and hides behind the nearest big tree until it's all over...

RUNNING THE DEMO

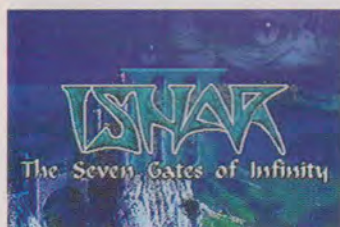
To run the *Ishar 3* demo, switch off your machine for at least thirty seconds, pop the disk in the drive and boot-up. After a few moments the introductory sequence will begin and you are ready to roll...

can be sent against the unsuspecting bad guys and these often have more effect than traditional methods. Some spells work as soon as the icon is clicked – others need to be cast over a particular person, in which case just click on the button and then on the subject.

Each of the team's possessions can also be altered by clicking on their name. Anything in the inventory can be given to another team member by simply dragging its icon and I'm sure the "eat" and "look" buttons are self-explanatory. Switching to this screen is also a neat way to pause the game if you're taking a hammering from the baddies.

As time progresses, day fades into night and it becomes a lot more difficult to see where you're going. The best idea when this happens is to lie low until sun-up.

You have now experienced *Ishar 3* – soak up the forest atmosphere and gather your thoughts on the game; we'll be reviewing the finished product next month...



The third instalment in the Ishar series is the best yet, and you can sample it courtesy of ST Review!

navigate your team through the undergrowth. The weapons available are pictured just below and when you encounter other characters, they can be swung into action with a swift click. Obviously, it takes a few seconds for each member to recover from using a weapon, so the best course of action is to click on each in turn when battle commences.

It won't take you many battles to realise that broadswords are not really all they are cracked up to be! Fortunately, some of the characters in the game also possess magical abilities.

Running along the top of each team portrait is a set of icons. The first, the action icon, allows new members to be recruited, dismissed or "bumped off in the middle of the night, no questions asked guv'nor".



Dusk in Kendoria, when birds softly whistle from the tree-tops and bands of tough, armour-clad killing machines roam the forest...

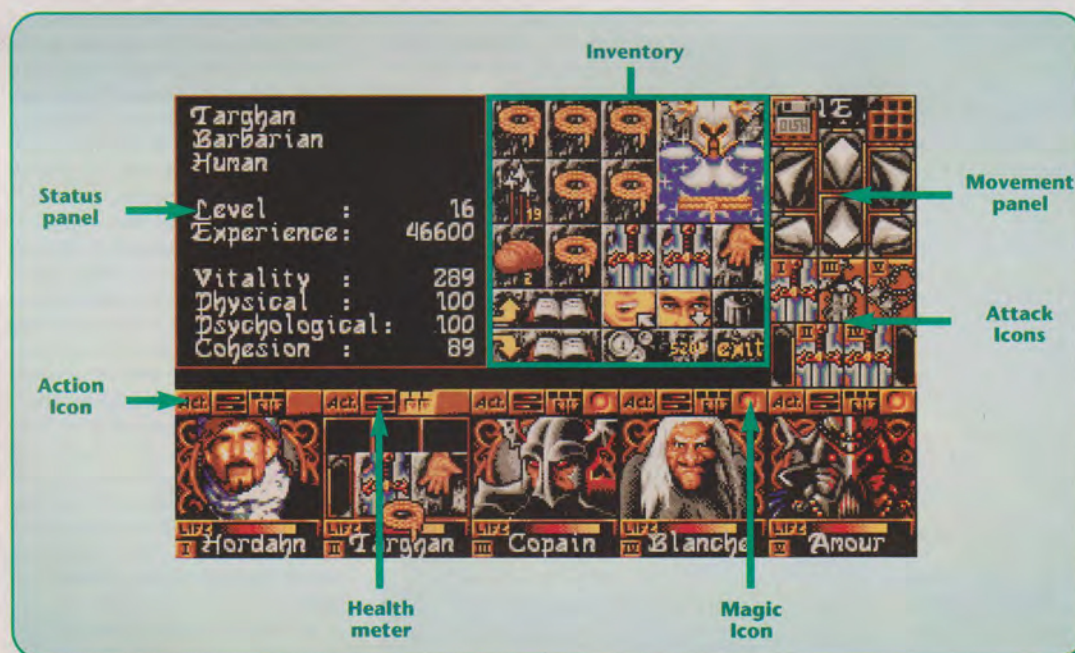


The attack icons are used to fend off enemies – clicks those swords for all you are worth!

First aid can also be given to other members by clicking on the red cross and then the patient.

If you skip along the row of icons a little to number four (the small circle) another bank of icons will be presented – it's magic time! Lightning bolts, fire-storms and plenty more besides

If the odds are against you, try casting a few spells – they're a lot more effective than a puny sword.



*How do you fancy
the challenge of
leading a poor
Conference side to
victory in Europe?
Tina Hackett has
a sneak preview
of Gremlin's
successor to its
highly acclaimed
Premier Manager...*

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**The Team
Selection screen
helps you choose
your players.**



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TEARAGE

ALL CATCH

HOPKINS

HOPKINS RTH

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SPECIAL GOLF

VOLUME CONTROL

END PAGE

WAGER

WAGER

SHOWDOWN

25000

LEAVE THE CROWN

BUY THE IMPROVEMENT

PREMIER 2 MANAGER



Club Secretary. She will tell you all you need to know from the weather to the current confidence rating with the board and fans. You must learn to maintain a balance between keeping the fans happy, who want success at any cost, and the board whose only interest will be the financial viability of the club.

Premier Manager 2 looks to be an accurate, highly detailed management simulation. Graphically, the game looks good with clearly presented screens and well laid out charts so that all the information you need is to hand.

It seems as if there are going to be enough new features added to warrant buying this version even if you have the original – a new and taxing challenge.

As *Premier Manager 2* is going to be released throughout Europe, data disks will become available so once you've tested your managerial skills in the English League you can go on to Germany, France, Scotland, Italy and Spain.

Incidentally, we previewed this from the final Amiga version but have been promised that the ST version will be virtually identical. Certainly looks like being an engrossing and realistic game...

As well as the elements from *Premier Manager* you will find that as manager you'll have to deal with other problems such as weather conditions that affect the match and can lead to postponed games. You'll

Via the telephone icon you'll need to keep in contact with all your staff. Your first step will be to look at the job centre but you'll have to decide whether or not you can afford hiring someone with a higher wage who would be more effective.

To be successful you'll need to raise sufficient funds. Finding sponsors to advertise on the boards around the ground is just one way of doing this. Choose from 64 individual sponsors – some will make a one-off lump sum payment while others will offer a weekly instalment. If you need cash quickly, you would take the one-off payment but the weekly payments provide a steady cash flow...

This is only a small part of your job though. You have to keep close control of the fitness of your players: each player has an individual fitness and morale level. You can call your coaches to allocate training routines to players and can train them generally or work on any of their abilities.

You'll also have to watch how intense the training gets because although they will improve more quickly, they can pick up training ground injuries if worked too hard.

To find out what your current standing is, you can always call the



GAME PLAY

The clam is perhaps an unusual choice of subject for a computer game. It's not a particularly outstanding creature by anyone's standards, but nevertheless, independent software developers, Caspian, have taken them to heart! The London-based company is making a name for itself in developing software specifically for the Atari, a positive sign for Atari owners.

As a first offering, this makes full use of the computer's capabilities. *Rock 'n' Roll Clams* not only features Blitter-enhanced graphics and DMA sound but is compatible with all Atari machines and allows for the capabilities of your machine. The game can also be conveniently installed onto a hard drive and is compatible with the Jaguar Power Pad.

SEA SICK

Although the theme revolves around the rather odd clam creature (incidentally called Caspar!) and an even more dubious storyline (he has to rescue his friends from Mackerel Mac who intends to sell them on to *Clam U Like*), the actual gameplay is thoroughly original and engrossing, taking the form of a cross between a pinballer and gravity game. There are

ROCK 'N' ROLL CLAMS

*There's a motion in the ocean
– Tina Hackett takes the plunge to
investigate the latest shell-like dudes...*



Make your way through the numerous objects.

a massive 100 levels through which you must use all your skill and best judgement to negotiate. Guiding Caspar through a vertically-scrolling screen, you need to kill the baddies and collect bonuses before your time runs out.

CLAMMING UP

The gravity element provides the real difficulty here and you must master the art of spinning and rolling Caspar in the required direction against the force of gravity. Pressing your joystick (or joypad) left or right will roll him in that direction. The longer you press, the faster he spins. The way he bounces off objects depends on the actual object, the speed you are spinning and how you have hit it. Joystick dexterity helps and learning how fast to spin and roll takes patience.

Rock 'n' Roll Clams is one of those games that takes a little time to get into and although at first it's frustrating, perseverance does pay off. Two-player mode has also been added,

lending another dimension to the game and providing twice the fun! Although the objective is pretty much the same, you also get to bash your opponent to bits – simply find a heavy object and drop it on 'em! Moving out of the way or finding a protective umbrella is the only defence.

MAD AS A HATTER

Hats can be found and used to aid Caspar. Each one enables him to carry out special moves – from Propeller Hats, giving him the power to fly, to Viking Hats to spike your way out of trouble. Passwords and a handy "skip level" feature can be



Two-player mode provides some chaotic fun!



Novel backgrounds add to the colourful variety.

used to put an end to the frustration of starting from the beginning each time. Silver and Gold tapes can be collected within the levels and cashed in for passwords.

Graphically, the game is appealing and although it's nothing gobsmacking, the many unusual backdrops provide variety. The psychedelic colours and the many themed locations work well. The jaunty music and humorous sound effects also fit in with the lively gameplay.



Although difficult to control at first, perseverance pays off...

RECOMMENDED

Rock 'n' Roll Clams is an unusual game that comes highly recommended. Taxing puzzles, split-second timing and an unusual gravity angle provide some very entertaining gameplay.

It's frustrating at first but practice makes perfect so don't expect too much on your initial attempts because, believe me, it soon becomes a very rewarding game.

If *Rock 'n' Roll Clams* is anything to go by then let's hope we see more from Caspian Software in the not too distant future. Top notch software just for the Atari... brilliant!

PERFORMANCE

GRAPHICS

SOUND

VFM

PLAYABILITY

✓✓✓✓✓✓✓✓
✓✓✓✓✓✓✓✓
✓✓✓✓✓✓✓✓
✓✓✓✓✓✓✓✓

OVERALL

80%

KEY FACTS

Product:

Rock 'n' Roll Clams

Company:

Caspian Software

Contact:

071-263 8584

Price:

£14.99

SYSTEM

Minimum Memory:

1Mb

Resolution:

Low

Computer:

ST/Ste/Falcon030



The clear, attractive graphics are certainly appealing.

GAMES GALORE!

Tina Hackett puts her foot down and challenges the best race-'em-ups to bring you a definitive guide.....

Race-'em-up games have always been popular. Their appeal lies mainly in the simplicity: there are no long rule books to become accustomed to, no tricky controls to learn – simply slap the disk in the drive, grab a joystick, and it's green light to go...

There's nothing like the sheer thrill of speed, and the excitement of overtaking your opponent around a hairpin bend. Through a computer racing game you can experience all the thrills and spills of life in the fast lane. Realising the success of this formula, software houses have churned out a multitude of titles to entice the gamesplayer into the driving seat.

Many types of racing have been turned into games from trucks to bikes to the immensely popular cars. These have also taken on different forms, varying from the sports car to the Grand Prix racers to even stock cars! You can experience the excitement of illegally racing along main roads with the police on your tail or feel the achievement of ranking top in Formula One – the choice is yours and with all the millions to choose from, where does the ambitious, young racer turn?

Well, to make life slightly easier here's our round-up of some of the finest car racers to appear on the ST...

LOTUS TRILOGY

Gremlin's Lotus games have become a very popular choice for the games player and it's unusual for the average gamer not to have at least one in their collection.

But all is not lost if you were unfortunate to miss out first time round because Gremlin has put its classic racing trilogy together in one budget bundle.



LOTUS ESPRIT TURBO CHALLENGE

This was Gremlin's first release and it really set the standard in racing games, providing sleek, smooth and fast graphics.

The two-player game is a huge bonus to the brilliant gameplay and the addiction factor hits danger level as you frantically try to beat the computer opponents or the poor unfortunate ex-friend who dared to challenge you to burn rubber...

LOTUS TURBO CHALLENGE 2

It's difficult to better a brilliant game but Gremlin managed to with its second offering. Changes made include racing against time rather than an opponent, reaching checkpoints to continue. Stages take place over different parts of America and you'll encounter many hostile terrains and weather conditions such as fog, deserts, marshes and storms.

LOTUS 3, THE ULTIMATE CHALLENGE

The third title is appropriately called *The Ultimate Challenge* and it really is the "ultimate" of the three. Gremlin took the successful ingredients of its predecessors and combined them with a whole host of new features. There are themed levels with many variants that affect the handling of the car.

Overall Rating: 90%



The second offering changed the gameplay to racing against the clock...

F1



If road racing isn't your bag and you fancy yourself as a budding Nigel Mansell then you might want to try your driving prowess with Domark's F1.

Formula One Grand Prix is the order of the day here and being the official FIA licence you get to race around the real circuits and against the actual drivers of the FIA Formula One World Championship. The more cynical may say, "But this is just a tweaked version of Lankhor's Vroom with a two player mode" and they'd be right! But it's easy to forgive the obvious "cashing in on an official licence" approach because what has been added really does make a difference. While Vroom was a top notch classic, having a two-player mode is pretty much essential with this type of game and although Vroom could be played by two it involved connecting two STs together. Now it's the usual, but definitely more convenient, split-screen affair.

The many different options provide hours of fun. In arcade mode the idea is to overtake a set quota of cars in order to progress while the Championship Mode throws you in at the deep end, competing in the Grand Prix season. Top class graphics, detailed backgrounds, fast absorbing gameplay and frantic two-player mode make F1 a real classic.

Overall Rating: 86%

The convenient split-screen two-player mode has been added.



Backdrop updates keep up well with the fast gameplay.

HARD DRIVIN' 2, DRIVE HARDER

Perhaps some may question my judgment on including this one in the collection but *Hard Drivin' 2* has got it where it really counts – in the playability stakes.

The original *Hard Drivin'*, as many arcade goers will know, is a classic arcade game conversion. Not brilliant graphically, but racing along those tracks with the aim of winning turned you into a mean, speed-crazed loon. *Hard Drivin' 2* came along, kept the great playability and improved on some of the aspects that let the original down. Steering has been improved with an auto-centre feature and now it is also possible to design your own tracks, record your best race and challenge your friends by connecting two machines together (another ST, Amiga or even PC).

You can play in a standard race against the other competitors, including your opponent, or choose one-to-one racing in a championship. Don't expect to be astounded by the graphics but if you want a playable, arcade-style racer for under a tenner, you won't go far wrong.

Overall Rating: 70%

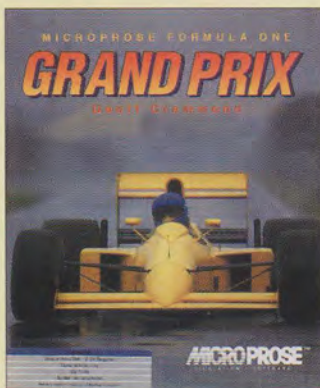


Not graphically astounding, but it is highly addictive...

Simple race-'em-up fun for sheer playability!



FORMULA ONE GRAND PRIX



Created by Geoff Crammond, *Formula One Grand Prix* is one of the most in-depth and realistic racing games you're ever likely to come across.

Unlike most racing games, this requires thought and you'll have to decide on how much to adjust gears, brakes or wings to maximise your car's chances. Graphically the game is impressive with detailed backgrounds and the frames update at a fair rate to give you a smooth, realistic race.

The game also stands out for its excellent control system. It's easy to get to grips with and, although the game itself is by no means easy, there are no frustrating moments trying to work out fiddly controls. Viewed from behind the wheel, this provides yet more realism. The screen is set out clearly showing a good view of the race and all the information you need to know is gleaned from a quick glance at the dash board.

This is a highly competent attempt to recreate all the elements of Formula One racing. The game has depth, playability and rates highly in the addictiveness stakes – worthy of a place in anyone's games collection.

Overall Rating: 81%



Attention to detail has been paid through every aspect of the game.

THE BEST OF THE REST

Now all the competitors are past the chequered flag and places have been awarded, it's time to appraise the others that didn't quite qualify – but came very close...

CHASE HQ 2 – SPECIAL CRIMINAL INVESTIGATION • HIT SQUAD

Following on from the original *Chase HQ*, you play two American cops who work for the special criminal investigation department. You must rescue the mayor's daughter who has been ruthlessly kidnapped. If you fancy a game with a bit more to it than just the racing part then this one's for you.



Chase HQ 2 – a game that offers a bit more than just the racing element!

CRAZY CARS 2 • FOX HITS

Yet another sequel, but unlike most films these days they do go on to get better. Taking control of a Ferrari F40 you need to travel through America to smash an illegal car racket. Graphics are colourful and pleasing to look at and playability-wise, this is highly addictive and easy to get the hang of.

STUNT CAR RACER • HIT SQUAD

Written by Geoff Crammond, the same guy behind the brilliant *Formula One Grand Prix*, *Stunt Car Racer* is a great 3-D driving game that can also be connected to another machine for a two-player link race. A great, fun race-'em-up.

BUYER'S GUIDE

YOUR CHOICE...

Still spoilt for choice? Here's an at-a-glance guide to the recommended race-'em-ups...

Game	Company	Contact	Price	Machine	Memory	Graphics	Sound	VFM	Playability	Overall
Lotus Trilogy	Gremlin	0742 753423	£29.99	ST/STe	1/2Mb	9	9	9	9	90%
F1 Domark	Kixx XL	081-780 2222	£25.99	ST	1Mb	9	8	9	8	86%
Hard Drivin' 2	Hit Squad	061-832 6633	£9.99	STe/1040STF	1/2Mb	6	6	8	8	70%
Formula One	Microprose	0454 326532	£34.99	ST	1Mb	8	7	8	9	81%

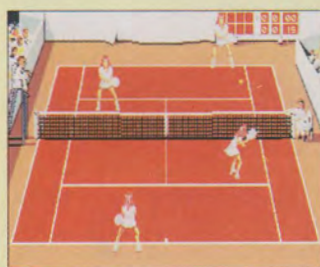
Dave "I'm a spectator" Jones finds a couple of sporting goodies from Ubisoft and Kixx XL...



JIMMY CONNORS GREAT COURTS 2

UBISOFT • £9.99 • 081-343 9055

IN BRIEF: Although the days of eating strawberries and cream while watching the world's tennis pros on the courts of Wimbledon have finished for this year, you can still have tennis by the ball-load via Ubisoft's budget release, *Jimmy Connors Great Courts 2*.



The nature of the court has a marked effect on the game.

Graphics are clear and the screen well laid out.

Originally released as *Pro-Tennis Tour 2*, many aspects of the real game are open to you – like playing one-on-one against a human or computer-controlled opponent or a team-spirited doubles match with a friend on your side against computer opponents. If you think your game isn't up to scratch yet, you can practice your skills against a machine that serves: with practice, you can learn to

precisely regulate the direction, height and speed you return the ball with.

Along with all this you also get to choose which court to play on – clay, grass or asphalt, it's up to you. All will change how you play the game.

Great Courts 2 will allow you to take part in all the world's main tournaments and to get to the top you will have to progress gradually, planning your season and competing in the lesser known competitions. You can determine the difficulty of competitions by the prize money on offer – the more money, the harder the tournament!

ST REVIEW COMMENT: This is an extremely playable and addictive game. The vast range of options ensure its lasting appeal. Graphically it looks good and viewing the game from a slightly elevated angle, behind the base line, works well in showing all the action. For under a tenner you couldn't do better for a more playable and thoroughly addictive title. Tennis fan or not, this is well recommended.



WORLD CLASS LEADER BOARD

KIXX XL • £9.99 • 021-625 3311

IN BRIEF: The pleasures of golf... images are stirred of strolling around the green on a sunny afternoon, the birds tweeting merrily away in the peaceful countryside surroundings. Bliss...

The reality, of course, is somewhat different – heavy golf bags and walking miles to the next hole! But now you can enjoy this popular hobby in the comfort and laziness of your own home through US Gold's *World Class Leader Board*.

Novice, Amateur or Pro, you, and up to four players, can take up the pursuit of golf. Accustom yourself with the game on an 18-hole course or move straight to the rigours of a 72-hole game. Choose from the four available courses, all providing a different challenge.

You take your shots through placing the cursor in the direction you wish the ball to travel and then start the swing, set the power and snap your wrists to control hook or slice. By viewing the Power snap indicator, you can then take your shot.

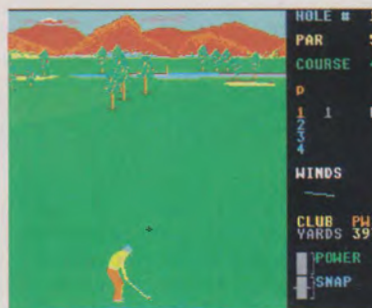
ST REVIEW COMMENT: Unfortunately this game has little to really make itself stand out. It wasn't a bad effort in its time, but in these days of slick graphics and in-depth gameplay, *World Class Leader Board* looks more than a little dated.

Graphically it does look good, although quite basic, with the greens nicely portrayed and realistic background and foreground details, but unfortunately it lacks where it counts – in the playability stakes.

Courses are limited, gameplay repetitive and even though the harder levels are quite challenging it certainly isn't addictive enough to make you want to stick at it.

Get a few friends in on the act to liven things up a bit and it can be quite fun for a while. But it isn't great by any means – budding Nick Faldos only!

★★

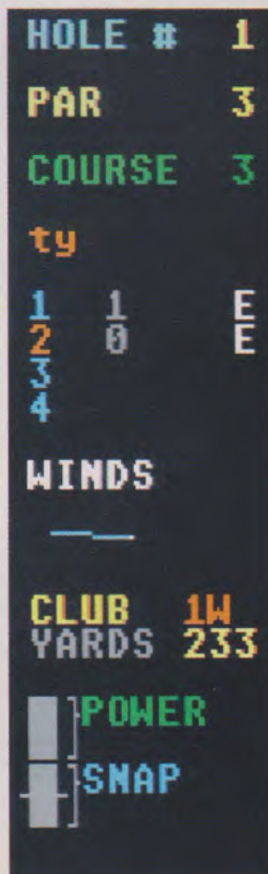


World Class Leader Board looks more than a little dated...

Keep your eye on the info panel and power snap indicator.



Unfortunately the gameplay becomes rather repetitive...



PD SCENE

With a wave of his magic wand, the master magician Nial Grimes produces another bundle of PD and shareware games...

WELL 'ARD

**CALEDONIA PDL • DISK NO: GM.225 • £2.50 •
MEMORY: 0.5MB • SHAREWARE • FALCON-
COMPATIBLE (WITH BACKWARD)**

IN BRIEF: Well 'Ard is a cross between *Magic Pockets* and *Super Mario*. That's right, we're looking at a platform game and in this case the idea is to dash around each level collecting objects before escaping through a teleporter. A very tired plot explains the gory details, but I'll spare you the torture.

Marauding snails and birds with unconvincingly large eyes stand between you and success and in true Mario style, the only way to zap them is to jump on their heads. Some need a bigger headache than others before keeling over and the knack is to bounce a number of times before falling off. The second obstacle is the scenery itself. Numerous craters are littered around the floor of each level and you're history if you step too close. Fortunately, the collision detection is precise enough to make this workable. Overall, the gameplay is very arcade oriented – there's a little bit of strategy required, but nothing you would have trouble fitting into a cinema Coke cup.

The game is split into four worlds, each containing four sub-levels. The first world is playable in the shareware version, but in order to complete the game you will need to find £4.99 for the registration code. This does provide a good taster of the action, but you'll probably reach this stage within the first hour of play; lethally difficult it is not.

Graphically, we are looking at a stunner – it's cutesy stuff and suits the game very well. Speed is not a problem either and what little animation there is, is quite convincing. The audio side is a little bit more disappointing – a bouncy demo tune is used to kick off, but beyond that the only sound effect is a dull raspberry noise when you land on the ground!

ST REVIEW COMMENT: "Well 'Ard is almost perfectly presented and the scrolling is well above average for a platformer. If you were forced to pick out a problem with the game it would be the difficulty level – it is fairly easy. On the other hand, there are plenty of levels to crack and you do get a good way into the game before being nagged for shareware contributions."



If you're into platform games, Well 'Ard is most definitely worth checking out.

Craters are scattered around each level – one slip and it's back to the start of the level, minus a precious life!



Almost every part of the scenery can be wasted and the sound effects are perfect for the job.

STARBURST

**GOODMAN INTERNATIONAL • DISK NO: GD.2282
• £1.95 • MEMORY: 1MB • SHAREWARE •
FALCON-COMPATIBLE**

IN BRIEF: OK, it's time to dig out those sturdy space boots and rescue yet another struggling planet from the clutches of an alien force. In this case the aim is to destroy six master power bases and then finish off the hideous entity that's running the show.

The laser cannon fitted to the front of your ship is capable of destroying buildings with a single blast and almost every part of the scenery can be wasted if you so desire. Satisfying explosion noises fill the air as each structure crumbles into a pile of twisted metal junk – classic stuff! The aliens are armed with heat seeking missiles and do their best to down your ship. Each blow absorbed reduces the energy level and when it hits rock bottom, the game is over. A fiver will buy you an enhanced version of *Starburst*, featuring new graphics and improved "effects", whatever they may be.

ST REVIEW COMMENT: "Okay, so the graphics leave a little to be desired, but there's something strangely satisfying about blowing up buildings. In this respect *Starburst* has the same appeal as *Rampage* – yep, it's another good one from Chris Skellern."



Starburst is yet another classic game in need of some quality graphics to show it off.

MEDIAEVAL CHESS

GOODMAN INTERNATIONAL • DISK NO: GD.2290
• £1.95 • MEMORY: 1MB • SHAREWARE •
FALCON-COMPATIBLE

IN BRIEF: *Battle Chess* was one of the most entertaining games of the eighties. It took chess to a new level by giving characters to each of the pieces and animating the battle for board supremacy. *Mediaeval Chess* takes the concept one stage further by allowing you to actually take part in the fights between the pieces!



Mediaeval Chess is quite conventional on the board itself – things take a different turn in the arena!

In order to achieve this, the chess rules have been bent slightly. All of the basic movement patterns are the same, but the aim of the game is no longer to checkmate the king. Instead you need to defeat him in battle. Each piece has its own particular weapon and its potency is based on authority – a pawn has to put up with a docile spear, whereas the Bishop can summon lightning bolts!

Unlike *Battle Chess*, the game is presented from an overhead perspective and this tends to make the characters look rather "wooden" (*well what do you expect from a chess set!?*... Ed). The animation is pretty good however, as long as you don't expect the same level of sophistication as its commercial counterpart. Some tasty metallic sound samples add atmosphere to a very well polished title.

ST REVIEW COMMENT: "*Mediaeval Chess* is certainly different and is far less brain taxing than the game it attempts to mimic. It's very well presented and will probably appeal to arcade fanatics more than the chess-loving fraternity."

★★★★



Games are won or lost depending on your skill in the arena. It's all about choosing the right piece for the job.



Andromeda suffers from a lack of nineties visuals, but deep down it's rather a good game.



The scrolling is wonderfully smooth and the screen borders provide a little extra room for graphics.

ANDROMEDA

MERLIN PDL • DISK NO: BY NAME • £1.25 •
MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *Andromeda* is what you might call a "standard issue" shoot-'em-up. Take one spaceship, place it at the bottom of the screen; add a scrolling background and a sprinkling of aliens *et voilà* – play until your trigger finger can bear it no longer.

On the bright side, the game does stand over and above its contemporaries in terms of technical achievement. The play area is stretched into both the top and the bottom borders and the scrolling is silky smooth throughout. The main failing is the graphics – it's fast and it's smooth, but the visuals look they've been pulled directly from *Plutos* (a game that was released circa 1987, and it wasn't that hot then!). "Demented canary" sound effects don't do a lot to improve matters either – still, at least there are some juicy power-ups and a few asteroid sections to break things up.

ST REVIEW COMMENT: "*Andromeda* gives the impression of being rather dull to start with, but dig a little deeper and you'll find a really good game. It's not the sort of thing that will keep you enthralled for months on end, but look upon it as an afternoon's entertainment and you won't go far wrong."

★★★★

BEZERK

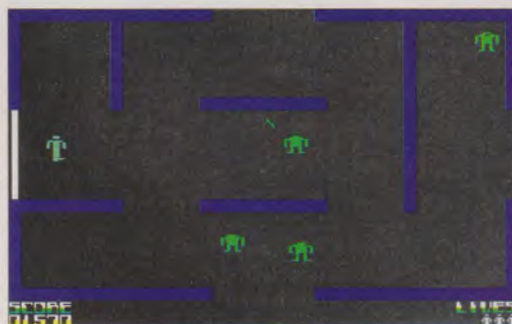
GOODMAN INTERNATIONAL • DISK NO: GD.2282 •
£1.95 • MEMORY: 1MB • SHAREWARE • FALCON-
COMPATIBLE

IN BRIEF: Now I've heard of arcade conversions, but this really is the limit! *Bezerk* is a remake of one of the first arcade games ever written, called *Intruder Alert*. The graphics haven't been souped up in any way and basically, you've got an exact replica of the original, right down to the unintelligible robotic speech.

The basic idea of the game is to escape from a palace full of robots. On earlier screens the baddies are relatively passive, but play a little longer and they start to fire back. Thankfully, they are also pretty dumb and manage to vaporise each other a lot of the time. Play options are limited to the essentials although "slow down" and "speed up" buttons are included in order to keep Falcon owners happy.

ST REVIEW COMMENT: "*Bezerk* is about as retro as you can get, but it is strangely enjoyable to play. The sound samples are a little difficult to understand, but hey – so were the originals! Another one for sentimental arcade fanatics..."

★★★★



Any more retro than this and you would need an abacus to play it! It is good though...

Bezerk lives well up to Dave Munsie's reputation for producing arcade perfect conversions.



THE MANSION

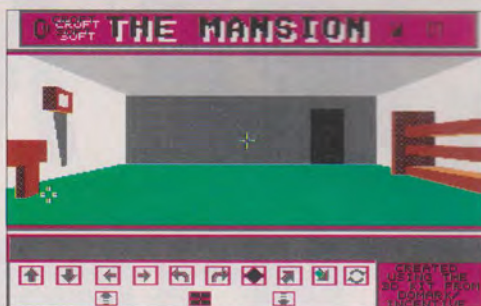
**MERLIN PDL • DISK NO: BY NAME • £1.25 •
MEMORY: 0.5MB • SHAREWARE • FALCON-
COMPATIBLE**

IN BRIEF: The Mayor of Strangetown has been kidnapped and is being held hostage in Spook Mansion. Guess whose job it is to sort the situation out?

The Mansion is a 3D Construction Kit game. The first problem of getting inside the house is solved by clicking the garage door and kind of sets the difficulty level for the rest of the game. The puzzles are pleasantly taxing,



*Spook Mansion
in all its glory,
and is it scary?
Oh yes indeedy!*



*The inside of
the house is
relatively
uncluttered,
ensuring
respectable
screen updates.*

but the main turn-off is the ease with which you can die. For example, shoot the yellow box inside the garage and it's all over – how on earth is the player supposed to know that?! It's also possible to get thrown out of the house quite easily.

Graphically, I am sure you know what to expect from a 3DCK offering by now. The inside of the mansion is sparsely decorated and as a result, the game trots along at a reasonably respectable pace.

ST REVIEW COMMENT: “*The Mansion* is more about exploration than puzzle solving. It is quite easy to play, but it's frustrating to get thrown out of the house having just endured five minutes of lethargic screen updates to get in there in the first place!”

SIM PIG

**NEW AGE PDL • DISK NO: GAME.151 • £1.50 •
MEMORY: 0.5MB • SHAREWARE**

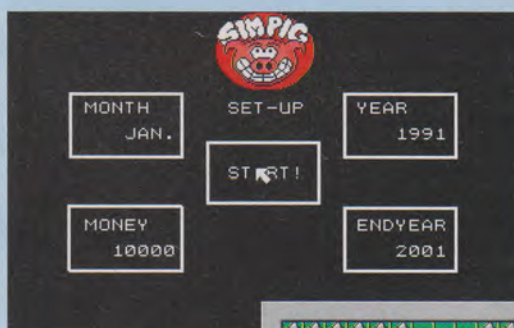
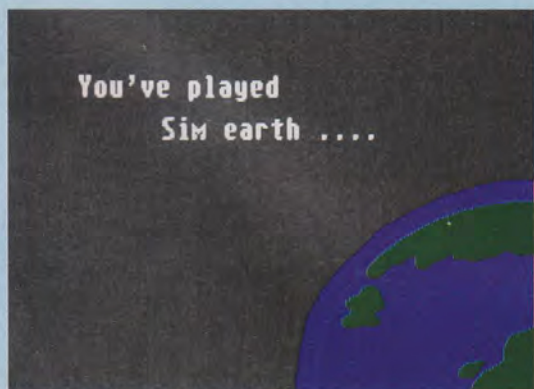
IN BRIEF: Now let's face it, we've all wanted to be a pig farmer at some time or another – am I right? Well, now that unique experience can be yours thanks to *Sim Pig*. As you've probably already gathered, this game is a spoof on Electronic Arts' *Sim* series. You take strategic control over a plot of land and the idea is to amass a fortune through breeding cute little piglets. I can tell you're excited....

You start off with one sty and five wee piggies. The game allows you to buy more livestock, but of course, you'll need more land to do so and this can guzzle its way through the available cash quite quickly. The trick is to use effective advertising to raise interest in your wares and then to sell as many pigs as you've got – the older they are, the more they will fetch. Underneath the rather surreal surface, it's basically a very simple trading game. You play month by month and can decide how long each game should be; the money ration is also adjustable. Extras include a doctor who needs to be called should any of your pigs fall ill and an invasion of pork-loving aliens between the years 2000 and 2100! And this last section sums up *Sim Pig*'s main attraction – humour. It's all very tongue-in-cheek and if nothing else it will probably raise a smile.

Sim Pig is from the same stable – or should I say sty – as *Psycho Pig* and as a result the graphics are very cute. The gameplay is a little less inspiring – after half an hour, you've got the hang of it and the delays between each

You've played
Sim earth

*Sim Pig is
a blatant
rip-off of
Electronic
Art's Sim
games.
However,
Sim City it
is not!*



*The game
is played
month by
month over a
number of
decades
– watch out
for the aliens
after the year
2000!*

*The graphics are
typically Animalsoft,
but sadly the game-
play isn't quite up to
the usual standard.*



month begin to get annoying. Any farther than that and you'll probably find yourself creeping back to something with a bit more action – chess perhaps...

ST REVIEW COMMENT: “*Sim Pig* looks great, but there's not an awful lot of gameplay behind the plush presentation. It looks as though the author thought of an interesting spoof idea and then just tried to cram a game in around it as best he could. However, it is very easy to get involved in and if you're into strategy, it might be your plate of bacon.”



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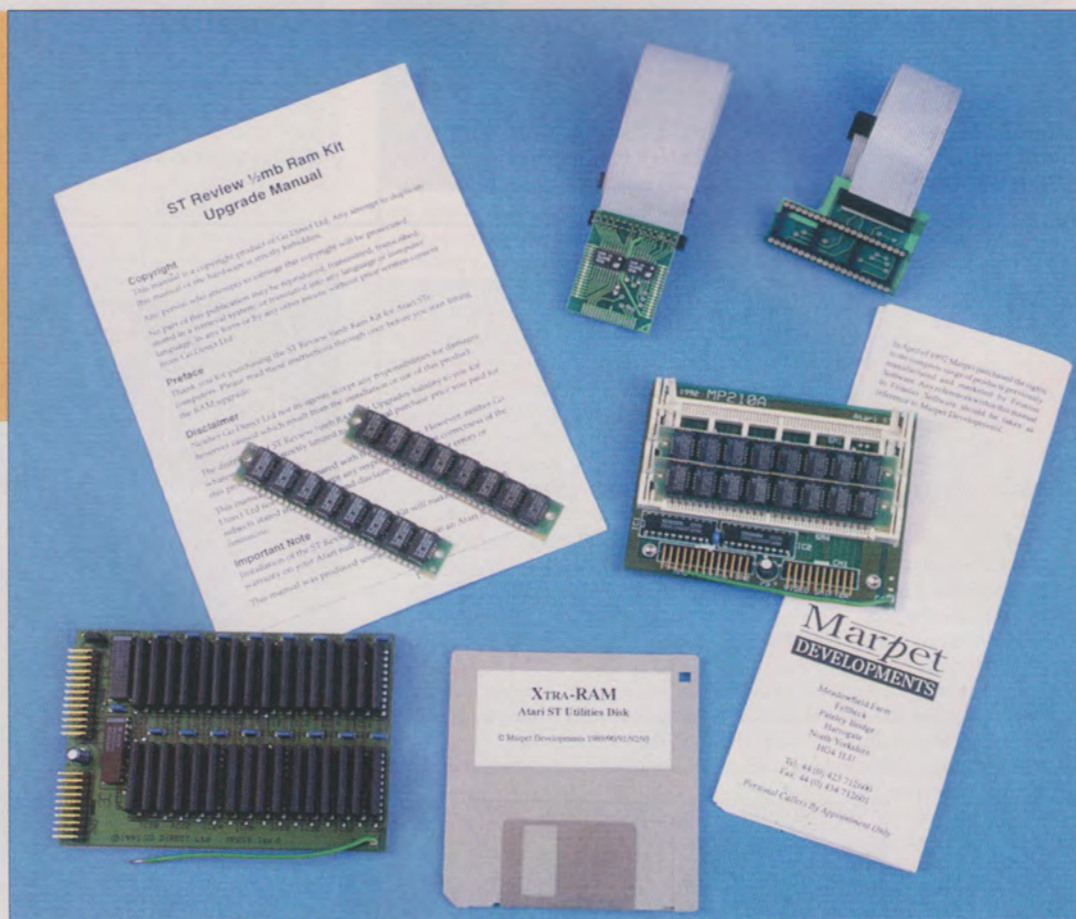
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A 520 STe is usually supplied with two 256K SIMMs and has sockets to plug in two more – it's that easy! A few do not have sockets, in which case you will need a pair of adaptors. These may need soldering; if this is the case, we will supply the sockets at no extra cost – that's service!

A 1040 STe will usually have four 256K SIMMs. In order to upgrade you need to replace these with two or four 1MB SIMMs to give either 2 or 4 MB of memory.

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In over 90% of all STFMs the upgrade plugs straight in. There are possible problems if either the video shifter chip or the MMU chip in your computer are not in sockets.

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If you call outside these hours you can place an order by answerphone – just give the information on the order form as it appears. You might find it easiest to complete the order form before calling so that you can read from it.

This month continues the Atari ST Review campaign to get every ST owner to upgrade the memory of their machine to at least 1Mb and to have all those useful items – at the right price!



ST UPGRADE



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All the products offered by ST Review have been carefully selected by us as the best in their class. But top quality does not mean top price. Thanks to our huge buying power we can deliver top value for our readers too.

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Each memory upgrade comes with a free disk including memory test software, RAM disk, print spooler and disk copier, all to ensure you can make the most of your new memory upgrade...

BEYOND 1MB...

So the Atari market is dead, eh? No chance! Just look at some of the products that have recently appeared or are about to enter our market: HiSoft's **Papyrus**, Compo's **That's Write 3**, Gribnif's **NeoDesk 4**, System Solutions' **MagiC...** the list goes on in an impressive manner.



What do all of these programs have in common? They either need a minimum of 2Mb to work at all or certainly to work effectively. For instance, if you've worked with our excellent **Papyrus** cover disk demo, you may have thought that the program is slow to print. This is far from the truth; we had to set the area of memory reserved for printing to the minimum possible value and also select the slower of the two print methods. Why? Because otherwise those of you with 1Mb would not have been able to use the program. With 2Mb or more, **Papyrus** really flies – and can hold an impressive number of fonts in memory as well. With more memory still, **Papyrus** can use **SpeedoGDOS** to give you a powerful professional set-up.

There are some real block-busting cover disks on the way from **ST Review** and while all of them will run in 1Mb of memory, 2Mb or more will certainly make your life that bit easier. Our prices have remained static for some time and it is probably fair to say that RAM prices won't fall any further so now is a good time to upgrade your computer – you'll be amazed at the difference it makes...

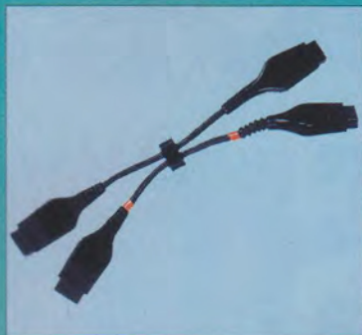
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PD ZONE

WHAT'S IT ALL ABOUT, PD?

The public domain is a huge – and often confusing – place, but when you get down to the nitty gritty there are basically three forms of freely distributable software. The easiest to understand is plain ol' **public domain**, which basically has no restrictions on distribution whatsoever – you are free to copy, alter, mangle or feed to your pet piranha any public domain program and the author really couldn't care less (*although the RSPCA might... Ed*). The **freeware** system runs along similar lines, but in this case the programmer retains the copyright and you are not allowed to alter his work without permission.

Possibly the fastest growing form of software distribution available today is **shareware** which relies on payment from the user. Typically you are given 30-90 days to try out a package, after which you must "register", or pay a fee to continue using it. The shareware system is all about honesty; if you don't pay the fee, the author is not going to send somebody round to break your kneecaps, but on the other hand you won't get any of the benefits of registering and you certainly won't get the warm cuddly feeling inside that comes as part and parcel of being honest. All clear? Hmm, well let's move on...

CATEGORY OF THE MONTH: EXCHANGEWARE

Example: *ST Globe*

Now here's a neat idea. In order to get the registered version of an exchangeware program, all you need to do is send the author a copy of something you have written. He gets a new piece of software to play with; you get a registered piece of software for nothing – everybody's a winner!

MORPH

**FLOPPYSHOP • DISK NO: ART.4542 • £2.00 •
MEMORY: 0.5MB • SHAREWARE • FALCON-
COMPATIBLE**

IN BRIEF: There cannot be a single person on earth who hasn't at least heard of "morphing" by now. This technique of turning one picture into another was used extensively in films like *Terminator 2* and Falcon owners have been promised a piece of the action courtesy of *ChromaStudio*.

However, fear not ST users – *Morph* brings a taster of this power to your machine! It's a very simple program to use and is based around the "mesh" system. The main screen presents both the "before" and "after" pictures and laid across the top are a net of lines. The idea is to move each piece of this mesh over a similar part of each picture – so if you were morphing between two faces, the same point must rest on the nose in each image. Editing can take some getting used to, but after the first few attempts you soon get the idea.

Any number of frames can be specified for the animation and these are automatically saved to disk as FRAME1, FRAME2 and so on in *Degas* format.



Just line up the mesh on either side and Morph will produce an animated transformation!

ST REVIEW COMMENT:

"*Morph* is a pretty incredible piece of software. ST low resolution can't hope to match the true-colour effects seen so often in magazines, but at the end of the day, it's easy to use, unbelievably fast and cheap to register – what more could you want?"

★★★★

ART FOR KIDS DEMO

**GOODMAN INTERNATIONAL • DISK NO: GD.2277
• £1.95 • MEMORY: 1MB • SHAREWARE •
FALCON-COMPATIBLE**

IN BRIEF: Children's art packages tend to fall into two categories – those that aim for simplicity, and others that go all-out for novelty. *Art For Kids* falls into this latter group. It's a fairly straightforward affair on the surface, but start to actually use it and you will notice one very major difference – sound effects.

And the audio side isn't just random noise pollution either; it actually simulates the tool you are using. A pencil sounds like a pencil, a rubber sounds like a rubber, and paint sounds like a glass filling up with water. Hmm...

The good news is that underneath the novelty there's also a rather good art package. A full suite of tools are on offer and a reasonable range of image processing options fill things out nicely. The shareware version is quite limited in that you can't save or load pictures, but most of the other tools are available for use. Alright, so it's a bit gimmicky, but it's fun!

ST REVIEW COMMENT: "*Art For Kids* is a fun program. You might say that the digitised sound is a novelty that will wear off quickly, but even with the volume level down however, there's enough to keep most kids happy for some time."

★★★★

Creative Titles 2				
	FRAME	PICTURE	EFFECT	ON / OFF
SPEED	1	PICTURE	BOTTLE NECK	ON
VIDEO	2	PICTURE	FADE	ON
BLACK	3	PICTURE	CHEQUER	ON
END SEQUENCE	4	PICTURE	VERTICAL	ON
CT 2	5	PICTURE	DISORDLE	ON
PALETTE	6	PICTURE	MERGE	ON
ALTER COLOURS	7	PICTURE	WIPE	ON
INSERT	8	PICTURE	SCROLL DOWN	ON
	9	PICTURE	EXPAND	ON
	10	PICTURE	FADE	ON

Sequencing a presentation is a piece of cake – just load up a picture and enable an effect.

CREATIVE TITLES 2

**MERLIN PDL • DISK NO: BY NAME • £1.25 •
MEMORY: 1MB • SHAREWARE**

IN BRIEF: It's a little known fact that the ST's screen display can be recorded to video-tape with a simple aerial cable. That being the case, it's very easy – and costs absolutely nothing – to add titles to your home videos, as long as you don't need to mix the output with anything already on the tape.

Creative Titles 2 is the software side of this bargain. It's a program designed to present a series of 14 different *Degas* or *NeoChrome* pictures in a variety of different ways. To create a presentation, you simply select a picture and choose the desired effect – Fade, Wipe, Bottle Neck and so on. It is not capable of dealing with text internally or editing the pictures it uses, so a good art package is essential. However, if all you need is a basic titling system, it's more than sufficient.

ST REVIEW COMMENT: "*Creative Titles 2* has real potential. True, it may be little bit quirky in places, but at the end of the day has more than enough power to deal with home video titling. The only serious problem is a lack of true text handling – here's looking forward to version 3!"

★★★★

SPRITE FX

CALEDONIA PDL • DISK NO: LAN.35 • £2.50 • MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *Sprite FX* is a package designed to aid demo programmers in setting up sprite paths. It loads pictures in *Degas* or *NeoChrome* format and once the sprites have been cut, a route around the screen can be plotted with the mouse. The program doesn't include any facilities to draw or edit the sprites themselves, but there are already plenty of art packages capable of doing that. The only other niggle is the almost complete lack of mouse control. Beyond path editing, it's keystroke city and they're not always that logical!

On a brighter note, animation is accommodated by the package itself. Sprites can be anywhere between 16 by 16 and 64 by 64 pixels, and you can preview animations without quitting. It's a good program, but the interface does need some attention.

ST REVIEW COMMENT: "*Sprite FX* isn't the easiest package on earth to use, but then again, it does make a very tricky job slightly more bearable. If you think you can cope with a barrel full of keyboard shortcuts, it's worth investigating."

0000

Sprite paths
can simply
be drawn on
the screen,
but mouse
control ends
here.



SPEED OF LIGHT 3.1

FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-ENHANCED

IN BRIEF: Any self-respecting Atari owner must have heard of *Speed Of Light*. It's a program that set new standards for image display on the ST and this latest version is even more impressive. Once again, a flickering technique is used to emulate more colours than are actually available. This latest release handles JPEG pictures at an acceptable speed and the on-screen results will knock you sideways.

Speed Of Light also has a few extra tricks up its sleeve. Once your picture is in memory, the brightness and contrast of each colour component can be adjusted individually and the interface is almost as colourful as the pictures you are trying to load! Dig below those simple adjustments and you will find fully editable histograms and even a gamma correction option. Tweaked pictures can be saved in a range of formats, although both *ImageCopy* and *GEMView* seem to have trouble dealing with its .GIF files. No doubt a new version will be along soon to correct this problem...

ST REVIEW COMMENT: "*Speed Of Light* is one of the best picture display programs you can buy for the ST. It can't match *GEMView's* conversion



Speed of Light makes a great job of displaying JPEG compressed images on an ST.

TOP TEN ART PACKAGES

1 SPEED OF LIGHT 3.1 • FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-ENHANCED

An excellent picture viewing and tweaking utility that even manages to make true-colour pictures look good on the ST. This latest version offers support for JPEG compressed images and an improved range of save formats, along with a host of other minor additions. Nicely presented and very powerful.

2 MORPH • FLOPPYSHOP • DISK NO: ART.4542 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

As the name suggests, this program brings a taste of morphing power to the ST. The animations it produces won't give *Terminator 2* a run for its money, but it is extremely fast and reasonably easy to use, given a bit of practice. A couple of demo pictures are provided to get you started.

3 BORDER BUNDLE • GOODMAN INTERNATIONAL • £1.95 • DISK NO: CAL.12 • MEMORY: 1MB • FREWARE • FALCON-COMPATIBLE

Border Bundle is designed specifically to create artistic borders for *Calamus*. Unlike earlier versions, this one includes a truly superb range of examples – 65 to be precise – and runs as a desk accessory or a program. What's more, the shareware notice has been removed, making it totally free!

4 ART FOR KIDS DEMO • GOODMAN INTERNATIONAL • DISK NO: GD.2277 • £1.95 • MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE

A smashing paint package that adds sampled sound effects to all of its drawing tools. The package is designed to use the DMA hardware found in the STE, TT or Falcon, and therefore the samples are crystal clear. Beyond the bells and whistles (in this case, quite literally!) lies a competent paint program.

5 PICTS TO PARLIAMENT 4 • GOODMAN INTERNATIONAL • DISK NO: GD.2293 • £1.95 • MEMORY: 0.5MB • CAREWARE

Yet another pictorial waltz through the annals of British history, courtesy of Evelyn Mills. *Picts To Parliament 4* starts in Edwards III's era and goes right through to Henry VIII, displaying the same light hearted-attitude that made the first three instalments so enjoyable.

6 CREATIVE TITLES 2 • MERLIN PDL • DISK NO: BY NAME • £1.25 • MEMORY: 1MB • SHAREWARE

Add a touch of class to your home videos with *Creative Titles 2*. This program is capable of displaying *Degas* pictures in a huge number of ways and sequences of effects can be tied together with very little hassle. The only real niggle is that it can't handle scrolling text.

7 STIS • FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

STIS is yet another stereo image creator. This one does come wrapped up in a GEM interface, although the resulting pictures are a lot harder to pick out. On the bright side, it does run in all three ST screen resolutions and ten sample images are hard-wired into the package.

8 KEFTAL • FLOPPYSHOP • DISK NO: ART.4543 • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-ENHANCED

A rather strange abstract image creation utility from France. Looks as if it could come in handy for designing DTP backdrops and as soon as I've nailed down how to use it properly a full review will follow. French prompts make it a little difficult to use...

9 FIX GIF • FLOPPYSHOP • DISK NO: F.3935 • £2.00 • MEMORY: 0.5MB • FREWARE • FALCON-COMPATIBLE

How many times have you downloaded .GIF files from a BBS only to find that your chosen picture viewer unceremoniously spits them out? This utility is capable of turning most varieties of the format into a bog-standard GIF file, readable by almost any viewer. Easy to use and very effective.

10 SPRITE FX • CALEDONIA PDL • DISK NO: LAN.35 • £2.50 • MEMORY: 0.5MB • SHAREWARE

Sprite control has never been this easy! While *Sprite FX* doesn't handle the editing side of things, it does deal with paths, animation and includes assembler source code to tie the whole lot seamlessly together. It's quite powerful, but lets itself down badly in the ease-of-use department.

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Cyberspace.....22.99	Indiana Jones - Last Crusade.....12.99	RBI Baseball 2.....7.99	Winter Sports.....10.99
Discovery.....6.99	Int. 3D Tennis.....19.99	Reach for the Skies.....19.99	World Class Leaderboard.....10.99
Dizzy Collection.....16.99	Int. Rugby Challenge.....17.99	Realms.....10.99	WWF1.....8.99
Dizzy's Excellent Adventure.....16.99	Int. Sports Challenge (512K).....19.99	Rick Dangerous.....8.99	WWF2.....8.99
Dogfight.....22.99	Jahangir Khan Squash.....6.99	Risky Woods.....8.99	Zak McKracken.....10.99
Dynablaster.....19.99	Jimmy White's Snooker.....12.99	Robin Hood.....10.99	Zool.....8.99
Elite 2 (Frontier).....19.99	Killing Game Show.....22.99	Robinsons Requiem.....19.99	
Eviro The Arcade Game.....16.99	Kingmaker.....22.99	Robocop 3.....10.99	
Epic.....12.99	Kings Quest 1 or 2.....10.99	Rorick's Drift.....6.99	
European Football Championship.....10.99	Knights of the Sky.....14.99	Scrabble.....20.99	
European Super Soccer.....16.99	Laser Squad.....8.99	Secret of Monkey Island.....12.99	
F1.....17.99	Legends of Valour.....24.99	Sensible Soccer ('92/'93).....16.99	
F15 Strike Eagle 2.....14.99	Leisure Suit Larry 1, 2 or 3.....12.99	Sensible World of Soccer.....19.99	
F16 Combat Pilot.....8.99	Lemmings 2 (The Tribes).....17.99	Shadow Lands.....8.99	
FD19 Stealth Fighter.....14.99	Lemmings Double Pack.....19.99	Shinobi.....7.99	
F29.....10.99	Lethal Weapon.....8.99	Shuttle.....(see The Greatest)	
Face Off Hockey.....8.99	Loom.....12.99	Sim City + Populous.....19.99	
Falcon.....8.99	Lords of Chaos.....8.99	Sleepwalker.....8.99	
Falcon Operation Counterstrike (Data Disk).....6.99	Lotus Esprit Turbo Challenge.....7.99		

SPECIAL OFFERS

Breach 2.....5.99	Chaos Strikes Back.....5.99
Charge of the Light Brigade.....5.99	Kick Off 2 Final Whistle.....5.99
Kick Off 2 Winning Tactics.....5.99	Noddy's Playtime.....16.99
Psycho Selection Soccer.....9.99	Salute Team.....9.99
Shadowlands.....9.99	World Class Rugby (5 Nations).....9.99

JOYSTICKS/ACCESSORIES

10 Capacity 3.5" Disk Box.....1.99	40 Capacity 3.5" Disk Box.....4.99
50 Capacity 3.5" Disk Box.....5.99	80 Capacity 3.5" Disk Box.....6.99
100 Capacity 3.5" Disk Box.....7.99	Cheetah Bug.....1.99
Cheetah 125+.....1.99	Competition Pro Extra.....14.99
FreeWheel Steering Wheel.....24.99	Gravis Adv. Switch Joystick.....22.99
Gravis Gamepad.....15.99	Mouse Mat.....1.99
Quick Joy Top Star.....17.99	Quick Joy 2 Turbo.....10.99
Quick Joy Jet Fighter.....10.99	Quick Joy Pedals.....17.99
Suncom Tac 2.....7.99	Suncom Slik Stick.....5.99
Wico "Q" Stick.....4.99	3 Button Mouse.....10.99

EDUCATIONAL

Better Maths (12-16 GCSE).....13.99	Better Spelling (8+).....13.99
Cave Maze (8-12).....9.99	Fraction Gobins (8-13).....9.99
Fun School 2 (UNDER 6).....6.99	Fun School 2 (6-8).....6.99
Fun School 2 (8-11).....6.99	Fun School 4 (UNDER 5).....16.99
Fun School 4 (5-7).....16.99	Fun School 4 (7+).....16.99
Junior Typist (5-10).....10.99	Maths Dragons (6-13).....9.99
Maths Mania (8-12).....13.99	Noddy's Play Time (3-7).....16.99
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

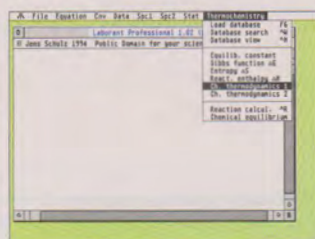
PD ZONE

LABORANT PROFESSIONAL

GOODMAN INTERNATIONAL • DISK NO: GD.2299 • £1.95 • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

IN BRIEF: Every so often a program lands on my desk that is simply beyond my knowledge – *Laborant* is just such a program. I'm faced with a choice of either going to university for a few years and coming back with a perfectly accurate 200 word review, or just doing my best to explain the disk with the limited knowledge that I do have – what the heck, let's fire it up...

The program describes itself as an aid to daily laboratory work. It covers areas such as stoichiometry, thermochemistry, reaction kinetics, chemical



Thermochemistry, stoichiometry, reaction kinetics – does any of this mean anything to you? If so, you need Laborant!

conversions and much more besides – hey, I really ought to be paid more per word for reviews like this! (*ahem... Ed*) It's all wrapped up in a comfortable GEM shell and works well with MultitOS. The menu options I did try seemed to be relatively nippy and no crashes were encountered.

Whahey – I can understand this bit! Laborant also converts between different measuring systems.

ST REVIEW COMMENT: "From a layman's point of view *Laborant* looks superb. The interface is fully GEM compliant and the fact that scientists in Germany have been using it for a

number of years must say something. It almost makes me wish I'd progressed further than disintegrating test tubes in chemistry lessons!"

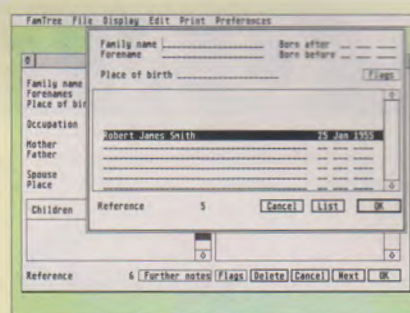
FAMILY CONNECTIONS

GOODMAN INTERNATIONAL • DISK NO: GD.2183 • £1.95 • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

IN BRIEF: Genealogy is a hobby enjoyed by thousands, but the fruits of their labour are rarely appreciated beyond the confines of close family. *Family Connections* is the exception, in that it provides the complete family history of a Mr Alan Jackson, from Leeds.

Now, I know what you're thinking: "Why on earth should I care about the relatives of somebody I don't even know?" Well, you'll be pleased to learn that that's not the point of the exercise. The idea is to show you how to present your own family tree. It uses *Connections* to make a multimedia presentation of the whole thing. The opening screen displays a page of initials, from which point you can discover who was married to whom, and other sections show photographs of selected relatives. The program is limited to high resolution, but a mono emulator is included on the disk.

ST REVIEW COMMENT: "This disk is a good basis for presenting your own genealogical tree. However, the information it contains is unlikely to interest anyone other than Mr Jackson's relatives. Anyhow, for all you know, you might even be one of Mr Jackson's relatives!"



Family Tree 2 is controlled through a series of easy-to-use dialogue boxes.

FAMILY TREE 2

GOODMAN INTERNATIONAL • DISK NO: GD.2187 • £1.95 • MEMORY: 0.5MB • FREWARE • FALCON-COMPATIBLE

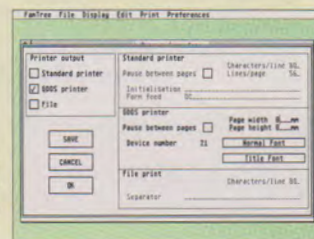
IN BRIEF: *Family Tree* is one of those rare programs that has been written to fulfil a real need. The authors looked around the public domain and found that the only genealogy programs available were woefully difficult to use and therefore designed their own instead.

Family Tree is the result. It's GEM based and very easy to get to grips with. A dialogue box is used to enter each person, and relationships between family members are just a mouse click away. The whole program has been designed to work in a logical fashion – backwards in time, starting with the most recent relatives. It's also nice to see some attention to detail; there are options to save your work automatically at intervals and keyboard shortcuts are available throughout. The only serious omission is charting – the output is limited to text only.

ST REVIEW COMMENT: "*Family Tree* is a solid genealogy tool. Ease of use is second to none and it supports a wide variety of printers through GDOS.

However it would be nice to see a slightly more graphical approach – a chart is far easier to follow than text, albeit proportionally-spaced GDOS text."

Data can be directed via a GDOS printer driver for maximum quality, but sadly the output is text only.



Family Connections is an ideal shell for presenting your own family tree.



The data is unlikely to be of interest, but the presentation does show off the Connections system well.

PD ZONE

MULTICAD

GOODMAN INTERNATIONAL • DISK NO: GD.2308 • £1.95 • MEMORY: 0.5MB • SHAREWARE • HI-RES MONITOR • FALCON-COMPATIBLE

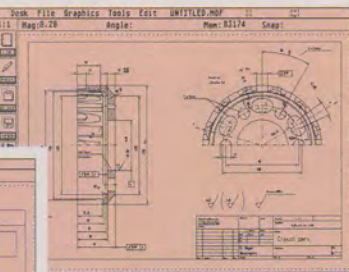
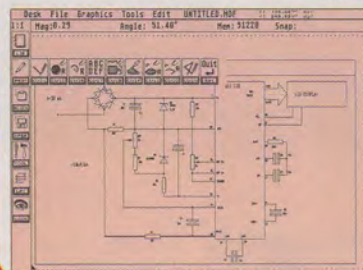


IN BRIEF: There are lots of good shareware drawing packages available for the ST, but when it comes to the accuracy required by computer-aided design, most are found wanting. *MultiCAD* is the solution – it's a CAD package that doesn't go chasing hard after the commercial competition and yet offers almost everything the beginner could need.

The interface is reminiscent of *Didot Professional*. A standard menu bar sits at the top of the screen and a row of icons runs down the left. Each of these icons expands to a full group of functions when clicked on and while it takes a little bit of getting used to, the time is well spent. In terms of power, *MultiCAD* is better than anything seen before in the shareware marketplace. It supports libraries of objects and layers along with an impressive range of tools.

ST REVIEW COMMENT: "MultiCAD is the best shareware CAD package available. The interface is slick, if a little non-standard, and it makes an ideal introduction to the world of computer-aided design. However, if you don't need the accuracy, a good drawing program like *Kandinsky* is probably a safer bet."

MultiCAD is an excellent introduction to computer-aided design, although the nagging shareware messages are annoying.



The Didot-style pop-out menus take a while to get used to, but are ultimately very handy.



Ever wanted to learn the whereabouts of every country in the world. In that case, ST Globe will be right up your street!

ST GLOBE

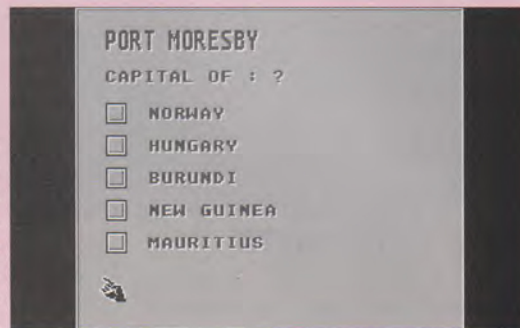
GOODMAN INTERNATIONAL • DISK NO: GD.2283 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: How many times has a country been mentioned on the news that simply means nothing to you? Usual procedure is to go diving for an atlas sharpish, but spend a couple of hours with *ST Globe* and you need never be put in that situation again – at least, that's the theory...

Basically the program includes country maps for most of the world, details on the currencies used in those countries, the population statistics and a few other bits and bobs. A separate section shows which religions are practised in each part of the world and a final map displays nations that are part of the Commonwealth, members of NATO and so on. Once you've run through the various maps, a questions screen helps to pound the knowledge into your brain.

ST REVIEW COMMENT: "ST Globe is a relatively simple collection of maps and country data, but the level of presentation makes it feel like so much more. The questions section could make it useful in a classroom setting, although it's no replacement for the good old atlas."

A questions section is included to make sure all of the information has been absorbed.



EDITH PROFESSIONAL DEMO

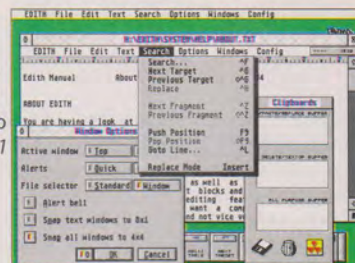
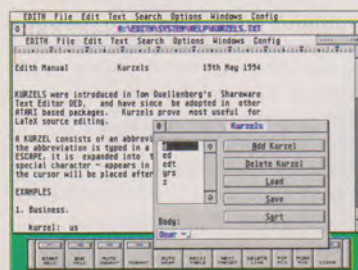
FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 1MB • BANNERWARE • FALCON-COMPATIBLE

IN BRIEF: Word processors are excellent for composing letters to Aunt Molly, but there are times when you need basic text editing without all of the baggage carried by a program like *1st Word Plus*. *Edith* filled that niche nicely, and the newly released "professional" version looks set to stretch the boundaries even further.

Class just oozes from every part of this package. On the Falcon, 3D effects are used throughout and the real-time scroll-bars are inspirational – the mouse pointer even jumps to the centre of the active window for goodness sake! Just how far this package goes in its quest to be the perfect text editor is indicated in its support for "kurzels", or abbreviations. To use an abbreviation all you need do is type the kurz, press <Escape> and it will be replaced with the unabridged version. Ooh, and let us not forget that the whole thing runs as a desk accessory as well...

ST REVIEW COMMENT:

"Edith Professional is a truly wonderful piece of software. It has looks to kill and works well, but all things considered, it's just a tad too expensive at \$60. Mind you, *Edith 1* has now been re-released as freeware – good news indeed!"



Edith is one of the best looking pieces of software on the market, but at close to £40, it ought to be!

By simply prodding the <Escape> key, the kurz manager expands abbreviations...

Winstall-produced installation programs are a doddle to use, but the shareware registration fee is quite hard to swallow.



WINSTALL

FLOPPYSHOP • DISK NO: UTL.4271 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: I dread to think how many hours are wasted by innocent consumers thanks to the lack of software installation programs. One or two exceptions stand out, but on the whole ST users are expected to manhandle software onto their hard disks rather than having it gently installed for them.

Winstall is a utility designed to combat this problem. The process goes something like this: programmer finishes his project, copies it to floppy disk and writes a *Winstall* "script". All the end user has to do is run *Winstall* and follow a few simple prompts; the software will be installed automatically. The scripting language itself is relatively straightforward and quite powerful. The only thing it does lack is the ability to call external programs such as archivers and another black spot is the registration fee: at \$49.95 plus shipping, most programmers would probably prefer to write their own installation routines.

ST REVIEW COMMENT: "If *Winstall* was capable of using compression utilities, I could see it going a long way, but as it stands, it's little more than a glorified file copier. However, it does look more professional than many of the installation programs floating around at the moment."

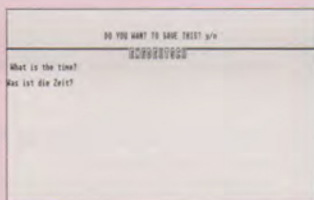
ENGDEUTSCH

FLOPPYSHOP • DISK NO: UTL.43279 • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: In the UK, we have big problems dealing with German documentation files and no doubt German ST users face a similar problem when it comes to English manuals. *EngDeutsch* is a program that will help programmers to translate their instruction manuals into German.

Three modes of operation are on offer, ranging from full translation to words only – you deal with the grammar. Text can be translated and saved at the end of each sentence or alternatively, a document can be loaded and translated *en masse*. The vocabulary is quite comprehensive and it's nice to see grammar taken in to consideration for a change. If a word isn't recognised, it is printed in capital letters. To be perfectly honest, the interface is pretty quirky; it does its job, but looks a bit scruffy compared with most shareware programs these days.

ST REVIEW COMMENT: "*EngDeutsch* works quite well and the translations it produces certainly look convincing enough. Saving each sentence after processing is frustrating and the interface is tacky in the extreme, but if you can cope with these niggles, it's certainly worth a look."



EngDeutsch translates English sentences into German – it even attempts to sort out the grammar.

TOP TEN UTILITIES

1 MULTICAD • GOODMAN INTERNATIONAL • DISK NO: GD.2308 • £1.95 • MEMORY: 0.5MB • SHAREWARE • HI-RES MONITOR • FALCON-COMPATIBLE

A slick interface and solid range of features make *MultiCAD* the ultimate shareware CAD package, and a damn fine piece of software in its own right. Nagging registration messages make it rather difficult to test drive, but it is worth persevering – this is shareware at its very best.

2 EDITH PROFESSIONAL DEMO • FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 1MB • BANNERWARE • FALCON-COMPATIBLE

Good looks and a powerful armoury of features give *Edith Professional* a competitive edge in the text-editing war. The interface is fully configurable and Speedo fonts are usable on screen. As a demo, this version can't save anything, but beyond that it's fully operational.

3 GEMVIEW JPEG SAVE MODULE • FLOPPYSHOP • DISK NO: BY NAME • £2.00 • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

GEMView now has the ability to save JPEG compressed images courtesy of this module. Just dump it in the right folder and the installation is over. The quality percentage can be adjusted by holding down the <Alternate> key just before saving and it's also possible to greyscale the image at this point.

4 FONTRIX 2 • THE ST CLUB • DISK NO: DMG.38 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

Fontrix 2 allows *Degas* typefaces to be installed in place of the ST's system font. A nice range of samples are included and it works in all three ST resolution with varying degrees of success. The selected font can be changed on-the-fly through a supplied desk accessory.

5 ST GLOBE • GOODMAN INTERNATIONAL • DISK NO: GD.2283 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Brush up on your geographical skills with the help of *ST Globe*. Maps of religious and organisational regions are included alongside the standard atlas-style material. A questions section adds an air of interaction.

6 ENGDEUTSCH • FLOPPYSHOP • DISK NO: UTL.43279 • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE

Ever wanted to push your shareware titles into Germany? In that case, let *EngDeutsch* take the strain of translating the documentation. The simulated grammar may not be that hot, but look on it this way – at the very least it will give German ST owners a bit of a laugh!

7 TOSSED • THE ST CLUB • DISK NO: DMG.38 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

A handy little programmer's accessory that displays the meaning of TOS error messages. The descriptions it gives are likely to be about as unintelligible as the numbers themselves to non-programmers, but it could provide vital debugging clues for code-heads.

8 FISHES • THE ST CLUB • DISK NO: DMG.31 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Now this is a weird one – *Fishes* turns your ST's screen into a miniature fish tank. A small shoal of little white lines wiggle around the screen and presumably this is supposed to be relaxing. A menu is included to adjust the little creatures, although this was greyed out on both of the test machines – how disappointing!

9 WINSTALL • FLOPPYSHOP • DISK NO: UTL.4271 • £2.00 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Winstall makes it easy to design custom installation programs – just pop your files on a floppy, write a small script and the end user will be able to set up your software with a few deft mouse clicks. Sadly, the \$49.95 registration fee puts it a little too far out of temptation's reach.

10 FONT UTIL • FLOPPYSHOP • DISK NO: UTL.4369 • £2.00 • MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE

Font Util adds effects to *Calamus* typefaces. Emboldening, italicising and rotating are all on the menu and several more options are unlocked when you register. Unfortunately, the modified fonts it produces often need kerning adjustments and don't seem to get on with *Calamus SL* at all.

PD ZONE

ICDRAW

GOODMAN INTERNATIONAL • DISK NO: GF.74 • £1.95 • MEMORY: 1MB • SHAREWARE • FALCON ONLY

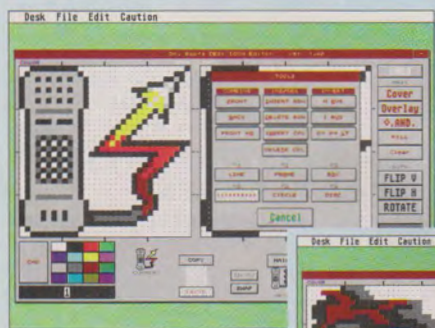


IN BRIEF: One of the nicest things brought about by the release of the Falcon is colour icons. Not only do they improve the looks of the desktop, but also make it far easier to find a particular file. Many applications these days even come complete with their own custom icons and the only problem is actually getting them into the *DESKICN* file.

IcDraw is a program designed to do just that. Once loaded it presents a window containing the standard range of icons and you are free to redesign or mutilate them in any way you see fit. The whole thing is remarkably easy to use and is very similar to the *NeoDesk* icon editor in style. There's a toolbox that contains a range of shapes – box, circle, line and so on – and the standard mirror and movement controls.

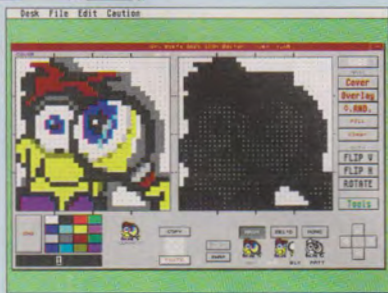
The program comes complete with over a hundred samples and a support utility capable of converting *Windows 3* icons (oh well, nothing's perfect... Ed).

ST REVIEW COMMENT: "*IcDraw* is an essential purchase for every Falcon owner. While not wildly exciting, it does its job extremely well and is the very best way to pep up a boring desktop."



IcDraw is one of the first programs capable of editing colour icons, and very good it is too!

A huge range of ready-made icons are included to brighten up your desktop!



GEOTECH

GOODMAN INTERNATIONAL • DISK NO: GF.67 • £1.95 • MEMORY: 1MB • SHAREWARE • FALCON ONLY

IN BRIEF: *GeoTech* is a no-frills fractal landscape designer. You have no control over the variables used to create each landscape, but what you can do is change the way you view it. The default is a relatively boring two-dimensional view, but by pressing the right function key, it can be transformed into a three-dimensional picture, complete with light-shading if required.

What is impressive about the program is the speed at which it manages to plot each landscape. Using the basic 2-D view, updates are practically instant and even a full-blown light-sourced 3-D version only trails behind by a few seconds. Sadly there doesn't seem to be a way to save these pictures to disk; even *ImageCopy* can't help...

ST REVIEW COMMENT: "*GeoTech* is very slick and unbelievably fast, but I

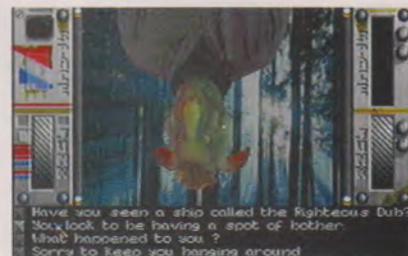


Space Junk is superbly presented and shows off the Falcon's graphics.

SPACE JUNK DEMO

FLOPPYSHOP • DISK NO: F.4251, F.4252 & F.4253 • £6.00 ALL IN • MEMORY: 4MB • PUBLIC DOMAIN • FALCON (RGB ONLY) ONLY • HARD DISK REQUIRED

IN BRIEF: You may remember that when the Falcon was first released there was a lot of talk about a game called *Space Junk*. True colour graphics, quality sound and characters made by the Spittin' Image team – it all seemed too good to be true... and sure enough, it was! It appears unlikely that the full game will ever be released, but the demo can now be enjoyed through the good ol' public domain.

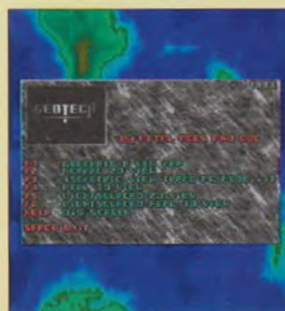


There's limited interaction, but ask the wrong question and you have to reload the demo!

The show starts with an atmospheric intro sequence and then the screen clears to reveal the game itself. As your sprite moves across the landscape, he meets various characters and gets the chance to quiz them. If you select the right question, the demo continues; get it wrong and it hangs. This tends to make the whole thing a little bit annoying, but at least a reload only takes a few seconds from hard disk.

ST REVIEW COMMENT: "The *Space Junk Demo* proves what great potential the Falcon has as a games machine. The "hang-ups" put a damper on the amount of enjoyment that can be extracted from the disks, but it is still worth a look."

am still not altogether sure I can see the point of it. With the ability to save pictures, it could be genuinely useful in designing games scenery, but as it stands, it remains nothing more than an amusing toy."



GeoTech is capable of producing some pretty stunning scenes, but there doesn't seem to be a way of saving them.

A number of different views are available and each is generated in the twinkling of an eye.

CUT OUT 'N' SEND COUPONS

ATARI ST REVIEW

New Age PDL,
P.O. Box 30,
Leigh-on-Sea,
Essex,
SS9 4AD

NAME.....

ADDRESS.....

☐ Sim Pig £1.50
ATARI ST REVIEW

Caledonia PDL,
250 Oldtown Road,
Hilton,
Inverness,
IV2 4PT

NAME.....

ADDRESS.....

☐ Sprite FX £2.50
☐ Well 'Ard £2.50
ATARI ST REVIEW

Merlin PD,
11 Grange Close,
Minchinhampton,
Stroud,
Glos.,
GL6 9DE

NAME.....

ADDRESS.....

☐ Creative Titles 2 £1.25
☐ The Mansion £1.25
☐ Andromeda £1.25
ATARI ST REVIEW

Goodman International,
16 Conrad Close,
Meir Hay Estate,
Longton,
Stoke-on-Trent,
Staffs,
ST3 1SW

NAME.....

ADDRESS.....

☐ Art For Kids Demo £1.95
☐ Geotech £1.95
☐ ICDraw £1.95
☐ Starburst £1.95
☐ Bezerk £1.95
☐ Mediaeval Chess £1.95
☐ Family Connections £1.95
☐ Family Tree 2 £1.95
☐ Laborant Professional £1.95
☐ ST Globe £1.95
☐ MultiCAD £1.95
ATARI ST REVIEW

Floppyshop ST,
P.O. Box 273,
Aberdeen,
AB9 8SJ

NAME.....

ADDRESS.....

☐ Speed Of Light 3.1 £2.00
☐ Morph £2.00
☐ Space Junk Demo £6.00
☐ EngDeutsch £2.00
☐ Winstall £2.00
☐ Edith Professional Demo £2.00

*Yep – we've
reviewed another
23 games,
utilities and
mixed proggies
this issue.
Here's your
opportunity to
get 'em for
yourselves...*

Andrew Wright
looks at ways of
putting on the
squeeze...

BEAT THE

PART NINE: SQUISH 'N' SQUASH

If you're anything like me, you'll always find space at a premium. You'll never have enough floppy disks and the ones you do have desperately need backing up! Man's best friend in these circumstances is often some form of file compression but until recently, it could be a bit of a dog to use.

Most text and graphics files store data pretty inefficiently. Compression can sometimes reduce large text files to a tiny fraction of their original size in a matter of seconds, so it's well worth using. If several floppy disks full of documents can be compressed onto one, you've suddenly saved yourself buying more disks. The main problem is that archivers have traditionally been awkward, command line

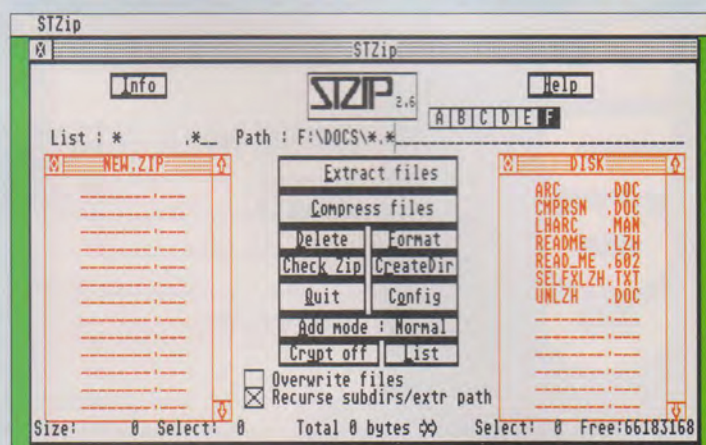
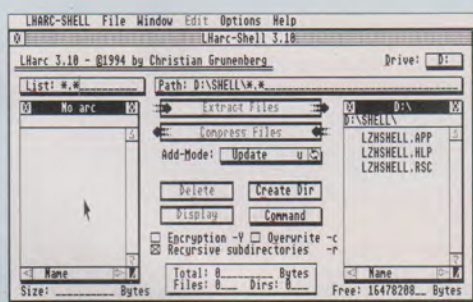
driven programs requiring a degree and a half to understand. The latest versions of ZIP and LHARC, however, are GEM-based, making it a lot easier to squeeze all your quarts into a single pint pot.

WHAT'S AVAILABLE?

First for some background. There are two versions of ARC on the Atari, 5.12 and 6.02, each giving similar compression ratios though the later version is considerably faster and compatible with ARC files found on other platforms. Two far less common archivers are ARJ (2.2) and ZOO (2.1), both of

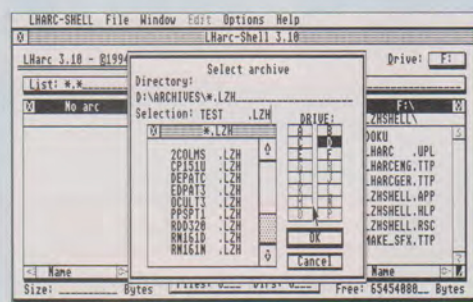


Figure 1:
The left window displays the archive, the right window the files to be added or the directory they are to be extracted into.



STZIP - postcardware from France!

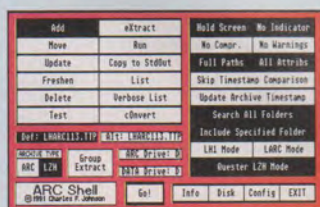
Figure 2:
When the file selector appears, type in the name you want for the new archive and hit the "OK" button.



SHELL SHOCKED

The best way to use an archiver is undoubtedly by way of a shell. The command lines aren't that difficult to use but they're no longer necessary given the effort put in by the programmers to develop dedicated shells. The new ZIP and LHARC programs come with their own, of course, but if you really do need access to several different types of compression, the best option is a general special shell program that can handle everything.

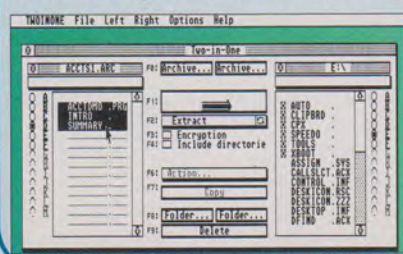
Setting up a shell can be fiddly as they are basically interface programs that use existing archiving software. As a result, you have to tell the front end program exactly where each individual archiver is located and then save the configuration. The advantage of this is that you can always update the archivers as new ones are released but keep the old familiar shell. Unfortunately many shells make assumptions about the switches



An oldie but a goodie, ARCSHELL has given years of sterling service.

a program will use so older shells sometimes won't work at all with new archivers (LZH 2.99 and later, in particular).

A modern, twin window style archiver - Two-In-One.



which are again cross-compatible with those on the PC and other computers. ARJ is only available as a de-archiver, STUNARJ, so is only of passing importance, while ZOO, though quick, isn't particularly efficient when compared with the newer versions of ZIP and LHARC/LZH.

The latter two, ZIP and LHARC, are the only archivers worth considering for your own use, though it's often as well to have ARC handy for the odd occasion when you need it. The ZIP archiving method is represented on the Atari by Vincent Pomey's excellent STZIP, now up to version 2.6. It has an intuitive GEM front end and is very fast and efficient. Its equal, by and large, is the latest

version of LHARC, probably the most commonly used archiver on the Atari.

The LHARC archiver (producing LZH files) has had a complex history and the various names which have been attached to it over the years - it is often referred to as LHARC, LHA or LZH - have only served to confuse. Many early versions of the program produced archives that were incompatible with later versions and they were all very slow, despite their efficiency. The later versions (2.99 and 3.x) now have a dedicated GEM interface similar to that in STZIP and they are almost as quick and efficient.

Because of the various incompatibilities, you shouldn't use versions of LHARC before version 2.01x, especially if you are distributing the

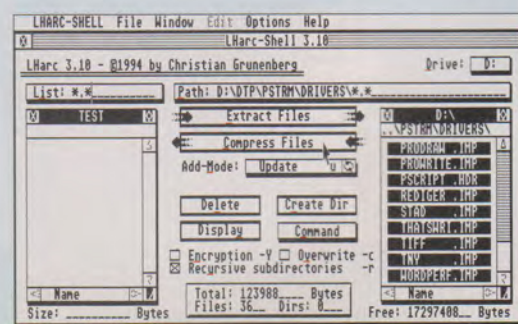


Figure 3:
Having selected the relevant files, click on the Compress Files button.

SYSTEM

files. However, if you want to create self-extracting LZH archives, experience has shown that the best combination is to use either LHARC 1.13b for compression, or a later version using the "-o" switch to turn off "lh5" mode compression, plus the self-extracting archive creation program SFX_LZH v1.6.

ICE AND EASY

Enough of the technicalities. The new version of LHARC, version 3.1, is simplicity itself to use. In figure 1, the left window displays the contents of the archive while the right window represents the files to be added or the directory they are to be extracted into. Click on the button in the top left hand corner of the left window (normally the close button) and when the file selector appears (figure 2), type in the name you want for the new archive and hit the "OK" button.

Next, select the files you want to add to the archive by clicking on the right window's close button and when the file selector appears, point to the location of the files you want to compress. Click on "OK" and the contents of the folder or disk will be

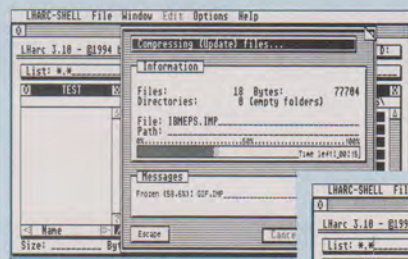


Figure 4: While working, a large dialogue box appears showing you how the operation is going.

Figure 5: The left window shows the files in the archive while those on the right are still in the original location.

displayed in the window. Select the ones you want (you can select more than one simply by repeatedly selecting with the left mouse button) and click on the Compress Files button (figure 3).

A large dialogue box appears showing how the operation is going (figure 4) and when it's finished you can see the same files in the left window (figure 5). These are files in the archive (with the archive size displayed at the foot of the window) while those on the right are still in

the original location. Once you've got the hang of how the archiver works, you can start altering various parameters. For example, selecting Compress under the Options menu produces a dialogue box similar to that in figure 6. If you happen to have a slightly earlier version of the shell, it will look slightly different. Note that you can choose different types of compression algorithm (though "lh5" remains the best choice) and even prevent compression of certain files with listed extensions. This is a good idea because the program will waste a lot of time trying to compress something like a JPEG image which is already highly compressed.

More importantly, perhaps, you can choose to effectively archive both files and folders. When you extract the contents, the same folders will automatically be created. This is vital for complex programs that look for resources in certain locations and it also makes unarchiving much tidier as files are placed neatly into folders rather than scattered all over the root directory of a disk. And of course, to de-archive a file, just reverse the process.

Both STZIP and LHARC Shell are available from PD libraries and are supplied as self-extracting files – otherwise how would you extract them!

BY YOUR COMMAND

Most archivers support a similar range of commands. In the older versions you would have to enter instructions in a command line format as in the picture.

All the commands are now selectable using more civilised menus and dialogue boxes but it helps to know just what is available. On the other hand, using the command line can be quicker.

For example, it is possible to extract only the TXT files from a series of archives by entering the simple LHARC command "e * *.TXT" into the TTP parameters box.

Examples of widely used LHARC commands and switches:

- ADD (a) and DELETE (d): adds or deletes files to or from an existing archive.
- UPDATE (u) and FRESHEN (f): two similar commands that let you update files with more recent versions.
- RECURSIVE COLLECTION (/r): adds, updates or deletes all the files in the current directory plus those in folders within that directory. It also stores the folder names.

So, for instance, typing "a /r CALFNTS.LZH fonts*.CFN" into the TTP box adds all *.CFN files in the FONTS folder – and any other folders inside it – to the archive file CALFNTS.LZH and creates the archive if it doesn't already exist.

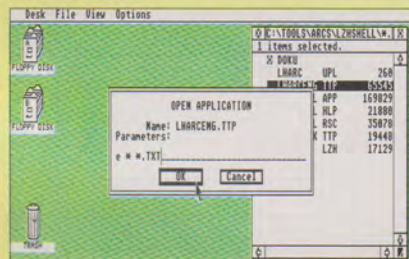
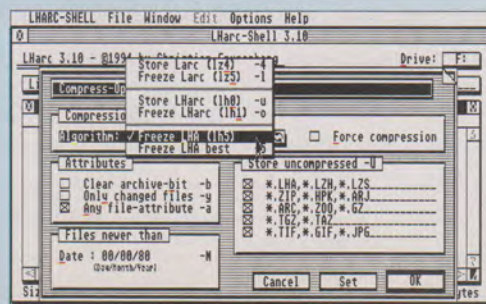


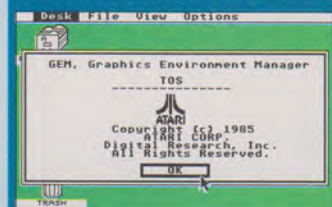
Figure 5: Entering instructions in the TTP parameter box...



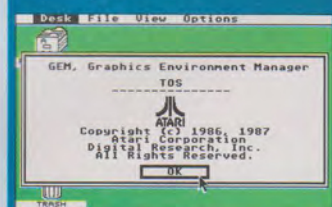
TOS? WHICH TOS?

This series has primarily been aimed at users with TOS 1.04 (late STFM) or TOS 1.6x (STe). However a good many readers still have older versions, not to mention newer ones such as TOS 2.06. How do you tell? The answer is to click on the Desktop Info... option under the Desk menu and look carefully at the resulting dialogue box.

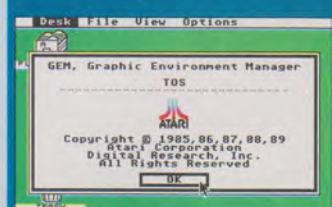
If you've paid good money for a TOS 2.06 upgrade, you'll know about it! Likewise if you've got a MegaSte, you can't have anything else. However, on the off chance that you've bought a second-hand computer and don't recognise any of these dialogue boxes, try the following test. Click on a file – or program – and drag it from your drive window onto the desktop. If a new icon appears on the desktop, you've got TOS 2.0x. If not, look again!



TOS 1.0 – very buggy and slow at filing operations.



TOS 1.02 – also slow and with room for improvement.



TOS 1.04 – much better and with faster file handling.

Figure 6: Selecting Compress under the Options menu brings up a dialogue box from which you can alter some of the settings.

Steve Pedler gives you the lowdown on utilities that can keep your monitor alive and kickin'...

ESSENTIAL EXTRAS

SCREEN SAVERS

Have you ever wondered how your monitor actually works? Let me explain a little. A beam of electrons are thrown onto a glass surface coated with a compound that glows when struck by the electron beam. If the image displayed on the screen never changes, the coating can become damaged – it always displays a ghost or shadow of the display, sometimes even when the monitor is turned off!

To avoid this, monitors should not be left showing the same display for long periods. How can you prevent this if you have to leave the computer unattended for a while, but don't want to turn it off?

One answer is to use a screen saver. In its simplest form, such a program merely clears the screen to black, so turning off any display and preventing "burn-in". This isn't very exciting though, and we can do better than this.

A number of programs are now available that provide a more interesting, ever-changing display. The big question is: which one should you use?

All screen savers provide a basic range of functions. They must have some way of activating automatically; a screen saver that requires you to activate it manually is of little use! This means that the saver must maintain a timer and cut in when a specified time has elapsed. However, the saver must not cut in while you are actually doing something – if you are happily typing away, you don't want the saver to start doing funny things to the screen. So, the saver must watch the use of the machine

EXTEND-O-SAVE

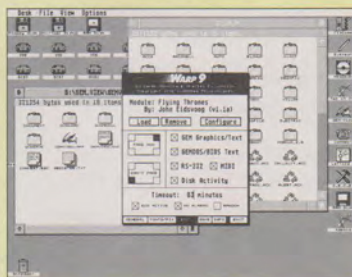
This is an American commercial program supplied as part of the *Warp 9* screen accelerator package. In fact, this is the main problem – the code is integral with *Warp 9*, so if you prefer *NVDI* (generally accepted to be faster and more compatible), you're out of luck as *NVDI* and *Warp 9* do not co-exist at all well in the same machine. In addition, *Extend-O-Save* requires two desk accessories to be loaded, one to act as a control panel for the saver and the second to allow it to have access to the in-built routines in GEM. This works well enough but seems rather unsatisfactory and it's a great pity that with the recent upgrade of *Warp 9*, the authors didn't take the opportunity to separate *Extend-O-Save* from *Warp 9* itself.

That said, this is a very good modular screen saver which works with TOS-type as well as GEM programs. A large number of modules are supplied with the package and many others are available from bulletin boards and PD libraries. A favourite is "Flying Thrones" – based heavily on the famous "Flying Toasters" module for *After Dark* on the PC/Mac but showing toilets and lavatory paper instead! There is a good printed manual, and extensive documentation and source code for writing modules is supplied on disk.

Extend-O-Save is reasonably configurable and module settings are changeable via the control panel, but unfortunately the dialogue boxes are modal (not in a window) which makes the interface look a little old-fashioned compared with *Before Dawn* or *DarkLord*. If you already use *Warp 9* then you need look no further for a screen saver, but if you use *NVDI* then you might prefer one of the other programs mentioned here.



The animated "Flying Thrones" is bound to bring a smile to your face...



One of *Warp 9*'s desk accessories allows you to configure the screen saver.

(keyboard, mouse and data transmission through the modem, printer, or MIDI ports) and kick in only when there has been no activity for a given time.

It is what happens after the saver is activated that makes it interesting. Some savers have a very simple action, which you cannot alter, while others are fully configurable and allow you to change what happens when the saver activates. These savers are "modular" in structure: they allow you to load different modules from disk that completely change the graphical effects the saver displays.

Of course, it is possible to overdo this – the modules can become so exotic that they no longer fulfil the primary function of a screen saver, namely protecting your screen! This is particularly evident with programs such as *After Dark*™ on the PC and Mac.

So here are the main screen savers for the ST – read and decide!

CONTACTS

Extend-O-Save is part of the *Warp 9* package obtainable from The FaST Club (0602 455250) for £29.95.

All others are obtainable from PD libraries or bulletin boards.

BUYER'S GUIDE

UNDER THE SPOTLIGHT...

Side by side information on the four main contenders...

Screen Saver	Availability	Current Version	Memory Used	Run In All Resolutions?	Crash On Resolution Change?	Falcon-Comp
<i>Extend-O-Save</i>	Commercial	3.51	147Kb	✓	✗	✓
<i>Before Dawn</i>	Shareware	1.35 (German)	89Kb	✓	✗	✓
<i>Darklord</i>	Freeware	3.10	103Kb	✓	✗	✓
<i>Idle</i>	Freeware	2.20	29Kb	✓	✓	✓

BEFORE DAWN

This German shareware program consists of a small auto folder program plus a desk accessory control panel. It sports a very slick, modern GEM interface with all the trimmings we've come to expect from German software. The current version is in German, but an English version will hopefully be available by the time you read this. As is usual with desk accessory screen savers, *Before Dawn* will not work with TOS-type (plain text with no windows or menus) programs. Fortunately such programs are rare nowadays, and becoming rarer.

Before Dawn is a modular screen saver that produces its effects by moving images around the screen. Unfortunately, the animation can be very slow in the Falcon's 256-colour mode. One supplied module, "At the Movies" allows you to design your own animated images with the aid of a supplied editor. Producing these "movies" is very easy as no actual programming code is required, and many such movies are available from PD sources.

Before Dawn sports a typical, modern German user interface.

This might make *Before Dawn* sound rather restricted in terms of the effects that can be produced, but the range of modules is wide and some spectacular effects are available. The "Moving Hole" module is a nice dig at the PC world! Three modules are supplied, with more available from the usual sources.

Before Dawn is a very good screen saver; the only real disadvantage is the limitation on the type of effects that can be achieved. The shareware fee is 20 DM.



The "Bouncing Hole" module for *Before Dawn* - who needs an Intel chip!

OTHER TAKERS

There are many other programs available in the public domain, but all are non-modular in that they can produce just one effect. *Idle* shows an animated Atari "fuji" symbol moving across a background of twinkling stars and is recommended if memory is at a premium. Unfortunately, it crashes on a change of screen resolution. This happens because desk accessories, unlike auto folder programs, are reloaded on a resolution change and if a desk accessory has changed one of the system interrupt vectors (as a screen saver will almost certainly have to do), then the vector may be left pointing at memory containing garbage when the resolution changes. This will almost invariably cause a crash, but it is possible to program around this problem.

If you also need a mouse accelerator, then *Silkmouse* provides this and a simple screen saver in one package. Other possibilities include *Star Strike*, *Eyes*, *Boink!* and *Edison*, all of which should be available from PD libraries.



Idle is worth considering if memory is tight...

DARKLORD

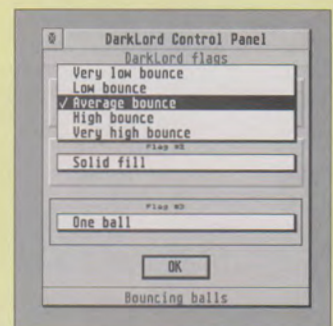
I have to own up here: *DarkLord* is my own creation, so I'll try not to be biased! The present, freeware, version is a desk accessory screen saver using a non-modal interface and, like *Before Dawn*, it does not work with TOS-type programs. It can also be run as a program from the Desktop.

DarkLord is modular and works like *Extend-O-Save*, in that the external modules consist of separate pieces of executable code. Producing *DarkLord* modules does require some programming knowledge, but almost the full range of GEM VDI functions are available which makes a wide range of graphical effects possible. Some example source code is included with the package along with full details of how to produce your own modules.

Five modules are supplied and more are beginning to slowly appear. *DarkLord* can pass a variety of parameters to a module, so that with a well-written module you should be able to tinker with the display until it suits you.

The main problems with *DarkLord* are one or two small bugs still to be eradicated, and the relatively small number of available modules at present.

DarkLord can use the GEM VDI graphics routines, as shown here with multiple filled circles...



The *DarkLord* control panel showing the switches that you can set.

Gone to the pub -
back at 2 o'clock!

Want to leave a
message for a friend?
No problem!

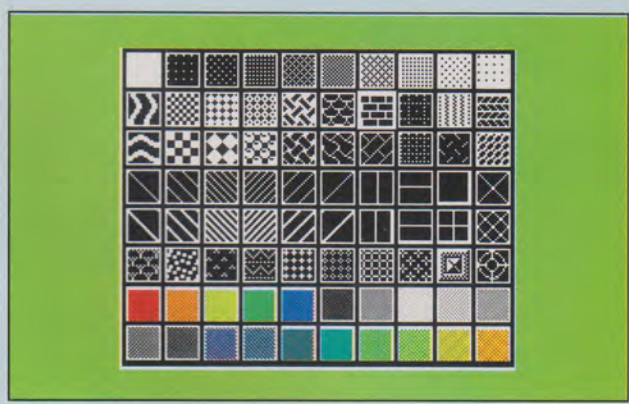
WHICH ONE IS FOR YOU?

If memory is tight, and you just want a simple screen saver without any frills then try *Idle*, which is very capable for its small size. If you use *Warp 9*, there is no reason to use any other program than *Extend-O-Save*, but otherwise it's difficult to recommend this because of the memory overhead in having the *Warp 9* code permanently loaded. In that case, I suggest you try both *Before Dawn* and *DarkLord* - see which you like best...

le?	Work With TOS programs?	No. Of Supplied Modules	Ease Of Use	Documentation	Effectiveness	Value For Money	Overall
	✓	23	7	9	8	4	70%
	✗	3	8	7	9	8	80%
	✗	5	8	7	8	9	80%
	✗	N/A	9	5	5	7	65%

Did you know
you can own a
powerful art
program for the
price of a disk?
Keith Berry greets
an old friend...

Palette colours can be
changed by double-clicking
on them for a selection
screen. Clicking on the
upper large square
produces this pattern and
blended colour array.



Degas Elite established itself as the standard graphics package and some recently introduced packages that flout its conventions do not readily endear themselves to established users, despite their increased power. The need for a Degas-type package that incorporates the range of features we have come to expect from graphics utilities of the '90s has been met to some considerable extent by Crack Art, a shareware program from Germany.

Unusually for a German utility, it runs only in low resolution but is capable of importing whole or part screens created in medium or high resolutions. It can even save to high resolution formats, offering a choice of four conversion algorithms. Written specifically for the TT, it is quite at home on other Atari models with 1Mb of RAM or more. The original 1990 version had the aid(?) of a German text file, although there is a later version complete with an English translation – but with the disadvantage of an intrusive Shareware message...

SEEMS FAMILIAR

Although the formidable-looking menu screen bears little resemblance to that of Degas Elite, its functions and keystroke alternatives do, including the right-click to toggle between menu and drawing screen. The

FINE ART

familiar and very useful Outline is there, as is the rapid flip of blocks at the touch of the arrow keys – if you are used to Degas Block operations you will have no problems with Crack Art's equivalents, but you may be impressed by their speed. Use <Esc> to cut a rectangle in the usual way but to make a block of a more complex shape, begin with <Shift>+<Esc> and left-click around the object's perimeter as though you were constructing a K-Line. When you have overlapped the start and finish

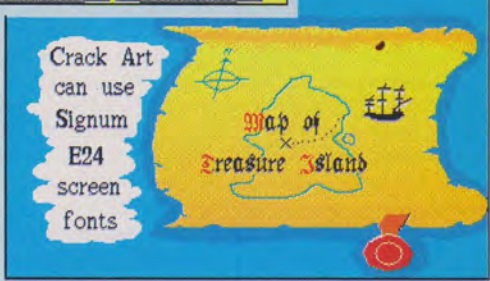


Three of the many powerful Block functions: Curl waits for you to draw two circles and arcs, while Fit-In waits for the completion of a polygon.



"Thumbnail" views of the contents of all nine workscreens can be displayed.

Signum screen fonts can be loaded; use the palette's SWAP to change text colours.



The main menu. Many functions' parameters can be set after double-clicking on their icons; at bottom left are the versatile controls for the nine workscreens.

points, right-click once to halt the procedure and then left-click inside the shape to complete it. As with Degas, toggles the block on and off and you should ensure that POINT or DRAW is selected before pasting it down.

No modern graphics package is complete without some way of blurring together two or more colours or shades, called in this case a Dither: Crack Art employs this on a cut block, which can be anything from a simple rectangle to a complex polygon. While a block is "active" – or floating – click on DITHER in the menu and select from a choice of five modes. Make your choice and the palette range block materialises; moving the two arrows selects the range of colours to be Dithered, and a right-click starts the process, one of the very few that cannot be cancelled by <Undo>. However, you can repeatedly apply the process to the same floating block, whether or not you have pasted it down. If you had

chosen M, S, or R-Grade there is a further step, and that is a left-click where you want the centre of the dither to begin.

The Dither affects all colours of the block except colour 0 – black in the case of the default palette – so only details in this colour will remain after the process has finished. It follows that in normal use your block should consist of a plain non-zero colour, which means that you will need to select a spare screen and fill it with one of the other colours before cutting a block for a large rectangular dither. Alternatively, you could trace separate elements of a picture by the <Shift>+<Esc> method described above and dither them individually.

GOOD MANAGEMENT

Management of the nine available workscreens, from the foot of the menu, also follows Degas conventions but with some refinements.

Left-click on the desired number and a red "light" indicates it as selected. From within a workscreen you can move to any other just by pressing its key number. Back at the menu, click on a number and hold down the button while you drag its icon over that of another to bring up the Copy Screen dialogue box.

From here you can move the contents of one screen to another – entirely, just its palette or image, or swap the contents of both with or without their palettes. If you select FLOOD, the originating screen's contents are copied to all workscreens. Clicking on SHOW produces the novelty of a display with the contents of all nine screens at once. Drag a workscreen icon to the dustbin to erase it and click on the dustbin icon itself to clear all screens – but remember that <Undo> won't cancel this function!

The <Undo> key does, however, cancel operation of the Effects menu, a staggeringly powerful suite of functions for a Shareware production. With a picture completed, or loaded, click on EFFECTS for its menu.

It is difficult to see with some palettes and you may need to change the rightmost palette colour to a brighter or darker shade. With one hand on the mouse button and the other hovering above the <Undo> key, start experimenting!

These Effects operate over the whole screen but you can be more selective with nine of them by using the Box function. From the main menu, double-click on BOX for its parameters, among which you will find EFFECTS and a row of numbers. Select EFFECTS, one of the numbers and, checking that BOX is active (with a coloured border), right-click for the workscreen and try drawing a rectangle over a section of the picture.

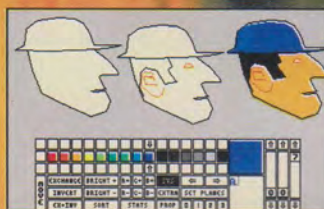
Probing the German text file reveals that the numbers relate to the following Effects: 1 – Anti Alias 4; 2 – Anti Alias 8; 3 – Round; 4 – Contrast; 5 – Erosion; 6 – Median (-); 7 – Median; 8 – Median (+); and 9 – Dilation.



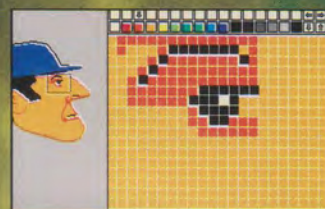
STEP BY STEP GUIDE

ON THE TUBE

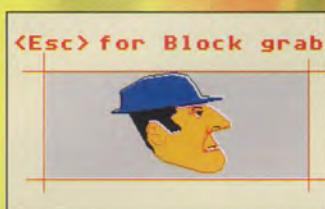
Crack Art has some cracking (excuse the pun) special effects...



1 A workscreen is a right-click away from the menu and from there the <Spacebar> toggles the palette on and off. Three stages of a simple profile drawing using K-Lines are shown, and for improving the fine detail...



2 ... the function keys provide a range of magnifiers – with <Shift>, this pixel editor. Colours can be chosen by right-clicking on them and a right-click outside the magnified area returns you to the workscreen.



3 Choose a suitable colour for the background and press <Z> for a plain fill. Press <Esc> and drag an area wider than the figure from top left to lower right to create a Block. Right-click for the menu and click on TUBE.



4 Press <2> for the next workscreen and move the mouse around to vary the shape and size of the tubular block. Right-click for the menu and right-click again to paste the block down. Use the pixel editor to tidy up details.



5 With black selected, press <O> for Degas-like Outline function. Filled K-Lines add a strip each of light and shade and a horizontal Dither pattern has been added to the plain base.

RUMMAGE IN THE TOOLBAG

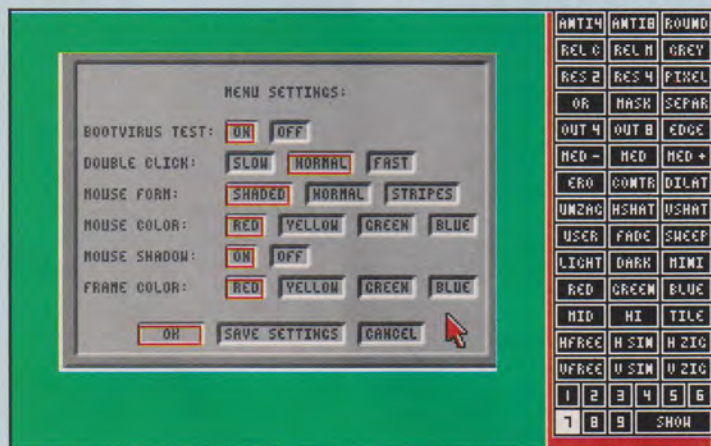
The drawing tools, and their key-stroke alternatives, are very Degas-like but with adjustable parameters from dialogue boxes available by double-clicking on their icons. Sadly there appears to be no equivalent of the colour CHANGE function but there is a new one in the form of SPLINE which can be configured to smooth out a jagged K-Line (Bézier), to smooth a similar line into curves (Smooth), or to provide an editable fluid curve from two points (Curve).

Use in the manner of a K-Line with left-clicks at each point and finishing off with a right-click.

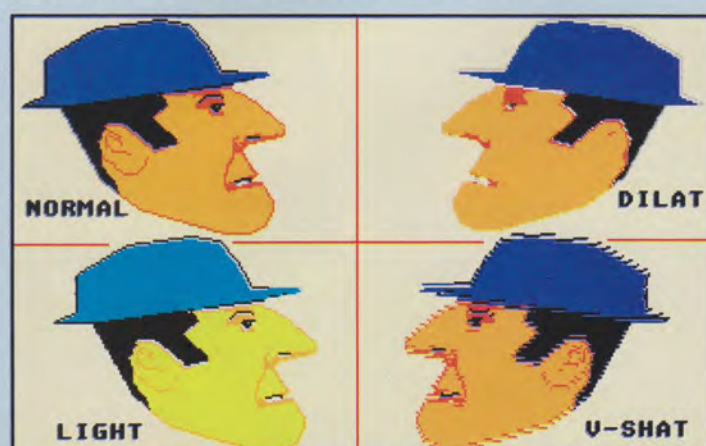
Text can be added to pictures either by use of the system font or by loading Signum! E24 screen fonts. In the latter case, ensure that an unimportant or blank workscreen is selected because the current one is overwritten by the loaded font's character set. To set, or change, the text colour, first engage another function, Draw for example, to enable <Spacebar> to select the palette instead of typing a space. There are

no special effects for text except for those you create with the Block functions. For Saving and Loading there is a compulsory custom file selector that serves a useful purpose: right-clicking brings up a set of buttons from which a file format can be chosen. Buttons are marked C(ompressed) or U(ncompressed) and are colour coded in resolutions – Red low, Yellow medium and Blue for high. The ON/OFF switch refers to disk write verification.

And that's Crack Art – a real budget bargain...



This composite shows the tremendously potent Effects menu – press <Undo> between each effect to test...



Three of the more striking effects are shown here, using the simple filled drawing shown at top left as a basis.

MAKING MENUS

Desk File

Menu titles remain selected after an item is chosen. The AES provides a call to deselect and so "normalise" the menu title.

This month, Ofir Gal continues to build his GEM menu bar...

Last month, a simple menu bar was added to the tutorial program. While this was active, and responding to user clicks, certain shortcuts had to be taken in order to achieve this. Time to complete the picture, adding full "legal" implementation of the menu bar as well as giving an explanation of some utility calls that you may find useful...

NORMAL MENUS

When a menu item is chosen, the title above it remains selected; the programmer has to deselect the title when the task is complete. The convention is to leave the title selected while a dialogue box is open and only deselect it when the user closes the dialogue box.

The AES provides a special call to "normalise" a title. The call is `menu_tnormal` and takes three parameters: the menu tree address, the title index and a flag.

The title index is sent to the program via the menu selection event and placed in `mess(3)` (see *Menu Messages* box). A flag of 1 deselects the title; 0 selects it. The standard procedure is shown in listing 1.

CHECKED ITEMS

Another feature of GEM that you will have seen is "checked" (ticked) menu items. The check mark is normally used to indicate that an option is enabled, a typical example being

LISTING 1
'normalising a menu title

```
SelectTree MENU1
menu_tnormal tree&,mess(3),1
```

found on the desktop of STs equipped with a Blitter chip. Clicking on the Blitter menu item enables the blitter and places a check mark to the left of the item. Clicking again removes this and disables the Blitter chip.

An AES call exists to simplify this task. `menu_ichk` works in a similar manner to `menu_tnormal` and takes three parameters: the usual menu tree address, the menu item index and a flag. If the flag is 1 then the item is checked; 0 removes the check mark. Listing 2 shows how this can be used. A variable called `check` is XORed with 1 whenever the relevant menu item is selected.

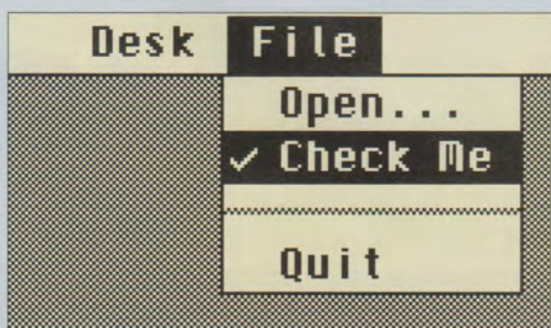
The effect of XOR is to switch the value stored in the variable between 1 and 0. 1 XOR 1 returns 0, while 0 XOR 1 returns 1. Look back at previous tutorials for a full explanation of the XOR operator.

LISTING 2

```
'checking a menu item

checked=checked XOR 1
SelectTree MENU1
menu_ichk tree&,item,checked
```

One of the menu utility AES calls allows a programmer to place a tick in a menu item.



LISTING 3

```
'menu manipulation

'Soption k50,y
'Sinclude toolkit.bas
'Sinclude gem6.bh

DIM mess(7)

IF FNsrc_load("GEM6.RSC")=0 THEN
    junk=FNform_alert(1,"[3][Error while loading resource file.][Abort]")
    SYSTEM
END IF

SUB do_message
    SHARED mess(),quit_flag,menutree&
    STATIC item,a$,res,checked
    IF mess(0)=MN_SELECTED THEN
        item=mess(4)
        SELECT CASE item
            CASE MABOUT
                SelectTree ABOUTFRM
                res=FNhandledialog(0)
            CASE MOPEN
                SelectTree DIAL1
                res=FNhandledialog(TEXT1)
            CASE MCHECK
                checked=checked xor 1
                menu_ichk menutree&,item,checked
            CASE MDISABLE
                menu_ienable menutree&,item,0
            CASE MCHANGE
                SelectTree DIAL2
                res=FNhandledialog(TEXT2)
                IF res=CHANGEOK THEN
                    a$=" "+FNgette_ptext$(TEXT2)
                    menu_text menutree&,item,a$
                END IF
            CASE MQUIT
                quit_flag=-1
        END SELECT
        menu_tnormal menutree&,mess(3),1
    END IF
END SUB

SelectTree MENU1
menutree&=tree&
menu_bar menutree&,1

DO
    evt_mesag VARPTR(mess(0))
    do_message
LOOP UNTIL quit_flag

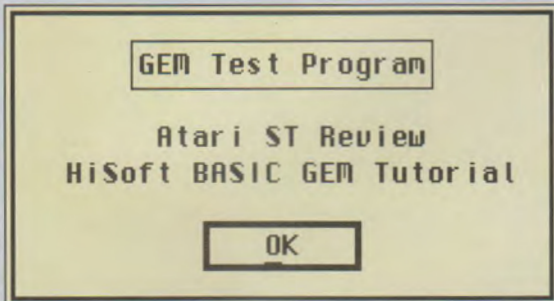
menu_bar menutree&,0
junk=FNsrc_free
SYSTEM
```


MENU MESSAGES

When the user selects a menu item, an AES message is sent to the application that owns that menu. The application must wait for such an event using the `evnt_mesag` call or `evnt_multi`. The message buffer is then filled with the following information:

Buffer	Value
<code>mess(0)</code>	<code>MN_SELECTED</code>
<code>mess(3)</code>	Menu title index
<code>mess(4)</code>	Menu item index

The title index is normally used to deselect the corresponding menu title. `MN_SELECTED` is a constant defined as 10 in the `AES.BH` file.



It is much nicer to display a well-designed dialogue box instead of the rather limited alert. Thanks to the toolkit, this is very easy to do.

SPECIAL CASES

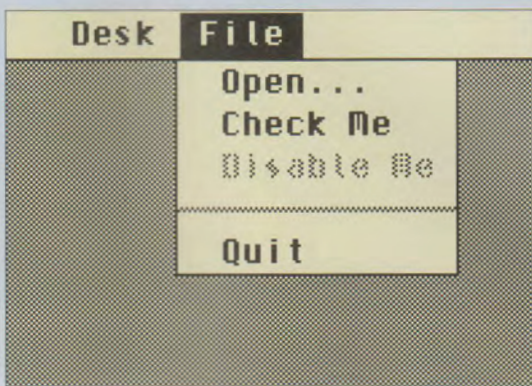
Sometimes you may need to disable a menu item to let the user know that an option is simply not available. This displays an item in grey instead of the usual black text. The AES call `menu_ienable` takes the usual three parameters. The flag parameter can have the value 1 to enable an item and display it in black, or 0 to disable it and display in grey.

Another typical task is changing the text in a menu while the program is running. The AES call `menu_text` allows text to be changed

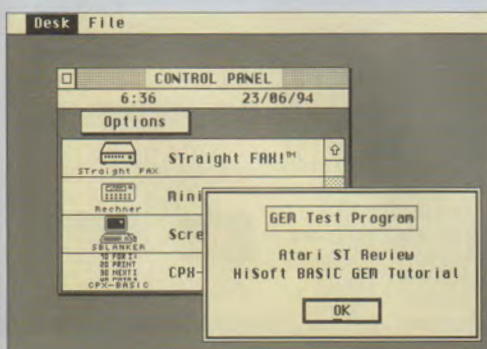
using three parameters, the last of which is a text string that should not be longer than the original string as defined in the resource editor. If you ask the AES to place too long a string, strange things may happen including a system crash – be careful!

FINAL CALL

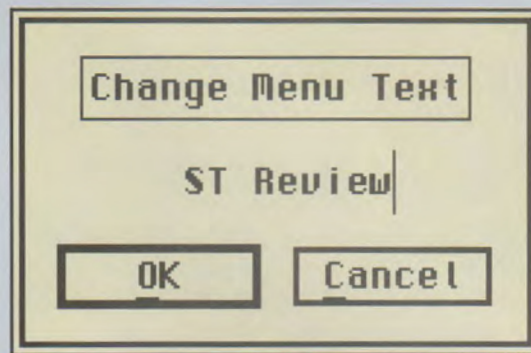
As you can see, there are many menu manipulation routines at your disposal. These are quite simple to use and certainly add to the user friendliness of your programs. Listing 3 is a full demonstration program of the GEM



Another useful menu utility call allows you to enable and disable menu items at any time while the program is running.



One of the many advantages of a properly written GEM application is the ability to use accessories. Programs that are "well behaved" with desk accessories should work under a multi-tasking operating system...

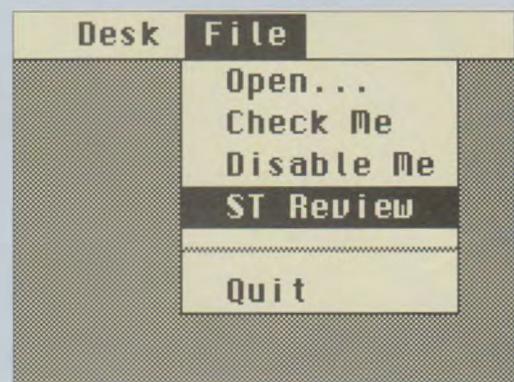


This dialogue box appears if you run the test program GEMTEST.BAS and select the Change Me item from the menu. It allows you to modify the text in that menu item.

menu manipulation calls; the variable `menutree&` is used to store the menu tree address which saves calling `SelectTree MENU1` for each menu access. Since programs usually have just the one menu bar, this is quite a useful trick which makes your source

code shorter and the program a bit faster. Next month I will start explaining the most complex part of GEM – windows. Until then, if you have any questions or ideas please write in to *ST Review* or e-mail me at ogal@cix.compulink.co.uk.

The AES call menu_text allows easy manipulation of text in menu items.



NEW COMMANDS

menu_bar tree&,flag: This call is used to display (flag = 1) or remove (flag = 0) a menu bar.

menu_ichk tree&,item,flag: Display (flag = 1) or remove (flag = 0) a tick (check mark) in a menu item.

menu_ienable tree&,item,flag: Enable (flag = 1) or disable (flag = 0) a menu item.

menu_tnormal tree&,title,flag: Deselect (flag = 1) or select (flag = 0) a menu title.

menu_text tree&,item,text\$: Modifies the text contained in a menu item. The new text string must not be longer than the original text as defined in the resource editor.

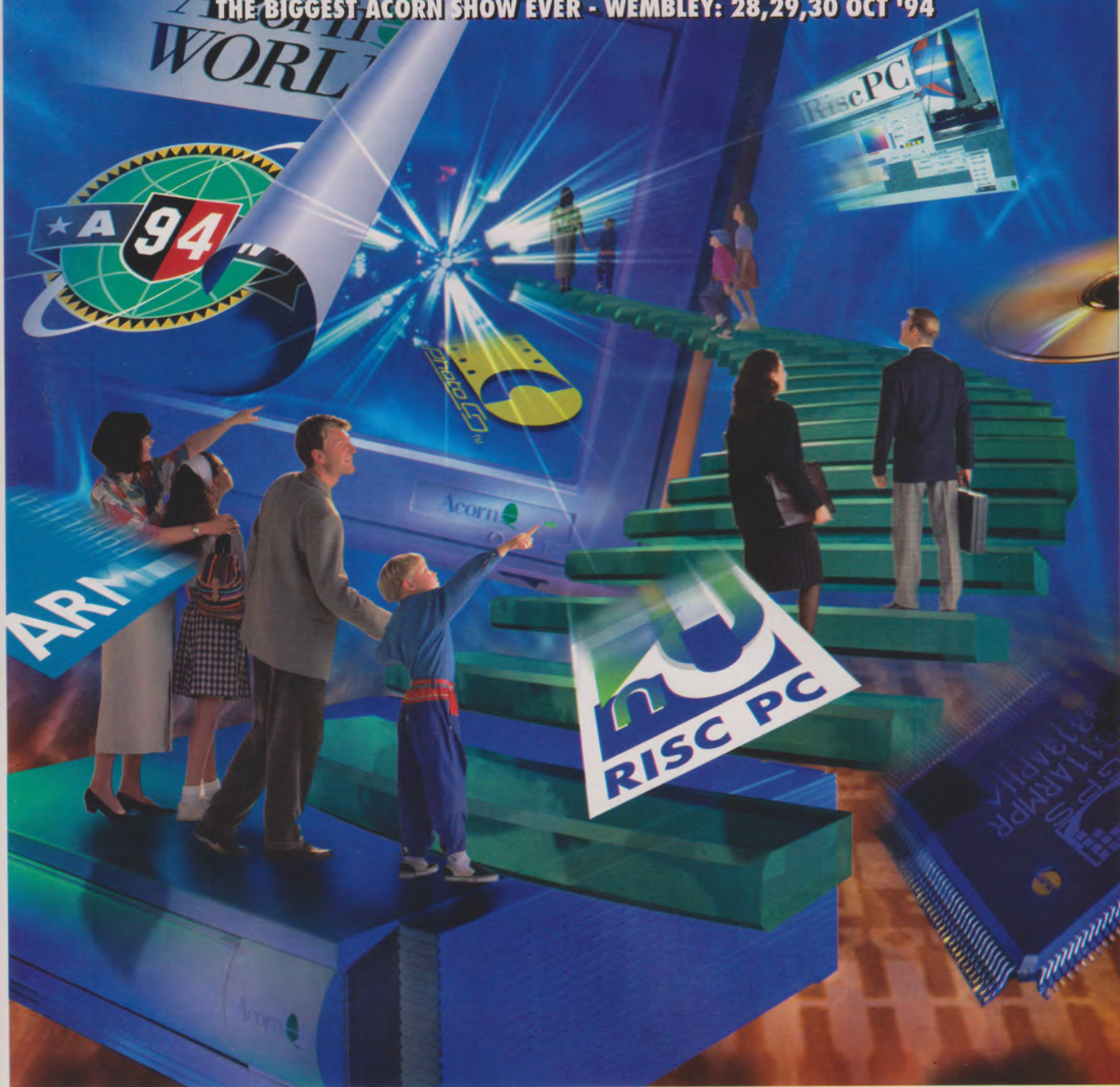
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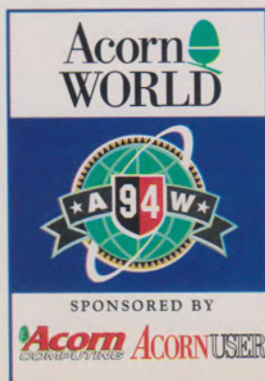
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Part of C's heritage is a close association with one of the most popular "serious" operating systems, UNIX, a multi-tasking, multi-user system particularly favoured by scientists and engineers. One of the attractive features of UNIX is the library of utility programs that form an essential part of the system. These include programs to scan text files for strings, perform complicated search and replace operations, compare files, typeset documents and so on.

What does this have to do with C on the ST? Most of these utilities are written in C, and for many the source code is available in the public domain. In theory then, these powerful programs can be transferred onto the ST by recompiling the source code using an ST C compiler like *Prospero*. This process, known as **porting**, is not quite as easy as it sounds though, as minor modifications usually have to be made to accommodate particular quirks of compilers or machines. However with a little effort, programs can be transferred in this way.

One of the key features that makes this process possible is the simplicity of the user interface used by these

TAPPING IN

Many utilities tend to take the form of command lines.

Jon Ellis considers how to incorporate this into a C program...

utilities. Unlike the dialogue boxes and menus that characterise GEM programs, many traditional UNIX utilities rely on a **command-line** interface.

HOW TO DO IT

The reason for delving into this topic at such length is that many of the underlying concepts of C, particularly those involved in input and output, are strongly influenced by the fact that the language evolved in a

command line environment. We will start with the simplest aspect of this area: how to use the command line.

Take a look at Listing 1. This little program is a demonstration of how to access command line arguments

in *Prospero* C. The key feature of the listing is the declaration of **main()**. Up until now, **main()** has been declared as taking no arguments, and returning no values. This sleight of hand allowed us to gloss over the

AT YOUR COMMAND

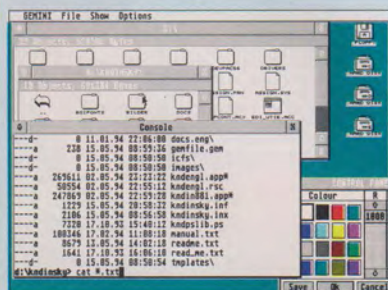
To those who cut their computing teeth on the ST or Macintosh, or even on *Windows*, command-line interfaces (often abbreviated to CLIs) probably seem rather alien. The user is simply presented with a prompt, and the computer sits there, apparently doing nothing, waiting for input. Unless the user knows what to type, nothing happens; hence the popularity of graphic interfaces which are much easier to get started with.

Despite a rather hostile appearance, command-line interfaces do have advantages. Some operations are easier to perform via a command line. To take a simple example, printing a list of the names of all files with the extension **.DOC** in the current directory is a task easily solved using a CLI. Under MS-DOS the incantation would be:

```
dir *.doc >prn:
```

Think how you would do this using the Desktop... Similarly, many repetitive file processing operations are easier to do via a CLI. In fact, all complete CLIs allow sequences of commands to be stored in files, and executed in one go. Such files, variously known as **shell programs** or **batch files**, enormously extend the power of the interface.

To provide the best of both worlds, some of the replacement desktops provide a CLI in addition to the graphic environment. *NeoDesk* has an optional extra CLI, whereas in *Gemini* the CLI, called *Mupfel*, is included with the basic package.



The Gemini desktop includes a built-in CLI.

```
E:\SYSTEMTOOLS>?
E:\SYSTEMTOOLS>
E:\SYSTEMTOOLS>help
could not run program
E:\SYSTEMTOOLS>quit
could not run program
E:\SYSTEMTOOLS>bye
could not run program
E:\SYSTEMTOOLS>
```

Help! A CLI can be very hostile without the right commands...

```
LISTING 1
/*
** A demonstration of the C interface to the command line.
** When compiled and linked, rename to CLI_DEMO.TTP
** before running.
**
** by Jon Ellis, 13 June 1994 ST Review 30
*/

/*
** Include library file declarations...
*/

#include <stdio.h>

/*
** The program starts here...
*/

int main(argc,argv)

int argc;
char *argv[];

{
    int f;

    printf("Command line arguments: %d\n",argc);
    for (f=0; f<argc; f++)
        printf(" Argument %d is (%s)\n",f,argv[f]);
    printf("\nPress RETURN to exit:");
    getchar();
    return(0);
}
```

SEPTEMBER '93 ISSUE IS SOLD OUT...

... but we still have some of the cover disks! If you missed out on *Prospero C* and would like a copy of the disk along with the first tutorial, send £2.50 (payable to Europress Publications) to: *Prospero C* Disk, ST Review, Europa House, Adlington Park, Macclesfield SK10 4NP.



COMMAND LINE ANATOMY

Having discussed command lines in general, we need to look at their structure more closely before we can see how the command line is supported in C. At its simplest level, under a CLI, a program is run simply by typing its name. As an illustration, we will use a program called *WCOUNT*. Therefore, we just type:

```
wcount
```

and the CLI loads and runs the program. However, in most cases, we need to do more than just run the program – we want to give the program some input data to work on. Let's say that *WCOUNT* is a program that counts words in a text file; it needs to know which file to process. This too can be accommodated on the command line:

```
wcount essay.doc
```

In this example *ESSAY.DOC* is an **argument** to the program. Programs can receive any number of command-line arguments, each separated by one or more spaces. Arguments that control how the program operates rather than specifying data are often called **command-line switches**. As a matter of convention, these usually take the form of a single character, prefixed by "-" or "/". In our example, *WCOUNT* might have the option to wait for a keypress before terminating, to allow the user

to view the results before the Desktop is redrawn. If the switch to get the program to do this is "-w" (for Wait), the command line might look like this:

```
wcount -w essay.doc
```

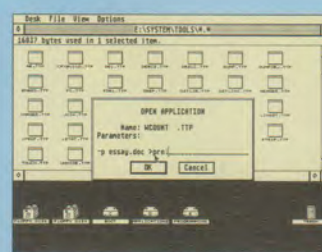
To see how complicated command line switches can get, take a look at one of the file compression programs like *ARC* or *LZH*. Finally, most CLIs support a facility called **redirection**. This allows output from a program to be sent to a file, or to a printer, or to other devices like the serial port. Redirection is performed by including a special argument on the command line, consisting of the name of the file to which output is redirected, prefixed by the > character. The printer is accessed using the special pseudo-filename, "PRN:". So, to redirect *WCOUNT* output to the file *DETAILS.TXT*, with pausing at the end, the command line would be:

```
wcount -p essay.doc >details.txt
```

and to print the output, the line would be:

```
wcount -p essay.doc >prn:
```

Some CLI environments also allow redirection of input, so input normally read from the keyboard is taken from a file instead. Even more complicated



Running our example program from the Desktop would result in this...

versions of redirection are also possible, allowing output from one program to be fed directly into another program (a process known as **pipng**).

DOWN TO EARTH

How does this fit into the ST system? Although the ST has a graphic interface, it does allow command line programs to be run. These are programs with a *.TTP* extension. When a *TTP* program is double-clicked on, the Desktop displays a dialogue box that allows command line arguments to be set before the program is run.

The only difference between running a program in this way, and running it from a CLI is that the name of the program should not be entered into the *TTP* dialogue box. If you think about it, this is reasonable, because you have already told the system which program to run by double-clicking on its icon.

subject in the early stages of the tutorial course. The form given in Listing 1 is the correct full declaration, and will be used from now on.

To try the program out, compile and link it using the C workbench, and then exit the workbench. Rename the resulting *CLI_DEMO.PRG* to *CLI_DEMO.TTP*, and then double-click on the icon. The Desktop will display a dialogue box allowing access to the command line. Enter a few words separated by spaces and click on "OK".

The Desktop will then load and execute the program. Before the *main()* function is called, the command line is scanned and individual arguments identified. Each argument is formed into a null-terminated C string ready for processing by *main()*. This task is performed by the start-up code, which can be thought of as a specialised library function without a name, which is called before *main()* and automatically included in all C programs.

What *main()* gets is a pair of input arguments: an array of pointers to strings, conventionally called *argv*; and an integer usually called *argc* that indicates how many command-line arguments were found. After playing with the program a little, you will probably notice that there is always one more argument than is entered in the dialogue box, and that the first argument is always empty. The reason for this is that by convention, *argv[0]* points to a string containing the name of the program. As a consequence, *argc* will always

have a value of at least 1. However, *TOS* does not make the name of the program available to the start-up code, so *argv[0]* is left blank.

The declaration of *argv* may look a little odd, but it is quite logical really: if *char *x* declares a pointer to character, then *char *x[]* declares an array of pointers of characters. How do you think a pointer to an array of characters would be declared? (hint: look at Table 1 in the last tutorial).

THE BOTTOM LINE

The final new point is the value returned by *main()*. Traditionally, this is used to indicate the status of the program upon termination. Successful completion of a program's task is signified by a value of 0, negative codes usually indicate some error condition. Unfortunately under *Prospero C*, the return code is mangled somewhat before program termination, so it is probably best to stick to a code of 0.

In this tutorial we have introduced some of the themes that underlie the C run-time environment. In the next article, we will dig deeper into this area. Here is a little brain-teaser: some programmers declare *argv* like this

```
char **argv;
```

Can you show why this is no different to the declaration used in Listing 1, and then go on to rewrite the listing in this style?

TOP TIPS

Here are a few top tips on writing command line programs:

- Command line interfaces are useful for simple programs or for those you might want to port onto other computers.
- Command line interfaces can make life difficult for the user: if your program has as many options as *LZH* or *ARC*, you probably need to think about adding a GEM interface too.
- If the program receives a command line that is incorrect, do not just print an "Incorrect command line" message; display a useful screen summarising the available options. In particular, an empty command line should invoke the help screen – this allows users to find out about your program simply by double-clicking on the icon.
- Even fully-fledged GEM applications can, and should, make use of the command line. Through the "Install Application" facility, the Desktop can fire up an application when an appropriate document file is double-clicked on. The name of the document file is passed to the application on its command line, and the application should respond by opening the document immediately on loading. Dragging a file onto an application's icon has a similar effect.

```
RenderST disassembler v1.48
Jon Ellis
Modifications to 15th February 1993
Usage: render [-labcdefghijklmnopqrstuvwxy?z] <sourcefile> [<outputfile>]
Opt: -1 Disassemble 68010 codes -n Uppercase assembler directives
-a Output suitable for reassembly -o[5]<addr> Disassembly output offset
-b File is boot sector image -p Print absolute addresses as 32bits
-c Calculate CRC for file -q<prefix> Prefix char for comments
-d Output offset data in decimal -r Suppress hint comments
-e List external symbols used -s Enable smart node
-f<apfile> Read command file -t<size> Set the tab size (decimal)
-g File is GEMDOS loadable -u Uppercase output
-h Do hexdump of file -v<size> Set label field tab (decimal)
-i<incfile> Import symbol file -w Pause on completion of program
-j Auto-detect file type -x File is a CPK file
-k Uppercase control registers -y File is an ABS block
-l Ignore symbols in program file -z Assume literal assembler
-n File is a GEM metafile -? Produce prototype .MAP file
Press any key to continue:
```

CLIs should display a useful "help" screen if the command line contents are incorrect...

Movies games Videos



THE OFFICIAL MONTHLY
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COMING SOON
TO A NEWSAGENT NEAR YOU!



Welcome to the "consensual hallucination", the *Internet*. When Gibson wrote his ground-breaking *Neuromancer* in 1983, the *Internet* was already some way down its long gestation period.

Conceived from the American Government's ARPAnet, and nurtured in the womb of academia and big business, the *Internet* is now a vast collection of computer networks (sites) linked together by cable and connected by other computers (routers).

The *Internet* is the reason to buy a modem and get on-line for here we have an anarchic, open network of networks, more interested in freedom of information than censorship or copyright.

WHAT'S ON OFFER?

In short, access to information. Either static, public domain software, picture files, text files and the like or fluid, personal electronic mail (email), discussion groups and real-time chat.

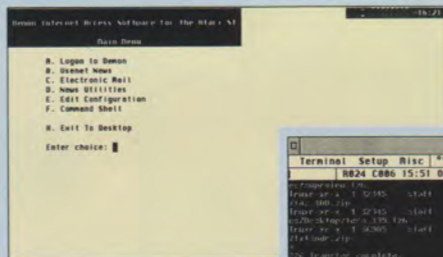
There are various methods of getting the information and these will be covered in detail over the next few months. Some of these functions give you direct connection to a specific site while others cover a range of sites. Certain functions allow you to hop sites as you go – when you wander through a *gopher* system you can start at the home page of the site you originally "gopher" to and end up on an information page of an entirely different site.

ON-LINE

GETTING ON-LINE

You'll probably have to link up with the *Internet* by using your Atari and a modem. The wealth of data available on the *Internet* makes using even a 14,400 modem a bit tedious at times. There are two complete and cost-effective *Internet* services:

• **CIX:** A large commercial system in London. It has excellent internal conferencing facilities and also a very clever interface to the various *Internet* facilities. You need nothing more complex than a terminal program (with ANSI emulation) to link up with the *Internet*. This allows you to use your favourite program and requires



The rather dreadful Demon NOS software!



Getting a couple of files from the University of Michigan archive.

INTO THE

Using Connect to access the Internet through CIX.



Following on from previous Comms Coaching articles, Graeme Rutt and Mark Baines start you down the path to the Internet...

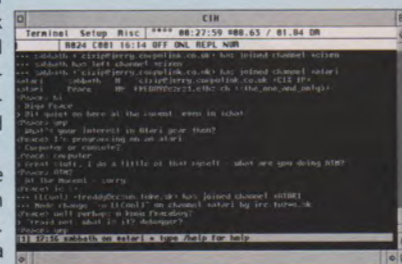
no further setting up. CIX costs £25 to join and then has time charges of 6p/minute (standard) and 4p/minute (cheap). This is an important consideration to take into account – some *Internet* functions take some time.

• **Demon:** Costs £12.50 to join and £11.75 (inc. VAT) to use each month. There are no time charges so it appears to be a much better prospect than CIX. Sadly, Demon is let down by the Atari software. You can't use a standard terminal with Demon and you're stuck with a port from DOS, called NOS. This is a non-GEM program, hellishly difficult to configure and generally an all-round nightmare!

However, for some of the *Internet* tasks, cost consideration outweighs the clumsy software. Thankfully, there has been a move recently to make the Atari Demon software a little more user-friendly...

LET ME IN!

If your biggest interests are going to be simple file-downloading and some real-time stuff, then Demon is the way forward. If you want email, usenet conferencing, file-search facilities and hypertext database retrieval then you need CIX. The communications boom is now flowing around us. The *Internet* is about to end its long foetal crouch – now's the time to get involved.



Talking to some Atari guys on the IRC...

INTERNET FUNCTIONS

telnet: the command to call up a system and use it real-time.

IRC: Internet Relay Chat, a global real-time chatting system.

ftp: file transfer protocol, used to talk to the *Internet* file repositories.

email: electronic, person-to-person, mail.

archie: a file name search facility – pretty basic!

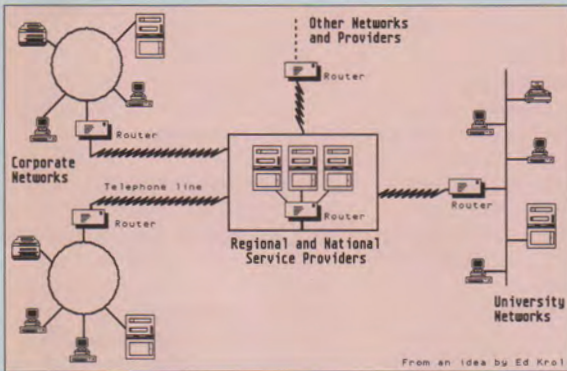
gopher: menu-based file search system.

WAIS: Wide Area Information Service, keyword-based text file search system.

WWW: World Wide Web, hypertext-based *Internet* browser.

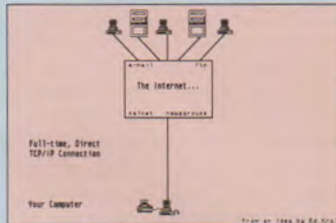
Usenet: an *Internet* sub-system that carries BBS-like message areas.

BEHIND THE SCENES



The Internet hardware network – individual networks connected through routers to Service Providers.

What is the *Internet*? This isn't an easy question to answer. At its simplest level it is a network of networks mostly based on the TCP/IP protocols (see the Jargon Jogger) encompassing the hardware, software, routers and the communication links between them. It can also be considered in terms of its electronic traffic and resources or in terms of the people that use it and their communication with each



A true Internet connection. Your computer is part of the Internet.

NET



other. Increasingly, non-UNIX and non-IP-based networks, such as *Bitnet* and the *DECnets*, are seeing the advantages of being linked into the *Internet*. They use Gateways that translate one set of protocols into another so that the two networks can transfer data packets between them. There is a gateway that enables *FidoNet* users to send email to someone on the *Internet*, for instance.

Generally, there are four things that you can do on the *Internet*: email; USENET newsgroups where discussions take place; file transfers (FTP) and remote computing (telnet). Some gated networks do have full access to all features whereas others, like *FidoNet*, only have partial access – email and the USENET newsgroups but not FTP or telnet. The main reason for this is that the network's gateway doesn't have a full live and continuous link with the *Internet*, only polling briefly and disconnecting after packets are swapped.

WHO'S IN CHARGE?

There is no president or director – no one person or council governs the *Internet*. However, each individual network on the *Internet* will have a governing body as it is run by academic or military organisations or

commercial companies, but generally the *Internet* is anarchic.

There is a voluntary membership group called the Internet Society (ISOC), where the Internet Architecture Board (IAB) council is responsible for some technical matters and in guiding the *Internet* into the future. Ordinary users can express their opinions in meetings of the Internet Engineering Task Force (IETF) which advises the IAB.

WHO PAYS?

No one pays for the *Internet* as a whole. Individual networks or users don't have to pay fees to some global body to connect.

However, individual service providers or local networks have to



TCP/IP: The TCP/IP networking protocols are the *de facto* set of communication protocols for transferring data across networks of computers using different operating systems. It stands for Transmission Control Protocol over Internet Protocol and has its origins in the DARPA experiments of the early '70s. It was incorporated into UNIX and the code placed in the Public Domain. As a result, almost all UNIX machines use it; TCP/IP provides access to additional services that will be covered in future articles.

OSI: A protocol standard from the International Standards Organisation (ISO) to replace TCP/IP and known as the ISO/OSI (Open Systems Interconnect). Although there will be much resistance, pressure from government agencies and non-US networks will ultimately see TCP/IP replaced.

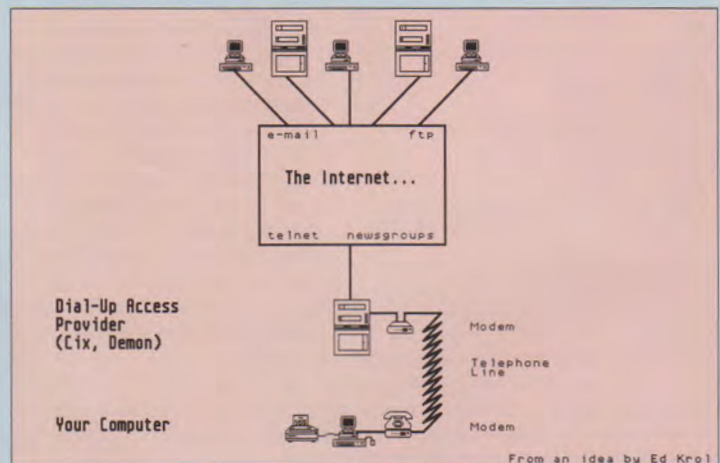
SLIP: Serial Line Internet Protocol which allows a computer to use TCP/IP and be on the *Internet* using a standard telephone line and modem.

PPP: Point to Point Protocol which that allows the same access as SLIP but is a new standard quickly replacing SLIP in popularity.

Dial-Up: Connection to the *Internet* through SLIP/PPP and a service provider rather than being connected full-time via a leased line.

Service Provider: An organisation that provides a connection to the *Internet* for a fee.

Routers: Computers that connect together two networks using the same protocols.



A dial-up and so temporary Internet connection – your computer is only part of the Internet for as long as you are connected.

be paid for because of the expense of maintaining their system. A private user or organisation has to pay a service provider (such as CIX or Demon) to access their computers but many individuals access the *Internet* through their work or college for free.

The *Internet* is expanding rapidly – the number of computers from January 1992 to January 1993 increased by 80.6% to 1,313,000! There are now over two million computers and probably 20 million users and there appears to be no sign of this growth decreasing. Over 65 nations have full access to the *Internet* with more on-line every month. This is certainly a global network...


The CIX sign-on screen – a cheap means of access to the Internet.

Welcome to - The CompuLink Information eXchange			
XXXXX	XXXXXX	XX	XX
XXXXXXX	XX	XX	XX
XX	XX	XX	XX
XX	XX	XXX	Europe's Most
XX	XX	XX	Advanced
XXXXXX	XX	XX	Conferencing
XXXXX	XXXXXX	XX	System
			Provided by:
			CIX
			Suite 2, The Sanctuary
			Bakhtill Grove, Surbiton
			Surrey KT8 8DU
			Voice: 081 398-8446
081 398-1255	Courier	HST 05+ V32bis,	HST-14.4K, V42bis MNP 5 - 48 lines
081 398-1244	Courier	HST 05+ V32bis,	HST-14.4k, V42bis MNP 5 - 26 lines
081 398-9787	Hayas	Ultrax V32bis,	Hayas 9600, V42bis MNP 5 - 4 lines
081 399-5252	Tricom	Modems with V21 V22 V23 V22bis	MNP 5 - 14 lines
081 399-3468	DataTefx	V24 [SDN Terminal Adapter with V118	- 2 lines
2342 1338	8318	is our NUA for PSS, or X25 access	- 16 chans
cix.compuLink.co.uk is our address for Telnetting into CIX			
If you type "aix" instead of "cix", this screen will not be displayed			
CIX Version 2.16 22/82/94			
Copyright (c) CoSy Conferencing System, University of Guelph, 1984			
Portions copyright (c) CompuLink Information eXchange Ltd, 1985-1994			

ASK THE EXPERTS

More questions
answered by ST
Review's panel
of experts...

EASY ON THE EYES


 I have an Atari 1040STe connected to a Philips CM8833-II monitor, and when using it in medium resolution for word processing and DTP, I use HANDYACC.ACC and switch the screen to 60Hz, which I find better. Can this harm my computer or monitor in prolonged use at this setting?

C. F. Robinson, Oxon

Switching the screen refresh rate to 60Hz will do no damage to your ST or monitor, and will probably save you some eye-strain as well. All monitors these days are capable of handling the much clearer 60Hz signal and only a very, very small percentage of older TVs are likely to object.

Nial Grimes

WHAT A CAD!

 I have been trying out MasterCAD but am experiencing a few problems deleting lines and objects. Neither the <Delete> key or <Delete> option in the Process drop-down menu seem to make any difference. What am I doing wrong?

Peter Finch, Epsom

MasterCAD doesn't support keyboard shortcuts so the <delete> key isn't used. However, the Delete option in the Process drop-down menu works fine. Before using any of the options in this menu, at least one object or element must be selected, so remember "Select first, then process".

During selection, it's important


to bear in mind that objects are made up of individual elements. For example, a rectangle drawn in plan view generates a matching rectangle (offset from the original by the cutting plane distance) and four connecting elements making a total of 12 elements! Each selected element is marked with a small triangular marker at each end.

Using the Select, Deselect and View options, it's possible to select any desired combination of objects and elements. Depending on your design it may be easier to select everything and deselect the objects you want to keep rather than clicking on loads of individual objects. After making your selection, press the right mouse button to exit select mode.

The Process drop-down menu contains the Delete option along with many other useful functions to process your selection.

Joe Connor

GREAT GRAPHICS

 I own a TT030/2 with 2mb of memory and an Atari PTC1426 monitor. I use TT medium resolution most of the time and would like to increase the workable area of the desktop and the available colours in this resolution. A graphics card would seem the ideal upgrade but I would like a bit more information before I part with any cash. Would the graphics card increase the resolution to 800x600 or even more? Is there a card that would allow me to work in True Colour? If so what sort of resolution could I expect? Is my monitor suitable for high graphics resolutions? Finally, would there be any software compatibility problems using a graphics card?

K Hunt, Somerset

You have several options for upgrading your TT despite the fact that the popular Crazy Dots cards are no longer being manufactured. Most graphics cards will increase

the resolution and number of colours but, as always, you get what you pay for. At the top of the range is the Matrix card which has 2Mb of VRAM and a 135MHz clock, providing resolutions up to 1400 by 1050 pixels and up to 16.7 million colours on a capable monitor. At £999, though, it's a major investment.

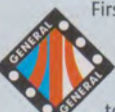
A slightly cheaper option is likely to be the Cyrel card which System Solutions (081-693 3355) are currently evaluating. It too will provide high resolutions and plenty of colour but, at a slightly slower speed. However it does come with five disks of configuration and utility software and sounds rather interesting, to say the least. System Solutions also have limited stocks of an earlier Matrix card at £229. This has a lower specification but it should drive your PTC1426 at 800 by 540 with 256 colours.

Another possibility is the Nova card available from 16/32 PD Systems (0634 710788).

Your monitor isn't really suitable for high resolution graphics as it is not capable of more than about 800 by 600 pixels without interlacing, an awful strain on the eyes. That said, 800 by 600 pixels is a perfectly acceptable resolution for most purposes including image processing and vector art.

As for compatibility, a complete answer is impossible but the Matrix card should work with most applications. Andrew Wright

BAD BOOTER

 First of all let me give you my Atari's technical specification. I have a 520 STFM upgraded to 4Mb with TOS v1.0 and GEMDOS 1.3, (DOS v0.13 and GEM v0.19 or 1.2 according to other utilities!). Apart from the memory upgrade the computer is original spec. With it I use an SM124 monitor for serious word processing and DTP work. My internal drive is double-sided and I use a hard disk - ICD AD II host adaptor with a 52Mb Quantum PS drive. My printer is an Epson EPL-S200 laser.

The problem is this: while my computer is booting it suddenly goes dead and then it re-boots after a short delay. Sometimes it only goes on if I tap it gently. Other times it boots normally but as I am working it goes dead and then re-boots. This to my horror as I lose ALL my work.

Is the problem a faulty power supply or something else? I was

thinking of replacing the supply but what if the problem is somewhere else? Can you give me a diagnosis?


A Petrides, London

The symptoms you describe indicate a hardware failure of some description. Unfortunately it is very difficult to say exactly what is wrong with your ST - you do not say if the problems began as a result of a memory upgrade. The problem could be the power supply but it is more likely to be a more complex fault. Going by your descriptions, it is possible that some chips are not making proper contact with the motherboard. You could try to open the computer and press all the socketed chips down gently to improve this.

Also check that the memory upgrade kit is installed properly. If this fails, the only advice I can offer is to have your computer serviced by a qualified technician.

Ofir Gal

ENGLISH, PLEASE!

 First, may I congratulate you on an excellent magazine. Definitely the best of the ST mags - all of which beat the PC mags. Your cover disks are always excellent, and the copy lucid, entertaining, even grammatical!

That brings me to my first ever gripe. The CPXs supplied on a recent cover disk may be the latest versions, but are the American versions. COLOR? Sorry, but being a teacher this spelling irritates me enormously, and the CPXs supplied with my TOS 2.06 ROMs are the UK versions, even if they are all v1.0.

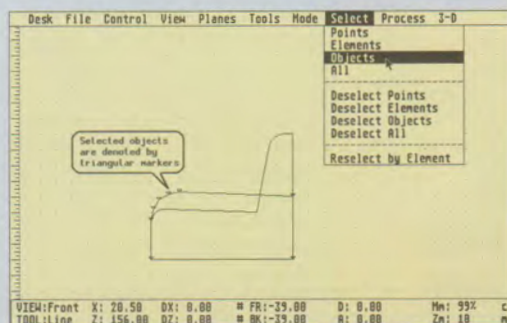
What irritates me the most is the fact that I ought to be able to correct the spellings, but all my attempts so far (using Knife ST) have been unsuccessful. For example, one of the extra CPXs has been partly converted: a three-line dialogue box contains two English lines and the middle one still in German!

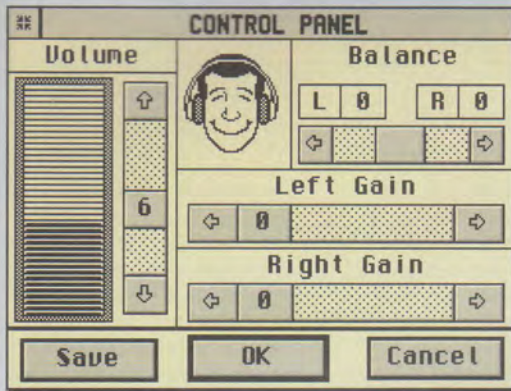
Two more things. The new version of the SOUND CPX refuses to run on my 2.06 STE. It gives me "STEREO SOUND NOT AVAILABLE!" The old CPX works fine. Same with the Printer CPX; the new one has no effect at all on my printer (Citizen 120D set to Epson FX.1)

Nit picking I know, particularly when I can use the old ones anyway, but if I wasn't so fussy I'd probably have a PC, or at least read a less intelligent ST mag.

Mike Adams, Leeds

Natural process - after using the Select options, objects can be manipulated using any of the tools in the Process menu.





First, thanks for your support of ST Review. We do our best to bring you the best and latest programs on the cover disk. In the case of the CPXs we were unable to get up-to-date UK versions and decided that readers were probably better off with the latest version, regardless of some Americanisms. You should be able to translate the CPXs, but only if you know what you are doing. A typical problem is the word "Color" which cannot be changed to "Colour" because the latter is longer and text string lengths may not be extended.

The Sound CPX update is intended for Falcons only which is why it does not work on your STE. As for the Printer CPX, perhaps one of the readers can suggest a reason for this problem.

We have many more, useful CPX modules but these are unfortunately in German! But we're working on it... Ofir Gal

DIVIDE AND CONQUER



Is it possible to convert a program to a desk accessory? More specifically, I wish to use the Korg M1 editor available from PS Soft, Germany (via MT Software) to run alongside Cubase v2.0 and a 4Mb 1040STe. I have written to the author but have received no reply so I can't register my copy of what is a great piece of software!

If it is not possible to do this then can I use a program such as Switcher to effectively cut my ST into two, one for Cubase and one for the

Keep smiling – the Falcon sound CPX included on a previous cover disk was part of the Atari MultiTOS and Falcon Control Panel update.

M1 editor? I would be most grateful if you could assist with these queries – they're the only obstacles between myself and musical stardom!
Neil Moore, Manchester

A desk accessory and a program are two very different entities, so the answer to your question is "no", you cannot convert one to the other. Some accessories such as FastCopy are designed to run as a program by changing the file extension to .PRG, but this only works with programs that are designed in this manner.

Switcher is a possibility but the official word is that it does not work reliably with TOS versions later than 1.02. I have managed to use it quite reliably on TOS 1.04 and so has a friend on TOS 2.06 but there are some serious problems that you should be aware of. Switcher is memory-hungry and also slows down the system. Also, not all programs work reliably; it's better to use Steinberg programs that are Switcher-aware.

Even when using such programs, the system does not cope with disk access so it is advisable to use separate disks for saving your data, so that Cubase files go onto one floppy or hard drive partition, and another for the M1 editor.

A possible, and more costly option, is to get Cubase 3 and the Studio Module. This acts as a mini editor and sound librarian and supports a large number of synths including the Korg M1.

Owing to the modular nature of version 3 you can access the Studio Module from within Cubase.
Ofir Gal



Sound advice – Steinberg's new Studio Module works within Cubase and includes a synth editor and librarian.

PC IN PIECES



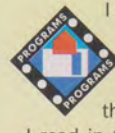
I have owned an Atari 520STFM for six years now, and at last I am planning to upgrade it to 1Mb. Please could you recommend a cheap memory upgrade; I do not mind whether I would need to solder it in or not. Secondly, I also own a PC and was wondering whether it is possible to use a PC keyboard on an ST.

I know that the ST's keyboard just plugs in – are there any adaptors to allow you to plug in a PC keyboard?
J. Davidson, Shipston-on-Strour

You need not look further than this very magazine for cheap memory upgrades: turn to page 60 for more details. Remember that even 1Mb is not considered much these days and you may want to consider 2.5Mb instead. You need only buy 2Mb and then use your existing memory as well.

Connecting a PC keyboard requires an external interface and, unfortunately, this is not currently available. System Solutions (081-693 3355) used to supply the DEKA which was a good product but is no longer made. However, they offer various keyboard enhancements and may be able to help. Mike Robinson

C THIS QUESTION...



I started reading Atari ST Review in February and was delighted to find your excellent tutorial series on programming in C (although disappointed to join part way through the series.) I sent off for the Prospero disk and a copy of the first tutorial in the series but could not afford the manuals to go with it.

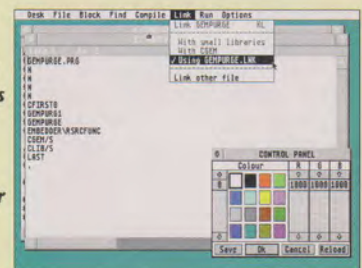
I read in the first tutorial that a program can be split up into separate modules so that each module can be compiled independently. All the modules can then be linked together to form a single program. Please could you tell me how to do this as my big programs are taking a long time to compile (the computer is also running out of memory.)

Secondly, are you going to cover the topic of using pull-down menus (created on K-Resource) in your series?
Gareth James, Devon

It is good to hear that you are enjoying the C tutorials, and evidently getting on well with C programming. Writing programs in a modular fashion is one of C's important concepts. It not only cuts down on compilation time, but makes programs easier to understand and maintain – and helps in the production of reusable code. The subject is going to be discussed in detail in a forthcoming tutorial, but to keep you going until then, here is a sketch of what is required:

- Distribute the various functions of the program into however many C source files are needed. Try to keep like functions together – for example, all the disk handling functions might be put in one module.
- Each module needs to have its own list of #includes.
- Global variables or functions defined in one module can be used in other modules. To do this, the variables and functions must be declared in each module where they are used, and each declaration prefixed by the "extern" keyword. For example, to use an integer variable "count" defined in another module, the required declaration is: `extern int count;` Naturally, the module defining the function or variable does not need to use extern.
- Compile all the individual source files.
- Finally, link them all together. To do this, create a file with a .LNK extension. The file should have the structure shown in the screenshot: the first line contains the name of the final .PRG file to be produced and the next four lines contain capital Ns. The following lines list the modules to be linked together (each given without the .BIN extension). The first module in the list must always be CFIRST0. After the modules come the libraries: their names are suffixed with /S; and then the LAST module. The whole file is ended by a full stop.

Going on to your second question, yes, I do intend to cover the use of drop-down menus in the C tutorial. However, there is some more fundamental material to attend to first, but you should not have too long to wait. Keep on reading! Jon Ellis



Index-linked – programs written in a modular fashion need to have the parts linked together...

*You write, I reply
– and one of you
wins twenty-five
smackers! It's a
good deal...*

LETTERS

WILD OF WOTTON...

I must put ink to paper. What on earth do you people think you are doing to us not so money-bound public? Not only is your magazine, in my opinion, overpriced by the fact you stopped providing two disks, but now I find it is becoming ever increasingly difficult to find it on newsagents' shelves.

Don't blame it on the agent; it must rest on your shoulders for allowing the distributors to make it an

assured sale. At over £3, no agent is going to stock this if they cannot sell it.

Which brings me onto another point. Are you doing this *deliberately* so as to find an excuse not to print *ST Review* any more? If so, tell the public you are going to withdraw it with good notice, and you will keep many a good customer, myself included.

Before you go harping on about "Why don't you have it on order or subscription?", I am not going to buy any mag that I do not consider value

for money, and that includes cover disks – what little use they have been of lately.

G. Holdstock, Wotton-U-Edge

I work on the premise that for every letter I receive on a particular topic, there are another hundred of you who probably think the same but don't bother writing in. I just hope that this isn't true in the case of this letter.

Yes, there are less copies of ST Review sold now than, say, a year

ago and yes, proportionately less copies are printed but what would you expect us to do? Stick 10,000 copies in a warehouse on the off-chance that they get sold through the Back Issues page? What a waste of space – and money.

You refer to ST Review as an "assured sale". While it is true that we are firm sale with small newsagents, the magazine is on a "sale or return" basis with W.H. Smiths and Menzies which have hundreds of outlets through the



GOT SOMETHING TO SAY?

ST Review is your magazine and putting pen to paper gives you direct contact with us. As editor, I read every letter that you send and carefully select the ones for publication. I receive far more letters than can be printed, so make yours interesting if you want to see it in these pages!

It may simply be that you have a constructive criticism about an article in *ST Review*, or that one of our columnists has inflamed you with his honesty. Whatever the reason, drop a line to me, Vic Lennard, at:

Points Of View,
Atari ST Review,
Europa House,
Adlington Park,
Macclesfield SK10 4NP.

Please do not send stamped-addressed envelopes; personal replies cannot be entered into. All mail received is considered for publication unless otherwise stated and we reserve the right to edit letters where necessary without altering the context.

PLEASE SUPPORT US

Without sounding like a "doom and gloom merchant", I feel I must comment on what I feel is the appalling state of Atari products in the market place. Individually the machines on display in department stores and the "odd" shop are in themselves superb examples, but that's it – they are just on display! Where is the software or technical expertise to demonstrate the abilities of these machines?

What's the point of producing a computer to the standard of a Falcon (if I'm to believe *ST Review*) and just leave it sitting there doing nothing? This is certainly the case at the new Silica Store in Debenhams, London. Even though I only managed to have a quick look around the store, Atari representation, apart from the Falcon, seemed to be nil!

Since I purchased my STe in 1991, I have seen the product slowly disappear from shop after shop. My local Tandy, Dixons and Games store have all degraded or removed Atari hardware or software, in some cases both! So, what's happening?

My machine is a long term investment. I have an awful lot of software, recently upgraded to 2Mb and am seriously considering the purchase of a hard drive. I would like to continue upgrading, but not if Atari eventually goes under. I don't want a machine that is in danger of becoming obsolete.

Robert Culhane, Essex

I read with interest your news report on Silica stocking the entire range of Atari hardware and software. This certainly isn't the case in Glasgow. There were certainly no piles of Discovery Packs. In fact, there was

only one ST, showing off that old classic called "The Desktop" on a mono monitor, and a Falcon running a demo of a cube floating in space – I've seen better versions on the ST!

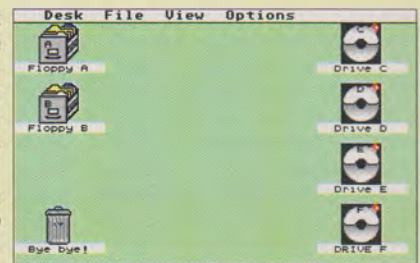
As for software, I had a choice between *Cannon Fodder*, *Fleet Street Publisher*, *True Paint* and something else that I've forgotten the name of but is now out on the Kixx label – but was on sale for £25.99! As usual, there were about 102 Amiga titles on show as well as a heap of GameBoy games. Four boxes do not an ST/Falcon sell. I can only hope that the Glasgow branch has yet to be revamped.

I like *ST Review's* "attitude", especially where *Points Of View* is concerned. I don't see how people can buy a mag that insults anybody that dares argue with them. The favourite reply of one of your competitors goes along the lines of "you don't know what you're talking about so shut up". Otherwise you're practically called a liar – and if you write back proving your case, you get totally ignored. Needless to say I'm writing from experience here.

ST Review gets better with each issue – keep up the good work.

Noel Wallace, Scotland

I sympathise with both of you and find it difficult to understand why any retailer bothers to stock a machine without any decent software installed on it. But at the end of the day, there's a lot more money to be made from selling



Hardly impressive – yep, that well-known program "The Desktop" tends to adorn most retail shop STs and Falcons. At least this one's in colour...

the "flavour-of-the-day" games console than having to work at moving an out-dated computer which is exactly what the ST is to such a retailer. The Falcon should be a bit different but it still carries the name of "Atari"...

I also know exactly what you mean about that well-known program "The Desktop" – we see it so often, it must have sold in its thousands! Perhaps one of the Atari mags made it an essential buy!

The UK Atari market is now in a position where we can no longer rely on high street stores for hardware or software. In fact, could we ever? Fortunately the likes of Gasteiner, First Computer Centre, Ladbroke's, Power Computing and one or two others continue to support us through mail order while distributors such as HiSoft, System Solutions, Compo and FaST Club ensure that new products maintain our interest (see this month's editorial on page 6). Long may it continue!

UK. And if you can't find *ST Review*, the answer is to either subscribe or place a regular order through your local newsagent – this can be cancelled at an issue's notice so what do you have to lose?

Are we really such poor value for money? The price has been kept at £3.50 since issue 13, despite increases in printing costs – that's 17 issues at the same price. Unfortunately the price has had to rise to £3.75 from this issue, but you're only paying 50p for the extra cover disk which this month carries a superb, playable demo of *Ishar III*. And have our disks really been that poor recently...

Calligrapher Professional, GEMView 3, MasterCAD, Everest and Eclipse; exclusive demos of Papyrus, EZ Art Professional, Rainbow, Kobold and Imagecopy 3, and plenty of useful utilities.

As for *ST Review's* future, rest assured that we're going to be around for some time yet. Our sales have remained pretty static for the past six months – and the number of subscribers has increased almost eight-fold in the past year...

GAMES PLEASE

How about putting old games on your cover disks – the ones we can't buy any more? Titles like *Elite*, *Whirligig*, *Gridrunner*, *Conqueror* and the like – there must be tonnes of them! This won't affect game sales because nobody is bothering to write them and other mags do the same for older, less common computers. It would certainly be better than all the text editors and graphic stuff.

How about some Jaguar stuff – you know, the machine everyone wants to buy but can't find! How long would you wait? Hello CD-32 and A1200...

Jerry, St. Helens

All of the *ST* magazines would love to place old games on the cover disk, but we're simply not allowed to. There's an outstanding agreement with ELSPA, the organisation that controls leisure software in the UK, that precludes this. Still,

hope you enjoy our cover disk version of *Ishar III* this month!

As for the Jaguar, I have repeatedly stated that *ST Review* will start to include reviews when the console is readily available in the UK. The situation is currently improving – and I've just seen previews of 21 new games on the machine. CD-32 or A1200? Do yourself a big favour and wait; you won't be disappointed.

PUT UP OR...

I think I ought to add some points to your reply to P. Fletcher's letter (issue 26, May 1994). I am replying as a freeware author who supports the idea of shareware.

In reply to the second point, the author of *Elite 2* will accept a low share of the purchase cost as a return for the increased sales which result from the marketing and the wide distribution. If the game were to be released as shareware for a ten pound registration fee (the additional five pounds being about the minimum that would cover administration and costs such as postage), he would not see nearly the same number of sales.

Shareware authors have to charge more because they will get fewer registrations (virtually never reaching more than a few hundred on the ST). The price usually still works out less for what can be extremely competent software. There is absolutely no evidence to suggest that lowering the registration fee increases the number of registrations. In fact it can decrease them – people think "it's only five pounds; I can't be bothered and the author won't miss it..."

I also can't see any basis for the accusation that shareware programs have greater memory requirements. On the contrary; shareware is often aimed at users with less well-specified systems.

Who can say that top-rank commercial programs such as *DA's Vector*, *Calamus SL* (though they are excellent) are more efficient with memory than some feature-packed shareware releases?

Trying to justify non-payment of registrations with the inertia-selling point is amazingly mentally

dishonest. No one is suggesting that you will be sued by the author if you do not pay the registration fee. The shareware system relies, perhaps naively, on the honesty of users. No one is forcing you to unpack the archive or even suggesting that any money be paid unless you are absolutely satisfied.

However, if technical legal points are in order, I should make it clear that the inertia selling point does not apply. What is on the disk is a licence to copy the program to RAM (in other words, run it) for a limited period and the software itself. These are supplied free, and belong to the buyer of the magazine as soon as the magazine is purchased. What you are actually buying when you send off the fee is an unlimited licence to run the software. This licence is NOT (as in inertia selling) given to you unsolicited with the suggestion that you are obliged to pay for it.

Martin Maisey via CIX

This letter is indicative of a large number I've received on the same point. Shareware can work on the ST in the UK – registrations for GEMView 3 are now approaching 200, having started at around 40 before being placed on an *ST Review* cover disk.

It is important that magazines liaise with shareware authors where possible. Unfortunately, not all magazines take this stance; some cover mount shareware even

GOAALLLL!

GOAL!
£25 STAR LETTER

I am writing this letter to praise Virgin Software. How often do we read in computer magazines of people complaining of lack of service from mail order firms and software companies. Well I have had the best service that's possible to receive from Virgin Software. I read the review of *Goal!* in issue 27 of *ST Review* and was most interested in the mention that Virgin Software had reissued the game. I originally purchased *Goal!* as soon as it was released and was disappointed with the game as it was full of bugs. It soon vanished to the back of my disk box and was forgotten. Then in your review of the game it said that Virgin had recalled the game and put most of the bugs right.

Until reading the review I didn't even know that Virgin had reissued the game! After reading the article, I rang Virgin Software on the Friday afternoon and was told to return the original disk. I posted it on the Saturday and received my new disk first post next Tuesday – now that is what I call good customer relations. It's service like this that will make me continue to support houses and mail order companies on the ST.

I am not a young person; I am retired and suffer from arthritis and my computer is my only hobby now. I hope you publish this letter even if it is only to praise Virgin and to let ST enthusiasts know that there are still software houses that do care about the service that they give. And once again thank you *ST Review* – without you, I would still have a game at the back of my disk box.

G.D. Wood, Staffs

We were aware of the problems with the initial release of *Goal!*, having spoken with Virgin, and decided to wait until the bug-fixed version was available before reviewing it.

As for the service you received, that's what we like to hear. Keep writing in concerning good and bad service – we help wherever we can!

though the documents explicitly ask for this not to happen. Perhaps this is why *ST Review* has managed to secure the likes of GEMView 3, Kandinsky and Everest – and have another pair of top-flight shareware programs lined up for next issue.

MORE SHAREWARE

There has been a lot of correspondence about the difficulties of paying shareware fees to authors not in the UK.

For anyone who can get to an American Express branch, by far the cheapest way to send money to the USA safely (that is, with the possibility of recovery if the payment goes astray) is to get an American Express dollar money order. This should cost only about £2, and should be acceptable to anyone in the USA.

For payments to Europe, international giro transfers are, I believe cheap for anyone with a girobank account, and are possible, though not really cheap, for those who do not have such an account.

Daniel Cohen, London

Thanks for the advice Daniel. Perhaps those of you who have successfully registered programs in the USA and Europe would like to drop me a line with information on the country and program.



Not a golden oldie – but our second cover disk goodie, *Ishar III*, should provide you with a fair few hours of fun...

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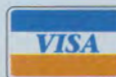
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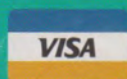
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