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ST

REVIEW

ISSUE 26

MAY 1994

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- G133 Zoo Maker
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- G82 Yahtzy
- G61 Stocks & Bonds
- G44 Flight Simulator
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- P75 Rasters + Borders Code
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- P53 Stos Speaktex
- P47 Stos Sound Tracker
- P46 Shoot-'em-up kit
- P45 Stos Programs

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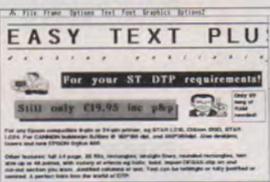
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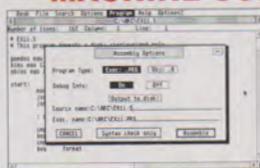
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SOFTWARE AUTHORS

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ST REVIEW ISSUE 26
MAY 1994



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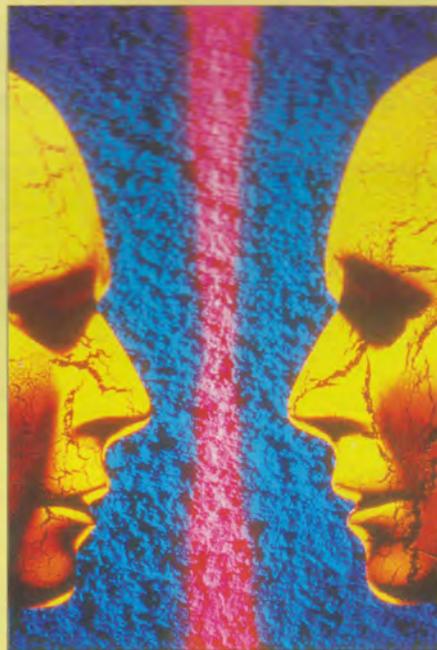
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COVER FEATURE TWIN TITANS

PAGE 16



The worth of a computer is all too often rated by the quality of its Graphics and DTP programs. In the case of the ST, this has just improved dramatically with the release of *Calamus S v2* and *DA's Picture*.

After many years of development, *Calamus* has finally come of age; modular in design, integrated word processor and other useful tools, colour separations – the features list is highly impressive and you can see the result of a true *Calamus SL* layout within this issue, on page 19! Our feature starts on page 16...

DA's Picture offers powerful bitmap and vector graphics options, making it a truly worthwhile image creation and retouching tool. How good? Find out by reading our full review starting on page 22...

ST SOURCE

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

68 SHORT CUTS

A brand new trackball and *DevpacDSP* go under the microscope this month...

70 BEAT THE SYSTEM

Working in tandem with our cover disk, Andrew Wright guides you around *XControl*.

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Is HiSoft's *TruePaint* the new standard for paint packages on the ST? Keith Berry has an art attack...

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RAMdisks really can make life easier as Ofir Gal shows in detail this month.

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Need a little extra advice in using issue 24's cover disk program, *Calligrapher*? No problem – just leave it to Mike Robinson...

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82 C PROGRAMMING

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Graeme Rutt dials into Blackwater BBS, a rather unique bulletin board.

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

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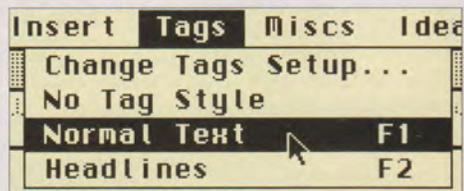
Speak out and see your opinions in print on our Letters pages.

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Missed any of our issues? Order them from here...



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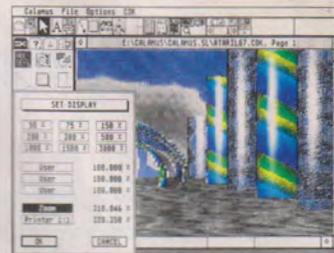
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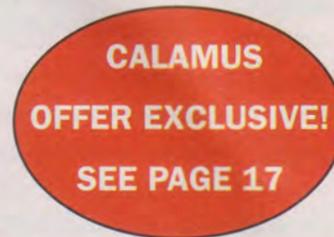
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60 PD ZONE

Nial Grimes looks at the latest in the public domain for education, DTP, utilities and the Falcon.



Calamus S v2 - page 16.



DA's Picture - page 22.

Games offer - including 9Lives and Defender II! See page 50.



INFORMAL

Be informed!

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EXCLUSIVE!
CLASSIC ATARI GAMES OFFER
- SEE PAGE 50

SCREEN SCENE

On your marks, get set... play!

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Can you survive the onslaught?
 See Cannon Fodder on page 48.

ON THIS MONTH'S COVERDISK GEMVIEW 3

... one of the best image conversion and manipulation programs ever available for the ST! *ST Review's* cover disk version won't time-out after 30 days (the PD version does) and, of course, is coupled with two pages of superb tutorial starting on page 12!

XCONTROL

... Atari's control panel software. We've included 22 CPX modules including all the latest ones from Atari along with our Top Ten.

Turn to page 31 for installation and details, and to page 70 for a *Beat The System* tutorial...



CHANGES FOR THE BETTER

If you have a brief thumb through this issue, you're bound to notice various changes. It may be the enhanced use of colour in our step-by-step boxouts, the interesting background textures on the Features pages, our new score boxes or the increased use of photography. In a nutshell, *ST Review* has become a little more visually exciting while remaining true to its policy of providing you with interesting features, accurate reviews and informed opinion.



The changes to the scoreboxes are important as they signal the end of the "five star" scoring system that has been used since the first issue. Many of the writers voiced the opinion that scoring out of five was becoming more awkward, so scores are now graded out of ten instead. This means that scores for products prior to this issue cannot be compared with those from this issue onwards.

This issue has unfortunately seen a decrease in the number of pages to 92, although only one page of actual editorial has been lost. The reason behind this is simple; various advertisers have either pulled out of the *ST* market or cut back on their advertising. Please don't be too concerned about this; *ST Review* has been the only *ST* magazine to allow its number of pages to ride up with increased advertising and now has to be prepared to reduce pagination accordingly. That's reality.

The creation of page nineteen in this issue is quite a feat, having been laid out with Calamus SL on a Falcon and output to film via a TT - Atari through and through. It also happens to be a preview of *Alien vs Predator* on the Jaguar...

In my last editorial, I asked you to send in Hints 'n' Tips for a new section and offered to pay £10 per published item. That's money for old rope - so what are you waiting for? Get writing!

Over 1,000 of you returned the *ST Review* survey - and I now have the unenviable task of making sense of the results! With a bit of luck, I should be able to include a few graphs either next issue or the one after...

Read and enjoy!

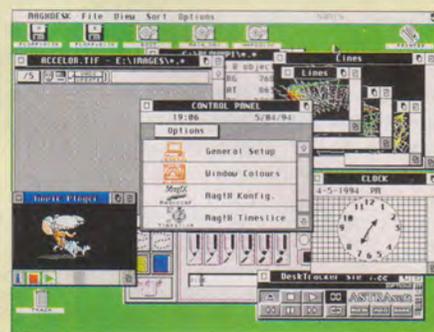
Vic Lennard
Editor

IN THE SYSTEM

System Solutions (081-693 3355) expects to be shipping *Mag!X*, the much talked about multi-tasking operating system from Germany, as we go to press. Rather than slow down your machine as you might expect of a multi-tasking environment, *Mag!X* is actually supposed to speed it up! Available from System Solutions for £69.95, the next issue of *ST Review* will carry a full review.

HD Driver (£19.95), the German-imported hard disk driver software, has recently been updated to support drives with a capacity of up to 2 gigabytes (2,000 megabytes) and partition sizes up to 1 gigabyte. It also allows for up to two internal IDE drives to be connected to the Falcon.

System Solutions currently has a number of CD-ROM related projects under development. Its first batch of CD-ROM drives has sold out and further supplies are expected soon. Currently stocking the Atari GEMini CD-ROM (£29.95), as reviewed last issue, along with two others from Germany, it intends to extend the range to other Atari-specific titles as well as covering subject areas such as MIDI song files, clip art and graphics. System Solutions is also considering the possibility of putting together its own range...



New kid - full review of *Mag!X* next month...

QUALIFIED TO WRITE GAMES

Middlesex University will be the first educational establishment to offer degree courses in computer games design. Domark's Russell Ferrier, who pioneered the idea, said: "The games industry was in danger of becoming stale and tired and the only solution is to seek out new blood and bring it in. Setting up a degree course will provide this new industry with educated, design-trained graduates who will be able to bring fresh creative thinking to the whole area of consumer software".

The degree will be in the Design and Production of Interactive Games and both MA and BA courses will be offered. The MA will be a one-year course; first intake is set for September 1994. The BA is a three-year course and commences the following year.

Both courses will have close ties with software publishers, several of whom will provide much of the software and hardware required. A number of companies will also be offering job experience with the possibility of an offer of employment on completion of the course. Every student will be sponsored by a software developer, covering both course fees and living expenses subject to a contract between the student and the company concerned. For further details, contact Julian Sanderson (Programme Leader for the MA course) or Huw D. Jones (Programme Leader for the BA course) at the Faculty of Art, Design and Performing Arts at Middlesex University.

ANOTHER BRAINSTORM

Hot on the heels of the public release of Brainstorm's JPEG decoder and viewer for the Falcon comes *Movie 100*, a player program for running FLI and FLC (from *AutoDesk Animator* and *Animator Pro* on the PC) animations on any ST, TT or Falcon. The 256-colour animations are displayed in windows and colour reduced to the appropriate resolution as required with a number of sample animations included. Available from all good PD libraries and bulletin boards.



Taking the mickey - but you should see this little guy dance!

SWEET SIXTEEN

Steinberg breaks the sound barrier...

Through the use of ingenious coding, Steinberg has managed to squeeze an extra eight tracks out of its *Cubase Audio Falcon* program so creating the first sixteen track direct-to-disk recording package, for the Atari computer – and without any additional hardware.

Cubase Audio Falcon 16 has all of the standard *Cubase* features, along with two digital audio modes. The first of these offers the usual eight tracks of digital audio along with reverb, chorus, flanger and the brand new, ten-band graphic equaliser. However, the second mode gives you 16 digital audio tracks but without the effects as this mode requires maximum processing power.

Atari believes that such an arrangement is impossible, but Karl Steinberg has employed very fast DSP code and a compression technique for writing data to hard disk to reduce the data flow. Files are then unpacked on the fly just before being passed to the digital to analogue convertors. The result is the same sampling rate – which now ranges between 16.49kHz and 48kHz including the industry-standard 44.1kHz for CD – but a slight loss in resolution resulting in an audio quality similar to that of Philips' Digital Compact Cassette (DCC) or Sony Minidisc.

In addition, Steinberg has also announced a multiple-port output box with an expected UK price of around £500. The FA-8 gives you eight independent outputs making it possible to route each audio track in eight-track mode to its own individual output. Also included are various new Mixer Maps, providing four stereo channels with a pan control for access of the FA-8's outputs along with two auxiliary



Record this – *Cubase Audio Falcon 16* now offers sixteen tracks of digital audio...

outs. These can be routed to either the Falcon's audio outs or the FA-8's outputs seven and eight, depending on the mode being used.

When used in conjunction with the Falcon Digital Interface (FDI), reviewed recently in *ST Review*, the sum total is a 16-track direct-to-disk recorder with digital inputs and outputs, coupled with a sixteen into eight mixing desk at a price that no comparable system can even remotely approach. Now that's what we call music!

THE BOSS



Black Scorpion Software are currently developing a number of games designed to take advantage of the extra features built into the STE's hardware – the blitter chip, overscan capability, 50kHz stereo sound and hardware scrolling which allows for screen updates at a rate of up to 50 frames per second. This should help provide a major boost to STE owners who have, until now, had to settle for games written for the STFM.

Three games are in development at the moment and are due for release around September. *Metal Morphosis* is an STE-specific maze-type game while *Trauma* is a platform game that will run on any ST, STE or Falcon but takes full advantage of the STE's hardware and gives extra colours on-screen if run on a Falcon. The final release is *Supreme Soccer* which is an STE-specific *Kick Off 2* clone.

Sting in the tail – STE-specific games from BSS.

WHAT A DISCOVERY!

Silica Systems (081-309 1111) has just announced that its competitively-priced 520STFM Discovery Pack (£149) is to be supplied with one megabyte of memory fitted at no extra charge. The basic pack from Atari consists of a 520STFM upgraded to 1Mb, *STOS BASIC*, *NEOChrome*, *First BASIC*, *ST Tour*, *Bomb Jack*, *Carrier Command*, *Outrun*, *Space Harrier* and a book entitled *Discover The Atari*.



Marks out of ten – Silica includes its Tenstar games bundle with the Atari Discovery Pack.

ST. Silica Systems are also including the Tenstar Games Pack (consisting of *Asterix*, *Chess Player 2150*, *Drivin' Force*, *Live And Let Die*, *Onslaught*, *Pipe Mania*, *Rick Dangerous*, *Rock 'N' Roll*, *Skweek* and *Trivial Pursuit*) and the Productivity Pack (*1st Word*, *Spell It* and *ST BASIC*) free of charge to all customers purchasing the STFM Discovery Pack. Deep joy – you get to decide which of three *BASIC* packages gets used...

NO OFFICIAL LAUNCH

Atari has decided that there will not be an "official" UK launch of the Jaguar. Instead, the current dripfeed of supply will be stepped up, leading to wider availability from June onwards.

The Jaguar was heavily featured at the European Computer Trade Show (ECTS) which took place earlier this month (more next issue). The Atari Press Office commented that they were "pleased with software development" on the Jaguar and that around ten titles are expected to be available by the middle of the year.

Tempest 2000 has just been released in the States and has been receiving rave reviews in the computer press. The UK release is set to coincide with the

increased availability of the Jaguar around June. Meanwhile, the list of developers, publishers and licensees who have signed up to work on the Jaguar has risen to 86 – 48 since the start of the year.

Among the latest batch are ReadySoft (publishers of *Dragon's Lair* and *Space Ace*), Bullfrog (the *Populous* and *Powermonger* team), Argonaut Software, Domark, GameTek, Jaleco (better known for their arcade games), Elite and Imagineer (publisher of *Wolfstein 3D* on the SNES).

Sam Tramiel, president of Atari said: "We are pleased the industry's most innovative, successful software companies continue to join the Jaguar team. Jaguar is the world's most powerful multimedia video game system.

Consequently, this platform offers leading developers and publishers unprecedented creative and commercial opportunities."

NEWS

SHOW TIME!

By the time CeBit '94 closed on March 23, over 650,000 people had visited the biggest computer exhibition in the world. For eight days, Hanover had been dominated by exhibitors and visitors from every corner of the globe.

No Atari this year which is hardly surprising – CeBit is not the place to show off the Jaguar! And while Commodore used Atari's space it can hardly gloat, apparently being close to bankruptcy in the States. But this doesn't mean that the Atari world had little to show. The Atari scene is very much alive in Germany, including a stunning joint stand from Compo Germany and OverScan. Compo showed *Studio Photo DSP*, an ultra-fast version of *Studio Photo*, while both companies demonstrated 68040-based products – OverScan with the Afterburner and Compo, the Medusa. The latter was certainly one of the show's highlights. This high-end TT-clone from Switzerland rivals the Digital RISC Workstation when running *Calamus* and, with a basic price tag of DM8000 (about £3,000), is one impressive machine.

Steinberg presented *Cubase* on all platforms – see the lead story for details of the 16-track Falcon digital audio version. *ST Computer*, the lone German ST magazine was there answering questions, while Maxxon Computers had an interesting range of products including *Harlekin 3* and *Crazy Sounds*.

You may not have heard of BioData in the UK, but in Germany they are renowned for professional networking systems. Now into WAN (Wide Area Networking) with their new BIG (BioData Intelligent Gateway) system, this offers networking over a distance of miles through the use of ISDN, the digital telephone network. BIG connects networks separated by any distance in less than two seconds, making permanently-connected private lines a thing of the

Manfred Bäcker gives his impressions of the premier German computer show, CeBit '94...



Life begins at '040 – both Compo and OverScan had 68040-based machines on display.

past. Intel did its best to promote the Pentium PC and although it was interesting to see that there is a 486DX4 running at 100MHz, the future appears to belong to the PowerPC, shown by Apple, IBM and Digital. And there it was, on the Digital Stand in Hall 1 – DMC's *Calamus SL* running on a Digital RISC Workstation at a very impressive speed, the first DTP package available under *Windows NT*. A mere snip at

DM25,000. Good luck DMC – but don't forget your loyal Atari users...

Finally, the Chaos Computer Club (CCC) made the headlines on March 21: "Hackers crack Code... Police tracking hackers at CeBit...". Ziff, the

publishing company, was handing out a free CD-ROM packed with full commercial programs worth some DM100,000 and protected only by a 12-digit code. Absolutely safe? No – 30,000 CD-ROMs had already been handed out by the time CCC cracked the code. "We only wanted to show how unsafe this system is," said a CCC spokesman. Ziff now threatens court action if the club actually releases the code into the public domain!



Greek to me – Medusa offers Atari-compatibility and power for around £3,000.



If anyone can, Canon can – but where do you load the fax paper?



People power – over 650,000 in eight days to be precise!

IN BRIEF

- Europress Enterprise and Gasteiner Technologies are to jointly host *Spotlight 1994*, an event dedicated to Amiga and Atari computers. Last year's Amiga-specific event ran for just one day, attracting over 1,800 visitors. *Spotlight 1994* will run for two days and is aimed at enthusiasts, providing visitors with product demonstrations. *Spotlight 1994* will be held at the Novotel, Hammersmith, London on May 28/29. Fancy a free ticket? Then call John Payne on 081-345 6573 – the first 200 callers get a freebie!
- Titan Designs' long awaited genlock device, *Fresco*, has gone into production and is expected to be shipping within a few weeks. Black Scorpion's *BSS Debug* for the Falcon is now on sale at £39.95 but *DEXTrous*, the file management system, has been delayed and is expected to be available within the next couple of months at a cost of £39.95. For further information, contact Titan Designs on 021-414 1630.
- The second *Virtual Reality User Show* will take place at the Novotel, London from September 13-15. The event will concentrate on the uses of VR in design, entertainment and medicine, promoting these aspects in separate feature areas within the show. There will also be several executive briefings on the use of VR in different industries.
- News International's consumer electronics show, *Live '94*, is to link up with Capital Radio for a series of concerts and live broadcasts which will run throughout the six day event. The main feature will be Capital Live, a live roadshow which will run for nine hours a day and feature several popular bands and guest appearances by celebrities. In addition, a series of concerts will be held in the 5,000 seat arena and the admittance fee for the concerts will include free, 5pm entry to *Live '94* which runs from September 20-25 at Earls Court 2, London.

Computers

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

Special Purchase - Limited stock.

MiniS Special Offer

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

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

All drives carry a 1 Year Warranty
Coming Soon: Mag!x - Multitasking for all STs.

Falcon Add-ons

| | |
|--------------------------------|-------------|
| Falcon Wing 0Mb | £49.95 |
| Falcon Wing 4Mb | £179.00 |
| Falcon Wing 14Mb | £Call |
| BlowUP 030 - Software | £15.00 |
| BlowUP 030 - Hard 1 | £49.95 |
| BlowUP 030 - Hard 2 | £69.95 |
| 14" Monitors | from £99.95 |
| Clarity 16 | £99.95 |
| Cubase Audio | In Stock |
| FDI - Falcon Digital Interface | In Stock |

Communications

| | |
|--|--------------|
| Comms Software | |
| Stalker | £39.95 |
| CoNnect v2.4x | £29.95 |
| Includes printed manual and registration | |
| Fax Software (requires Fax Modem) | |
| Straight Fax v2.10 | £79.95 |
| Straight Fax upgrade to v2.1 | £26.00 |
| CD-Rom Systems | |
| Complete with interface for STFM/E | from £299.00 |

Atari Software

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

To order and for further information telephone or write to:

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For small items under £50 please add £2.95 P&P
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Monochrome Monitors

The award winning SM14 is a perfect replacement for the Atari SM124/5 monochrome monitors. They exceed Atari's original specifications. The 14" high resolution, paperwhite FST (Flatter, Squarer Tube), gives a perfectly centred, crisp, sharp image without blurring at the edges. The SM14 comes without and the SM14s with, a speaker. The SM14f is for the Falcon. A Tilt and Swivel stand comes as standard.

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

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

"Essential Buy, 90%"

ST Review, May 93

| | | |
|---------------|--------|---------|
| without audio | SM14/f | £129.95 |
| with audio | SM14s | £149.95 |
| OverScan ST | | £39.95 |



MiniS - Hard Drive System

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

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

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

| | TT/Falcon | ST(FM/e) |
|-----------|-----------|----------|
| 170Mb | £279 | £319 |
| 270Mb | £359 | £399 |
| 340Mb | £459 | £499 |
| 540Mb | £659 | £699 |
| 1080Mb AV | £999 | £1049 |
| 1800Mb | £1499 | £1549 |

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



Falcon 030 Systems - 32Mhz

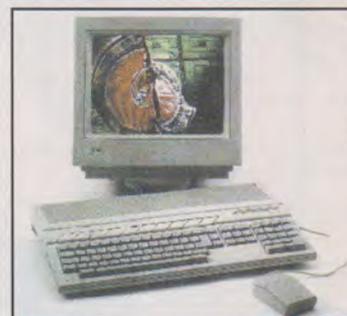
The Falcon is fast becoming the preferred choice for 8 track digital recording, with powerful programs such as Cubase Audio using it to it's full potential. The DSP chip opens up a whole new world of Sound and Graphics. System Solutions now supply 32Mhz Falcon 030 computers from stock.

PowerUp2 is a brand new 32Mhz accelerator for the Falcon, available now. PowerUp2 doubles the CPU

clock speed and does not take up the internal expansion slot.

We supply systems for Music, Desk Top Publishing, Image Manipulation, Animation, Desk Top Video, fax & modem use etc. Please phone for your personal quotation of a tailor made Falcon 030 System.

| | |
|---|--------|
| PowerUp2 kit | £59.95 |
| PowerUp2 fitted | £99.95 |
| PowerUp2 fitted, when bought with a Falcon 030 System | £59.95 |



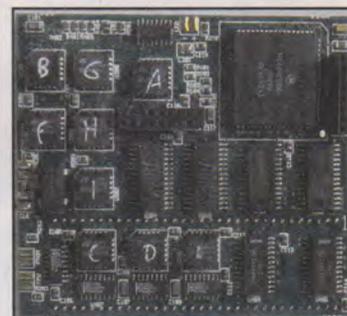
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The Need For Speed. Do you find yourself waiting for screen redraws? With our Hard and Software accelerators you can cut those annoying pauses. NVDI, the software accelerator, is easily installed on any hard drive or floppy boot disk, giving GEM programs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

versions for Crazy Dots and Matrix graphics cards are available.

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

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



Tower Systems

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

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ATARI
WORKSHOP

NEWS UPDATE

News of all the latest shareware and public domain upgrades...

PD AND SHAREWARE Report by Nial Grimes

Every so often a public domain game comes along that would really make you sit back in wonderment if you weren't so busy playing the damn thing, and *Storm '94* is just such an offering. The first version was pretty good, but by lifting the scrolling speed just a little and pushing the presentation even further towards professional standards, the Fugitive Freelancers have turned this into an essential purchase for *Aliens* fan. Atmosphere by the bucket-load and now a little live and kicking action to



Cheap thrills – Faster action and better sound should put Storm '94 high on your priorities list.

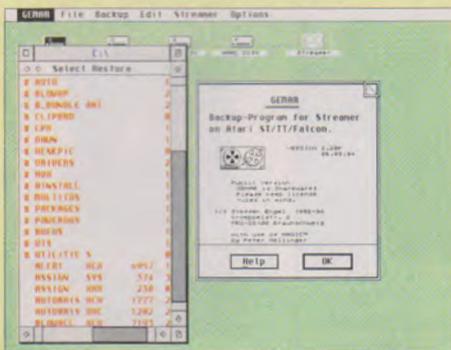
back it up; this will certainly keep me going until *Alien vs Predator* appears on the Jag!

On a more serious note (and believe me, things don't come a lot more serious than *Aliens* games in my computing life) *Gemarc* has taken a jump up to version 2.20. In addition to English prompts, it supports one or two extra tape devices and remains the only sensible choice for owners of tape backup devices. And while on the topic of disk drives, *LED-Panel 2.5* is now available. Details are a bit sketchy on the actual improvements, but fans will no doubt want to give it a try regardless.

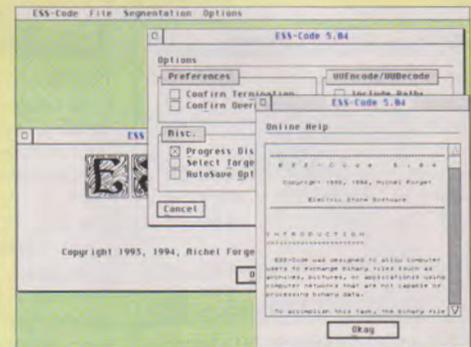
Travellers around the Internet might be pleased to learn that *ESS-Code* has been updated and has now broken through the

version 5 barrier. The improvements are far too numerous to mention, but this latest release shows that no program is too simple to feature a "Mac? – Nowhere!" interface – we are talking windowed dialogue boxes and Star Trek scroll buttons everywhere, people!

And finally I'm almost embarrassed to bring you the news that *GEMView* has been improved yet again (I'll spare you the piccy this month though!). Version 3.03 is little changed in itself, but boasts a huge range of new import modules for formats such as C64 screens, Apple II graphics and numerous others far too obscure to mention...



Gemarc 2.2 – English instructions help to blitz those backup blues.



U know U want to – ESS-Code 5.04 adds class to UU-Decoding.

AMERICAN PIE

New hardware for
the Falcon, TT
and Jaguar...



Atari reported a \$22.6 million loss and a 67% drop in sales to \$8.5 million for the fourth quarter of 1993. A statement from Atari indicated that it had "substantially completed" its transition into the video game marketplace and that due to increased spending on Jaguar-related development and marketing "we do not expect to achieve profitability" until Jaguar is shipping in "substantial volume."

Despite the drop in sales, Atari recently received a shot-in-the-arm when Time-Warner purchased \$12.8 million of stock from Atari. This raises the former owner's stake in Atari from 25% to 27%. Sam Tramiel has also indicated that Atari will be looking towards the equity markets to raise additional capital to be used along with existing Atari capital to expand the Jaguar market in the USA.

Atari announced that 48 new Jaguar developers have signed on since the start of the year, bringing the total of companies that are developing Jaguar titles to 86. New developers include: ReadySoft, Bullfrog Productions, Imagineer, Jaleco and Sculptured Software.

Nintendo and Atari have settled out-of-court for litigation involving Atari's '114 Patent related to horizontal scrolling in video games. For an undisclosed sum, Atari has granted a licence for specific non-Lynx and non-Jaguar patents that it holds to Nintendo. Black Cat Design and ICD

have announced the Cat Box, which is a complete interface adapter for the Jaguar. The Cat Box plugs directly into the AV/DSP ports on the back of the Jaguar and provides industry-standard connectors for S-Video, Composite Video, Left and Right Audio Out, Dual Stereo Headphones, Analog RGB Video, RS-232, ComLynx and DSP. The Cat Box at a list price of less than \$50 is expected to be available in May.

On the computer front, Wizztronics plans to release its Barracuda 040 accelerator boards for the Falcon in April. Several configurations are available including 16MHz and 33MHz models using the Motorola 68EC040 processor (no co-processor) and a 33Mhz model using a standard Motorola 68040 processor. Options include a 32-bit Memory Expansion Card that will allow from 1 to 128 megabytes of TT RAM. The Barracuda requires an external case and power supply (also available from Wizztronics) due to space and power restrictions in the standard Falcon design. Prices range from \$650 for the 16MHz EC040 model to \$800 for the 33MHz EC040 model and \$900 for the 33MHz 040 model. Wizztronics has several other Falcon-related projects scheduled for release including the Falcon Rack, external case and power supply for the Barracuda, a 486SX PC Emulation board and the Video Funnel frame grabber.

Cybercube is developing the CaTTamaran accelerator board for the TT030. Unlike other accelerators, CaTTamaran does not replace the CPU or require expensive cache memory. Despite its low \$99 price tag, performance increases of up to 60% are possible depending on the application in use.

Until next month...

Charles Smeton has been an ST owner since 1985 and a long-time Atari owner since the 8-bit days of the early 80s. He is also a past president of the Washington Area Atari Computer Enthusiasts (W.A.A.C.E.) and the owner of NewStar Technology Management, which develops the *STraight FAX!* software for Atari computers.

Ladbroke Computing



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

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Delivery

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

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Ladbroke Computing Ltd trading as Ladbroke Computing International.

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Data Pulse Plus



- Very quiet, no fan necessary
- Dual SCSI port
- Internal Power Supply
- Device Number Selector
- 2Mb PD software free
- Free HD Turbokit

The Data Pulse Plus range of drives features a full metal case with integral PSU ideal as a monitor stand.

All Data Pulse Plus Drives now come configured with industry standard 50 way SCSI Centronics sockets which allows connection of the ICD LINK (no clock) for use on the ST or a SCSI II cable for use on the Falcon etc.

To ensure the highest possible reliability, the drives are tested at every stage of assembly by skilled technicians.

All drives are ready to 'Plug in and Go' when you receive them. When you first boot up your hard drive you will find a wealth of Public Domain Utilities which have been selected by our support staff.

All Data Pulse Plus Drives include 12 months warranty and free phone advice and support by genuine Data Pulse Plus users.

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

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

Re-writable Optical Drives offer staggering density with hard drive speed. Each 3.5" optical disk stores 128Mb with access time of 30ms and a data transfer rate of 600K per second.

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| Data Pulse +170Mb | £270 |
| Data Pulse +240Mb | £360 |
| D/P +128Mb Optical | £670 |
| D/P + 230Mb R/W Optical | £890 |
| CD ROM Drive | £180 |
| Phone for further details on CD ROM | |
| Please note all prices quoted are for main drive unit only. Add ICD LINK for use with ST or SCSI cable for use with FALCON | |
| ICD LINK (ST) | £79.99 |
| SCSI Cable (Falcon) | £39.99 |
| 128Mb Optical disk | £29.99 |
| 230Mb R/W Optical disk | £69.99 |
| ICD PRO Utilities | £39.99 |

Monitors/TV's

Dataview Mono ST £109.99
Screen Beat Speakers £12.99

Quality Mono monitor with Sound Limited Offer
The Dataview Monochrome monitor comes complete with our custom designed adaptor. The adaptor incorporates a small beeper and also a 2.5mm output for better sound reproduction. The monitor/adaptor combination is fully compatible with all ST high resolution programmes and includes a tilt/swivel stand.

Multisync Monitor

Microvitec 1438 £289.99
ST Switch Box £19.99
Falcon VGA adaptor £9.99

The Microvitec 1438 is a multisync monitor compatible with both the Atari ST and the Falcon. Utilising the ST switch box it is possible to display all three ST resolutions on the same monitor. Also compatible with screen blaster for the FALCON.

"Microvitec 1440...Highly recommended"-Atari ST User

Dataview .28 SVGA £239.99
This high quality SVGA colour monitor comes complete with Falcon adaptor. The .28 dot pitch gives the highest quality picture (Falcon will only display 256 colours in high resolutions).

ST-SVGA adaptor £19.99
Falcon-Composite £9.99
Falcon Scart £13.99
Falcon-ST Mon adaptor £9.99
SCART STE cable £9.99
SCART STFM cable £9.99

Scart TV

(Requires SCART Lead)
Samsung C13352X £179.99
The Samsung C13352X is a 14" SCART input TV with remote control and on-screen displays.

Modems

2400 Baud Voyager £69.99
2400 baud pocket modem, MNP 2-4 error correction, MNP5 data compression
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14400 Baud Modem, Auto Dial, Auto answer, Lifetime limited warranty, MNP 2-4 error correction, MNP 5 data compression, S/R Class 1 & Class 2 commands, Group 3 S/R fax modem (compatible with Straight FAX™)
"With reduced call rates there's never been a better time to invest in Communications"

Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
 - 1.44Mb 3.5" Floppy, up to 14Mb RAM. Displays 65536 colours from 262144 palette at 768 x 480 resolution
 - 8 Channel 16 bit, high quality. Stereo sound sampling
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FALCON 4Mb No HD £699
FALCON 4Mb 64Mb HD £799
FALCON 4Mb 127Mb HD £899
FALCON 4Mb 209Mb HD £999

Legend Trakball

Ergonomically designed Trak Ball. 320Dpi resolution, 2 microswitched buttons. The Legend Trak Ball is very easy to use. Unlike normal Trak balls the LEGEND is operated with the thumb freeing the fingers to click buttons
ONLY £29.99

3.5" External Drive

Ladbroke's 3.5" External Floppy drive. Includes own external power supply.
£59.99

Eclipse Mouse

High quality 300 dpi mouse with microswitched buttons ST/AM.
£11.99

Marpet Upgrades

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

Unpopulated Marpet Board £24.00
See SIMM prices below
Forget Me Clock II £13.99
512K SIMM'S £7.99
2MB SIMM'S £49.99
4MB SIMM'S £99.99

Midistudio Master

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

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

Hand Scanner+ Scanlite £99.99

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

Repair Services

The Only ATARI Authorised Repair Centre in the UK

Our Atari trained technicians can repair ST's at competitive rates. We can arrange for fully insured, courier pickup and return delivery of your machine to ensure its safety. We even have a same day service which will ensure your machine is given priority and subject to fault, completed the same day.

We offer a Quotation service for £15 for which we will examine your machine and report back with an exact price for repair. If you do not wish to go ahead with the repairs then just pay the £15. However if you do go ahead then the charge is included in the minimum charge.

Please note: The minimum charge covers labour, any extra parts are chargeable.

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

PC Emulators

- Check configuration before ordering
- PC Speed STFM or STE (XT) £49.99
- AT Speed STFM (8MHz) £139.99



Star SJ144 £369.99
The Star SJ144 is a Colour/Mono thermal wax transfer printer which gives glossy colour output on normal paper.

- 360 dpi resolution
- Emulates Epson LQ 860, IBM Proprinter & NEC graphics

Star
Star LC100 Colour £129.99
Star LC24/30 Colour £209.99
Starjet SJ48 Bubblejet £210
SJ48 Ink Cartridge £19

Citizen
Citizen Swift 240 Colour £260
Citizen ABC 24 pin Colour £179.99

Hewlett Packard
HP Deskjet 520 £279.99
HP Deskjet 310 £239
HP Deskjet portable £199
HP Deskjet 550 Colour £429.99
HP DJ500 Colour ink cart £26

Lasers
Ricoh LP1200 £699
Panasonic KX-P4400 Laser £499.99
Seikosha OP104 £479.99

Add £3 for cable. Add £7 for delivery

From picture viewing to bulk conversion, GEMView 3 has the power to cope. Nial Grimes starts you off with this month's cover disk giveaway...

THREE FOR FREE!

Ordered dithering is fast, but the results lack clarity and can look very shabby in sixteen colours.



Nearest dithering with an octree colourmap intelligently calculates the best colours for the job and matches each pixel to the nearest shade.

GEMView's unique dithering power can be used to fine-tune pictures before printing.

READ ME FIRST!

Before you attempt to run GEMView 3, it needs a little bit of setting up. Let's run through the essentials...

FLOPPY DISK

First and foremost, make a backup of the cover-disk by using STRBAKUP.TOS. Now, simply delete everything except the GEMVIEW folder and its contents from the copy and you are ready to roll. The package makes frequent access to drive and you will need to keep the disk write-enabled at all times (so you can't see through the little hole in the corner of the floppy).

HARD DISK

If you are fortunate enough to own a hard disk, the procedure is much simpler. Just copy the entire GEMVIEW folder to your hard disk, run the program itself and then adjust the Install Path (you'll find the option in the Extra menu) to suit your system.

GEMView 3 is the most powerful image viewing and conversion utility available for the ST today. It represents a huge step forward from the limitations of older utilities such as Picswitch and allows any ST owner to take command of image files in a wide range of formats.

From the DTP freak with mountains of non-standard clip art to convert, to the casual browser who simply wants to view colourful pictures on his humble 1040ST, GEMView has something to offer. Let's go have some fun...

GO FIGURE

At first, GEMView 3 can be a little confusing. In fact, the wealth of dialogue boxes and menu options it presents can easily fool you into

thinking it's far more complex than it actually is. The first step in conquering your shyness is to forget about the menu running along the top of the screen and instead concentrate on the GEMView window that sits down below.

Start by clicking on the Load icon (farthest left) and choose 944GTP.GIF from the SAMPLE.PIC folder when the file selector appears. Within a few seconds a slick picture of a Porsche will pop up and you will find all of the goodies hidden under the word "GEMView" in the top left of this window. As you've probably noticed, this window-based menu isn't standard and requires two movements of the mouse to make it work. For example, to adjust the size of the picture, move to the Pic. Size entry, drag the mouse slowly right and a second selection of options

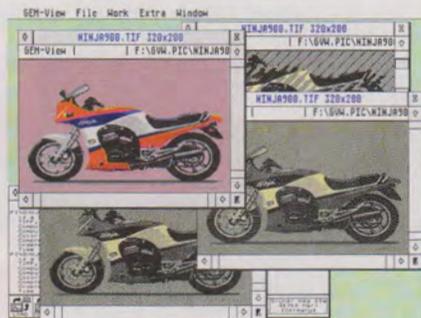
will appear; now just click on the operation you want to perform. The same applies to all of the other entries and however complex it sounds on paper, believe me it comes naturally once you've tried it.

Whenever GEMView loads a picture it goes through a number of processes to try and make it look as attractive as possible, given the number of colours available. To give you an idea of how good it is at its job, you might be surprised to learn that the Porsche picture you loaded at the start of the session actually contained 256 colours before GEMView set to work and reduced it to 16 for ST low resolution.

All of the dithering action is controlled through the raster dialogue box (you'll find it lurking under the Options entry) and by adjusting the settings it contains, the display can be tweaked until it looks almost perfect. The first level of the raster dialogue box deals with mono dithering; if you would like to convert a picture to black and white, simply choose a method from the pop-up menu and click on "OK". Colour pictures, on the other hand, present a much more complex situation and you can adjust these settings by clicking on the Colour Dithering button. Remember, when you take colour on board you've not only got the dithering method to worry about, but also how the colours used are chosen.

A fixed colour map will use GEMView's internal colours regardless of the shades that the picture contains, whereas octree or Statistical attempt to work out which colours are most suited to the picture being loaded. This can be based on a few samples (approximate) or every single pixel (all pixels) which naturally takes some time. For a top quality picture with speed in mind, try nearest dithering with an approximate octree colour map and remember you need to check the "On" button in order for these settings to take effect.

However many rules are laid down about the colour dithering settings, experimentation is the key to success. Remember that GEMView is quite intelligent; it only dithers when it



STEP BY STEP GUIDE

PRINT PERFECTION

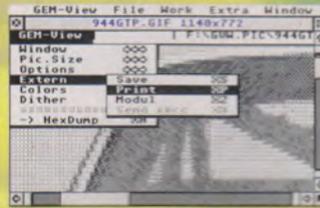
Turning an on-screen delight into a printed masterpiece is a piece of cake with *GEMView 3*...



First, select the "Load" icon and find the 944GTP.GIF file. When the picture appears on screen, size the window so you can see the whole thing properly.



Click on the word "GEM-View" in the top left of the picture window, drag the mouse slowly downwards and then across when you reach the word "Dither". Choose the "Half tone" button.



Drop the window-based *GEMView* menu again and choose the "Extern", "Print" option. Click on the appropriate driver and your picture will be printed!

needs to and that usually means a true colour picture. However, for the purposes of experimentation, you can force its hand by highlighting both the "On" and "Always" buttons in the Colour Dithering dialogue box.

A MODULE OF GOOD BEHAVIOUR

With any luck a pretty stunning picture is now sitting before you on the screen and no doubt you'll want to save the fruits of your labour. This task once again falls to the window-based menu and you'll find the Save button sitting next to the Extern

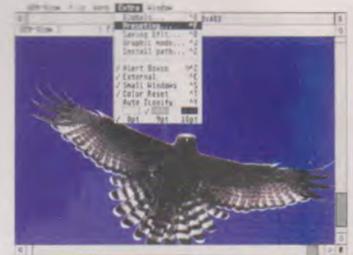
entry. The little box that appears once you've clicked this button will become very familiar to you over the next few months because it's used to talk to all of *GEMView's* external modules.

To prove the point, try using the Modul button. Exactly the same dialogue box will appear, but this time you will be presented with a list of effects modules. Vertical half or Horizontal double are particularly handy for adjusting the aspect ratio of pictures before you print them. Any new modules can be added to *GEMView* by simply dropping them in the relevant folder - *GVWLOAD*, *GVWSAVE*, *GVWMODUL*

or *GVWPRINT*. The next milestone in your journey through *GEMView* is to actually print a picture. The secret to using the print modules is preparation - if you are using a mono printer, that means converting a picture to mono before you attempt to print it. At first this can seem like a limitation, but when you think about it, this allows you to translate all of

GEMView's dithering power into attractive hard copy. A shortcut for converting images to mono is to use the Dither option in the window-based menu. As you'll discover when you begin to work with *GEMView* there's often more than one way to tackle a problem and it's just a case of using the one that you find most convenient.

The key to enjoying *GEMView* is to experiment and not to get too bogged down with the features you don't need to use. Once you understand the basics the rest should just fall into place and we'll do our best to fill in any remaining gaps next month...



Once you've discovered an effective dithering setting, it can be entered into the "Preset" dialogue box and used for every picture that's loaded.

MORE FOR LESS

If you think the cover disk version of *GEMView 3* is good, you ought to see the full package! Over and above the flexibility you've already come to respect, it features:

- Support for over 30 image formats including JPEG, TIFF, PhotoCD, GIF, Targa, Degas, IMG, NeoChrome and many more.
- Drivers for the Hewlett Packard DeskJet (colour or mono) and GDOS printers.
- An increased range of processing modules including bitmap half, bitmap double, picture border, horizontal flip and more.
- An on-disk English manual.

Your code-key will also allow you to unlock future revisions of *GEMView 3* at no extra cost. To register your copy and receive all of the benefits mentioned above, just fill in the details and forward an £18 cheque/postal order (made payable to Graeme Rutt) to:

STR GEMView Registrations, Graeme Rutt, 4 River Terrace, Washbank Road, Eynesbury, St Neots, Cambridgeshire, PE19 2TE
Please write clearly - your code-key is based on your name!

DOWN TO EXPERIENCE

Having used *GEMView 3* for a while, you will probably find yourself applying the same dither and colour settings time and time again and this is where the Extra menu comes into play. Most of the settings follow along similar lines to those described in the body text, but instead of only altering the image in memory, they affect every single picture you load. For example, try clicking on the Presetting dialogue box and you will be presented with the familiar dithering dialogue box.

In addition to customising the dithering settings you can change the size of the font used in the *GEMView* window, the pattern used to surround pictures in their windows and tell the program where to find its modules. Once you have tailored the program to suit your needs, just click on the Save button at the bottom of the Work menu and your configuration will then be used each and every time *GEMView* is started.

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 and 12.30, weekdays.

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

Please send me the full *GEMView 3* package. I enclose a cheque/postal order for the sum of £18 made payable to Graeme Rutt.

Please deliver my goods to:

Name _____

Address _____

Postcode _____ Daytime phone _____

GASTEINER

Tel: 081-345 6000
Fax: 081-345 6868

SOFTWARE

HISOFT PRODUCTS

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| LANGUAGES | |
| Devpac ST3 | £77.95 |
| Power Basic | £27.95 |
| HiSoft Basic 2 | £97.95 |
| HiSoft C | £37.95 |
| Lattice C5.6 ST/TT/Falcon | £167.00 |
| High Speed Pascal ST/TT | £97.95 |
| FTL Modula-2 Developer | £97.95 |
| Nevada COBOL | £47.95 |
| Devpac DSP | £57.95 |
| Modern Atari System S/W | £17.95 |
| The Atari Compendium | £37.95 |

UTILITIES

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| WERCS | £22.95 |
| Knife ST | £22.95 |
| Turbo ST | £22.95 |
| Harlekin 3 | £57.95 |
| Tempus 2 | £22.95 |
| Saved! | £17.95 |
| Diamond Back II | £37.95 |
| Diamond Edge | £47.95 |
| XBoot 3 | £32.95 |
| SpeedoGDOS | £32.95 |
| MultiTOS | £47.95 |
| Data Lite 2 | £47.95 |

MISCELLANEOUS

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| TruePaint | £37.95 |
| ProFlight | £27.95 |
| Atari Works with Speedo | £127.00 |
| Atari Works without Speedo | £97.95 |

BUSINESS

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| Superbase Professional | £97.95 |
| K-Spread 3 | £57.95 |
| K-Spread 4 | £97.95 |
| K-Data | £37.95 |
| K-Graph-3 | £47.95 |

AVR PRODUCTS

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| Mastersound 2 | £17.95 |
| Stereomaster | £37.95 |
| Replay 16 | £127.95 |
| Video Master | £67.95 |
| Video Master Falcon | £97.95 |
| Colour Master | £67.95 |
| Video Master RGB | £107.95 |
| Video Master RGB Falcon | £137.95 |
| Clarity 16 Falcon | £97.95 |

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| 3D Calc Spreadsheet | £27.95 |
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| Personal Finance Manager | £27.95 |
| PFM Plus | £37.95 |
| Master CAD | £27.95 |
| Concerto | £37.95 |
| Quartet | £47.95 |

NEW PRODUCTS

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| Papyrus | £127.00 |
| TrueImage | £27.95 |

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| Wordwriter | £45.00 |
| 1st Word Plus V3.2 | £39.95 |

DTP SOFTWARE

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| Calamus 1.09N | £95.00 |
| Pagestream V2.2 | £149.00 |
| Calamus 5 | £325.00 |
| Timeworks Publisher 2 | £39.95 |
| Calamus SL | £545.00 |
| OCR Software | £49.95 |
| Touch Up (upgrade) | £27.00 |
| Easydraw (supercharged) | £29.95 |
| Cyber Studio | £19.00 |
| Cyber Control | £5.00 |
| Cyber Paint | £5.00 |
| Truepaint (for Falcon) | £32.95 |
| Human Design Disk | £9.00 |
| Future Design Disk | £9.00 |
| 3D Fonts 1 | £9.00 |
| Cad 3D | £9.00 |
| Neo Desk 3 | £28.00 |
| That's Funface | £9.00 |
| Signs and Banners | £15.00 |
| Calendar + Stationery | £15.00 |
| Greetings Cards | £15.00 |

MUSIC SOFTWARE

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| EMAGIC ...we make computers groove. | |
| Emagic Notator SL | £279.00 |
| Emagic Creator | £179.00 |
| Emagic Unitor 2 | £230.00 |
| Cubeat | £150.00 |
| Cubase Version 3 | £319.00 |
| Cubase Light | £70.00 |
| Notator Alpha | £170.00 |
| Cubase Audio | P.O.A. |

ATARI MEMORY UPGRADES

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| Increase your memory: ST/STF/STFM + Mega ST + Falcon | |
| X RAM Board 0Mb | £24.95 |
| 512K to 1Mb | £29.95 |
| Up to 2Mb | £75.00 |
| Up to 4Mb | £125.00 |
| 8Mb for Atari ST | P.O.A. |
| Falcon 14Mb | £499.00 |
| Virtual Memory | £49.00 |

GASTEINER STE UPGRADES

| | |
|-----------------------|---------|
| SIMM to SIPP Adaptors | £3.00 |
| 1Mb | £4.95 |
| 2Mb | £50.00 |
| 4Mb | £100.00 |
| Atari STE 8Mb Upgrade | P.O.A. |

ALFA DATA HAND SCANNER

| | |
|--|---------|
| Alfa Data Plus | £119.00 |
| Alfa Data OCR | £149.00 |
| System requirements 2Mb RAM + Hard Drive | |
| Colour Scanner for Falcon | £399.00 |
| Mono Scanner for Falcon | £99.00 |

SCSI BARE HARD DRIVES

| | |
|--------|----------|
| 40Mb | £99.00 |
| 52Mb | £129.00 |
| 85Mb | £179.00 |
| 127Mb | £199.00 |
| 170Mb | £219.00 |
| 240Mb | £249.00 |
| 540Mb | £439.00 |
| 1 Giga | £799.00 |
| 2 Giga | £1300.00 |

FALCON 030 EXTRAS

| | |
|--------------------|--------|
| SCSI II Cable | £34.95 |
| ST Monitor Cable | £15.00 |
| SVGA Monitor Cable | £15.00 |
| Musicon | £43.99 |
| Truepaint | £33.99 |
| Cubase Audio | P.O.A. |
| Notator Logic | P.O.A. |
| 400 DPI Mouse | £17.95 |
| Microphone | £29.95 |
| Midi Cable | £12.95 |
| Stereo Speakers | £29.95 |
| Stereo Headphones | £16.95 |

**Falcon with
14Mb RAM £999**

ACCESSORIES

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| Mono-Colour Monitor Switchbox | £14.95 |
| Multi-sync Switchbox | £29.95 |
| Printer Cable | £6.00 |
| Modem Cable | £6.00 |
| Null Modem Cable | £6.00 |
| Serial Cable | £6.00 |
| Philips/Atari Cable | £10.00 |
| Scart Cable | £10.00 |
| 3.5" External Drive | £50.00 |
| 3.5" 1.44Mb External Disk Drive for Atari/Mega STE/TT | £99.00 |
| Blitz Turbo | £25.00 |
| Power Cable (kettle lead) | £6.00 |
| Mouse Pad (picture) | £5.00 |
| Blank Disk (branded) | £4.49 |
| Spike Protectors | £30.00 |
| Dust Covers (all sorts) | £6.00 |
| Soldering Irons | £10.00 |
| SCSI II Cable | £34.95 |
| Hard Drive Fans | £5.00 |
| Midi Cables | £10.00 |
| D.M.A. Cable | £6.00 |
| SCSI Cable | £6.00 |
| Optical Mouse Pad | £10.00 |
| Disk Box (40 capacity) | £4.95 |
| Atari to TV cable | £10.00 |
| Printer to Switchbox | £9.95 |
| Auto Printer Switchbox | £14.95 |
| Disk Box (80 capacity) | £6.95 |

FORGET-ME-CLOCK II

| | |
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| Clock Cartridge for ST/STE/Falcon | |
| Clock Cartridge No Thru Port | £11.99 |
| Clock Cartridge with Thru Port | £14.99 |

ATARI FALCON 030

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| A 16MHz 32 bit computer for fast processing. It comes with a 1.44Mb floppy disk drive, built-in speaker. | |
| Falcon 030 1Mb | POA |
| Falcon 030 2Mb | POA |
| Falcon 030 4Mb | POA |
| Falcon 030 4Mb+120Mb Hard Drive | POA |
| Falcon 030 4Mb+210Mb Hard Drive | POA |

**Falcon Eagle Sonic 32 (32MHz)
Accelerator for Atari Falcon 030
£199**

AUTO MOUSE/JOYSTICK SWITCH

Allows you to instantly select either your mouse or joystick by a simple click on your mouse. You won't need to fumble around under or behind your computer to swap your mouse and joystick cable ever again, and also it saves your joystick port.

AT A GIVEAWAY PRICE

£9.99

FALCON 030 EXTERNAL HARD DRIVE

An economical enclosure designed to mount a single, half height, 3.5" device. Features a 40 watt power supply with universal AC input for use throughout the world and a low noise 15C.F.M. fan to provide device cooling. Also includes the Falcon SCSI II cable.

| | |
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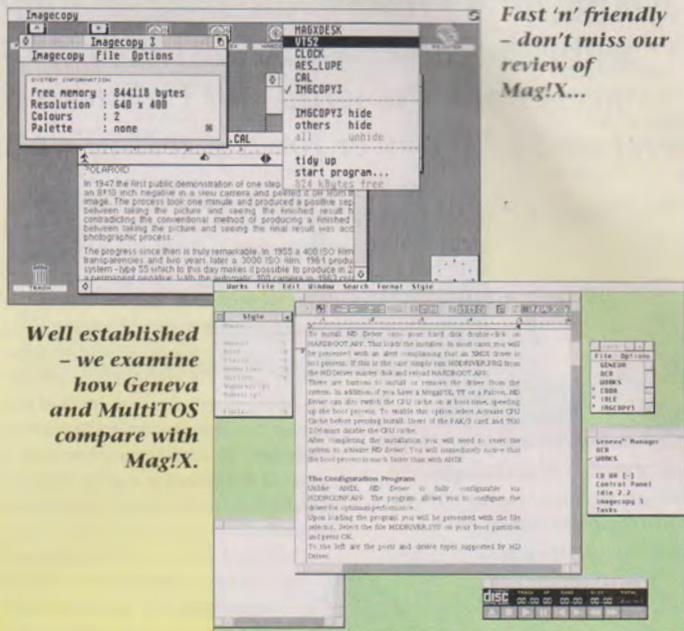
NEXT MONTH

MULTI-TASKING

ST Review investigates all of the options...

Next month, we'll be looking at all of the multi-tasking programs on the market and giving you a clear indication of which one is for you.

- Down to earth explanation of what multi-tasking actually is!
- Full review of *Mag!X*, the stunning German TOS replacement.
- Re-evaluation of *MultiTOS* and *Geneva*.
- Complete examination of *SMS2*, the innovative new operating system.



- Exclusive preview of *OMEn*, a unique multi-computer system.
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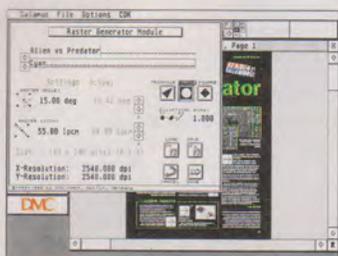
- Features – that cover all topic areas
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ST REVIEW IS THE ESSENTIAL READ FOR ALL ATARI COMPUTER OWNERS – NO OTHER ST MAGAZINE GIVES BETTER EDITORIAL COVERAGE!

ON SALE MAY 19 – PLACE YOUR ORDER NOW!

THE COLOUR

Looking for a professional-level desktop publisher on a budget? Nial Grimes peels back the wraps on Calamus S version 2 – SL power for the rest of us...



Calamus SL comes complete with all the necessary tools to produce professional-level colour separations.



KEY FACTS

- Product:**
Calamus S v2/ Calamus SL
- Company:**
JCA Europe Ltd
- Contact:**
0734 452416
- Price:**
S v2 £299/ SL £499 (See Special Offer)
- SYSTEM:**
- Memory:**
2Mb; 4Mb Recommended
- Resolution:**
ST High; TT and Falcon screen modes supported
- Computer:**
Any ST, TT or Falcon with a hard disk.

The ST is home to arguably the most effective desktop publishing system available today. Although feared by many for its complex interface, there's little doubt that when the pressure is piled on, Calamus SL kicks in with enough power to blow almost all of the competition straight out of the water. And yet most of this power has been denied from the everyday ST user simply because a good SL set-up holds a price tag that would frighten Henry Rothschild himself!

The good news is that Calamus S v2 could be destined to change all of that. It's still no budget product by any means, but effectively provides almost all of the power of SL for around half the price; the only real limitation is a lack of colour separation. Let's take a closer look at what it has to offer...

WHAT A LAYOUT!

On the surface, the new generation Calamus shows very little difference from its well-known predecessor, Calamus 1.09n. The whole thing is still controlled through a wilderness of icons, broken down neatly into panels, and DMC have resisted the temptation to shift away from frame-based desktop publishing.

Part of the charm of the new system is its expandability through modules. Packaged neatly in the box you will find all the plug-ins needed to handle everyday desktop publishing, but more can easily be added to deal with specific tasks. At the base

A SEPARATE POINT OF VIEW

Essentially, Calamus S is SL minus the colour separation and raster generation modules. What this means in plain English is that you can design colour documents on-screen and output them to a colour printer with either version, but you will need SL to separate and print them professionally.

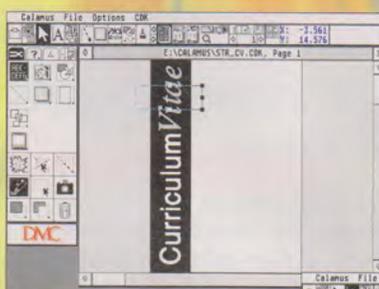
Unlike many desktop publishers on the Macintosh and PC, Calamus SL carries out all colour separation internally. This "Soft Ripping" technology gives you unrivalled control over the finished output and means you can have different screen settings for each and every page or frame in a document if that tickles your fancy! It also removes the need for external separation software for images and in this sense Calamus is the only true all-in-one desktop publisher. The vector and brush modules are also bundled free with SL.

STEP BY STEP GUIDE

BACK TO SCHOOL

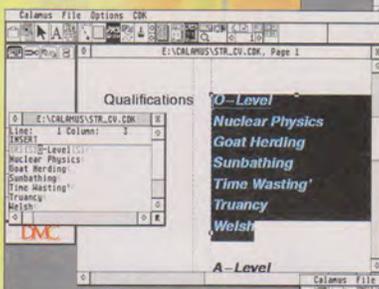
A good CV is almost as essential as your qualifications themselves. Let's see how Calamus S copes with improving your job prospects...

Start by sizing up some nice headlines and then use the rotate panel to position them on the left-hand edge of the page.



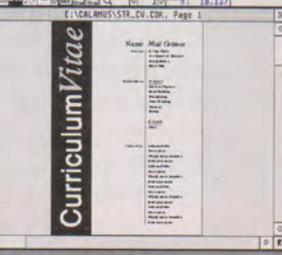
Next, lay in two guidelines and some text frames to take your name and address. Naturally enough, the frames to the right are left justified and vice versa.

Name **Nial Grimes**
Address **A Tiny Place
Too Small To Mention
South Wales
SA00 0AB**



Now copy the first two frames, move them down the page and enter the next section of text with PKS-Write.

Add the finishing touches in the form of a neat little line and a few last minute tweaks to the text styling. Sorted!



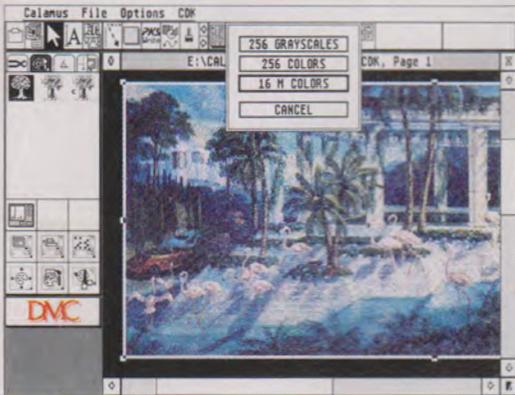
level you get PKS-Write, a mini word-processor, a suite of text-handling-utilities, graphics-rotation facilities and numerous other modules for adjusting the screen display and dealing with page numbering or size. Many of the features that were missing from the original Calamus S have been incorporated into version 2 and it's now near as dammit up to SL spec (provided, of course, you forget about colour separation).

Almost as bewildering as the interface itself is the sheer number of user-definable options. In short, you can configure everything from the fonts

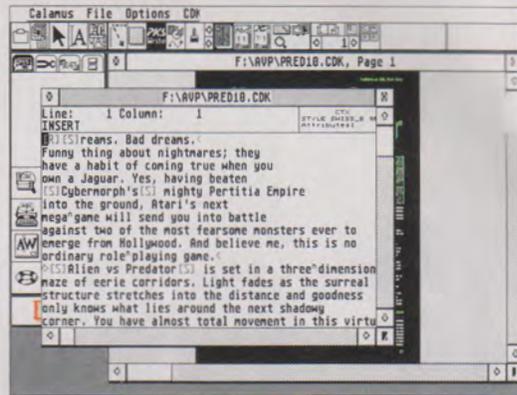
in memory to the panel you would like to appear when you boot up. Rather than baffle you with a preferences dialogue box the size of Alaska, it's just a case of setting up the program as you would like it and then saving the configuration through a menu option.

Having man-handled a page onto screen, it only remains to print it out and Calamus ties with Didot Professional as the fastest draw in the west. The quality is great too – in theory the lack of hinting in Calamus fonts should translate into poorer quality at small point sizes, but it's

OF MONEY



The all-new Calamus boasts a 256-colour driver for the Falcon – and very pretty it looks too!



A good range of modules are bundled with the package, including PKWrite, a quirky but powerful word processor.

almost impossible to tell any difference from a 300dpi printout. Maybe the difference is more significant on a dot matrix printer?

FLEXIBILITY WITH A CAPITAL S

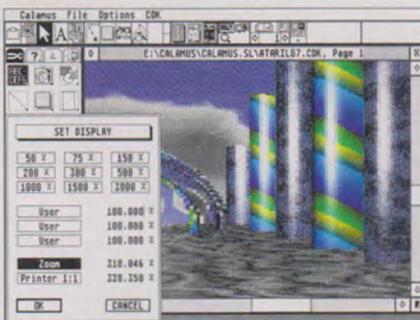
But forget the output quality and configurability for a moment – Calamus now runs in 256 colours on the Falcon! This is accomplished through a small Auto folder program and, what's more, switching from 16 to 256 colours doesn't seem to have a huge impact on speed at all. Sure, big dialogue boxes take a little longer to appear, but the actual page updates are surprisingly nippy and look

terrific in pseudo true-colour. On a standard ST in mono, things can be a bit more lethargic – it won't see you on your knees praying for a screen redraw to come to an end, but some form of accelerator is still a decided advantage...

The inevitable question of stability arises whenever the word "Calamus" is mentioned and in this regard the latest versions of S and SL have improved markedly. Under normal use, bombs should be a very rare occurrence, but they will happen. On the plus side, the recovery system is

second to none and I've yet to find a case where it was not possible to back-up any unsaved work (unless you involve an external influence such as the *Outside* virtual memory manager).

As *Quark Xpress* users on the Mac will tell you, power brings with it a good deal of complexity and Calamus is no exception. However while it undoubtedly has a steep learning curve, the rewards are most certainly worth the effort. Calamus 1.09 was always my preferred desktop publisher and S/SL has done nothing but improve my respect for DMC. *DA's Layout* is going to have to go some to beat this!



The zoom settings are terrifically flexible and the screen updates are only slightly tiresome.

SUMMARY

GOOD POINTS:

Powerful in the extreme
Gorgeous print quality
Fully modular

BAD POINTS:

Slow on a standard ST
Complex by nature

FINAL WORD:

"Powerful to a fault, the latest generation of Calamus just oozes class through its elaborate front-end."

PERFORMANCE

OVERALL

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

86%

EXCLUSIVE OFFER FOR ST REVIEW READERS!

For a period of two months, JCA (Europe) are offering *ST Review* readers the chance of owning either *Calamus SL* or *Calamus 1.09N* at absolutely knock-down prices! Each version comes complete with a wide range of printer drivers, fonts and a printed manual.

- CALAMUS 1.09N (RRP – £89) **SPECIAL PRICE – £59**
Minimum requirements: 1Mb RAM, double-sided disk drive and mono monitor.
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Minimum requirements: 2Mb RAM, double-sided disk drive, hard drive and mono monitor.

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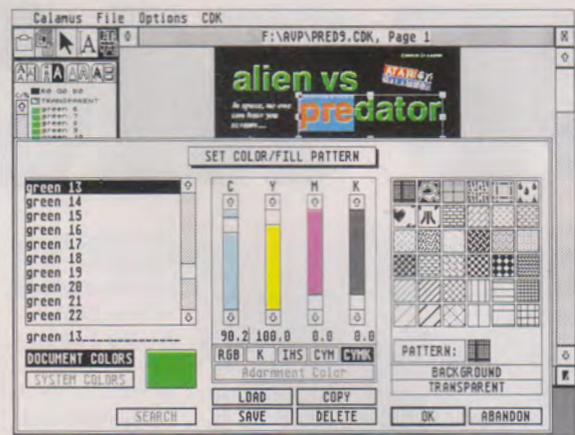
No doubt you've read all the promises made by the press about *Calamus* over the years: "*Calamus* is quite simply the best desktop publisher available"; "*SL* looks set to beat the Mac at its own game"; "the colour DTP generation starts here". But how many times have you actually seen *bona fide* proof of its power? While it's all very well to outline the strengths and weaknesses of the package in a review situation, unless the judgments made are based on full colour output, they are next to useless.

With that in mind, *ST Review*

decided to take the bull by the horns and attempt to prove the competence of *Calamus* once and for all. Sceptics behold – the layout you see to the right was produced entirely on a standard Atari Falcon using *Calamus SL*. This article chronicles the production of that page...

STEADY AS SHE GOES

Starting with a blank sheet of paper and a totally free design brief is never easy. Nevertheless, *Calamus* was fired up straight away and a basic headline, together with the pictures, laid into place. The moody nature of



Calamus supports five colour mixing systems from straightforward RGB to IHS and CMYK.

OUT OF THIS WORLD!

On paper, SL looks set to take on the big Mac and PC boys. Nial Grimes unleashes the full force of Calamus upon an unsuspecting ST Review page...

Alien vs Predator demanded a white on black approach from the very start and a full page black tint slotted in nicely behind the bright green text. The game was afoot...

One of the most frightening aspects of putting together a page that will be set at professional resolutions is accuracy. A minor glitch that could quite easily go unnoticed on a laser printer, suddenly becomes a vast canyon when boosted up to 2540dpi (dots per inch). Guidelines were used to keep the body text frames on course and "magnetic" frames helped out a lot with the picture borders. Only at one point was it necessary to judge alignment by eye, but with the magnification level set at close to 1000% it should go unnoticed!

Next came the article itself, dragged into the ready-prepared text frame in *WordPerfect* format. The leading (space between the lines) and point size were rapidly adjusted to suit the setting and coloured white in order to show up against the black

background. Although the styling could have been carried out in a word processor, it seemed easier to create a new italic text style and let *PKS-Write* do a search-and-replace on the phrase "Alien vs Predator". The finishing touch was the drop cap – a simple feat with the help of text roundaround and a strategically placed black frame.

Colour turned out to be quite a major concern because, if anything, *SL* is too competent in this department. It allows mixing by five different standards and you can combine any number of different varieties within the same document. The trouble is, a colour that looks perfectly acceptable in RGB (Red, Green, Blue) can be truly disastrous when printed because, principle aside, not all colours can be represented by the CMYK (Cyan, Magenta, Yellow, Black) process.

The solution was to go through converting the colours to suit; a relatively minor operation, but one that wouldn't have been necessary had

JCA Europe, the UK distributors, supplied a proper CMYK colour list.

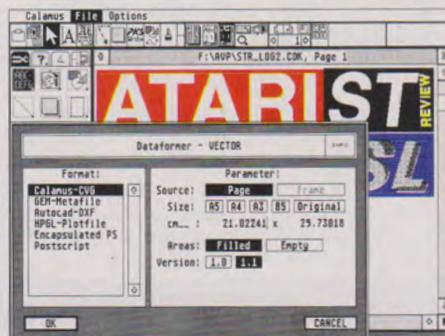
Minor crisis out of the way, all that remained was to add the *ST Review* logo. Even this was put together within *SL* by using a few tinted frames along with a bold Swiss typeface.

CRASH DUMMY

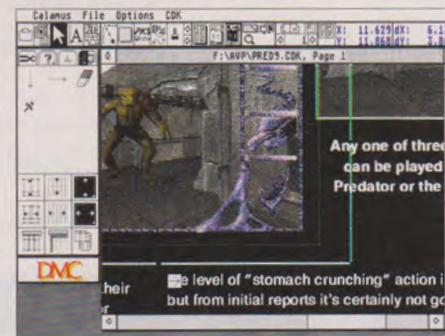
With a finished design on-screen, it was just a case of switching on the "registration & crop marks" and enlarging the black background a little to give 6mm of "bleed" area. The page as it stands took quite a long time to design, but with the help of the guidelines we now have in place, a repeat performance could be put together in no time. So how did *SL* perform during the exercise?

Well, due to some very buggy German releases early on in its life, *SL* has earned itself a bit of a reputation for bad behaviour. And indeed, even at this mature stage, we did encounter one or two crashes. The biggest problem was the *Outside* virtual memory manager, which just didn't seem to get on with some of *SL*'s external modules and prompted a small number of Fatal System Errors. The more physical memory you've got, the more stable the package becomes.

Despite one or two minor hiccups, I would have no hesitation in running *Calamus SL* in a professional setting. The standard 4Mb Falcon used to prepare the page was adequate, but ideally 8Mb of memory or more are needed for full-scale colour work. However, the proof is in the pudding. If you like what you see on page 19, give the *Calamus* option a whirl; if not, I deny all responsibility!



Even the ST Review logo was created with SL, although the Dataformer module (not supplied) was used to turn it into a flexible graphics file.



The Magnetic Frames facility was used to align nearly all of the elements on the page, most notably the picture borders.

ATARIST
REVIEW
CALAMUSSL

alien vs

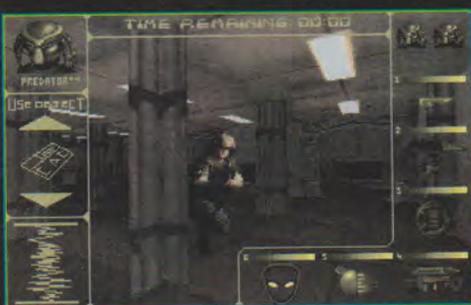
predator

In space, no one can hear you scream...

dreams. Bad dreams. Funny thing about nightmares; they have a habit of coming true when you own a Jaguar. Yes, having beaten *Cybermorph's* mighty Pertitia Empire into the ground, Atari's next mega-game will send you into battle against two of the most fearsome monsters ever to emerge from Hollywood. And believe me, this is no ordinary role-playing game.

Alien vs Predator is set in a three-dimensional maze of eerie corridors. Light fades as the surreal structure stretches into the distance and goodness only knows what lies around the next shadowy corner. You have almost total movement in this virtual world and the Jaguar's chipset is put through its paces to make the game every bit as fast as the very latest generation of PC role-playing experiences. The network of tunnels is automatically mapped as you wander around, so the emphasis is firmly on action rather than adventure.

All of the walls that line the complex are texture-mapped for unsurpassed realism and a



Texture-mapped corridors float effortlessly around the player and make AvP one of the most stunning computer games ever released.

"visor" is the only missing ingredient from virtual reality! Even the characters themselves are digitised and appear to scale in the game. The whole affair runs in 16-bit true-colour – that's over 65,000 colours to you and I – and by using Jag-PEG compression, makers Rebellion Software have managed to cram around fourteen megabytes of graphical action into the two meg cartridge.

As for gameplay, *Alien vs Predator* can be played from three perspectives. As the colonial marine, it is your job to dash from corridor to corridor dealing with the plague of acid-blooded Alien monsters that have found their way into the complex. Facehuggers litter the floor and are ready to spring towards your face in an attempt to "plant" their alien offspring (ooh-err... Ed). These roles are reversed when you step out of the carbon-fibre battle-armour into the alien queen's shoes! Quite where the Predator fits into things is a mystery at the moment, but one thing's for sure – with infra-red night vision, he's going to be one hard character to outwit.

These three scenarios provide a good deal of long term playability despite the limited number of levels. All of the sub-games have unique graphics and each player has its own particular skill and weapon. The control panel detailing these essential supplies is overlaid to maintain that full-screen action. 20th Century Fox themselves are involved with production of the game and the characters live up to their nasty reputation as best they can. Quite how this will affect



Any one of three characters can be played – a marine, Predator or the alien queen herself!

the level of "stomach crunching" action is unknown, but from initial reports it's certainly not going to be an outing for younger players.

The one aspect of the game that hasn't been mentioned so far is sound, but with the Jaguar's hardware behind the sonics, we can look forward to something pretty special. When combined with the realistic graphics we will be looking at one of the most advanced games available outside of the arcade. When animated scenes were shown at the Chicago Entertainment Show, jaws dropped and it's likely to do similar things in computer shops across the country.

Atari are making no secret of the fact that *Alien vs Predator* is a showcase for the Jaguar. Technically speaking it's a minor miracle and America's top console magazines have been drafted in to make sure that the gameplay matches the superlative graphics. Who knows when it will be released in the UK, but a date in late April seems likely for those lucky US games players. A Jaguar/*Alien vs Predator* bundle is also said to be a very strong possibility, so get those credit cards at the ready people...

nial grimes

system superior

The Jaguar is based around two custom chips known affectionately as Tom and Jerry. Unlike many consoles that rely heavily on pre-programmed effects, the machine has a much more general purpose architecture and is capable of housing almost any type of game. Its high potential for number crunching, in particular, provides a special aptitude towards 3D.

The Tom and Jerry partnership gives the Jaguar more graphical processing power than

even the very latest generation of 486 PCs. And Rebellion don't look on *Alien vs Predator* as the pinnacle of the machine's abilities – their forthcoming dungeon role-playing game promises to be even more spectacular...



This entire page was produced on a stock Falcon030 4/65 using *Calamus SL* software. With special thanks to Sumner Type (☎081-693 3364) for their help and advice in the imagesetting department; Karl and his team were responsible for turning our on-screen design into tangible colour separations. An Atari operation from start to finish, this was achieved with the help of a 16MB TT030 and DTC-3000 imagesetter.

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WRIGHT ISSUES

A right shareware shambles...



I don't know about you, but the one thing about the growth of shareware that really gets up my nose is the number of people telling me to register this and register that. Not only are you expected to put your hand in your pocket every time you test a new utility, but you have to suffer the indignity of having someone explain to you that it's all your fault that the shareware scene is going down the drain, that you're utterly dishonest if you so much as glance at the documentation without coughing up coins or that you're stealing the bread and butter from the mouths of some poor programmer's kids.

If someone circulates a program and asks for shareware contributions, that's fine by me. If a lot of effort has gone into the program and you decide to use the program on a regular basis, then fair's fair. Especially so, if you're saving money by not having to buy a commercial package.

What really bothers me is the rubbish that you have to wade through before you find anything at all worth registering. I've lost count of the number of unbelievably bad programs I've seen. There are the dreadful looking ones written in some version of BASIC or other - all garish buttons and interfaces that even an ambidextrous orangutan would have trouble with. Then you get the horrible little good-for-nothing utilities with dyslexic documentation that use up a whole ink cartridge just printing it out. They all have one thing in common: a plaintive plea for anything from a fiver upwards. Get lost!

No. In my inflated opinion, it's the programmers who are to blame. We've become completely immune to these entreaties and begging letters on disk, thanks to a measly-minded majority who clutter up the public domain and shareware distribution channels with utter rubbish.

To make matters worse, some authors, many of whom it seems have even higher opinions of themselves than I have, have even started getting shirty about how their stuff can be distributed. One has even gone so far as to appoint a single PD library as the only "authorised" distributor!

What a cheek! That amounts to a total abuse of the system as far as I can see. The public domain and shareware scene is a well-oiled mechanism for distributing programs. It includes cover disks, libraries, BBSs and on-line networks, and it relies on programs moving quickly from one source to another. It's not you and I failing to register everything we use that makes the system fall down - it's the greedy, ill-advised or just plain stupid people that clog it up with unreasonable conditions.

Andrew Wright is a full-time writer and journalist and has been contributing to *ST Review* since its inception. We could put his outspoken and opinionated manner down to a deprived childhood but basically he's just a bad-tempered old b*****.

FaST Club

For users of Atari ST & Falcon computers

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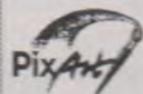
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WHAT A PICTURE!

DA's Picture looks set to be one of the most desirable programs ever seen on the Atari. Andrew Wright and Keith Berry are swept off their feet...

KEY FACTS

Product:
DA's Picture
Company:
CGS
Contact:
081-679 7307

Price:
£149

SYSTEM

Minimum Memory:

2Mb

Resolution:

640 by 400 pixels or greater

Computer:

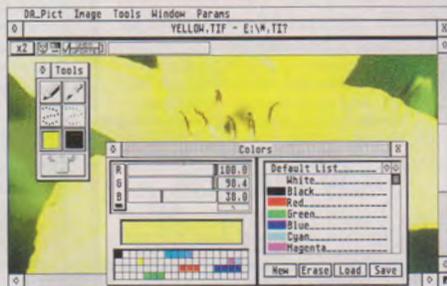
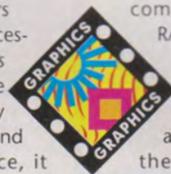
Any Atari

There are image processors and there are image processors. There's also DA's Picture and with features like 8-bit masking, virtual memory management (even on STs) and a slick, easy-to-use interface, it looks destined to push its way straight into the top slot.

DA's Picture requires an Atari

computer with at least 2Mb of RAM and a display with a minimum of 640 by 400 pixels.

For ST owners this means ST high resolution or an add-on graphics card, but as the program works in 24-bit colour internally, you will still be able to edit and process images even on a monochrome monitor. However



The colour tools – you can choose between HSB, CMY and RGB models.

you'll have to view them using other software, such as Photochrome, or output them to a colour printer.

The program is supplied with a laser-printed manual and an on-line help facility called DA's Knowhow although, at present, only a German version of the latter exists. We were supplied with a first draft of the manual amounting to some 17, A4 pages for this review and the translation hadn't been fully completed. Without a tutorial, it's little more than an introductory guide. A quote from the draft manual sums it all up: "The restorer is a truly magical instrument and deserves a chapter all to itself". It gets six lines...

The program has a novel interface based on four main floating windows for the painting and editing tools colour palette, image manager and modules. Images are displayed in windows too, each of which has some specific tools pertaining only to that image such as the state of the undo buffer, the level of magnification and the type of mask. An interesting feature is the ability to drag-and-drop colours from one window to another. For example, you can select a saved colour from the master list, drag-and-drop it to the ready use palette and then drag-and-drop it on the current tool or even the masking dialogue box.

Most main functions are called up from the GEM menu bar, each of which has a keyboard shortcut. The <Control>, <Alternate> and <Shift> keys are used to good effect and there are some powerful combinations. For example, holding down the <Alternate> key switches to Move mode so you can move an image in its window quickly and easily whatever tool you happen to be using. Holding down <Shift> and <Alternate> switches to zoom mode – the left mouse button increases the



STEP BY STEP GUIDE

FAKING IT...

The following steps indicate just how you can improve your image with a program like DA's Picture.



The original was a pretty poor photograph with a lot of reflected light and a dreadful background. It was scanned at 300 dots per inch and saved as a TIFF file for import into DA's Picture.



The first thing to do is crop the image to speed up redraws and then, at a high level of magnification, start masking the parts of the image we don't want.

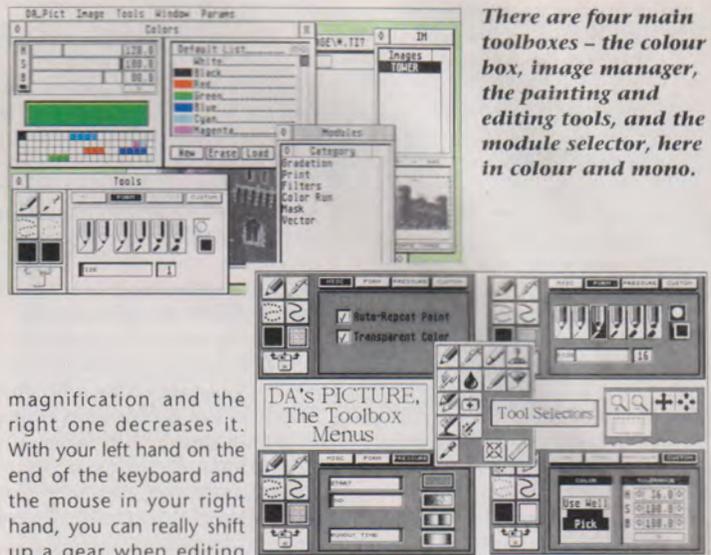


Next we copy the remainder to the clipboard and then paste it onto a better, more romantic, background.

Adjusting colours using the RGB gradation curve – not as easy as it should be...

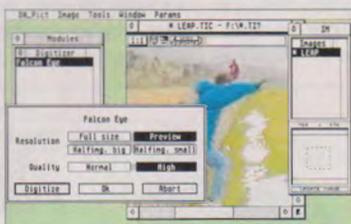


There are four main toolboxes – the colour box, image manager, the painting and editing tools, and the module selector, here in colour and mono.



IN AND OUT

DA's Picture is a bit choosy about the files it will import – they have to be TIFF files in standard or Digital Arts' own format. However, a small utility is supplied on the disk to convert other images such as scanned photos to the right format and this includes Targa and mono .IMG files. There's no PhotoCD import facility yet but DA's Picture actually offers a third alternative – digitising images from video.

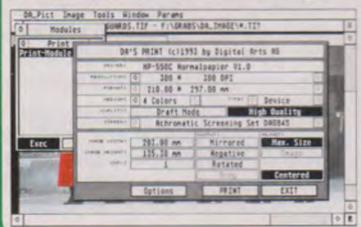


A digitised image captured within DA's Picture.

CGS are currently bundling DA's Picture with a Falcon-compatible video digitiser called Matrix Screeneye for £299. The card fits into the Falcon's expansion port and is driven by a special module accessible from within DA's Picture. The quality of the stills is surprisingly good and it's a handy way to get instant real life images into your computer, provided you have a video camera or camcorder.

Once you've finished your masterpiece, DA's Picture offers both printing and file export features. Files can be saved directly as TIFF files or output to a variety of printers including the HP LaserJet 2, NEC P6/P7, Atari SLM804/605 lasers, Canon CLC10, Star NL-10, and the DeskJet 550C. In addition, you can use the print module to print to file as .IMG, four colour CMYK TIF, TIC or TIH.

Printing from DA's Picture.



magnification and the right one decreases it. With your left hand on the end of the keyboard and the mouse in your right hand, you can really shift up a gear when editing and processing images.

Both the mouse buttons are brought into play and each one can be assigned a different tool so that, for instance, you can zoom in on an image and have instant access to both a spray tool and a water tool for detailed editing. There are 30 different zoom levels too, excluding 1:1, ranging from 16 times smaller to 16 times larger.

TOOLS

DA's Picture offers some excellent image creation, editing and retouching tools, as you'd expect. The main tools are the pencil, airbrush and crayon, each of which can be configured in various different ways such as stroke width, transparency, start and end pressure, and fade. These same tools can be used to create masks as well as create and alter images.

Other tools include a flexible stamp tool that can be customised to do almost anything with nine different types of behaviour, varying from

replace and transparent to add, subtract and multiply. For retouching there are water, finger, scalpel and noise tools. Water softens the border between two colours while finger does the same and smears them at the same time. The scalpel tool increases the contrast locally; the noise tool adds random texture to an otherwise homogeneous area of colour. For example, if you retouch an image using a single bright colour it will look pretty obvious as photo-realistic images have their own texture – minor variations in hue and saturation. With the noise tool you can quickly blend these areas.

The restorer is an interesting refinement. Rather than simply being an undo tool, it works like a creative implement in that you can restore the original image bit by bit, according to the pressure and fade attributes you give to the tool. This means you can work at extremely large magnifications, switching quickly between a retouching tool and the

There is a lot of reflection on the face which can easily be removed using the appropriate tools. The clone tool removes the white glare from the lower lip and a custom stamp whitens the teeth.

The face is softened to remove the harsh highlights, the whites of the eyes brightened and the lashes and pupils sharpened using a combination of filters and the scalpel tool to give that extra sparkle.



The finished result – note that even the dress colour has been changed by masking the area and altering the relevant gradation curves! A complete fake!

restorer, to get a really fine finish. With care, there is really no limit to what you can achieve. Another great tool is the copy pencil. This lets you clone areas of an image very easily without having to resort to cut and paste operations. It is best used to remove objects or marks from photographic images as shown in the accompanying step by step guide.

Block tools are disappointing and rather awkward to understand, although ordinary cutting and pasting for montage work is achieved easily. Blocks can be cut, copied, pasted, moved, resized and scaled but not rotated or distorted which is an odd omission for this type of program. However, an add-on module is under development that will provide rotation and distortions like skewing and perspective.

MASKING

Masking is probably the single most vital feature in any decent image retouching program. It lets you shield parts of an image from the effects of tools, special effects and filters. In DA's Picture there are several aspects to masking. Masks can either be single-bit masks (up to 8 different masks are allowed) where editing or retouching operations are stopped completely, or 8-bit masks where the amount of "blocking" depends on the level of grey in the mask. This opens up some amazing possibilities for retouching and, in particular, creating montages.

Physical areas of an image can be masked, or only areas with certain colour values. A separate module allows you to specify the hue, saturation and brightness tolerance of the mask so that, for example, you can mask any areas that are mid to

VIRTUAL MEMORY

Virtual memory is a way of fooling the operating system into thinking it has just had a massive memory upgrade, by turning unused disk space into a kind of pseudo-RAM to be used alongside the machine's existing memory. Commercial products like *Outside* can add up to 512Mb of this virtual RAM, depending on available disk space of course, to a 68030-based machine like the Falcon as the processor has special properties that support virtual memory.

DA's Picture is even more useful. To enable large images to be handled, it has its own virtual memory driver which will work not only on the 68030 machines but on bog-standard STs too. What's more, it will support up to 2Gb (that's 2,000Mb!) of extra memory so you can, in theory, load and edit some pretty large images. If this seems over the top, remember that an

A4-sized 24-bit image at 300 dpi resolution takes up 24Mb of storage space in RAM or on hard disk. If you're using an 8-bit mask and an undo buffer, you would need at least 32Mb of RAM just to start work!

In practice, however, it isn't quite so simple. Chip RAM is dozens of times faster than even the fastest hard drive, so the more virtual memory you use, the slower the system becomes. DA's Picture offers optimum performance because it tiles images in RAM and on disk, altering only those tiles that are retouched or otherwise edited. This means that the part of the image you are working on is always stored in chip RAM, speeding things up considerably.

Perhaps the best thing about the virtual memory management is that you can still boot up with all your system enhancements - accelerators, replacement file selectors and so on - and still load and edit full colour images.

light blue either throughout the image or within a marked block. Another aspect of masking is the magic wand tool that masks colours within a given tolerance range of hue, saturation and brightness but with reference to the area selected on the image rather than a colour chosen from the colour palette. For example, the magic wand can be clicked on an area of colour in an image and it will mask only that area (within the tolerance limits specified) but leave similar areas of colour



Creating a vector path...



A brightness/contrast control module has recently been added for those unfamiliar with colour curves.

elsewhere in the image untouched. Unfortunately only the HSB model is supported for colour masking, which is a shame if you're working in CMY or RGB. Image colours can be altered using the gradation curves although these are a major disappointment given the fact that DA's Picture is aimed at non-professionals too; the colour curves are hard to get to grips with.

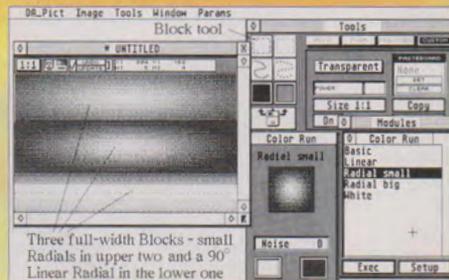
Filters are another feature of DA's Picture and the range includes

professional retouching filters such as sharpen, blur, invert, erode, add noise and soften as well as the more exotic types like Laplacien, relief and contour. Each filter can be applied with different settings and there is also the facility to create and save your own custom filters using a five by five grid. It would be nice to see a few more fun filters such as pinch, motion blur and swirl but there is every possibility that add-on modules will appear in the near

STEP BY STEP GUIDE

DOWN ON THE BEACH

While the recommended resolution appears to rule out a standard ST with a colour monitor, Keith Berry decides to see whether his low resolution STe set-up can achieve a decent result...



Using the Block Tool and Color Run - one of several useful modules supplied with the program - the background for our colour picture was prepared using a high res screen.



Back in STe mode DA's Picture has excuses ready for not loading .TIF files from other sources. It can load .IMG scanned pics converted to .TIF format by Touch Up but only as uneditible masks...



... but we can create our own pictures, a task very different from Degas Elite! <Control><N> invokes this New Image box - 640 by 400 pixel is recommended (ST high res or better) but standard low res is possible...

future. Colour runs or gradients are another important feature. You can remove backgrounds using the powerful masking tools and replace them with graduated colour fills in either linear or radial mode.

One particularly innovative facility is the vector path module. Vector paths allow a level of precision to be introduced that would be impossible with mouse strokes or even a graphics tablet. For example, you can create a complex vector path from lines and *bézier* curves, edit it into a mask outline, and then use it to guide a tool automatically.

If you have pasted a block onto another image, you can create an accurate vector path around the block and then apply a tool such as the water tool to the path to blend the images together. Vector paths can be edited as often as you like, turned on and off, and even loaded and saved in a format compatible with *DA's Vector*. This means, for instance, that you can import and add outline text to your images using *DA's Vector*.

VERDICT

DA's Picture is the most impressive piece of software I've come across for a while. It is capable of holding its own with the best professional image editing software on any platform, yet it still remains easy to use and fun to

play with once the basics have been learned. Unfortunately, with no decent manual or tutorial and German on-line help, that could take a while.

There are some minor niggles about the interface. The colour curves might be easy for professionals to handle but they are hardly helpful for beginners, while the lack of an immediately accessible palette (you have to build up your own) is a rather strange oversight. On the whole, though, the comprehensive range of tools and filters, coupled with the excellent virtual memory and all round usability of the program, makes *DA's Picture* the most desirable creative package around.

SUMMARY

GOOD POINTS:

- Modular design
- Neat, high speed interface
- Top notch masking features
- Excellent memory management

BAD POINTS:

- Poor colour manipulation
- Inadequate import facilities
- Lack of decent documentation

FINAL WORD:

"A tremendous leap forward for the Atari - *DA's Picture* will put some of the old masters to shame."

PERFORMANCE

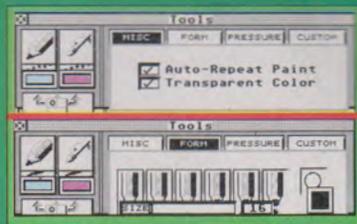
OVERALL

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

80%

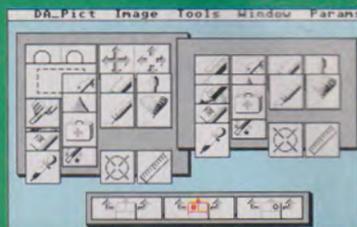
TOOLS OF THE TRADE

DA's Picture offers a host of interesting, image manipulation tools as Keith Berry finds out...



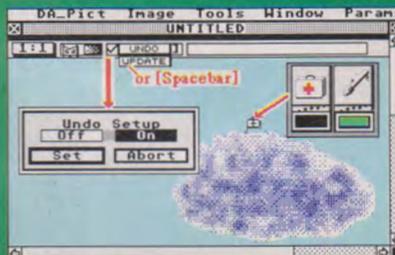
Pressing **<Control><T>** causes the Tools window to appear. A tool for each mouse button can be selected and a wide range of attributes set. Two of the four Tool menus are shown here.

Shown somewhat compressed on an STe low resolution screen, these are the tools available for the relevant mouse button. The selector at the foot of the screen decides which button is governed by the parameters.

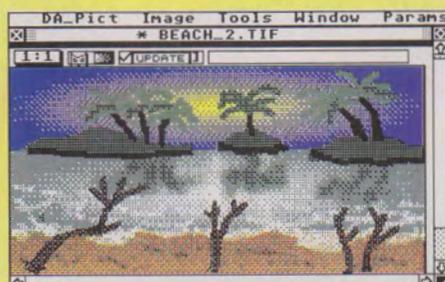


Selecting a combination of settings from the Pressure menu can allow drawn lines, or shapes, to fade in or out. The Runout Time effect is performed as the line is drawn.

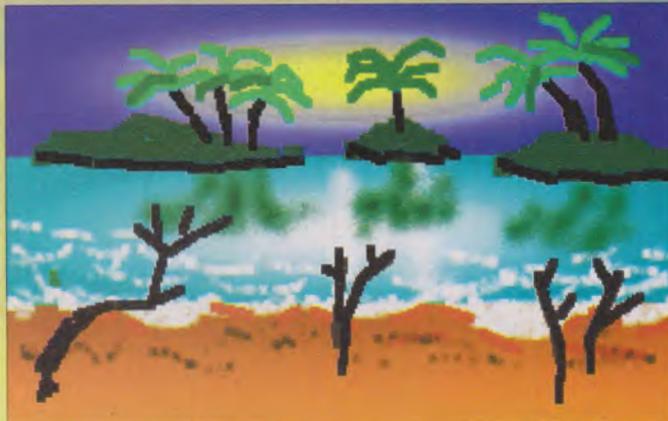
The uncommon Undo/Update feature can be disabled to conserve memory. The Restorer tool shown allows the contents of the Undo buffer to be blended gradually into the current picture.



4 Simulated ambidextrous drawing! To this background the pen on the left button drew the islands and trees while (but not simultaneously!) the airbrush on the right button added reflections to the water.



5 Pen-drawn beach wood and airbrushed waves completed this picture. *DA's Picture* may not be the easiest of programs to master, but the results are well worth the effort.



6 Save the picture as a TIFF and here it is in all its 24-bit colour glory - this is the advantage of having a program that works in full colour but adjusts its screen display according to your set-up.

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TECH TALK

The information super highway...



Internet is taking the world of communications by storm. Unlike your local bulletin board, the Internet knows no bounds, geographically or otherwise; it is simply unlimited. Originally designed by the American government as a comms system that could withstand a doomsday scenario, it is now utilised by millions of computer users around the globe.

There is no organising body in control of the Internet and it is designed to be non-profit making. As a result, net users enjoy what can only be described as an anarchy. There is a true sense of freedom of expression; exchange of information and opinions are key ingredients. Almost every writer in this magazine can be reached via the Internet by sending an electronic mail message. Many programmers of top applications and shareware programs are available and even the White House can be accessed - Number 10 is behind the times on this front...

There's a discussion area called Usenet with topics ranging from computing to politics, philosophy to pet care. This unique forum brings people from every corner of the globe together to share knowledge or just argue about anything and everything.

Another facet of the Internet are the FTP sites that are normally located at major universities across the world. Anyone can log onto their computer system and be granted restricted access to files. ST owners are likely to find thousands of public domain programs and utilities on these sites. Included are FAQs, large text files containing Frequently Asked Questions which are answered in detail by keen users and programmers. These FAQs are updated regularly and are again available to all users. Just imagine - everything you wanted to know about GDOS, printer drivers and more...

The Internet is not all about computers. Some young bands in America are experimenting with the concept of spreading their music as "demoware". You can download a sample from their CD and play it back on your computer. When the Hubble telescope was being repaired, an up-to-the-minute report from NASA was being constantly updated and posted on the net.

I have no doubt that as time goes by this form of communication will have a major impact on the way information is exchanged - sound, vision or full computer programs. There is no way to control the exchange of data on the net, a fact that is shadowing the whole issue of copyright and is concerning key figures in the American government who are now trying to define laws in order to control this flow of data. This is, of course, impossible. An electronic mail message can contain a few lines of text or megabytes of computer data - programs, pictures, music or even film. The net handles millions of such messages a day!

Whatever happens, the Internet is without a doubt an interesting place to visit. All you need to take a ride on the information super highway is a modem, a comms program and an Internet access which is provided by various gateways such as CIX and Demon UK at a modest fee.

When not busy writing articles, making music or programming his latest Voice Mail package for the Falcon, Ofir Gal can be reached on the Internet as ogal@cix.compulink.co.uk. ST Review is also available as streview@cix.compulink.co.uk.

Premier Programs For Your Atari



Inshape

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

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

David Nilson. ST Review December 1993.

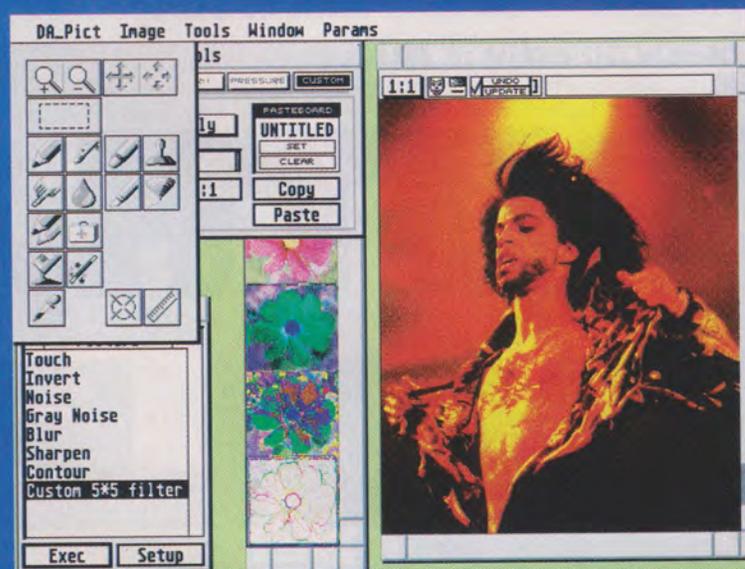
"It's the best there is."

Clive Parker. ST Format February 1994.

DA's Vector and DA's Vector Pro

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

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



DA's Picture

The brief was simple: "Develop an image retouching program with more power than Retouche Professional and be easy to use." The result "DA's Picture".

DA's Picture is the most recent member to the Digital Arts family of acclaimed products, and a software/hardware bundle is available with the Matrix Screeneye Digitiser.

DA's Picture Software £149.00 inc. VAT.

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

EXCLUSIVE • EXCLUSIVE • EXCLUSIVE • EXCLUSIVE

Bob Gleadow's office is sparsely furnished. In fact, it's his old office; the third floor of the Atari offices in Slough is currently unused as only 15 people remain at Atari UK with less than 60 employees throughout Europe. The rationalisation is almost complete with companies offering only product support.

Gleadow is General Manager of Atari Europe making him the top man outside the Atari Corporation in the States. As such he is the only person who can accurately sum up the current situation. "Atari Corporation has continued to separate the North American market from Europe," explains Gleadow. "North America is the focus of the launch of the Jaguar and, unfortunately, we can't produce enough Jaguars this year to satisfy demand in both places. So the common objective is to establish it in the USA in 1994. Timing is important because we have product advantage this year; there is no other video game console which is equivalent to Jaguar on technology levels.

"We expect Sony to launch their console in 1995 in Japan, 1996 in the USA and 1997 in Europe. That means that we can stay a year ahead of them, if not two years ahead, by launching in the USA in '94 and Europe in '95."

This immediately clarifies the stance on Jaguar; a nominal number

are likely to be seen in the UK in 1994 which is in keeping with the latest news that there will not be a UK launch *per se* - rather a trickle of units through the year.

PAST PROBLEMS

Prior to 1993, Atari's European operation consisted of a number of largely autonomous organisations. "We found that we had computers in one country that needed screens from another country in order to sell them," says Gleadow with a wry smile. "As each of these countries wished to work independently, there wasn't a great deal of product-sharing - it was not unusual to reach the end of a quarter and find out that we'd lost 800 units of sales in one country. The item that would have made that happen sat in another and the two wouldn't work together."

European borders also added to the headache, and Atari made the mistake of believing that the EEC would solve this. Nice in theory but unworkable in practise; a parcel collected in Slough cannot be delivered quickly, cheaply and conveniently elsewhere in Europe other than by expensive courier or air freight. "We spent the last 18 months trying to merge our European

computer divisions", clarifies Gleadow, "into one operation. Holland was chosen primarily because they are the largest sea-port in Europe but there was a tremendous amount of customer resistance. There was a significant cost increase in using international transport systems and we also added a degree of confusion and uncertainty to the marketplace by using this route."

The merging of companies left Holland with a phenomenal inventory of over 17,000 different spare parts which accounts for why we are now seeing over 3,000 STs hitting these shores along with a number of MegaSTEs and SM124 monitors. With a grin, Gleadow relates that: "I was surprised to come across the fact that we had something like 17,000 Motorola 68000 chips! Why?..."

Our competition is Philips, Sony and, in the short term, obsolete PCs...

CURRENT QUESTIONS

After the sale of the Atari factories some years ago, the company does not manufacture any items in-house so to speak. So what is being assembled at the moment? With a nod of his head, Gleadow elucidates: "The Falcon hasn't actually been out of manufacture in Taiwan in the last 15 months and the ST has been in and out of manufacture. We were

As we move towards the middle of 1994, the question on everyone's lips is: "what is happening to Atari". Vic Lennard interviews the only man in Europe who can answer this...

THE TRUTH, THE WHOLE TRUTH...

EXCLUSIVE • EXCLUSIVE • EXCLUSIVE • EXCLUSIVE •

premature in deciding that the machine was dead and now need to manufacture another quantity because we definitely have demand for another 10,000 units in Europe in the first half of this year. Actually, if we actively pushed the product we'd probably need that number in the UK alone! We also put the TT back into manufacture and built several thousand of those between September and November 1993."

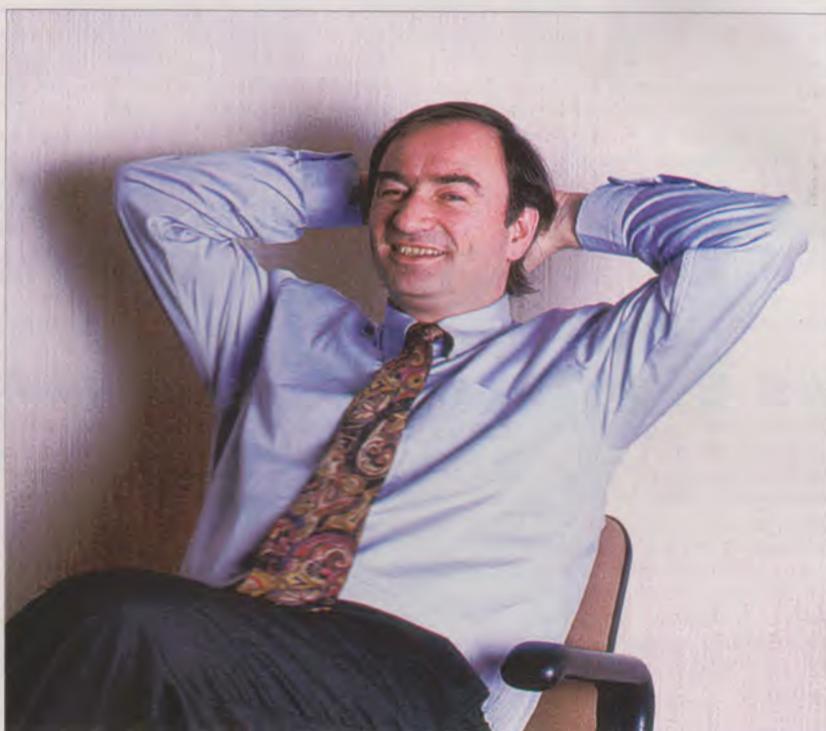
It is an open secret that the development of Atari system software, such as TOS 5.0 and *MultitOS*, has been suspended. "What's happened in the US is that the software team has been transferred onto Jaguar, and primarily onto the Jaguar CD development system." Gleadow states. "Atari enjoy the unfortunate reputation for sometimes being delayed and the Jaguar CD is currently running late. We had hoped to get the development system and tools out around the fourth quarter of 1993 but it's now the end of March 1994 and we are only just getting the tools and systems out to developers. So the TOS group, including some guys from Europe, have been forced into that as a 'fire-fighting' team."

Estimates for the number of Falcons sold have varied wildly, but when prompted for a figure, Gleadow's answer was surprising: "I would say that sales are in the order of 80,000 across Europe." Will prices continue to fall? "I'll have to take a William Waldegrave position here!" he laughs. "Even if we were, it wouldn't be in my best interests to tell you!"

Many third-party designers have remarked that a few tweaks would bring the Falcon into the pro-user marketplace – a faster, 32MHz processor, line-level inputs and outputs, slightly better video... "With the exception of the slightly better video, most of the modifications are available at the dealer level." interjects Gleadow. "There are a couple of accelerator boards floating around and although the 16-bit bus is a genuine restriction, there is certainly a Falcon design floating around which does have a 32-bit bus." Is there a design with multiple expansion ports? "Yes, but the corporate position is that there will be no new computers until after we've digested the launch and expansion of Jaguar business. That's a corporate decision driven by management of existing resources."

ATARI POLICY

It has been said that Atari often creates very good hardware and then leaves it to third-party developers to effectively sell the product. Gleadow disagrees: "There is no restriction of



imagination to Atari. It was always our corporate belief to let systems be as open as possible because we know that other people looking at them will be able to enhance performance in different areas. The whole software thing is that people use their own imagination and expertise to squeeze the best possible performance. If we put a lock and key on that, we'd be killing creativity. What many people have done with the ST is to bend the rules and manage to optimise the performance of their product with our hardware. Our technical guys will say 'they shouldn't have done that', but the end user will say 'this is good!'."

Atari has recently licensed TOS for the Medusa, a high-performance TT clone. Gleadow accepted that a similar arrangement could be made with the Falcon from which, he believes, the best is yet to come: "Some software houses, especially on the video side, set out with ambitious

projects that they simply found too difficult to complete. A video editing suite is something that we would love to see for the Falcon but there are none that I am aware of that are really imminent in coming to market.

"The management's ultimate decision is that this Falcon will do for now. It's a good, robust machine, it's manufacturable – we don't need to risk going through design changes. Let's simply produce it and maintain its position in the computer market."

JAGUAR AND THE FUTURE

If the Jaguar succeeds, then there are likely to be new resources for development of Atari computers but conversely, it might be argued that if the Jaguar succeeds then why bother with computers when the obvious profit is in consoles and their development? Enigmatically, Gleadow replies: "The technological

potential of Jaguar is obviously far greater than a single games machine... there is a development track for Jaguar whereby the next product will be CD-related. In adding CD, we open up the user-facility to include music, video, movies and bigger, different games.

The whole industry is now talking about interactive multimedia as the next broad-based market opportunity; what is more interactive than a keyboard? So just following simple logic, Atari wishes to expand the Jaguar product and enter the multimedia, interactive market, assuming we want a product which has educational and productivity potential – is it a computer or is it an interactive multimedia video game system?"

There is no intention of a Jaguar hand-held games machine, but the Lynx is certainly being pushed on the back of the Jaguar. "With Lynx, we've got to a stage where we have 80-something software titles and now have the opportunity that when we go out and buy a licence for Jaguar, we can add Lynx in. This will mean that Lynx will be at the front end of software releases." enthuses Gleadow. Currently, around 1,000 Jaguars are being manufactured per day, a figure that will steadily increase to 5,000 as the efficiency of the manufacture of main chips improves. This year, intended sales in the States ranges between 700,000 and 900,000 units which is likely to leave precious few for the European market.

Can Atari offer any hope to developers? "I admit that it is critical as to when we involve developers in what we're doing next." reasons Gleadow. "I believe that in less than a year we will be knocking on their doors with a future project. But we don't want to talk about what we're doing next..."

TOS is not necessarily exclusive to a Motorola platform.

WHAT NEXT?

There seems to be conflicting information about the next step. Bob Brodie, Communications Manager at Atari Corporation has said that: "We have no plans to add a Power PC, and frankly, I don't know how we would maintain our price point with that chip on board." followed by "We're very interested in that chipset [Pentium], and we're going to watch the computer side of the business very closely."

However, the Pentium 586 chip is currently

around seven times more expensive than the PowerPC 601!

When asked whether it is practical for Atari to continue to develop a TOS-based machine, Gleadow answered: "Yes. As long as the operating system is user-friendly, then we owe the consumer the opportunity of using it. Standardisation is only worthwhile if everyone is so familiar and comfortable in using it that it works for them..."

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GEM - View 3 - The Ultimate Graphic Conversion Utility

After lengthy correspondence with Dieter Fiebelkorn, author of GEM-View, Floppyshop are now the official UK distributor for the unregistered version of the new modular GEM-View 3. It is the most comprehensive picture conversion utility available, reading around 40 different file formats from the ST, Amiga, Macintosh, PC, Sun and others. Pictures may be saved in IMG, ESM, GIF, IFF, BMP, TGA or TIFF formats. The good news for UK users is that GEM-View may now be registered in the UK. The latest unregistered version of GEM-View (presently v3.02) will always be available directly from Floppyshop. GEM-View 3 is on ART.3485 and is at a special price of £2.00 or £2.50 including a copy of our catalogue (please state ST or Falcon).

Family Roots

Family Roots is an invaluable aid to both professional and amateur genealogists. It is designed around an integrated workbench which allows you to create your family tree graphically on the screen by linking directly between the individuals. What the Press have said about Family Roots: "Certainly more than you'll ever need, unless you manage to trace your relatives back to Fred and Wilma Flintstone" - Atari ST User. "All in all, the best genealogy program available for the ST and well worth the money if you are considering tracing your family" - ST Format. Family Roots costs ONLY £24.95 (demo disk £1.00). UK postage free, please add £1.50 for Europe or £3.00 for rest of World.

Easy Text Professional Vector

This is an easy to use fully featured Desktop Publishing package for the Atari ST/E, TT & Falcon. It lets you create your own newsletters, brochures, business stationery, notices etc. It produces truly professional results with virtually all printers and comes complete with a 134 page fully illustrated manual. Easy Text Pro Vector requires at least 2 meg of memory and a hard drive or 2.5 meg of memory if you don't have a hard drive. SpeedoGDOS is also required but is NOT supplied. Easy Text Pro Vector costs ONLY £35.95. If you don't have SpeedoGDOS, why not get Easy Text Pro instead for ONLY £29.95. It is almost identical to the Vector version, except that it runs on a 1 meg machine and uses standard GDOS fonts (a number of which are included) instead. Overseas customers please add £2 Europe or £4 Rest of World, for either product.

The Beginners Guide To STOS Basic

This complete programming course for the Atari ST/STE comprises of a 618 page manual and 2 DS/DD disks. It introduces the reader to STOS Basic and takes the newcomer from basic principles through to the development of complete programs. It includes 190 programming examples and guides you through the creation of games, a complete art package, various educational packages and numerous business utilities. The Beginners Guide To STOS Basic costs £29.95 + P&P (UK £3, Europe & Eire £5, Rest Of World £10). COURSE DOES NOT INCLUDE STOS BASIC.

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IN CONTROL

Our cover disk has Atari's XControl and 22 CPX modules! Mike Robinson explains all...

At the end of last year, Atari updated its eXtensible Control Panel, better known as XControl. This utility is now gaining popularity, mainly due to the increased third-party support from German programmers.

WHAT IS XCONTROL?

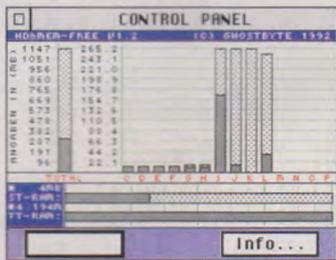
In an attempt to alleviate the desk accessory limit of six programs, Atari created the eXtensible Control Panel which uses a modular approach. The panel can be run as a stand-alone program, but in most cases is used as a desk accessory. It can load an unlimited number of modules ranging from simple configuration tools to calculators, calendars and even a BASIC interpreter. Memory requirements are minimal as the modules can be loaded as and when required; XControl itself uses little more than 40Kb of RAM, a price well worth paying for such flexibility.

ST REVIEW'S TOP TEN MODULES

HD FREE

Public Domain • Michael Fordermeir

This CPX displays free memory and disk space via a simple graph. Click on any drive to get more info or on the memory bar to display free memory.



HD Free - displays available disk space and memory.

IDT

Freeware • Charles Smeton

International Date and Time has recently been set by Atari as a

standard way of displaying date and time formats. A growing number of programs supports this, including STRAIGHT FAX! by the same author. This CPX allows you to globally set the format you prefer; programs that support this facility will then display the date and time accordingly. Simply select your preferences and click on "Save".

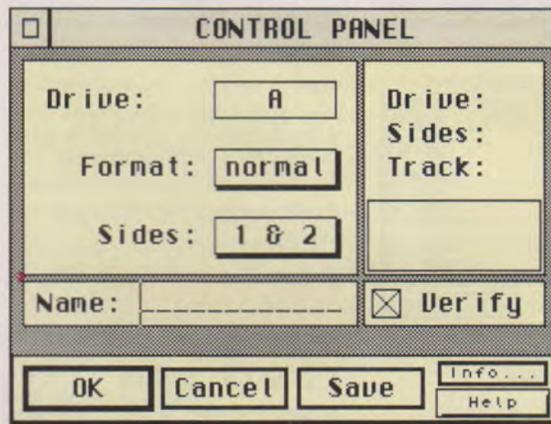


IDT - lets you select the date and time display format.

FORMAT

Freeware • Dietmar Rabich

Use this CPX module to format single, double and high-density disks at any time. You can choose a normal or extended format as well as disable verify to speed up the formatting procedure - you can even label the disk! Select your options and click on "OK" to start formatting. Preferences can also be saved.



Format - no more having to quit back to the desktop...

HARDWARE INFO

Freeware • Dieter Fiebelkorn

This module is mainly for programmers. It allows you to peek into the system and get information about the OS, system variables and more. The module works by loading a user-configurable file called SYSTEM.INF which contains a list of memory addresses to read. To get started, click on the path button and select the configuration file. Then, click on the blank button to choose the memory area to read.

SHOW COOKIES

Freeware • Dieter Fiebelkorn

Many Auto folder programs install additional system features and indicate this by using a special flag in the system called a "cookie". This

INSTALLING XCONTROL

To use XControl, you'll need to create a folder and place all the CPX modules inside it. Open STREVIEW.CPX, copy XCONTROL.ACC to your boot disk and create a folder called CPX. Now open the two folders, ATARIOWN.CPX and TOP_TEN.CPX, and copy all the files into your CPX folder.

Reboot the system and select the Control Panel from the Desk menu. Click on the Options button to reveal the pop-up menu. Now select Setup from that menu and click below the CPX Directory Path to set the path where XControl will search for its modules. This is simply a case of navigating the file selector into the CPX folder and clicking on "OK". Lastly, click on the

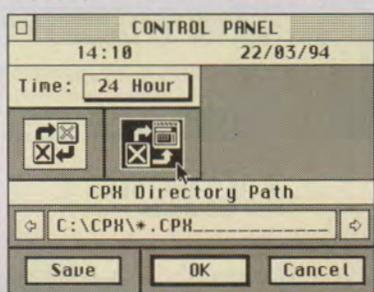


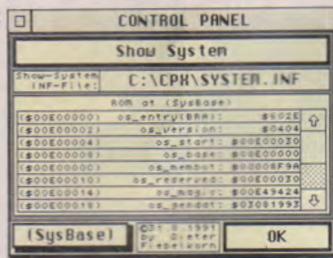
Figure 1: XControl's Setup dialogue box. The selected button is used to manually load the modules.

button (as shown in figure 1) to load the CPX modules. The other button can be used to enable or disable individual modules.

CPX modules can be loaded into memory which has the advantage of quicker access, especially on a floppy-based system. Alternatively, modules may be loaded as required, so saving memory. Each module is configured independently, so some can be memory resident and others loaded when needed. The Configure CPX, as in figure 2, lets you determine this and the appearance of each CPX; simply double-click on it and scroll through the various CPX modules to change their settings.



Figure 2: the Configuration CPX lets you customise individual modules.



Hardware Info – a quick peek into the system...

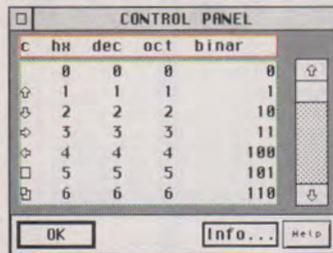
simple module lets you check the contents of the cookie "jar".

FILE INFO

Freeware •
Dieter Fiebelkorn

This can be very useful. You can change file attributes such as write-protecting a file, create a folder, rename files and more. To select a file, click on the blank file name field and select the file with the file selector. You can then change its attributes, rename it, copy or move the file. The Actions button reveals a pop-up menu displaying the various functions.

If the file is a program or desk accessory, you can also set the program flags. Most users should only be concerned with the *Fastload* flag, which enables the faster loading routines available from TOS 1.04 onwards. The other two options only apply to TT owners.



ASCII Table – a quick converter for the programmer.

ASCII TABLE

Freeware •
Dieter Rabich

A simple-to-use CPX that offers a quick conversion table between characters and their ASCII values. It can

THE ATARI PACKAGE

Atari supply several modules with *XControl* which are mainly designed to configure the system:

- Background Colour:** for setting the background colour of objects – *TOS 4* and *MultiTOS* only.
- Clipbrd Manager:** use this to set the path for the clipboard, supported by a growing number of applications.
- Colour Setup:** configures the colour palette.
- Configure CPXs:** set the appearance and status of CPXs.
- Sound Setup:** configure the sound system on STE, TT and Falcon computers.
- General Setup:** set keyboard speed, click, bell and double-click sensitivity.
- Modem Setup:** for baud rates, port selection and other comms settings.
- Printer Setup:** configure the printer port – only applies to the <Alt><Help> screen dump facility.
- Environment Path:** sets the environment variables – only works under *MultiTOS* and *Geneva*.
- Submenu Setup:** sets sub menu response for Falcon and *MultiTOS*.
- Window Colours:** each window element can be assigned a different colour or monochrome pattern.



Calendar – a month-at-a-glance is available at any time...

also be used to convert between hexadecimal, decimal, binary and octal numbers.

CALENDAR

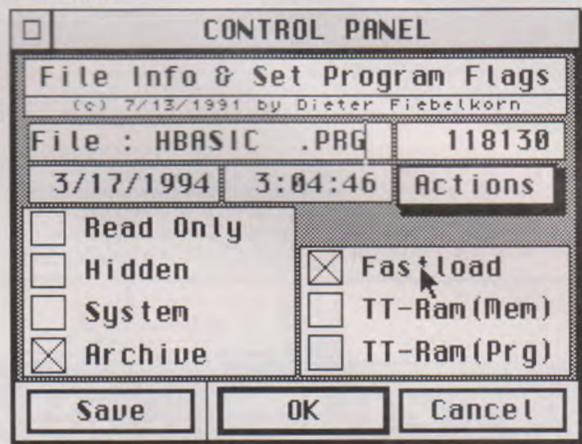
Freeware •
Dietmar Rabich

Another simple utility that displays a monthly calendar. The two sliders let you scroll back and forward. One slider changes the month, the other changes the year. Note that this does not change the system clock but simply allows you to browse through the calendar.

CALCULATOR

Shareware •
T. Dix/O. Teuber

A comprehensive calculator with support for floating point calculation, square root, hexadecimal, octal and binary systems and even memory. All buttons can be accessed with the mouse and most have keyboard shortcuts. Use the numeric keypad for standard computations. The <Return> key is the shortcut for the



File Info – complete file utility for creating folders, moving, copying and deleting files...

equals button and the <space bar> clears the numeric field. This program is shareware with a modest fee of 20 DM (about £9). Registration details can be revealed by clicking once on the numeric display field.

FREEMEM

Freeware •
Roman Hodek

This clever module displays total free memory. It recognises TT-RAM and even shows memory fragmentation, so you can see where the system memory has gone. A useful utility especially when running a multi-tasking system.

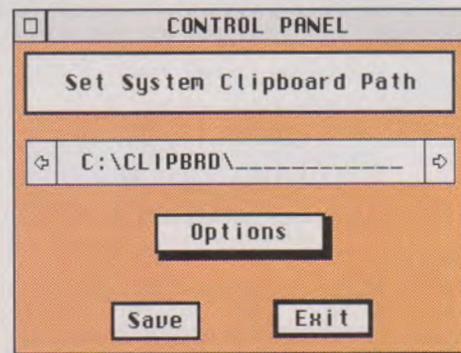
DOUBLE DEUTSCH...

Many CPX modules originate in Germany so it is useful to know some commonly used German terms...

Abbruch: Cancel, abort.
Sichern: Save.
Lochen: Delete.
Rechner: Calculator.



Calculator – a versatile number-cruncher with keyboard shortcuts.



Clipboard Manager – Atari's CPX allows you to set the clipboard path at boot time for transfer of data between programs.

ST Handbook

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Applications:

SMS2 is not GEM or TOS compatible but is a distinct and separate operating system, which provides a different form of computing.

There are already a number of commercial programs and a good range of PD software which is available now and is SMS2 compatible.

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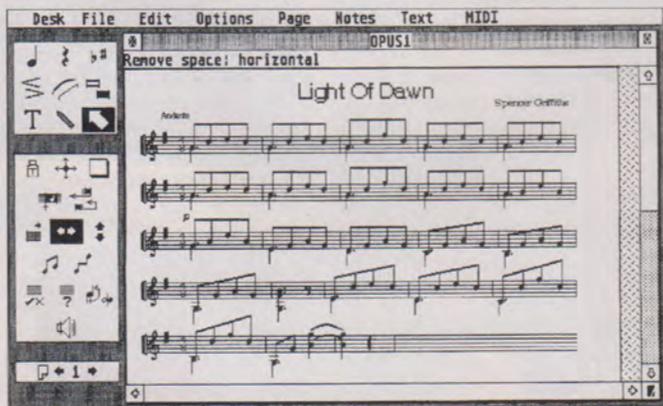
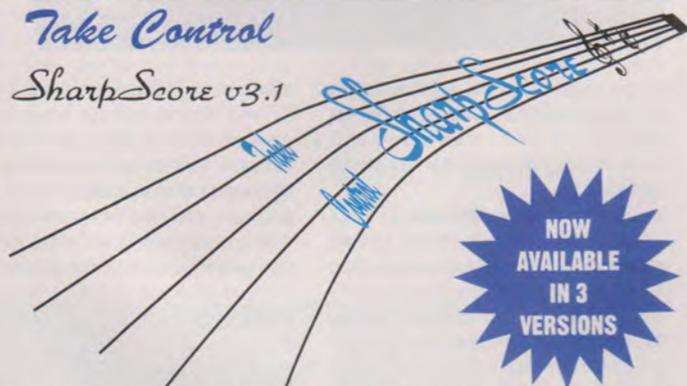
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Take Control

SharpScore v3.1



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SharpScore is the ultimate publishing system for music. It is the only professional product of its kind for the Atari ST and Falcon, and it is used by musicians, composers, orchestras, copyists and publishers.

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This new version of the program incorporates many new powerful editing functions, Automated Part Extraction, optional Automated Note Beaming, larger symbol repertoire, extended chord window facility, real time entry from a MIDI keyboard, playback of scores, graphics functions import and export and MIDI file import and export. This allows the transfer of files from sequencer packages for typesetting and printing.

For more details, a demonstration disk and example printouts, or to place an order, contact:

Take Control

Institute of Research & Development
University of Birmingham Research Park
Vincent Drive, Birmingham B15 2SQ, U.K.
Tel. 021 415 4155 - Fax. 021 415 4156

SMASHING GRABBER!



KEY FACTS

Product:
Vidi ST (12)

Company:
Rombo

Contact:
0506 414631

Price:
£149.95

SYSTEM

Memory:
1Mb

Resolution:
Any

Computer:
Any

INSIDE INFO HiSoft's VideoMaster is the closest competition with different versions for the ST and Falcon. It displays moving video with 16 colours (64 on the Falcon) but at 160 by 100 pixels. Colour stills can be grabbed with up to 512 colours (32,768 on the Falcon) and saved in Spectrum or .IFF formats (TruePaint on the Falcon), provided you have the optional extra, a colour splitter. It supports simultaneous audio and full motion video sampled at up to 25 frames a second and, on a 4 Mb machine, you can store up to 500 frames (200 on the Falcon) in memory. The quality of the stills isn't quite as good, despite the extra colours on the Falcon version, but the extra bells and whistles – like real-time recording of motion video – open up many more possibilities.

The latest crop of Falcon-only products can come as little comfort to died in the wool ST owners with no designs on upgrading to Atari's true colour beast. So it's a pleasant change to come across some hardware that is equally at home on any Atari. Rombo's Vidi ST (12) is a relatively simple video digitiser with some interesting software. Unlike HiSoft's VideoMaster, Vidi ST can't actually store sequences of moving video as such, although consecutive frames can be grabbed one at a time to produce a short sequence. However, it does allow you to grab individual frames quickly and easily, converting them to any desired resolution or colour depth – even on an ordinary ST.

Vidi ST is contained inside a grey coloured plastic box about four inches square which plugs directly into the ST or Falcon cartridge port. Two different video input sockets are present: a standard phono connector and the more upmarket S-Video. Two dials, for altering brightness and scan width if necessary, are accessible only with a small screw driver and no external power supply is required. One neat and compact unit.

The system requirements are any ST, STE or Falcon with a colour monitor. ST owners will be able to manage with 1Mb of RAM though 2Mb is recommended if you intend

Maurice Collins looks at Rombo's VidiST (12), a digitiser for both ST and Falcon owners...



Vidi ST's GEM mode.

to do anything at all significant. On a Falcon, 4Mb is essential if you want to use a colour mode and load images bigger than postage stamps!

Clearly the capabilities of your machine will be important. On an ordinary ST you can't see more than 16 colours at a time on-screen from a total palette of 512 colours. On an STE things are slightly better; you get a palette of over 4,000 colours but still only 16 on-screen. The Spectrum 512 image format is one answer –

with up to 512 colours. Luckily, Vidi ST will digitise colour images and save them in Spectrum format so even ST owners will be able to see the results of their handiwork. In fact, you can even save images with up to 4,096 colours on an ST/STE, though you won't be able to see all the colours without a colour graphics card or a Falcon.

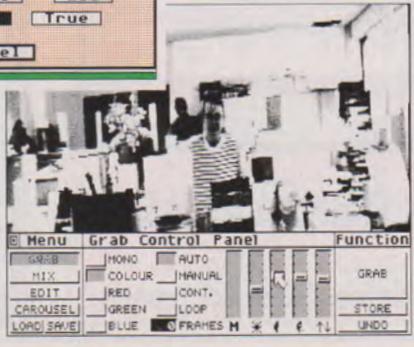
GETTING READY

The software comes on a single disk and is easy to install and use. It works in two modes: a familiar GEM mode for loading, viewing and saving files, and a non-GEM mode for handling video input and editing the images. In the former mode you have full access to desk accessories and the drop-down menu bar, and the images are stored in a resizable window. Unfortunately only one window can be opened at any one time.

The non-GEM mode displays a movable panel that takes up a third of the screen and offers access to four different types of operation: grab, mix, edit and carousel. The grab screen provides a simple way of watching the video input which appears behind the control panel and at the same time offers an easy way to grab stills by simply clicking on the



Setting the mixer preferences in GEM mode.

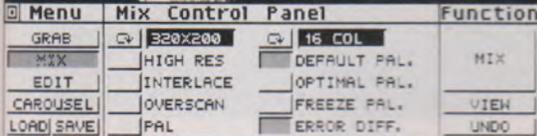


Grabbing an image is very straightforward with Vidi ST – here's the office up at ST Review...



The mixing screen where colour grabs can be split into their red, green and blue components.

Vidi ST has some useful filters including Sharpen, as being used here.

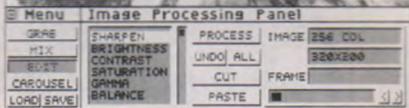


grab button. The brightness and contrast can be controlled from this screen too, reducing the need to fiddle with the hardware.

IN MOTION

Motion video is displayed full screen (320 by 200 pixels) but only in 16 shades of grey, even on the Falcon. This isn't particularly inspiring and the image also tends to be rather dark, requiring brightness to be turned up fully. Even some fiddling with the adjustment screw didn't entirely alleviate the problem. Colour stills have to be captured in three goes, as red, green and blue components, and as a result take up a fair amount of memory. Even on a 4Mb machine, it may not be possible to have more than three or four colour images if they're of any size. Various image sizes can be specified including the overscan mode of 768 by 480 pixels.

Vidi ST is very sensitive to noise and on some cameras and videos it may refuse to recognise a paused or frozen image. A telephone call to Rombo produced no answer to this problem, which was experienced



on a good quality Sony 8mm camcorder. A call to Sony was more productive; the answer is to use the long play/record feature found on most models of camera and VCR as there is no noise band between consecutive frames, although this does tend to spoil the picture quality to some extent. If you're using the S-video input or a VCR equipped with digital freeze frame facilities, you shouldn't experience difficulty.

MIXING 'N' EDITING

Next comes the mixing panel. The Vidi ST software allows any existing image to be loaded from disk and

then split into red, green and blue elements in the same way as digitised stills. This RGB "triple" can then be remixed to any desired resolution or colour depth, but there are clearly limitations. You can't load a 16-colour Degas pic and expect to turn it into a 24-bit TIFF. Well you can actually, but it will still look like a 16-colour Degas pic! One odd omission is the lack of any facilities for turning an image into a greyscale – an essential feature for those wanting to print the image to paper or include it in DTP documents.

The editing desk offers a variety of filters including the common ones like contrast, brightness, gamma, colour balance and sharpening plus more imaginative ones like pixelisation, negative, quantisation, median, emboss and convolution, a kind of DIY filter effect. Each filter has various options and levels too, so there's plenty to play with.

GET ANIMATED

The carousel is the animation mode. Up to twelve frames can be viewed at a time in the

visible part of the screen behind the control panel though the frames take up quite a lot of memory and a 4Mb machine can store less than 50 of these. Playing them back in sequence is a close approximation to motion video, especially at speeds of 25 to 33 frames a second. Such animations – I'd hesitate to call them video clips because it's very hard to grab consecutive frames – can be saved in the proprietary .ANM format.

Images can be loaded and saved in ten formats: two types of .IFF, two types of Spectrum 512 (compressed and uncompressed), Degas uncompressed, Neochrome, Windows .BMP, TIFF, Art Director and .IMG which makes the software quite useful for conversion.

VERDICT

In all, Vidi ST is a competent package but it's not the all-round performer of much cheaper, competing products like HiSoft's VideoMaster.

It lacks any audio features, is poor at actually grabbing film sequences and doesn't support sufficient colours on-screen to make it

much of a worthwhile purchase for Falcon owners. The quality of the digitised stills is remarkably good, though, and while the special effects filters are oddly out of place in a digitising program, they provide a useful bonus, along with the mixing facilities and support for different image formats.



One plug-in-and-go cartridge...



The difference between a 16-colour Degas image and a 512-colour Spectrum file – those extra colours give life to digitised stills.



A digitised true colour image, courtesy of Vidi ST.

SUMMARY

GOOD POINTS:

- Good quality stills
- Useful conversion and special effects features
- Allows ST owners to digitise images with more than 16 colours

BAD POINTS:

- Poor motion video support
- Fussy about some video signals

FINAL WORD:

"Rombo's Vidi ST is great for grabbing still images from video but offers little in the moving picture department."

PERFORMANCE

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

OVERALL

70%

GEMBench clearly shows how the Power Up 2 upgrade compares with a standard Falcon. While the integer division test is twice as fast, other tests are not as promising due to the Falcon's slow memory access.

| Test | Time | Ratio |
|-------------------|-------|-------|
| GER Dialog Box: | 0.955 | 105% |
| VDI Text: | 0.500 | 109% |
| VDI Text Effects: | 1.000 | 114% |
| VDI Small Text: | 0.625 | 115% |
| VDI Graphics: | 2.250 | 158% |
| GER Window: | 1.365 | 106% |
| Integer Division: | 1.585 | 200% |
| Float Math: | 0.325 | 110% |
| RAM Access: | 1.915 | 125% |
| ROM Access: | 1.910 | 125% |
| Blitting: | 1.155 | 103% |
| VDI Scroll: | 1.540 | 102% |
| Justified Text: | 2.075 | 111% |
| VDI Enquire: | 1.025 | 110% |
| New Dialogs: | 2.165 | 109% |

| Statistics | Value |
|------------|-------|
| Display: | 111% |
| CPU: | 140% |
| Average: | 118% |

| Reference | Value |
|------------|-------|
| User Sets: | |
| None: | |

LET'S GET PRACTICAL

Rather than just giving meaningless statistics, we also ran a series of real-world tests. The results of our limited evaluation showed an overall improvement of about 14% - enough to actually feel the difference.

| Test | 16MHz | 32MHz |
|-----------------------------------|-------|-------|
| Studio Photo - Load TIFF | 22 | 16 |
| Studio Photo - JPEG Export | 26 | 20 |
| GEMView - load and dither TIFF | 75 | 64 |
| Calligrapher - scroll a long file | 9 | 8 |
| Everest - scroll a file | 12 | 11 |
| HiSoft BASIC - compile | 69 | 62 |
| LZH - Pack a number of files | 47 | 44 |

POWER UP!



As you all know, no computer is ever fast enough. While the Falcon is over three times faster than the ST, when running in colour modes it can be annoyingly slow. The first Falcon accelerator to arrive on the scene was GE-Soft's Eagle Sonic board which initially showed promise, but only managed to produce a 20% speed increase at a cost of some £200.

System Solutions are now offering a low cost solution. Power Up 2 gives the same performance as the Eagle Sonic at a fraction of the cost. Unlike the Eagle board it does not occupy the processor slot which can still be used for a PC emulator.

WARNING!

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

WHAT YOU GET

Power Up 2 originates in Germany, where most decent Falcon items seem to come from these days, and comprises a single red module with several wires attached. The module itself contains an oscillator which is used to double the speed of the existing processor. The device exploits the fact that most 16MHz 68030 processors can run at 32MHz without difficulty.

Installation is comparatively simple as long as you can handle a soldering iron and is shown in detail to the right. A hardware switch is provided allowing you to switch between 16 and 32MHz at any time as well as an LED indicator that lights when running at double speed.

DIVING IN

The installation involves disassembling the Falcon and removing the power supply and floppy drive. One minute surface-mounted resistor has to be removed from the motherboard and the Power Up 2 placed in a convenient spot. Each of the 8 wires has to be soldered to a different

Fancy getting a little extra performance out of your Falcon? Ofir Gal examines an upgrade that gives change out of £60...

point on the board to provide power to the unit and, of course, to feed the system its faster clock.

LIMITATIONS

The board is very simple and does not utilise a data or instruction cache as used in most ST accelerators and in the MegaSTE. This means that the increase in performance is limited by the rather slow Falcon memory access. This, coupled with the way the video hardware accesses memory, is the main obstacle in achieving a high degree of acceleration. The only solution, which is not offered by Power Up 2, is to install additional memory which the processor can then access at much faster rates. This method is used on the Mighty Eagle which carries a price tag approaching £300, excluding the memory. In addition, programs like *Cubase Audio* are unable to utilise this extra memory.

PERFORMANCE

With Power Up 2 installed, the Falcon boots and performs about 20% faster than previously. While some

operations such as text scrolling are hardly improved, others are improved by as much as 50%. In general use the system feels a little faster. Unlike screen accelerators such as *NVDI* or *Warp9*, this is true CPU acceleration - the system is actually running faster including disk access, document formatting and source code compilation.

The hardware switch allows you to switch between 16 and 32MHz at any time quite reliably, although trying to switch speeds back and forth too quickly can result in a crash. Other than that, the system is rock solid with no unexplained crashes or other side effects.

VERDICT

As far as Falcon accelerators go, this product has no competition. At only £59.95 it provides the same acceleration as products costing three times as much.

Is it worth it? Look at the figures and decide! The product is well made, carries the System Solutions stamp of approval and should be seriously considered by all Falcon owners.

KEY FACTS

Product:
Power Up 2
Company:
System Solutions
Contact:
081-693 3355
Price:
£59.95

SYSTEM
Minimum Memory:
1Mb
Resolution:
Any
Computer:
Falcon only

PERFORMANCE

| | |
|-----------------|------------|
| EASE OF USE | ✓✓✓✓✓✓✓✓✓✓ |
| DOCUMENTATION | N/A |
| EFFECTIVENESS | ✓✓✓✓✓✓✓✓ |
| VALUE FOR MONEY | ✓✓✓✓✓✓✓✓ |

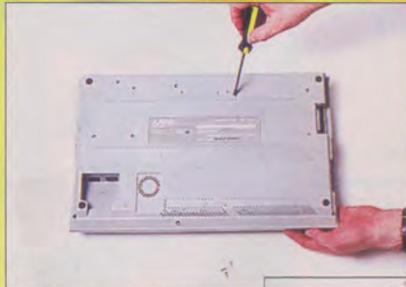
OVERALL

77%

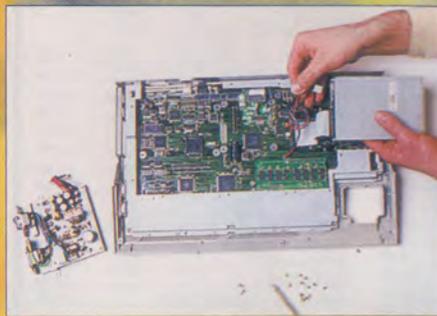
STEP BY STEP GUIDE

DOWN TO THE BARE BONES

The first part of the installation involves disassembling the Falcon – just like this...

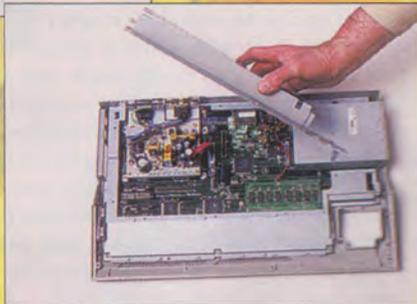


1 Remove the screws in the square holes at the back of the Falcon. Then turn the machine over and remove the grey plastic top. Next, disconnect the keyboard from the motherboard and remove it.

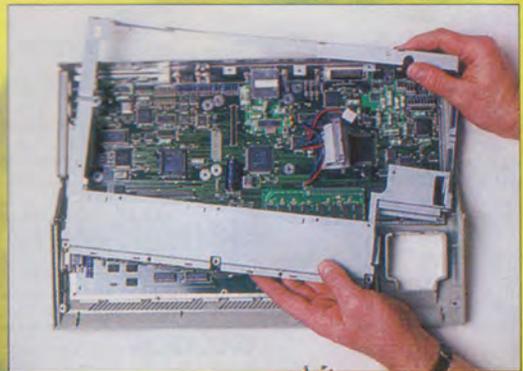


3 Undo the screws and connections to the power supply and remove the power supply unit. The same applies to the floppy drive which is attached to the board with three long screws found at the back of the Falcon case.

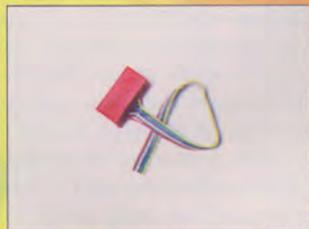
2 The top shielding panel must also be put aside. Remove the screws and lift away the shield to reveal the board.



4 The last step is to remove the main shield – take care as it has very sharp edges. It's attached to the board with screws and metal twists that need to be, err, untwisted...



STEP BY STEP GUIDE

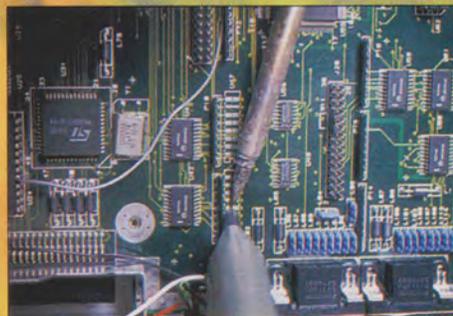
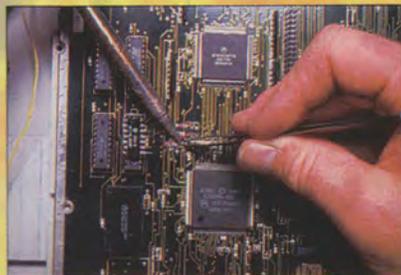


1 The Power Up 2 has eight coloured wires attached to it which need to be soldered to various points on the Falcon. Make sure you follow the colour coding as shown in the accompanying instruction sheet.

FITTING POWER UP 2

With the Falcon in pieces, you are now ready to install the board...

2 The hardest part of the installation is locating this tiny surface mount resistor which has to be gently removed. Use a solder sucker with a small nozzle!

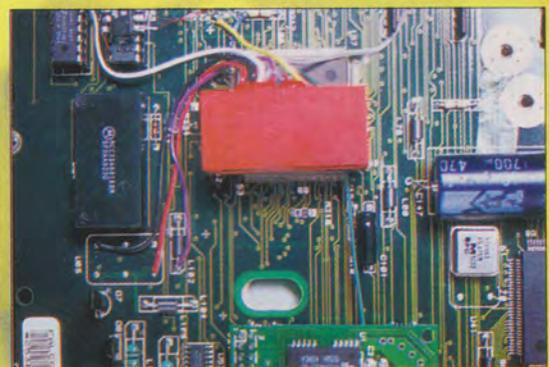


3 The next steps involve soldering the eight wires to the Falcon. The various connections are used to provide +5V and earth to the board as well as supplying the 32MHz clock to the 68030.

TOOLS

You need a Philips-type screwdriver and a pair of pliers to disassemble the Falcon, and a soldering iron, solder sucker, a pair of small tweezers and solder to fit the actual board. Remember to remove any static charge from your body by touching a metal tap or a radiator as excessive static can damage computer chips.

4 The board can be placed anywhere convenient and a double-sided sticky pad is used to secure it into position. Now reinstall the power supply and disk drive, put the Falcon back together and test the installation...



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Cover-mounted disks are probably the most powerful form of shareware distribution available today. Whereas many PD libraries count themselves lucky to sell 100 copies of a title, inclusion with a mag like *ST Review* can easily push the same game or utility into more than 20,000 homes around the country in a single month. And given that the majority of people cite a cover disk as their main reason for buying a magazine, it's only fair to assume that they will actually use the software it contains. Surely good news for shareware authors across the world?

Well you would think so, but many of the programmers seem to disagree. The main grumble is monetary and in many ways you can understand their point of view. After all, if magazines are making money off the back of a piece of software, it's only fair that the authors should reap some of the rewards. A second school of thought is that all authors should at least be consulted before their program is used by a magazine and once again it's easy to see the sense behind such a request. But surely it's not worth throwing away more than 20,000 potential customers for the sake of a minor grudge?

And yet, sad to say, many shareware programmers are doing just that. Messages prohibiting distribution on cover disks are beginning to appear in documentation files and programmers across the land are up in arms at the fact that their work has appeared on a newsagent's shelves without their permission - not at the hands of *ST Review* I hasten to add. Strangely, the same people seem to forget that shareware owes its very existence to free availability and to stop anyone distributing a program would not only deny this principle, but also lose valuable registrations into the bargain. A significant number of German packages cannot currently be sold through public domain libraries - if this second form of distribution is cut off, just how is shareware supposed to succeed? It's rapidly reaching the point where only those fortunate enough to own a modem can try the latest packages, let alone register them.

You could understand the situation if cover disk distribution clearly didn't work, but you only have to look at games like *Llamatron* to see that this isn't the case. In the long run, the solution must be for shareware authors to attempt to work with, rather than against, all of their distribution channels. Think about it - a "distributors are free to include this program as long as they include full registration details in print" approach will present no problem to most companies and will probably generate more in registrations than any one-off payment. Any other view is likely to lose far more in cash than could ever be gained in courtesy.

Nial Grimes is a freelance journalist and is currently lost in the surreal world of *Cybermorph* on his Jaguar. All hope of him returning to reality was lost when Atari announced the imminent release of *Tempest 2000* and *Alien vs Predator*...

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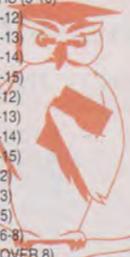
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Miscellaneous

| | |
|--|-------|
| External Disk Drive | 54.95 |
| Head Cleaner (3.5") | 3.75 |
| Mouse | 14.75 |
| Mouse House | 2.95 |
| Mouse Mat | 2.95 |
| Parallel port extension cable | 8.80 |
| Parallel printer cable (2m) | 8.60 |
| Roboshift (auto Mouse/Joystick switch) | 14.75 |
| Trackball | 28.75 |

Dust Covers

| | |
|-------------------|------|
| Atari Monitor | 3.65 |
| STAR LC10 printer | 6.96 |
| STAR LC24 printer | 6.99 |

Disk Boxes

| | |
|-------------|-------|
| 10 Stimpack | 0.94 |
| 40 | 4.95 |
| 50 | 5.60 |
| 80 | 6.30 |
| 100 | 6.80 |
| 120 | 8.75 |
| 150 | 10.95 |



Joysticks

| | |
|------------------------------------|-------|
| 125+ | 9.00 |
| Competition Pro 5000-black | 13.75 |
| Freewheel-digital | 27.00 |
| Maverick 1 (QS128F) or 1M (SQ138F) | 13.75 |
| Megastar A/F (SV133) | 22.00 |
| Navigator A/F | 13.75 |
| Python 1 (QS130F) | 9.25 |
| Python 1M (QS137F) | 9.75 |
| Quickjoy 1 Turbo (SV121) | 7.95 |
| Speedking A/F | 11.00 |
| Star Probe | 13.50 |
| Supercharger (SV123) | 9.00 |
| The Bug (black or green) | 13.50 |
| Topstar (SV | |

Andrew Wright looks at a bargain basement laser-quality printer with built-in PostScript emulation...

Texas Instruments isn't a name you'd normally associate with anything other than calculators but they've certainly jumped into the printer market with a splash. Well anyone bringing out a laser-quality PostScript printer for around £700 has to be making a splash – and with street prices likely to be even lower, it

looks a bargain. Notice I said laser-quality. The TI Microwriter is an LED printer rather than a true laser. Instead of a laser generator and delicate (read expensive) moving prisms, LED printers use an array of tiny electric bulbs which flash on and off to create spots on the drum that attract particles of toner. The end result isn't far short of laser quality – far cleaner than even the best inkjet.

The model we reviewed was the Microwriter PS23, equipped with both HP Laserjet 2 and PostScript

Level 1 emulation, 2Mb of memory (expandable to 4Mb) and a reasonably good 300 dpi, 5 pages per minute engine. It doesn't contain that many internal fonts though this isn't likely to worry many Atari owners as special drivers invariably have to be used to get at them. In HP mode you get Courier and Line Printer while in PostScript mode you get Courier, Helvetica, Helvetica Narrow, Times, Adobe Garamond and Tekton. Perhaps more interesting is the automatic emulation switching – you can print to it as a PostScript printer or a Laserjet and it will sense the mode you are using.

Setting up the printer is relatively straightforward. There's an eighty page manual, with plenty of clear diagrams, to take you through the steps, and a troubleshooting section at the back. The imaging kit and toner are inserted in the top, which opens nice and wide, and although there is still the same messy kind of toner to deal with, care can make it a painless operation. A small waste toner container also has to be fitted – and it clearly hadn't been fitted by whoever reviewed the machine before us! As a result, we were

KEY FACTS

Product:
Microwriter PS23
Company:
Texas Instruments
Contact:
081-875 0099

Price:
RRP – £735

SYSTEM
Memory:
0.5Mb

Resolution:
Any

Computer:
Any



Take an interesting mono picture...

... and check the printout – not bad for 300dpi.

TALE OF TWO

Laser-quality colour printing is now affordable thanks to thermal transfer technology. David Nilson examines a hot new mover from Star...

It's hard to believe the amount of progress that has been made in printer technology over the past five years. From a time when most computer users could only dream of owning a lowly 9-pin noise polluter, we're now at a stage where letter-quality and even colour are within reach of almost any pocket.

Much of this advancement has come through inkjet printers, but this year's hot new technology (quite literally in this case) is "thermal transfer" and it's on this process that the SJ-144 is based. In terms of specification, it's a laser-quality colour printer with mono aspirations and slots nicely into the £500 bracket alongside Hewlett Packard's Deskjet 550C.

The first thing that strikes you about the SJ is its size, or rather lack of it – this is one tiny printer. There are no fewer than three paper paths through the machine and a drop-down sheet feeder at the rear allows thirty sheets of A4 to be fed through automatically. It's all very

well designed, startlingly easy to use and looks the part with a multi-coloured flash streaked across the front of the creamy casing.

Even the traditionally tricky DIP switches can be adjusted electronically through the front panel – maybe not a significant improvement, but at least you don't have to go digging underneath the machine with a pin. As a very graphics-oriented machine, only two font families are built into

the firmware. ST software support is always a thorny subject when it comes to new printers, but prospective SJ owners haven't got too much to worry about. Naturally, only Windows drivers are to be found in the box (hey, since when have ST owners mattered, huh?) but the machine happily emulates the Epson LQ in both mono and colour modes. This being the case, *Imagecopy 2* comes to the rescue and produces

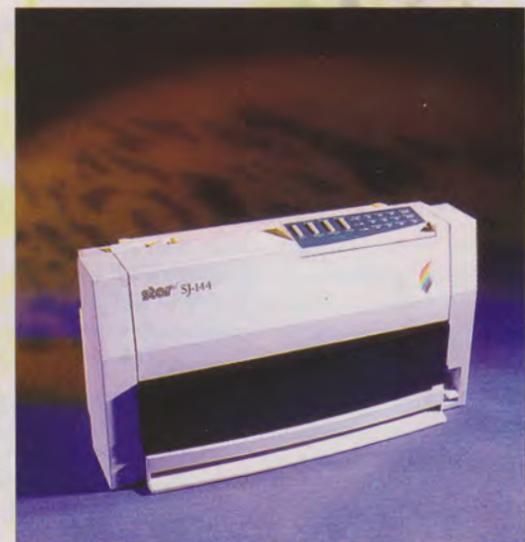
KEY FACTS

Product:
SJ-144
Company:
Star Micronics
Contact:
0494 471111
Price:
RRP – £540; Typical – £440

SYSTEM:
Memory:
0.5Mb

Resolution:
Any

Computer:
Any



Affordable colour – but the SJ-144's healthy appetite for consumables means it is anything but cheap to run.



Good value – laser-quality for a little over £700...

treated to a demonstration of what happens when toner clogs up the works. Happily we managed to prove that the machine is easy to clean and got it back to tiptop print quality in no time at all.

PRINT QUALITY

On the subject of print quality, the output falls a little way short of that expected from the majority of modern lasers. You really need a magnifying glass to spot the difference though and turning up the print

density (so using more toner) did make it crisper and darker. In PostScript mode it is pretty slow at printing graphics but HP mode is much faster and recommended for everyday use. It printed flawlessly with every ST program I tried, including ASCII files printed from the desktop. As long as you have either a PostScript or a Laserjet printer driver, you shouldn't have problems.

The printer isn't the most attractive object I've had on my desktop and is certainly one of the bulkiest, but the front-loading

250-sheet paper tray makes it quite easy to use. The paper path is still puzzling me even now – the paper goes into the machine and comes out on top in exactly the same orientation! Perhaps because of the lower temperatures generated – or possibly because of a cleverly-designed paper path – there is little of the crinkling sometimes associated with lasers and the final result is rarely overheated as it can often be.

LED technology hasn't really caught on, which is somewhat surprising. It has been said that it's inherently unreliable but Texas Instruments offer a one year back-to-base warranty with a five year guarantee on the LED print head. Each imaging kit costs over £200 but is claimed to last for 15,000 pages

while toner kits cost £27 each and are claimed to do up to 2,500 pages. This works out at 2.5p per sheet if all goes well, though it will be more with DTP work. It compares reasonably well with most laser printers and inkjets.

VERDICT

The Microwriter deserves special attention if you're after a good quality printer. Not only does it offer PostScript emulation for desktop publishers and HP emulation for more mundane tasks, but it has pretty good 300 dpi output quality, compatibility with most ST applications and enough memory to cope with all but the most complex of pages.

| PERFORMANCE | OVERALL |
|-----------------|------------|
| EASE OF USE | 75% |
| DOCUMENTATION | |
| EFFECTIVENESS | |
| VALUE FOR MONEY | |

PRINTERS



lovely crisp colour images without any fuss at all. Other programs might prove more troublesome – plenty have mono LQ drivers on offer, but few go as far as colour.

However once you've found a suitable printer driver and have sorted the colour levels out, the print quality is very pleasing. The mechanism is fully adjustable to avoid banding – somewhat successfully – and is virtually silent in operation. Both plain paper and overhead transparencies can be handled with the appropriate ribbon and it will even print on thin card if you use the rear paper path. Mono operation is pretty good too – as long as the paper fed into one end is of good quality, the blacks are true and the characters nicely formed. Speedwise, colour printers are always going to be slow, purely because of the amount of data that needs to be squirted down the cable and the SJ is no exception.

Mono timings are a lot more respectable, but it's still nowhere near as fast as a laser or inkjet.

It's in the consumables department that the SJ-144 really comes to grief though. There's no problem with the design of the ribbon cassettes or the price at first glance, but they last no time at all. A mono

GEMView helps pick out a decent colour pic...

...and the SJ-144 transfers it to paper. With the right software, colour output can be very good.

cassette provides 180 pages of jet black print, but at just eight pages per shot you are going to have to go steady on the old colour cartridges – at around £6 each! Mind you, these figures are based on graphically intense pages, so you may be able to squeeze out a few more sheets if you try hard.

The SJ is a good entry into the thermal transfer market from Star, but it's hard to recommend as a main printer. If you are looking

for acceptable quality colour work, and don't mind paying for the consumables, it's certainly worth a look

but you can't help feeling that bubblejets have a lot more to offer right now.

| PERFORMANCE | OVERALL |
|-----------------|------------|
| EASE OF USE | 72% |
| DOCUMENTATION | |
| EFFECTIVENESS | |
| VALUE FOR MONEY | |

Banished from the office for a week, Nial Grimes takes a look at three of the best portable word processors on the market...

Everybody dreams of owning a portable computer at some time or another, be it to take on holiday for a fortnight or simply to use on the way to the office. There's little to match the freedom of working when and where you want, without the thought of having to type the lot up when you eventually return to home base.

At one time, entering the portable market was only marginally cheaper than running your own airline, but

thanks to the falling price of technology you can buy a word processing tool every bit as powerful as your desktop machine for around the £200 mark. Let's take a look at the line-up...

AMSTRAD NC100

The NC100's main claim to fame is its ease of use; from the moment you switch the Notepad on you are left in no doubt as to which button does what, even if you have no conventional computing experience. However, don't let the simplistic approach put you off - underneath that "mollycoddling" exterior lies one of the best word processors on the portable market.

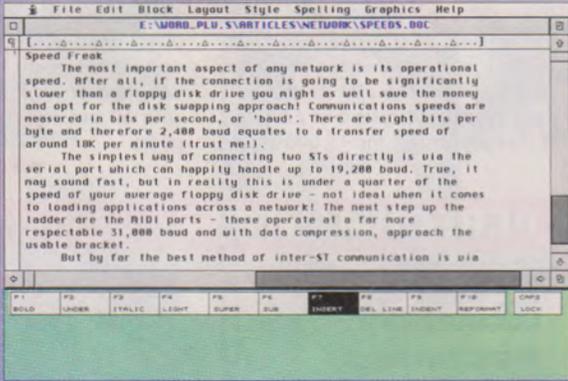
The nice thing about the NC100 is that it carries a slightly slimmed down version of *Protext*. The file format is compatible with the ST version and Arnor even sells a dedicated transfer solution if you don't fancy fiddling about with serial links. Although the whole machine is no larger or heavier than your average text book, mini-*Protext* still

packs a formidable punch. The Notepad actually makes a very capable replacement for a desktop machine with a standard parallel port buried in the back of the casing and a wide range of printer drivers built into the firmware. With a megabyte memory card slotted into the expansion port, this is one machine that can stay away from your ST for some time.

The keyboard spacing is slightly different to the ST, but it has quite a nice feel considering the limited space available.

In terms of extras, the NC100 has plenty to boast about: an address book, a jumbo-sized calculator and a full implementation of *BBC BASIC!* Transfers to the ST are handled through the word processor and there's no real need to get bogged down with a terminal if you don't want to.

The NC100 is a nice little machine with a very powerful word processor. Despite the low price, it offers just about everything necessary for computing on the move and doubles as an efficient personal organiser.



Easy, peasy - WP-2 or Z88 documents can be loaded into almost any ST word processor as ASCII text.

WRITING ON



Mob-handed - (from back to front) Cambridge Z88, Tandy WP-2 and Amstrad NC100.

TANDY WP-2

Tandy's WP-2 is a lot more focussed in its approach to word processing, aiming to provide only the essential facilities for writing on the run. It's the only machine to boast a thesaurus and this is complemented by a sizable spell checker. Switching out of the word processor automatically saves work in progress and you can safely chop and change between the various screens without fear of losing any information.

The terminal is equally competent, offering autodialling and X-Modem transfer with a maximum baud rate of 9,600 - a whole memory full of text only takes a few seconds at this speed. Unfortunately, 32Kb of memory looks very weedy when you consider that each document has to be converted to ASCII before transfer to the ST - a feat that quickly doubles the amount of storage used. An upgrade to 64Kb is a priority.

The WP-2's biggest asset is its screen. Quite honestly, for extended use, it leaves both the Z88 and NC100 standing. Although no form of lighting is on offer, the slightly reflective background is very effective. The keyboard is nice too, being responsive and similar in terms of spacing to the ST.

The WP-2 is excellent as far as it goes. The in-built software is highly



Amstrad NC100 – good compatibility with the ST but a little fragile.



Tandy WP-2 – a thesaurus is included as standard, but a RAM upgrade is essential...



Cambridge Z88 – a silent keyboard and very expandable, although without a spell checker.

effective and you should have no qualms about leaving your ST behind with a WP-2 tucked under your arm.

CAMBRIDGE Z88

The Cambridge Z88 is the odd one out, in that it was designed as a general purpose computer. A quick

prod of both "rubbery" <Shift> keys is enough to spark the little beast into action, upon which it presents the Index screen – or the Z88's "desktop" if you prefer.

The foundation of the machine is called *Pipedream*. This unusual program attempts to combine the facilities of a spreadsheet with a word

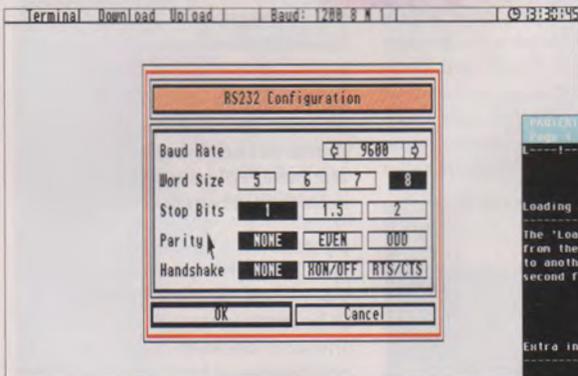
processor and actually works remarkably well. In fact when you are in text-bashing mode, only the tell-tale row and column figures give an inkling that the spreadsheet facilities are there at all.

Alongside an admirable range of block functions *Pipedream* provides flexible layout facilities and a fast

word counter. A page preview is even displayed towards the left of the screen as each document is typed – very stylish! The lack of a spell checker or thesaurus isn't a huge problem as long as the text ends up on your ST at some point before printing.

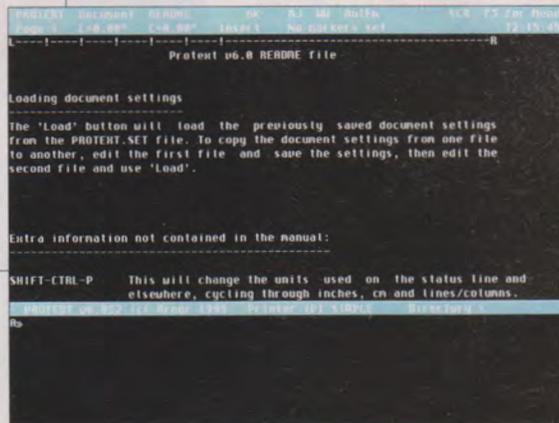
Transfer of ASCII text between the Z88 and ST is relatively hassle-free, with a little help from Rakewell's "Infinity" cartridge. Among many other useful utilities, this plug-in module contains a terminal with X-Modem facilities and supports baud rates right up to 19,200. The Z88's "real computer" philosophy makes it a much more flexible proposition than the competition – it's a little machine with a lot of "character" (sounds a bit like ST Review... Ed)...

THE RUN



Child's play – as long as the terminal settings match on both machines, transferring your work from notepad to ST is simple.

Ideal companion – Protex on the ST and NC100 even shares the same file format.



TRANSFER TRIALS

Transferring text between your ST and any of the notebook machines covered in this feature is a piece of cake. All you need is an appropriate serial cable and some ST communications software capable of dealing with the X-Modem protocol.

Once the physical connection has been made, it's just a case of ensuring that the terminal settings match on both machines; the speed of the connection, the type of handshaking (if any) and the transfer protocol. As a test, try typing on

the notebook's keyboard with terminal software running – if all is well, text should appear on the ST's screen. All that remains now is to "upload" on one machine "download" on the other and watch that text flow!

Harlekin's communication module was used to test the transfer from the various machines and it performed faultlessly throughout. Some other programs did present a few more hiccups, so if you do encounter problems, the ST software side of things is the first place to look.

VERDICT

There doesn't appear to be a clear winner; each machine excels in a certain area and will suit different types of people. The NC100 scores with its good ST compatibility, the WP-2 with its thesaurus and screen, and the Z88 with its endearing "real computer" feel.

Any of these little bruisers make an ideal mobile substitute for an ST. None cost an arm and a leg and yet all three boast a surprisingly powerful armoury of software. In short, there's never been a better time to go mobile!

CONTACTS

Amstrad NC100
(£149.99 or less):
Amstrad plc – 0277 228888

Tandy WP-2
(£179.99 or less):
Tandy High Street Store

Cambridge Z88
(£249.99 including 128Kb RAM,
printer cable & mains adaptor):
Rakewell Electronics –
0296 630617

TOS FOR TOMORROW

Possible changes to TOS and MultiTOS have been the subject of many rumours. So what is Atari really up to?

Since the early, memory-based pre-1.0 versions of TOS, Atari has always been improving its computers' innate operating system. While developers' lips have remained tightly closed, books such as *The Atari Compendium* have given an insight into TOS 5.0. After much research, *ST Review* now presents you with the whole picture – the current position of TOS, MultiTOS and SpeedoGDOS.

MULTITOS

The main complaint against MultiTOS from developers and users alike is its speed, or rather lack of it. The more observant of you may have noticed that when using MultiTOS, certain operations seem to be slower than others. Functions such as disk access are severely slowed down by the overheads of the multi-tasking Kernel while others, such as re-formatting a document, are hardly affected. In addition, unpublished system features can be activated to improve overall response.

Indeed, response is exactly what the current version of MultiTOS truly lacks. The reasons for this are rather complex, but let's take a quick look at this issue. Unlike Geneva, or Windows on the PC, MultiTOS provides what is called pre-emptive multitasking. This means that the system rapidly switches control from one application to the next, no single

application can grab hold of the processor. In fact MiNT, the heart of MultiTOS, specifically prevents any program from hogging the processor. Additionally the AES is always waiting, constantly fighting for

processor time. From your point of view this means that response to mouse clicks can be sluggish in an unpredictable manner. Sometimes response is rather snappy, at other times it can be very slow. The latest



AES: the part of GEM that provides the windows, dialogue boxes and menus.

Co-operative multi-tasking: a multi-tasking system in which processes have to give way to each other. Under such a system, one badly behaved application can make the rest grind to a halt.

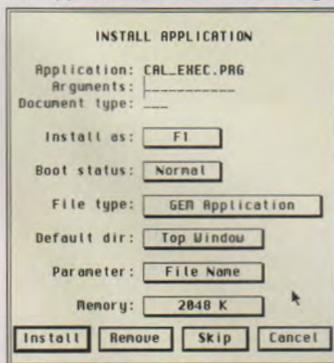
Iconify: creating a small icon to represent a window, so saving desktop space.

Kernel: the core of a system, program or process.

MiNT: the multi-tasking kernel that is the basis for MultiTOS.

Pre-emptive multi-tasking: a system that allows several processes to share processor time and so can all work at the same time. The operating system is responsible for the division of processor time.

Process: in a multi-tasking system, each program or desk accessory is called a "process".



The maximum memory for each application can be defined from the desktop – ideal for programs like 1st Word Plus and Calamus.

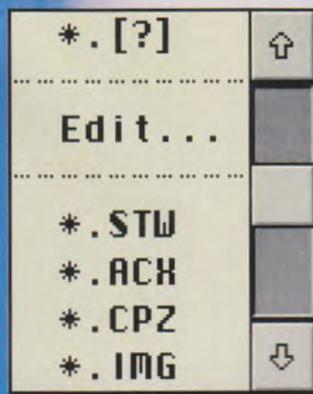
BETTER BY SELECTION

It has taken almost ten years, but at last Atari have acknowledged the need for a new file selector. Development of the new file selector is far from complete, but it already has some features that cannot be found on any of the replacement versions.

The new file selector features a Mac-like pop-up menu that allows you to go back through the directories. In addition, the drive letters have been replaced with another pop-up menu. Preset and user-definable file masks can also be accessed from a rather long drop-down list. The file selector now accepts Unix-style wildcards so to



The new file selector is still under development but already sports a host of features comparable with the best replacement file selectors around.

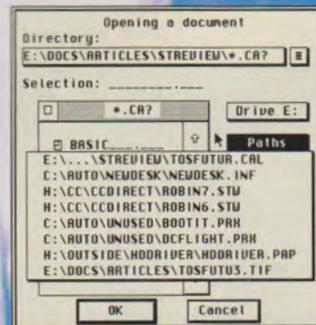


A large number of file masks can be installed in the drop-down list. You can even use multiple masks and Unix-style wildcards.

view all 1st Word Plus documents that start with the letters A to E you can use [A-D]*.DOC as the mask.

The best feature of the new file selector is path and file memory. Every file you access is stored by the file selector in a list containing up to

eight such entries. This is extremely useful in a multi-tasking environment where the same file may need to be loaded into two applications. This list is stored to disk so that it is not lost after a reset. The file selector also remembers the scroll bar location from one call to the next and allows you to sort files by name, date, size or extension.

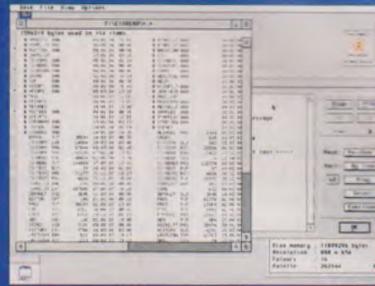


The last eight files and their paths are stored in this pop-up menu for easy access.

SPEEDOGDOS

SpeedoGDOS has also gone through some changes over the last few months. Most are internal; bugs have been ironed out and some minor features added. SpeedoGDOS v4.2 should be available shortly in the UK and is used by the development version of MultiTOS to display GDOS fonts in dialog boxes and on the desktop.

All Speedo fonts' IDs have been changed so that they do not overlap with older, bit-mapped GDOS fonts. Surprisingly, this causes no problems with older AtariWorks documents.



SpeedoGDOS is now used to display alternative fonts on the desktop allowing you to squeeze more files on-screen.



The new AES features iconified windows. Clicking on the iconifier button at the top right of a window iconifies it and places it at the bottom of the screen.



Dock is a test utility that allows you to set the priority of an application before starting it. The final version will probably have many more features.

development version of MultiTOS tackles this head-on. By making fundamental changes to the way the AES works within MultiTOS, Atari programmers have managed to solve this problem. The AES no longer has to wait for events such as mouse clicks and the system feels much more responsive – almost as fast as TOS.

NEW FEATURES

With the issue of speed out of the way, the programming team decided to add some features and respond to other complaints and user-requests. The desktop has been improved so that each installed application can now have its default priority set as well as the maximum amount of memory it can grab. In addition the desktop can now use SpeedoGDOS, or even standard GDOS, fonts to display files and directories. This can be useful with smaller fonts allowing more files to be listed in a window.

The most obvious enhancement is the inclusion of Windows-style "iconify" buttons. Clicking on such a button closes a window and opens an icon version of it at the bottom of the screen. Double-clicking on the icon re-opens the window. If the <control> key is held down at the same time, all the windows that belong to a particular application are iconified. This feature needs support so only a few programs currently use it. Among these are the desktop itself, GEMView, Connect, STRAIGHT FAX! and GEMBench.

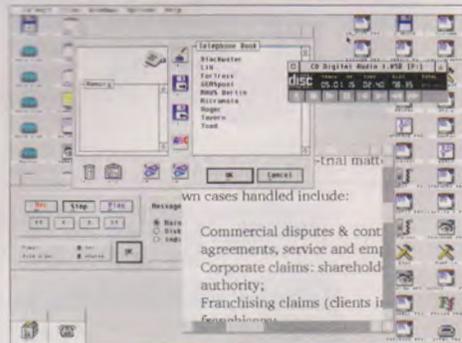
Under a multi-tasking system, be it Geneva, MagIX or MultiTOS, it is easy to open many windows and end up with a cluttered and confusing display. MultiTOS now offers several functions to help you control this. In addition to the iconify function, a

window can be dropped to the bottom of the "window pile" by simply clicking once on its move bar. A double-click on the move bar is the same as clicking on the full box which is useful if the latter is invisible. As before, windows do not have to be

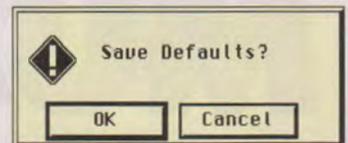
topped or activated in order to move them around the screen or even scroll their contents.

Another addition is the implementation of toolbars. This enables a program to install a toolbar at the top of the window, AtariWorks-style.

While many programs already implement a toolbar of some variety, this is now built into the operating system, making it much simpler from the programmer's point of view. A toolbar can exist for each window an application opens, so a word



Iconified windows can be reactivated with a double-click.



Alert boxes have a cleaner design and can be moved around the screen freely.

processor, for example, may have a toolbar with tools to enable various text styles, save to disk or even print.

A new class of pop-up menu has been created: drop-down lists for a large number of items. This features a real-time scroll bar that can be used to quickly scroll through the list. In addition, standard scroll arrows are provided for slower operation.

At last, editable objects are no longer restricted to the system font and can now use any Speedo or old GDOS font. Not a major breakthrough, but a nice touch. Another minor feature is that alert boxes look better and can be moved around the screen. Finally, there is no need for a special utility to reveal your TOS version – it's displayed in the About... dialog box from the desktop.

TOS 5

TOS 5 incorporates all the new MultiTOS features except the ability to multi-task. In addition to the much improved AES, TOS 5 offers some advantages over current versions of TOS. First, there is no need to use the built-in desktop if you prefer to use an alternative one. Second, it is possible to load in as many accessories as memory allows; desk accessories no longer need to reside in the root directory of the boot drive. They can be located anywhere and can be started at any time from the desktop. TOS programs can be run in a window under MultiTOS and you can even install a file viewer and print utility to replace the desktop versions.



The new AES features toolbars as well as drop-down lists. This new type of pop-up menu features a real-time scroll bar.

NOT YET...

All products featured in this article are still undergoing development and testing, and so consequently are not yet available to the public.

MIDI BUSKER - LATIN GUITAR

STATION RECORDS • £14.95 • 0787 311500



MIDI Files usually contain all the relevant note data and instrument information for a song that can be played back by a MIDI instrument. MIDI Busker files are different; they contain information for just one instrument, the Guitar, providing authentic voicings to be used in your arrangements.

These files attempt to bring the feel of a live guitarist to your sequenced music. Anyone that has tried to emulate a guitar on a keyboard will know how difficult this is; it is virtually impossible to imitate a guitar strumming. MIDI Busker was recorded by using a very competent guitarist playing a MIDI'd guitar into a sequencer, with minimal quantising, for a truly authentic feel.

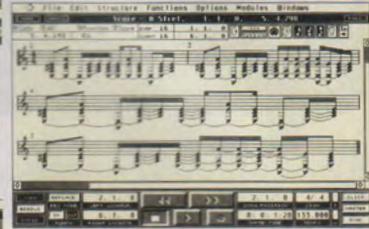
MIDI Busker does not contain any complete pieces; the intention is for you to use the guitar strumming of chords and riff patterns, from a variety of Latin styles, in your own compositions and arrangements. Load one of the 54 MIDI Files from the 10 different latin styles ranging from Bossa to Samba rhythms and you are presented with a different chord for each track. Some of these appear to be duplicates. Not so. The guitar can sound most chords in an **open string** position or as a **bar chord**; both shapes are included within the files. If you want a chord that is not named, then it is a simple matter of transposing the track until it's at the desired pitch. By using the cut, copy and paste functions of your sequencer it is very easy to put together chord progressions.

The Latin feel is excellent. While many associate Latin rhythms with **Come Dancing** or naff home keyboards, these files sit comfortably in a wide spectrum of styles. It is quite simple to slip a latin guitar part into an existing arrangement - or you could base an entire piece around these files;



A wide choice of different chord voicings are available.

How a guitarist shapes a chord; try playing this on a keyboard!



The chords are not too heavily quantised - essential for feel...

the choice is yours.

The files are GS-compatible, although those with other non-GS modules may have to transpose the files up or down an octave. While guitar patches on most keyboards and modules sound great, try connecting a sampler with an acoustic guitar sample - simply stunning.

ST REVIEW COMMENT: "Outstanding! Anyone who wants feeling in their music should definitely have a listen - if these files don't add a new dimension to your music, nothing will!"

★★★★

MUSIC TO YOUR

BEATCALC

REALFEEL • £14.95 • 071-241 0621

Working with your MIDI equipment is mostly a pleasure, but there are times when you wish that no one had ever thought of MIDI delay functions on music software. Formulae for working these out does exist, but it is a time-consuming process. Enter *BeatCalc*, a small and inexpensive utility.

BeatCalc can be run as a desk accessory or stand-alone program. As there are many ST owners who use colour monitors, it is a shame that *BeatCalc* can only be run in high resolution (the thinking being that most musicians use a mono monitor), although it will run in all Falcon resolutions.

What does *BeatCalc* do? It has three main functions, the first of which is **Tap Tempo**. Tap along to the beat of a song using a key on the Atari keyboard to find out the tempo of a song. This function will particularly be of interest to those of you who work with tape and need a tempo for re-mixing, or for those with a sampler who wish to know the tempo of a sampled

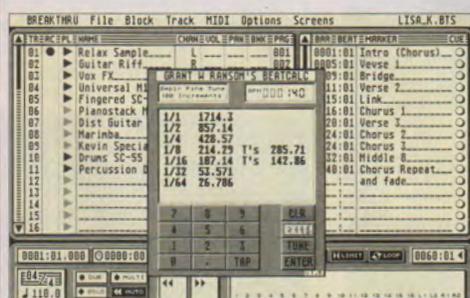
breakbeat. The more you tap the beat, the more accurate the tempo. Wait a few seconds, hit a key again and the display shows the tempo and the delay settings. Neat.

The **Tune** button determines how far you need to time stretch or tune a breakbeat or vocal phrase for a particular tempo. Type in the original and new tempos and press <enter>; the coarse and fine tune settings required to run the loop at the new tempo are shown. As different samplers have different values for their tuning function, *BeatCalc* offers various settings so you can choose the one valid for your sampler.

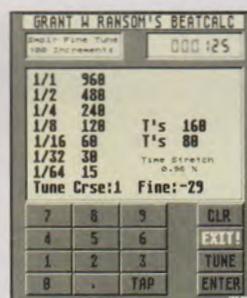
The **Delay** function is simple. By entering the tempo in BPM (Beats Per Minute), delay times are shown next to beat lengths in the display screen. Now you can have all those lovely delayed effects in time with your music!

ST REVIEW COMMENT: "An extremely handy little desk accessory; a great utility for musicians of every calibre, whether working at home or in a top studio. If you use your sampler for breakbeats, *BeatCalc* could solve all those time stretch and tuning problems."

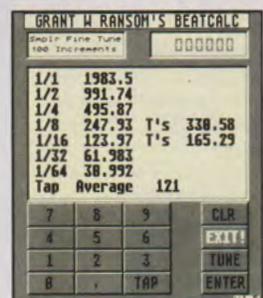
★★★★



As *BeatCalc* can be configured as a desk accessory, it can be used alongside any sequencer.



BeatCalc can work out how far you need to tune a sample played at a new tempo.



The tap function displays the tempo and delay settings as you tap out the tempo of a song.

CLASSIC IVORIES

STATION RECORDS • £9.95 • 0787 311500

It's good to see MIDI File producers catering for a wide range of musical tastes. *Classic Ivories* is a selection of five Chopin preludes, a polonaise and a waltz, all of which are well played and listenable.

The files were recorded live although this is mostly lost due to the heavy use of quantising, but velocity data is left untouched which helps avoid a totally unnatural feel. In most circumstances, such strong use of quantise would be criticised, but these files are not directly concerned with accurate reproduction of the performer's skill. Instead, *Classic Ivories* provide a way of learning about a composer's music by providing a very crisp display in a sequencer's score facility. If you have ever tried to produce a score without first quantising, you'll appreciate the problem.

Classic Ivories contains MIDI File format 0 and 1 files so they should load into almost any sequencer. They are also GM-compatible; just load up and hit play. Station Records are intending to release further *Classic Ivories* containing the works of other composers such as Debussy, Beethoven and Bach amongst others. Some of these files are in the current graded piano exams, so if you are learning any of these pieces, these files could provide a new way of studying – visually and aurally.

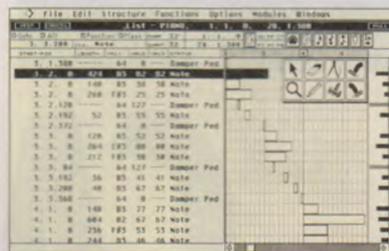
The files are a brave attempt at a happy compromise between providing a decent score and a listenable piece but don't expect an earth-shattering performance. The score output is excellent though...

ST REVIEW COMMENT: An unusual collection of MIDI Files, designed for analysis rather than detailed listening. The files do not contain the subtle performance nuances of some classical MIDI Files but are ideal if you really want to learn what made Chopin tick..."



Classic Ivories demonstrate how notation should be presented in a sequencer's score editor.

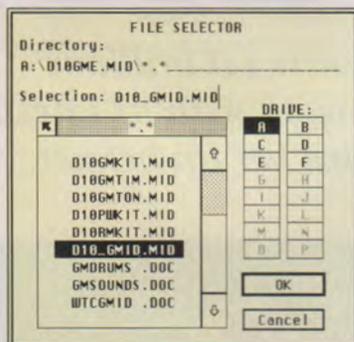
Chopin's Raindrop Sonata in C# minor - rain falling from a cloud perhaps...



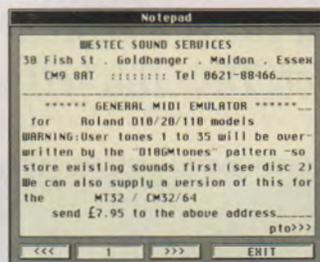
The files are fairly heavily quantised, which is essential for analysing a score.

EARS

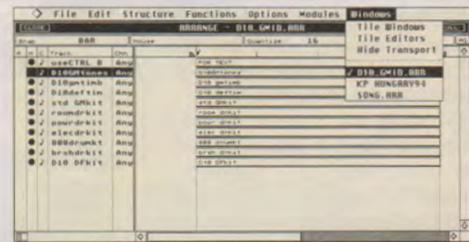
Kevin Pawsey investigates four rather nifty little products that can help you on your way to making great music...



Send System Exclusive dumps to your synth via sequencer-loaded MIDI files.



Sound advice – whenever sending System Exclusive dumps, make sure you back up the original sounds...



The GM Emulator as an arrangement ready to be sent to your synth, one part at a time.

GM EMULATOR – ROLAND D-SERIES AND MT-32

WESTEC SOUND SERVICES • £7.95 • 0621 88466

The Roland D-series of synths is one the most popular sound sources around, being the first generation of synths to combine sampled sounds with synthesis. Fortunately, technology marches ever forward and good as the D-series is, wouldn't it be great if you could access some of today's advances, like General MIDI, and play the huge range of GM MIDI Files available? Well now you can...

The *General MIDI Emulator* is currently available for the Roland D-5, D-10, D-110, D-20 and the MT-32, CM-32 and CM-64 sound modules.

The synths are converted to GM by the use of System Exclusive dumps that are sent from your ST by a variety of methods, including a *Cubase* Arrangement file which can be sent each time you boot the program. Place the patterns that you want, one after another, on a single track and then reserve the arrangement as the *DEF.ARR* file.

The *GM Timb* file sends the timbre data to match the GM sound table as closely as possible and uses only the preset sounds. The upshot of this is that while most sounds are an acceptable match, there are some that will require a little imagination! This is a problem with the D-series, not Westec, as it does not contain the relevant sample data to produce some GM sounds accurately.

Also included are approximations for the Sound Canvas drumkits, a noble attempt...

ST REVIEW COMMENT: "A neat little file that should bring a smile to the face of many Roland D-series, MT-32, CM-32 and CM-64 owners; no more searching for that sound when playing a MIDI File."



GAME PLAY

Foliage provides cover for exposed troopers.



Troopers cannot use their weapons while swimming!



Cannon Fodder is a war game. Not that unusual you might say, but games of this genre usually fall quite neatly into two categories: the shoot-'em-up, that requires you to simply run around blasting everything in sight, or the war simulation game, which needs carefully thought out strategy. Cannon Fodder is different in that it combines all the frustration of a shoot-'em-up with the tactical/strategy element of a war simulation. It is a combination that most definitely works, resulting in a highly playable, addictive and novel game.

War is not surprisingly a sensitive topic area, and using it as the subject for a piece of entertainment software will inevitably result in some form of criticism. Concerns arise that this kind of title will appeal to the darker, bloodthirsty side of our nature.

Not so in the case of Cannon Fodder; the Sensible Software developers have ensured a humorous approach to the game, and although blood is a necessary effect in this title (with people being shot left, right and centre!), it is at all times clearly light-hearted, with cartoon-like

CANNON FODDER

Sensible Software, renowned for its bizarre yet brilliant titles, looks set to blast the games scene again with its latest release, Cannon Fodder. Tina Hackett dons her tin helmet...

effects and a non-graphic portrayal of war.

NEW RECRUITS

There are a massive twenty-four missions to complete, each one containing a maximum of six phases. You play the game by controlling a troop leader who, in turn, commands his group of troopers. These will follow the leader and can shoot, throw grenades and split off on their own depending on the strategy you employ. All troopers start the game as lowly privates and can increase their ranks after each completed mission. After three missions, recruits receive battle training and will automatically rise a rank.

On your missions, you encounter many different terrains that add plenty of variety as each backdrop



Collect the grenades if you look carefully - four are hidden in each box.

KEY FACTS

Product:
Cannon Fodder
Company:
Virgin
Contact:
081-960 2255
Price:
£29.99

SYSTEM
Memory:
1Mb
Resolution:
Low

Computer:
ST, STE and Falcon

changes to fit the appropriate setting. Each one provides a different challenge. In the jungle, for instance, watch out for the deadly quicksand, or be cautious towards the harmless-looking snowmen in the Arctic wastes...

MISSION IMPOSSIBLE

As each mission progresses, the difficulty factor increases, a good design feature as it gives you time to acquaint yourself with the many aspects of the game. Missions vary but seven prime objectives have to be mastered in order to complete the game. Missions differ from the simple, such as killing your enemy, to the more tactical – like kidnapping the enemy leader.

Enemies also become increasingly challenging from the Grunts, a basic enemy trooper with a machine gun, to Snipers who camouflage themselves in the undergrowth, lying in wait to blast you with their bazookas.

In *Cannon Fodder*, you can make use of vehicles to aid your troops through the missions. From Choppas to Tanks to Skidoos: each one can help you to victory. Having to learn how to master each vehicle's weaponry to reap the maximum benefit adds yet another angle to the gameplay.

The sprites are not unlike those seen in Sensibles' other releases, namely *Sensible Soccer* and *Megalomania*. Although relatively small, they retain their characteristics through the effective use of animation.

IN CONTROL

The control system is yet another delightful element to *Cannon Fodder* – it's very easy to use. Within a short time of playing the game, the controls become so instinctive that you hardly need to think about them, leaving you free to concentrate on what's happening on-screen. Control



This is your status panel showing a trooper's logo, status, name, rank and weaponry.

is via the mouse; by moving the large, clear pointer over the screen you can view the surrounding areas. Clicking on the left button enables you to make the troop move forward while the right button lets you turn the pointer into a cross-hair and fire at the enemy. A combination of both buttons results in firing a bazooka or grenade.

Weapons vary throughout the game. Your standard bullets are cleverly designed so that they cannot harm your own men accidentally (*oh yeh... Ed*), unless, of course, to put a badly-injured trooper out of his misery as is sometimes necessary. Other, more effective weapons such as bazookas and grenades can be found and collected throughout the levels. However it is imperative to remember that they can be blown up all too easily – one small mistake can leave you short of ammunition. After certain points in the game, weapons are supplied free.

Bonuses, called Supa Dupa Boostas, are also another helpful feature and continue the light-hearted style. There's even a Supa Dupa Bullet Proofa Vest that provides invincibility for a phase!

One aspect that really stands out in this title is the superb graphics, worthy of praise in itself. Backdrops are colourful and detailed, and the



The useful map feature provides an overview.

animations, such as huts exploding, scattering debris and soldiers being shot, show the amount of attention to detail that has been paid by the creators.

Sound effects are limited to sporadic bursts of gunfire but work well in creating the atmosphere of the battlefield. The end of mission tunes add humour: succeed and you are treated to a jaunty melody; lose and an almost funereal tune is played.

VERDICT

Due to a last-moment duplication hitch this review was based on the French version, but the lack of any on-screen text means that international versions are almost identical.

Cannon Fodder is one of the best titles to grace the ST for a long time. Highly original gameplay combined with a great strategy element – *Cannon Fodder* appears to have all the necessary magic ingredients to make it an outstanding release.

SUMMARY

GOOD POINTS:

Excellent mix of shoot-'em-up mayhem and strategy

A vast game – the many levels ensure longevity

Stunning graphics with plenty of attention to detail

BAD POINTS:

Scrolling sometimes suffers from the screen jumping unexpectedly

FINAL WORD:

"Brilliant graphics, addictive gameplay, huge levels and a great strategy element will undoubtedly make *Cannon Fodder* a classic."



It may contain blood and guts, but Sensible Software keep it fun!

Cross a bridge over troubled water with care...



Watch out for the falling debris that comes flying off exploding huts!



PERFORMANCE

OVERALL

| | |
|-------------|----------|
| GRAPHICS | ✓✓✓✓✓✓✓✓ |
| SOUND | ✓✓✓✓✓✓✓✓ |
| VFM | ✓✓✓✓✓✓✓✓ |
| PLAYABILITY | ✓✓✓✓✓✓✓✓ |

90%

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9LIVES



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ENTERPRISE



Sola III requires a continuous supply of six super-heavy atomic nuclei and relations with neighbouring star systems are poor. Can you locate the six elements and return them safely to Sola III?

STAR BREAKER



New Chicago has been overrun and a bounty is on offer to anyone who can clear the unwanted visitors. Your ship, the SS Star Breaker, changes course for New Chicago...

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A permanent state of warfare has existed between two Princes for at least a century, as each tries to extend his power. Take the role of a Prince and break the stalemate...

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Dave "More For Less" Jones has another dip into the budget scene...



ANOTHER WORLD

KIXX XL • £14.99 • 021-625 3388

IN BRIEF: In the mid-eighties, a game called *Captain Blood* started a deluge of high quality adventure from across "La Manche". Undoubtedly, the French must be crowned as kings of the adventure. Over the years, Infogrammes, Loriciels, Silmarils and Delphine, among others, have given us a lot of good quality games with excellent graphics and sound, not to mention playability. *Another World* continues the trend and easily matches the quality we've come to expect from across the Channel, this time from Delphine Software.

Lester Knight Chaykin is experimenting with sub-atomic particles in his lab late at night when lightning strikes, transporting him into another dimension. He must use all of his skill, intelligence, resources and training to help him survive.

This alternative world is full of unusual enemies and situations that Lester must fight his way through in order to survive. From the start, if you don't keep your joystick pointing upwards, you drown before you even get into the adventure!

As you progress, each screen presents different problems and challenges. Unless you master various skills, you are unlikely to survive for long. Thankfully when you die, you can restart at the beginning of the stage you are on



The opening sequence sees our hero sitting down in front of his computer.



A lot of dexterity is needed to get past the beast but don't worry - if you die, you can always try again!

and don't have to go back to the start of the game. This is a positive advantage in a complex adventure like this.

Hard disk owners will be delighted to learn that *Another World* can easily be installed onto your drive as the protection is in the form of a supplied wheel.

Also, a code system is used so you can return to the latest position when you rejoin the game after a break.



Once the beast is beaten, your next task is to escape from the cage. Swinging it may help...

ST REVIEW COMMENT: This is a rare and exceptional game for all adventurers. Be prepared to get very frustrated, but perseverance is rewarded. The graphics and sound are of a very high standard that add to the atmosphere and create a superbly playable adventure. When it comes to games like this, *Vive La France!*

★★★★

LETHAL WEAPON

HIT SQUAD • £9.99 • 061-832 6633

IN BRIEF: Many programmers have realised the potential of movie tie-ins. We've seen Batman, Terminator and many others make it onto computer disk, including games of films that flopped at the cinema like *Cool World!*

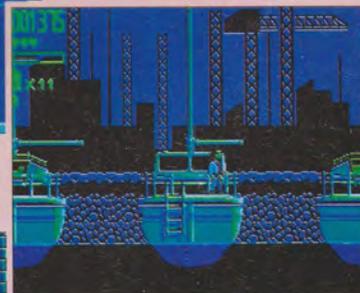
Lethal Weapon sees Riggs and Murtaugh (Mel Gibson and Danny Glover) immortalised on floppy disk. The plot is based on the stories of all three films which, any fan will tell you, is not very thick. However, after failing to defuse a bomb and the consequent blowing up of the building, the duo are back in uniform and on the beat.

There are four levels to wade through, taking our heroes to the LA dockside to face the Export Gang, into the subway to stop some fanatical terrorists, into a factory to save Leo Getz (played by Joe Pesci in the films) and on to a fourth location that is classified until the first three are completed. Play is of the platform style - fairly typical for this type of film tie-in.

ST REVIEW COMMENT: *Lethal Weapon* is a poor example of the genre. There is little to identify it with the movies and as a platform game, it doesn't even come close to being interesting or playable. The original films had a sense of humour; it is hard to see how this could be conveyed into a computer game and the proof of failure is packaged in this box. Even for a tenner it's impossible to recommend it to anyone unless you desperately need a blank disk!



Play as Murtaugh or Riggs and use the selection screen to choose your mission.



Mission one is set in the docks - leaping over some moored yachts is all in a day's work!



If you're still interested in this game, mission 2 is set under the ground...

PD SCENE

Is money too tight to mention? Then let Nial Grimes guide you through the world of PD games...

JEWEL BUGGY

LAPD • DISK NO: G.352 • £1.50 •
MEMORY: 1MB • SHAREWARE

IN BRIEF: *Lemmings* established a new standard for frustrating gameplay when it was released some three years ago and *Jewel Buggy* looks set to follow very closely in its footsteps. Forgetting the novel length plot for a few moments, the basic idea of the game is to retrieve a set number of jewels by enlisting the services of some semi-intelligent moles. "Easy enough" you might say, but in true *Lemmings* style you have tantalisingly little control over the beasties as they go about their task.

All actions are controlled through a panel that sits at the bottom of the screen and an on-line manual guides you competently through the rather complex control system. The whole game is nicely sewn together and if you find yourself totally hooked, an extra 45 levels can be obtained in return for a modest shareware contribution.

ST REVIEW COMMENT: "Jewel Buggy is a very ambitious concept and it very nearly comes off. Don't get me wrong – the game is quite enjoyable as it stands, but ultimately a little more control over the moles would improve things even further."

○○○○



Jewel Buggy's control system is fully explained through an epic-length on-line walk-through.

PEGASUS

LAPD • DISK NO: G.329 • £3.00 •
MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: All space games can be loosely broken down into two categories – shoot-'em-ups and trading epics. *Pegasus* falls firmly into the latter category. Although it doesn't go as far as mentioning Captain Kirk or the Enterprise, the game surrounds itself in a very Trekkie atmosphere.

Your mission starts from home base and the first hurdle to overcome is actually

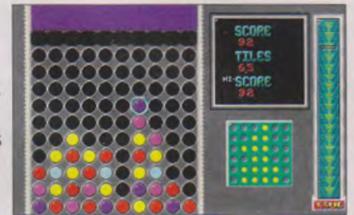


Ooh, soak up that Star Trek atmosphere – I'm sure the real Enterprise must be easier to fly than this!

COUNTER ATAK

LAPD • DISK NO: G.354 • £1.50 •
MEMORY: 1MB • PUBLIC DOMAIN

IN BRIEF: *Counter Atak* is a novel twist on that age old classic, *Connect 4*. The game is for one player only and the object is to stack counters into a grid, making sure that no two similarly coloured pieces rest next to each other. The first level is relatively easy – diagonally adjacent colours are allowed to slip through the net and you will probably die of old age before the time limit runs out. Later stages see the rules becoming a little stricter and as a result the game is much more challenging. Even so, there's a fair degree of luck involved and it can be frustrating to get to the very fringes of victory only to find that the last tile won't fit.



Just avoid putting two similarly coloured tiles next to each other. Sounds easy? Boy, are you in for a surprise!

What is there to say about presentation on a game this simple? Well, let's see – the counters are well shaded and the music on the title screen is nicely done too...

ST REVIEW COMMENT:

"Counter Atak is wonderfully addictive for the first few games. To be honest, it's hard to see a great deal of long term playability in there, but at this price you can afford to enjoy the gameplay while it lasts."

○○○



Three levels of play are on offer, each increasing the number of restrictions on which tile can go where.

getting the ship to do anything. "Intuitive" is not the word that springs to mind when you first catch sight of the bridge and it takes a good few minutes with the manual before you can even start the engines. Once the controls have been mastered, matters improve somewhat, but there are still a few situations that lead to a frantic flurry of clicks desperately trying to get the *Pegasus* to respond – a case of "go to red alert Number 1!" I think!

ST REVIEW COMMENT: "Pegasus does a reasonably good impression of a space trading game. It's not on a par with *Elite* by any means, but it should keep you occupied for some time, if only to try and master that damn control system!"

○○○



Navigation around the universe is controlled through this screen. The blue speck is your current location, the red one is where you want to go.

MUNCHKIN

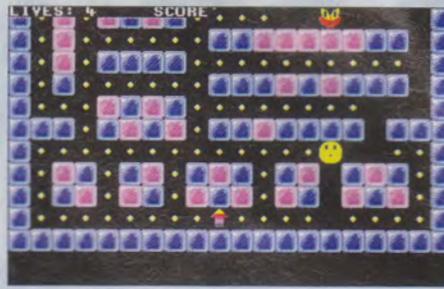
LAPD • DISK NO: L.80 • £2.50 •
MEMORY: 0.5MB • LICENCEWARE

IN BRIEF: Yep, it's Pacman time again. This time a leaf has been torn from H-Mec's book and our yellow drug-crazed friend finds himself trapped in a scrolling maze full of lethally intelligent nasties. As usual, the only way out is to down those pills as fast as possible and then wait to be whisked off to another remarkably similar level.

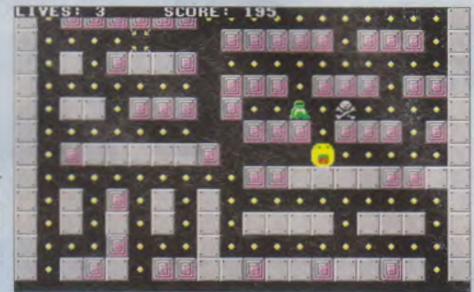
To its credit, *Munchkin* does offer one or two variations on the standard Pacman theme. There are teleporters that can be used to outwit the enemy and lethal skulls are to be avoided at all costs. The music isn't bad either – maybe not quite up to H-Mec's standards, but pretty good considering it runs on a standard ST.

ST REVIEW COMMENT: "Technically, *Munchkin* is quite good and the teleports add nicely to the gameplay. However there are better games of this type available and it doesn't matter how much you jazz the concept up, it's still Pacman."

○○○



Teleporters are a godsend – just lure the baddies down to the bottom of the maze and then disappear in a puff of smoke.



Later levels see the introduction of deadly skulls. And do they affect our friends the ghosts? Of course not...

The game is interspersed with digitised match shots and the general quality of the graphics isn't bad at all.



WORLD CUP

FLOPPYSHOP • DISK NO: BUD.4290C • £2.75 •
MEMORY: 0.5MB • LICENCEWARE

IN BRIEF: Given England's current standing in the world of international football, there must be plenty of people out there who think they can manage a team more efficiently than the "powers that be". *World Cup* provides an opportunity to test these skills and puts you in charge of the English, Welsh, Scottish or Irish team for the run-up to the world cup.

You start the game by choosing a squad. Each match played builds skill, and morale rises or falls depending on whether the game is won or lost. A diary reminds you of all the essential duties and, naturally enough, if the team fails to qualify you will be sacked. Still, look on the bright side – at least it won't be spread across the front page of every newspaper in the land!

ST REVIEW COMMENT: "World Cup is a little slow at times, but it will definitely appeal to fans of the long dead *Football Manager*. The digitised match grabs and graphics in general are of reasonable quality and the gameplay is quite deep."

○○○



Ever wondered how England would have fared had you been in charge? World Cup holds the answer.

QUEST FOR KNOWLEDGE

MERLIN PD • DISK NO: MPD.1896 • £1.25 •
MEMORY: 1MB • SHAREWARE • FALCON-COMPATIBLE (WITH BACKWARD)

IN BRIEF: If there's one criticism you can level at public domain quiz games it's the complete lack of action they offer. A power cut is usually the most exciting thing that can happen during play and sometimes it's hard to find a reason for loading them up at all. *Quest For Knowledge* aims to change all of that. Although buried just below the surface is a typically DCS-style affair, an arcade game fronts the whole thing up – hmm, looks interesting.

Basically, the idea is to rush around a maze collecting Magic Icons. This in itself is quite a challenge, but further to that you'll also have to answer several questions before each icon can be picked up. To tell the truth, it's really quite good, although I still find it hard to believe that a man who has churned out this many educational games has yet to add the apostrophe to his own company name!

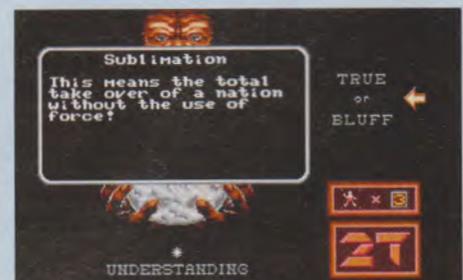
ST REVIEW COMMENT: "Initially, *Quest For Knowledge* looks like a real breakaway from the DCS formula, but play for a few minutes and up pops the familiar quiz screen yet again. To be fair it's very nicely done, but perhaps just a little jaded."

★★★★



Unusually for a DCS game, *Quest For Knowledge* is fronted by an arcade-style challenge.

Dictionaries at the ready, people – Dave Cobbleddick is back with a new creation to tease those tired brain cells.



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UPGRADING AN STE

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.

UPGRADING AN STFM

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.

Occasionally, extra components and a little soldering may be required. In these cases, we supply any extra components free of charge.

4MB STFM
UPGRADE FOR JUST
£99!

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Call **0480 891171**

These lines are manned Monday to Friday, 10am to 8pm, and Saturday, 10am to 5pm.

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!

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ST UPGRADE

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ALL MEMORY UPGRADES INCLUDE FREE DISK!

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...

MEMORY UPGRADE PROBLEMS – TAKE ONE

Where upgrading the RAM in your ST is concerned, there are three facts. Fact 1 – we can upgrade any ST, STF, STM or STFM to 4Mb. Fact 2 – most STs are relatively easy to upgrade. Fact 3 – a few STs are more difficult!



Problems centre around two vital chips; the MMU, which we'll look at next month, and the Video Shifter. If you intend to carry out the upgrade yourself, strip your ST down to the main circuit board and look for a silver metal, rectangular box in the centre of the board. Open it... you should find a variety of small components and a single large, rectangular chip. This is the Video Shifter and it should have 40 legs, 20 on each side, that go down towards the main board. Most of the time these go into a black plastic socket that is soldered to the board. If this is the case, you have a "normal ST and so require our standard fitting kit – and no soldering! Occasionally, the legs go straight into the circuit board which means that your Video Shifter is soldered in. You have an "unusual" ST and need a special fitting kit that requires a small amount of soldering – I bet this kind of thing always happens when you buy something!

Is all of this too daunting for you? Then let our experts sort you out – call them for advice or book your computer in for our fitting service...

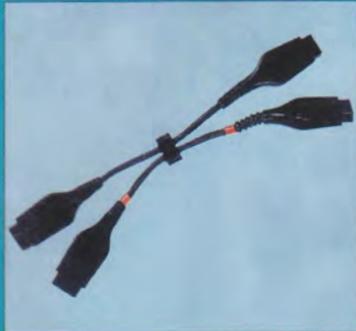
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TURN OVER...

...for more readers' offers and details of ordering by fax or post

SEE THE PREVIOUS PAGE FOR OUR SENSATIONAL MEMORY UPGRADE OFFERS!

MOUSE/JOYSTICK EXTENSIONS



Either a single or twin joystick adaptor will save you from the ST's most common hardware fault - a broken mouse port. Changing from mouse to joystick is that much easier if you have extension cables.

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MOUSE

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The ST may be a great computer but the mouse that comes with it simply is not up to scratch. The *ST Review* mouse is a major enhancement because it uses micro-switches for the buttons, making it much lighter and easier to click. Our mouse also has a much higher resolution - 280 dots per inch which means you need far less desk space and get much finer control.

CLOCK CARTRIDGE

Who sets the time each time they switch on their ST? If like many thousands of ST owners you don't, then you are missing out. Every time you save a file it gets stamped with the time and date - invaluable when you are hunting for a file. Get a clock cartridge and the time will be set automatically each time you switch on your ST.



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ST Review is the essential ST magazine - and our custom binder will help you to keep your back issues in pristine condition. No more searching under the bed for last month's issue! Our green and gold beauties will accept up to 12 issues and allow you to read any issue of *ST Review* without having to remove it.



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UVK

Everyone knows about viruses, but far too many ST owners think it can't happen to them - it can! Despite the fact that you never get disks from "friends" and only buy commercial software, a virus could still infect you. And when the gremlins get at your disks, life becomes an absolute misery. Don't

£9.99!

let this happen to you. UVK detects and kills more viruses than any other virus killer. We use it at *ST Review* - so should you!

VERSION 5.9
NOW DETECTS
THE BELSTEIN VIRUS

EXISTING USERS
CAN UPGRADE - CALL
FOR DETAILS

TRACKBALL



Do you use your ST for art, graphics, DTP or music? Then you really should consider our state-of-the-art, 162 dpi trackball, as used by the editor of this magazine. Movement from one side of the screen to the other is effortless and cursor motion is rapid and smooth, far more so than with a mouse. The feel is superb thanks to the high quality micro switches under the buttons. There's also a third button that acts as a locking left button - ideal for continuous scrolling, painting or line drawing!

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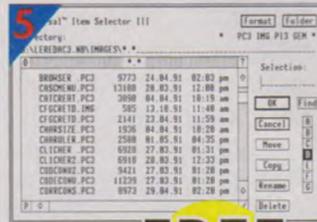
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PD ZONE

CONFUSED BY THE TERMS?

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 goldfish 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 a payment from the user. Typically you are given 30-90 days to try out a package, after which you must "register" – 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 legs, but on the other hand you won't get any of the benefits of registering and you certainly won't get that warm cuddly feeling inside that comes as part and parcel of being honest. All clear? Hmm, well moving on...

CATEGORY OF THE MONTH: POSTCARDWARE

EXAMPLE: ST ZIP

Postcardware is a variation on the shareware theme. Instead of sending cash to the author, it's suggested that you send them a postcard instead (many ask for a picture of your town or village). In nine out of ten cases, electronic mail messages don't count, so it's time to dig out a pen and see if you can remember how it works...

DESKTRACKER

FLOPPYSHOP • DISK NO: MUS.4148 • £2.50 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: After years of bad press, the ST finally seems to have shaken off its reputation for poor sound quality. So much so in fact that you now have the opportunity to switch off your radio altogether and listen to a *soundtracker* module played by your ST while you work. As a desk accessory, this little wonder is capable of performing its task alongside most GEM applications and a separate version is supplied to make the most of the STE's DMA sound facilities.

Unlike most of its rivals, *DeskTracker* uses a play-list system and can be programmed in exactly the same way as a CD player. A variety of frequencies are available and the better the quality, the slower your machine will be to use. In general, it seems to be very economical in terms of processor time and this is especially true on the Falcon where the 12kHz setting seems to have virtually no effect on the operation of the machine at all.

ST REVIEW COMMENT: "DeskTracker is the best module player to date. It supports every machine in the Atari range from ST to Falcon and even runs under MultiTOS with memory protection disabled! A must for *soundtracker* fanatics everywhere."



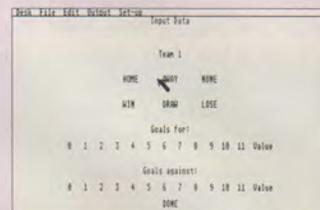
LEAGUE TABLES

EMERALD CITY • DISK NO: SN.38 • £2.50 • MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *League Tables* is a helpful application designed to keep a track on the successes and failures of sports teams. It's flexible enough to be used for most sports and the author has thoughtfully provided customised versions for Football and Darts. Basically, the program serves as a simple database – just enter where the game was won and how many points were scored, and *League Tables* will deal with it from here on. All very straightforward really.

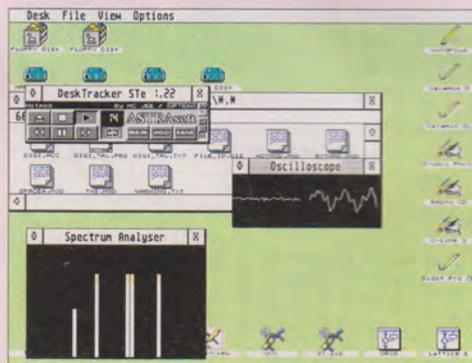
But any affinity you do feel towards the program is rapidly lost as you see the interface – I'd almost forgotten how truly awful *STOS* menus really are. Maybe we've been spoiled by the likes of *GEMView 3* and *WinRec*, but somehow it just doesn't seem right for an *ST* program to splurge text all over the screen without even a thought of a window anymore.

If you are prepared to accept the the STOS menus, League Tables makes a reasonably competent scores database.



Two versions of the program are supplied – one ready customised for football, the other for darts.

ST REVIEW COMMENT: "Despite the crummy *STOS* interface, *League Tables* is reasonably good at its job. With a few example tables and just a couple more features it could make the grade."



DeskTracker operates much like a CD player and can be programmed to load and play a selection of your favourite modules.

The Falcon is supported at a full 50kHz and the speed penalty is not as great as you might think.



INTERNET HELP

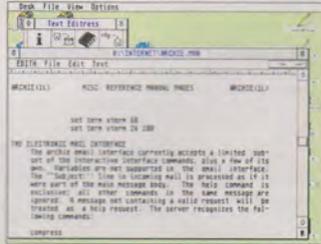
FLOPPYSHOP • DISK NO: COM.4363 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

IN BRIEF: There is some kind of irony in the fact that most Internet help files are only available from Internet sites. All well and good if you know what you are doing, but for the complete beginner, ftp'ing software or using *Archie* to find an elusive help file can seem practically impossible.

Fortunately help is at hand from *Zen And The Art Of The Internet*. This is a text file that goes into detail on the ins and outs of mail and the all important "anonymous ftp" (grabbing software). It's very well written and explains all you need to know in simple language, although a basic knowledge of comms terminology will probably be helpful. *Zen* is supplemented by *The Archie Guide* which lacks the clarity of its companion, but will no doubt be helpful in locating some good sources of ST software.

ST REVIEW COMMENT: "If you need help in navigating the Internet, look no further. *Zen* may not be as comprehensive as some of the commercial guides, but it covers all the basics in an easily understandable way and stands head and shoulders above its contemporaries."

☆☆☆☆



Zen And The Art Of The Internet is probably the best freely distributable Internet guide on the market.



The Archie Manual isn't as easy to follow as Zen, but it's very useful all the same.

GEMAR

FLOPPYSHOP • DISK NO: F.4340 • £3.00 • MEMORY: 1MB • SHAREWARE • HD DRIVE ONLY • FALCON-COMPATIBLE

IN BRIEF: In times gone by, backing up a hard disk was a relatively painless process. Most drives contained no more than 30 megabytes of information and although annoying at times, copying the lot to floppies was only a few minutes' work. These days, the situation is slightly different.

With the possibility of owning several hard drives, each boasting gargantuan amounts of storage space, the only sensible option is to go for a tape streamer.

Gemar is a controller program for these tape back-up units. It supports a wide range of different devices and is a model of GEM programming – just the right balance between ease of use and good looks. If some kind company would care to lend me a tape streamer I will be more than happy to perform a full six-year intensive test!

ST REVIEW COMMENT: "Gemar is superb to look at and according to reports worldwide, works very well indeed. The German prompts are annoying, but I'm sure it's only a matter of time before a translated version appears."

☆☆☆☆



Gemar follows standard GEM desktop conventions and as such is quite intuitive despite the German prompts.

TOP TEN UTILITIES

1 AUTO STEREOGRAM CREATOR • LAPD • DISK NO: L.77 • £3.00 • MEMORY: 0.5MB • LICENCEWARE

Turn your ST's screen into a three dimensional canvas with this superb toy. The drawing tools are quite limited, but you'll be pleasantly surprised at just how good even simple scrawls can look when transferred into 3-D. Fun at the right price.

2 SUPERVIEW • THE ST CLUB • DISK NO: DMG.39 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

Superview is a utility that sits in the AUTO folder and replaces the desktop "Show/Print" routines. Up to nine documents can be held in memory and text display is only the beginning of the story; sound samples can be played and pictures viewed all from within a program "costing" just 40Kb.

3 DESKTRACKER • FLOPPYSHOP • DISK NO: MUS.4148 • £2.50 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Boogie on down to your favourite selection of sound modules with a little help from *DeskTracker*. A play-list system means you needn't be bored to death by the same tune repeated *ad infinitum* and it's fully compatible with all machines in the Atari range.

4 INTERNET HELP • FLOPPYSHOP • DISK NO: COM.4363 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Having trouble nosing your way around the Internet? In that case, you need *Zen And The Art Of The Internet*. It covers everything from the first log-on to ftp'ing software and what those cryptic mailing addresses really mean...

5 ISHAR II CHEAT • FLOPPYSHOP • DISK NO: UTL.4272 • £2.50 • MEMORY: 1MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Is *Ishar II* giving you grief? MUG UK comes to the rescue yet again, with a cheat for Silmaril's ultra-taxing adventure. While this version only gives a helping hand, a complete editor is said to be in development. Warm tear to you, MUG!

6 GEMAR • FLOPPYSHOP • DISK NO: F.4340 • £3.00 • MEMORY: 1MB • SHAREWARE • HD DISK ONLY • FALCON-COMPATIBLE

No computer user can afford not to back up their hard disk and *Gemar*'s sole aim in life is to make this process as simple as possible. It's designed to talk to the vast majority of SCSI tape streamers and is really very easy to use. Shame about those German prompts though.

7 LEONARD • THE ST CLUB • DISK NO: DMG.39 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Whoever decided to make the ST display bombs when the machine crashed obviously had no sense of humour (now the mushrooms before the bombs – they were funny!). In any case, *Leonard* replaces your ST's sign of defeat with caricature heads; highly entertaining, until of course you realise that the crash has just destroyed an afternoon's work!

8 HD RECORD • FLOPPYSHOP • DISK NO: MUS.4148 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN

HD Record proves that direct-to-disk recording is not limited to the Falcon. It takes a sample at 20kHz from your Replay-4 cartridge and dumps it directly to disk in AVR format. A separate program is supplied to play back your monster-size samples.

9 LOAD SOUND • FLOPPYSHOP • DISK NO: MUS.4148 • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN

A piece of C source code designed to aid programmers in dealing with sampled sound. It's quite happy to load IFF, SND, WAV, IFF, HSN (whatever that is) formats and the only real problem is the lack of English comments.

10 BUBBLEBOOK • THE ST CLUB • DISK NO: DMG.39 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN • FALCON-COMPATIBLE

Yet more proof that no utility is too trivial to appear in the public domain. *BubbleBook* puts a comic style "I'm here" caption whenever the right mouse button is pressed – sweet and simple. Ideal for ST Book owners and fans of pointless gadgets (me, me, me!).

TUMBLEVANE PDI

6 West Road, Dept STR, Emsworth, Hampshire, PO10 7JT
Telephone: Emsworth (0243) 370600

DISK PRICES:
£1.75 each,
unless otherwise
stated

UTILITIES

- UTA01: THE HITCHHIKERS UTILITIES, which includes a document displayer, BOOTDRIVE, select which drive to boot from, BOOTWAIT, boot up both the ST and hard drive at the same time, BSSS, store boot sectors, CUSTOM, allows you to create disks of almost any format, DISKAT, database your collection and many more. With full manual.
- UTA02: STICKER 3, create labels for your disks with a selection of icons that printout onto the label.
- UTA03: FASTBASE DEMO, ICON, change your desktop icons, HEADSTART, auto boot any type of program from an auto folder, ON SCHEDULE, work schedule program with bells a very good printout routine.
- UTA05: SUPERCARD V1.3, an index card database, easy to use and very fast search feature. Comes with a database of game cheats, CHEF, an electronic cookbook with 300 recipes each with cooking instructions and ingredients.
- UTA19: TLC BOOK, an excellent on line address book and date reminder which holds up to 500 names and addresses. Has a good printout routine. DATABASE, a good database construction kit, SUPERBOOT, allow you to create custom bootup disk. TARADESK, a good PD desktop replacement program, COCKTAIL SELECTOR, a database of cocktails (600+).
- UTA06: FASTCOPY 3, A-COPY, PRO-COPY and several other copying programs and utilities. ZAPMENU, a great way of launching programs from the desktop. ARCSYS, one of the better arc progs. PACK ICE, the other arc program.
- UTA28: AWARD MAKER, a useful program for producing award certificates. Design your own or use one of the 120 already on the disk.
- UTA34: DB MASTER 1, this has got to be the best answer to your database problems, design and configure your own! Very easy to use.
- UTA36: DATA EDITOR, enter your data and the program turns it into easy to read graphs. PIE, BUBBLE, OPPOSED BARS, FLOATING BAR, 3D BAR, STAR BAR graphs can be produced, stored and updated at any time. Many students have used this program for their course work.
- UTA37: WG DATA, another database, but for younger users to learn how to construct and use a database. For the 11+. DATABASE CONSTRUCTION SET, a powerful program that allows the user to design your own way of processing information. SANDP, a newsletter/magazine program.
- UTA39: IDEALIST V3.1, a versatile program for printing out text and offering lots of helpful functions to use your print in clever ways. 4 selectable sizes, up to 9 columns, separate output of fonts and pages, editable headlines and includes fonts for dot matrix and laserjets.
- UTA40: CALAMUS SUPPORT DISK, METACON, converts Calamus fonts to Text metafonts. FASTPRT, accessory to speed up printing to the HP Laser. GUNTH, sample graphics in outline format. LASLABEL, template for printing 3.5 inch disk labels. CANON printer driver for the BJ10E.
- CAL_FNT text file describing Calamus font format. HPDPTCH, a patch for the HP deskjet printer and a few other small programs.
- UTA43: A disk full of accessories and utilities, ideal disk for those who do not wish to buy a disk for each type of utility.
- UTA45: MAILMERGE, a good program for those with a WP package without this utility.
- UTA46: INVENTORY PRO, an easy to use inventory system and stock control for the small business.
- UTA48: SAGROTAN V1.14, THE VIRUS KILLER in the PD world.
- UTA51: 70,000 word dictionary, replace your standard spelling checker with this and you will be onto a winner.
- UTA52: FOOD AND WINE MENU MAKER, an excellent database that stores and prints out a menu for both wine and food.
- UTA53: GERMAN TRANSLATE, one of the better translation programs that makes sense of those German documents on some PD disks. Does it all for you.
- UTA55: HP CHROME, prints colour pictures in Degas and Neo format utilising deskjet printers. HYPERBASE, a multi media database, you can create windows holding text, graphics or sound and link them together. CLIPART, for use with Hyperbase. UNIPRINT, a Hi res Degas Elite printing program for 24 pin printers.
- UTA56: HP DESKJET UTILITY DISK 1, printer drivers for use with 1st Word. ENVELOPE PRINTER, JETLABEL, JETSET, set parameters on your deskjet. LASERJET, print at 300 dpi and loads of other useful utilities.
- UTA57: ASTUBANK, a personal accounts program that will tell you how much you can spend in any one month.
- UTA58: HARD DISK UTILITIES, everything you need to look after and maintain your hard drive.
- UTA60: MANUAL MAKE, a utility for putting together neat and tidy printed manuals.

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Any 5 disks for
£6.75

Any 10 disks for
£11.50

GAMES

- Towers Dungeon Master Game. 2 disks. £2.95.
- GM13: FMC trading, space trading game. Laserball & Regatta, sail against 10 other countries.
- GM21: Llamatron & Revenge of the Mutant Camels, as above but from the Master of such games, Jeff Minter.
- GM26: Airways, Flight Sim (not a blaster).
- GM27: Blaster, defender type game. Wheel of Fortune, as per the TV show. Monopoly & Pentominos.
- GM38: Pipe Perfect, build your pipeline before the flow starts.
- GM40: Tennis, Plumb Crazy, build a pipeline again. Virus Killer, a so-so virus killer.
- GM42: Penguins, a Lemmings type game with 40 levels. Great fun, good enough to be a commercial game.
- GM43: Mystic Well, a very addictive Dungeon Master game from the USA with loads of levels and puzzles to sort out.
- GM48: Crossword Editor, create and solve crosswords.
- GM52: Battle for the Throne, a great RPG that takes some time to complete.
- GM54: Bog, Fuzzleball, Trivia, Time Bandit, Wall Street, Quizwiz & Yahtzee. Quizzes and blasters all on one disk.
- GM69: Ozone, an award winning platform game that has everything in it, including a hang glider.
- GM76: Master Break, good Breakout clone. Atom, Blaster & Spaceball.
- GM75: Drachen, a 3D Mahjong game. Super Game, a good track and field game.
- GM78: Violence, a very good Xenon type shoot-em-up game.
- GM87: Pub Games, Pool, Darts, Cribbage, Pontoon and Checkers.
- GM88: Hunt for Grey November, control your hunter-killer plane in its search for rogue sub's.
- GM97: Fatemaster, a great arcade romp on an alien planet with an alien super spy. 1 Meg.
- GM106: Mindlock, another great quiz game from D. Cobbleddick. 1 Meg.
- GM109: Colour clash, from the same people who gave us Fatemaster, this time you need to use the grey matter as well as the trigger.
- GM113: Galaxians & Mrs. Munchie, two blasts from the past. A Pacman clone and Space Invaders given a revamp.
- GM114: Course Angler, a good game and a fun way to learn how to fish, no sitting around for hours once you know.
- GM120: Brain Damage, D. Cobbleddick at his very best. Watch your brain cell count drop as you fail to answer the questions.
- GM121: Walls of Illusion, a new Dungeon Master type game with commercial quality graphics and gameplay. THIS IS A MUST HAVE.
- GM123: Bloodgeon: Fantasy D&D combat game.
- GM124: Startrek: The Klingon war battle simulation.
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- GM128: Software Projects: Software Company & Simulation - develop your company.

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A tri colour pack will recycle the three colour cartridges for the HP 500c or 550c three times...

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We also stock bottles of ink. If you already have a syringe why not just purchase the ink?

60ml bottle of ink. Refill Canon BJ printers four times or HP 500 two times for only £8.00

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Each cleaning kit will clean out three cartridges ready for new colours to be injected. Each pack costs just £4.95

ART

- AAG01: PALETTE MASTER art package. DEGASAVE, save the screen in Degas format. MANDEL, Mandelbrot prog. Plus a few other small progs.
- AAG04: DALI V3.1, art package from France. Not much in the way of instructions.
- AAG05: CRACKART V1.0, almost the last word in art packages comes with complete English manual. 1 Meg required.
- AAG06: FRACTAL ZOOM, probably the fastest generator of fractals around. Full manual on the disk.
- AAG07: A disk full of Fractal programs and utilities. A 3D CAD program. Full manual on disk.
- AAG10: ST CAD, runs in Med or Hi res. DBANNER, printout 5 inch text along printer paper. REMINDER & MIMO & LOOKER.
- AAG11: ANI ST, a great animation program that once sold for over £80.
- AAG21: Picture Converter, a complete disk of picture converters. SHOWTRIX, display your art work with different fades between each one.
- AAG22: PUBLIC PAINTER, an art package for mono monitor owners. On disk manual.
- AAG26: PICTURE WORKS, load, save various picture formats and do amazing things with them.
- AAG27: MINIDRAFT V1.10, easy to use CAD prog.
- AAG28: MONOIC Viewer, copy clipart, add text and draw simple clipart, you can also print out and save in most formats.
- AAG29: PAINTPOAT, a simple and easy to use art package for half meg owners.
- AAG35: CREATIVE TITLES, create titles for your Christmas videos, add the professional touch.
- AAG38: CRACKART V1.36, the latest version of this excellent art package with several new features. 1 Meg.
- AAG39: ATARI IMAGE MANAGER, whatever you need to do with images this is almost sure to do it. 2 disk set.
- AAG50-52: 3 disks of Wedding Clipart. £4.50.
- AAG54: Kozmic 4. Create psychedelic patterns.

SPRITE WORKS

- A powerful new set of commands for GFA Basic versions 3 and above from Organise Chaos.
- Turn GFA Basic into a games language with Sprite design & two MAP designers.

£7.00

EDUCATION

- EAC012: Easter Egg Hunt for children 5-12 years. Find all the Easter Eggs & take them through the magic door to win. Good fun.
- EAC01: PERFECT MATCH, question and answer card game, MATHS TEST. For the under 10's. QUIZICAL, a good general knowledge trivia game.
- EAC02: BODDY SEARCH, designed to help children learn the human anatomy as required in elementary and junior school. THE SEARCH, a computer aided enquiry program. Search the village for info about the Gliggs family. MATHMAZE, a very good maths program that grows with the student. TRIVIA, another good general knowledge test, some of the questions are based on the USA.
- EAC06: SHIPWRECK, an excellent maths program that combines graphics and easy and hard levels of play. The child's interest is held by turning the learning process into a game where correct answers help the character on the screen to escape his fate. HANGMAN, the old school room favourite that helps with spelling.
- EAC07: ABOUT THE HOUSE, control a butterfly as it moves around the house. As it lands on various objects a description is given and some animation takes place. ME, displays four pictures of a task that must be placed in the right order, once this is done the scene is animated. Help the child understand that most tasks need several steps to complete.
- EAC09: CHUNNEL, a good French/English tutor. SPANISH VERB TUTOR, this program is designed to help you learn, revise or check the proper conjugation of Spanish verbs, can be initialized to communicate in French, English, Spanish or German.
- EAC10: NOAH'S ARK, a good game for teaching children spelling and word recognition. SPIDER SPELL, a very good spelling aid for younger children.
- EAC11: MATHS MADE EASY, for the younger ST user, the program teaches maths in all four disciplines by talking to the user, thus keeping interest levels high. GEOGRAPHY QUIZ, use for the slightly old user, the test is based on flags or capitals of the world.
- EAC14: COLORAID, designed to give the younger ST user an insight into how a computer creates colour. AIKEN, design a man made from fruit, CREBUS writer allows the user to design and print rebuses, a rebus is a code in which pictures and symbols are used in place of words. Several other programs on this disk.
- EAC18: THE WORLD, an excellent program that teaches you about and quizzes you on the countries of the world.
- EAC19: PLANETARIUM, if you are into astronomy then this is for you. Pick a star from the map and click on it and all the info you want is there. It will also animate past or future events. Full manual on the disk. MONO.
- EAC20: TELLTALE CHEMISTRY by E. Mills Bsc, PhD. An interactive program on the basics of chemistry, the program relates to GCSE grades A, B and C, good graphics & explanations of atomic structure, electron structure, formulae compounds, etc.
- EAC21: CIA WORLD FACTBOOK, a four disk set of everything you need to know about over 240 countries. If you want to know how many people live in Albania, what the birth rate is, death rate, who they are upset with, where they sell their products or just about anything else then this is for you. A document display is also included on the disk. £5.00 for the set.
- EAC29: WORKOUT V1.0, a general purpose learning aid for either question & answer tests or learning passages by heart. This program conforms partially to the C.L.L.T. guidelines on computers, language learning and may be of use in the classroom.

DTP & WP

- WPD01: ST WRITER ELITE V4.1, an excellent WP package that works in all three resolutions.
- WPD02: EASY TEXT + DEMO, a fully working demo of the DTP program but you can only print out the top quarter of any A4 page.
- WPD03: TYPING TUTOR, teach yourself touch typing with this program, several levels of lessons have been built into the program.
- WPD05: FIRST WORD, an excellent WP program that features WYSIWYG on the screen. 1ST WORD UTILITIES, help with 1st Word. DOUBLE TTP, print your text in columns. LARGEPRINT, lets you printout in large text.
- WPD12: OPUS V2.2, a very good spreadsheet program with an excellent chart printout routine.
- WPD14: CALAMUS MANUAL, your second manual for all those things that are not made clear in the official version. Written by a professional user of Calamus.
- WPD15: PRINTER DRIVERS for 1st Word users covers just about every make of printer, comes with full installer & instructions. WORD COUNTER. WPTOOLS, a selection of WP utilities for 1st Word.
- WPD18: PAGESTREAM FONTS, Postscript screen fonts for the following fonts:- Artistic, Creative, Hudson, Letter, Gothic, Oriental, Saturn, University and Roman.
- WPD19: PRINTING PRESS V3.10, the closest thing to a full DTP program in PD. Also on the disk is a picture converter.
- WPD22: PRINTING PRESS EXTRA'S, a disk for use with WPD19 containing extra fonts and clipart.
- WPD23: DB WRITER V1.8, a very good WP program for Hi res users which can be used by both half meg and 1 meg machines. A manual on the disk gives a good guide to the program.
- WPD24: DB WRITER SUPPORT DISK, includes a comprehensive thesaurus and a selection of dictionaries covering Medical, Legal, Computer and Biblical terms. You can also add your own with a utility on the disk.
- WPD25: A utility for designing and downloading fonts to the STAR NL10 & LC10. Hi res only with loads of fonts ready to use. Can be used with an emulator.
- WPD26: GUTENBERG PRESS, allow a 9 pin dot matrix printer to be used as a NLQ printer, load in ASCII files and print them out in high quality format and a selection of fonts.

MUSIC AND MIDI

- MUM01: ACCOMPANIST, a 16 voice sequencer for use with any model of ST, with room for over 10,000 notes, multi-recording with separate MIDI channels and a wide range of editing utilities.
- MUM02: IN CONTROL, a user definable MIDI controller with over 20 sliders that can be programmed to control your midi instruments. SCONVERT, compress or expand sound samples.
- MUM18: 1632 voices for use with the Yamaha DT/TX series of 6 operator synths with a file reader for loading the voices directly via the midi. A varied and useful range of voices on the disk.
- MUM19: TRI-SOUND SEQUENCER, a chip/digi-chip 3 channel music sequencer.
- MUM20: SAMPLE EDITING DISK, a disk full of useful programs for editing, sampling and converting. Also on the disk is a chip music tracker to create your own music.
- MUM21: MIDIDRUM & MIDIDPLAY, two useful programs for creating sounds with a drum machine and Midiplay is a basic sequencer. German documents with English version on disk. 1 meg and Mono.
- MUM22: TX81Z V2.1, a mouse driven Yamaha TX81z editor. MIDIMOVER, a powerful midi file converter from Hybrid Arts Freeware.
- MUM24: ALCHIME Jr V2.2, this has got to be one of the best musical sequencers for the Atari anywhere. Comes with over 200 tracks for your use and has far too many features to list.
- MUM57: FINAL SCORE, a graphic based fully WYSIWYG score writing program from Mainstream Music. Draw staves, line squares, 5 selectable score fonts, print preview mode, etc. Printer drivers now added for most makes of printer.
- MUM58: ROLAND 'D' SERIES SOUND BANKS, a bank of tones for the D5, D10, D20, D110 and GR synths.

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CRACKART V1.36

Now for the first time with full English Manual. Ask for AAG038.

LICENCEWARE

We also stock licenceware by Powerlist, Organised Chaos, Virusoft and HeavenSent.

All priced at £3.00 or less

PD ZONE

IMG GDOS DRIVER

**FLOPPYSHOP • DISK NO: UTL.4271 • £2.50 •
MEMORY: 1MB • CHARITYWARE •
FALCON-COMPATIBLE**

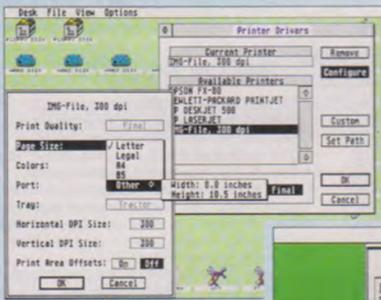
IN BRIEF: Thanks to the release of *SpeedoGDOS*, quite a number of new packages arriving on the market are *GDOS*-friendly. This leads to a situation where the majority of software packages can share the services of a single printer driver.

The IMG driver takes output from any *GDOS* application and dumps it to disk as a graphics file. "And what good is that?" you might ask. Well, for a start it comes in handy when using fax programs and can also be helpful in combining output from a *GDOS* package with a *Calamus* or *PageStream* document.

Installation is very easy under *SpeedoGDOS*, but is a little trickier with earlier versions – a problem that is aggravated by the lack of English documentation. On the bright side, at least it claims to work with all known *GDOS* variations...

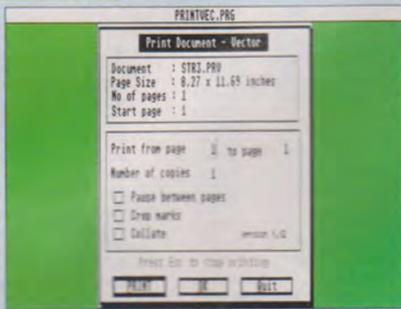
ST REVIEW COMMENT: "If you're looking for an easy way to get *GDOS* output to disk, the IMG driver is ideal. However, be aware that it's not fully compatible with all applications and the fixed 300dpi resolution could be a problem if you're short of disk space."

★★★★



Installation under SpeedoGDOS is as simple as dropping the file into your drivers folder.

The IMG Driver works relatively well with most applications, but there are some notable exceptions, such as Easy Text Vector.



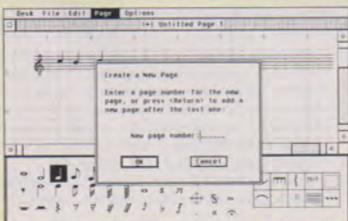
SCORE ST

**GOODMAN INTERNATIONAL •
DISK NO: START.1/90 • £2.75 •
MEMORY: 0.5MB • SHAREWARE •
FALCON-COMPATIBLE**



IN BRIEF: *Score ST* is a brave stab at a musical desktop publisher. It doesn't concern itself with MIDI too much and instead takes a purely layout approach to the problem. Alongside the standard GEM window you will find a set of

Music DTP on the cheap – Score ST is very powerful considering the price.



Assassin tames the ASSIGN.SYS file and makes handling multiple GDOS set-ups a piece of cake.

GDOS SOLUTIONS

**THE SHAREWARE COMPANY • DISK NO:
SLAN.051 • £1.75 • MEMORY: 0.5MB •
SHAREWARE**

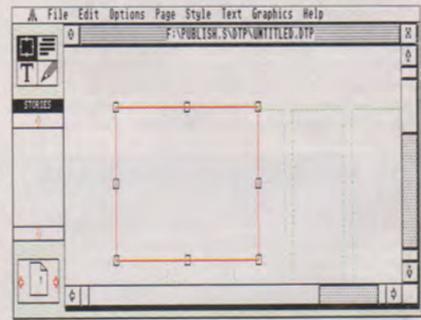
IN BRIEF: Getting the best from early versions of *GDOS* is a bit of a black art. Without a detailed knowledge of the *ASSIGN.SYS* file and a good deal of luck, persuading a number of *GDOS* applications to coexist on one hard disk can seem like an impossible mission.

TSC's *GDOS Solutions* disk aims to solve at least some of the headache involved in producing that elusively reliable *GDOS* set-up. The backbone of the collection is *Assassin*, the very best *ASSIGN.SYS* manager available. This is complemented by the *GDOS System Manager*, another program along similar lines and a few useful printer drivers. *AMC-GDOS* is also included together with a patch that claims to solve some of the compatibility problems with older applications. The remainder of the disk is filled up with various bits of programming information.

ST REVIEW COMMENT: "Put aside the rather lame space fillers and *GDOS Solutions* becomes a very worthwhile compilation. Everything needed to run a complex *GDOS* setup is included and the *Assassin* documentation makes interesting reading for any *GDOS* rookie."

★★★★

No matter what applications you use, GDOS Solutions contains a utility to make your life easier.

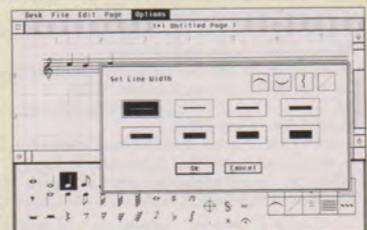


musical symbols that can be simply lifted and dropped onto the page. It all feels very natural and the lack of documentation shouldn't present too many problems.

In practice, the whole thing gels very well. There's very little to criticise in terms of interface or features and the editor itself is refreshingly intelligent! In fact, the only real downer is the hard-wired printer driver. It is possible to program in control codes with a supplied utility, but somehow it all seems a bit too much like hard work.

ST REVIEW COMMENT: "Score ST isn't going to give *Music DTP* any sleepless nights, but when you consider the price and level of features on offer, it remains an essential purchase for any muso. The overall DTP feel of the program makes it very easy to use indeed."

Anybody with a little DTP experience will be up and running in no time, thanks to the intuitive GEM interface.



PD ZONE

New Age PDL

THE BEST FOR ST AND FALCON 030!

THE ATARI FALCON

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

ALL FALCON DISKS £1.75 EACH

FALCON ART & GRAPHICS PROGRAMS

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

FALCON PICTURES & ANIMATIONS

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

FALCON DEMOS

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

FALCON MUSIC RELATED PROGRAMS

- FALC 7 - Fortune for creating cites, Protracker 2, TCB Tracker, Desktraker 1.11.
- FALC 17 - Winrec 1.35 (D2D), Digital 030 - new 8-track tracker program, unstable though.
- FALC 29 - Startrek Cites for Fortune, Dame - Digital Audio Multiplying Editor.
- FALC 52 - System Audio Manager 1.1 - assign samples to events, Digipote 2 demo.
- FALC 68 - 49 Wav samples for System Audio Manager.
- FALC 82 - Pratracker 50Khz modules: Come & Get me, Pugsy, Tripout, Hardcore etc.
- FALC 83 - As above: Freudian Dreams, Goodbye, Harry, Intro, Journal + 5 more.
- FALC 84 - As above: Watch Your Bass Spin, Boom And She Cums, Fin + 4 more.
- FALC 94 - Mijazak - Huge sound player program. Zipped, expands to 2 meg.
- FALC 115 - Octalyser 0.8 - another 8-track tracker ported from the STE + docs & source code.

FALCON GAMES

- FALC 21 - Humans Demo disk 1, Zipped, expands to 3 Meg. Disk 2 on FALC 22.
- FALC 35 - Nethack 3.1.1 - 2 Meg memory+ Brilliant dungeons and dragons game.
- FALC 103 - Oxyd [excellent], Des Lasers et Des Hommes (3D shoot em up), Masters of Chaos (Dungeon Master clone), Tron, Istar Editor, Mario Kart demo.
- FALC 104 - Spacola (RGB) - great space shoot em up, Madris (RGB) - crazy Tetris!, Vertical Mayhem (RGB) - nice version of Columns.
- FALC 112 - Mahjong 1.1 - German version of this classic tile game. Disk approx 1/2 full.

FALCON UTILITIES & APPLICATIONS

- FALC 2 - Falcon Boot 1.2, Backward 2.23 (ST emulator), New Depack, Text Files, Desk Copy, Desktop 1.05, Sysinfo, Multi Dialogue, DC Tract 2.1, Revive, Spirited 1.3.
- FALC 5 - CS6K - C compiler, Chipmunk Basic 1.0, GTAR 1.1.1.1 - For MinT & Minix systems.
- FALC 10 - DSP56001 Assembler 1.1, ASM-CPX and DSP bits - gel programming now!
- FALC 15 - 45 assorted MinT/MultiTOS utilities + extended colour icons that run in Truecolour.
- FALC 20 - DSP Routines - about 1 megabyte of useful DSP routines.
- FALC 28 - X Control 1.2, Clock 2.0, Edison screen saver, Mini FS 0.55, Magic Boot, Gemar 1.23 - Tape Backup, BMAP Fix 2, Falc mods, Outside demo, PRG Files.
- FALC 36 - RDE 3.1 Tasmwin 1.4, Iha 2.22, Zoo 2.1, Zip 2.3, Gem Bench 3.25, Good Backup 1.13, Boot Init 1.1, Ecoply 1.5, Fconrol, Shout 1.3.
- FALC 77 - Emucs 3.11, Everest 1.5, KM Term, Atomik 3.5, X-Menu 1.3, Profile 1.43, Rezboler (runs RGB still on VGA monitor), Fullres 1.01, Swab, Dclock 1.0, Fuzzy Clock 1.14.
- FALC 109 - DMb icons - two large sets of replacement icons, Before Down screensaver 1.25.
- FALC 114 - Multi-Dialogue 1.3, Master Browse 3.2 - excellent text file viewer, T-Coche 6.0.

THE ATARI ST/STE

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

HIGH RESOLUTION GAMES

- GAME 1 - Anduri, Eliminator, Galaxy, Gilgalad, Mini Golf, Bubble Runner, Space War, Tetris, Play Thing, Once A King.
- GAME 8 - Diamond (Boulderdash), Invaders, Macpac, Megaroids (Asteroids), Minefield, Missile, Murray, Solitaire, Spreng.
- GAME 28 - Pyramid, Escape, Sokoban, Cube World, Battleships.
- GAME 30 - Air Traffic Control, Go-Board, Munchers, Pong, Puz Puz, Trivia, Go-Up.
- GAME 33 - Bolo (Excellent breakout game), Super Breakout, Baseball.
- GAME 34 - Park 1 & 2 - spool Zork type adventure games, Enchanted Realms.
- GAME 38 - Nat Hack v2.3, Scribble, Sherlock, Zarge, Checkers.
- GAME 39 - Eamon Fantasy Role Playing Kit, DOST - dungeons and dragons.
- GAME 50 - Jeopardy, Clueso, Airline Manager, Locomotive, Bandwurm, Histris.
- GAME 56 - Hack & Slay Construction Set, Chess, Match-It, Crossword Editor 2.
- GAME 112 - Risky Construction Set, Roulette, Yatsy, Backgammon, Poker, Pal Gow.
- GAME 125 - Cycote Dave's Poker, Deena, Cribbage, Tectic, Fast Poker.
- GAME 168 - Napoleon - a 'Risk' style game of war and strategy.
- GAME 185 - Oxyd 2 - the sequel to the brilliant Oxyd, much harder than the original.
- GAME 186 - Tetric - new Tetris type game.

COLOUR GAMES

- GAME 11 - A Question of Snooker, Pinball, Devastator, Roll n Nudge, Ronger.
- GAME 68 - Squidge, Fruit Machine, Pin Game, Rocket Ball.
- GAME 78 - Popeyed - a pop music game with an adult theme.
- GAME 81 - battlescape, Box - brilliant variation on the Tetris theme.
- GAME 83 - Grandad & the Holy Vest - superb animated adventure. 1 Meg+.
- GAME 104 - Blot! - A very nice version of Tetris. STE ONLY.
- GAME 105 - Infiltration - 3D game. Ozone, Atomik Babokid, Great shoot 'em up.
- GAME 117 - Fast Freddy - lovely platform game with superb graphics.
- GAME 121 - Darklyte - great isometric 3D war/strategy game similar to Hero Quest.
- GAME 123 - Top Trainer (horses), Anarchy Academy - wreck havoc in school. Boing.
- GAME 128 - Dungeon Lord - good Dungeon Master Clone. Arch Mage-shoot em up.
- GAME 131 - Glass Buttock of Tharg - save the land from the evil buttock! - 1 Meg+.
- GAME 132 - Psycho Pig - two disk platform game, very cute. £3.50.
- GAME 136 - Chaos 1/2 Meg version - classic spectrum game converted. 1 meg on GAME 146.
- GAME 139 - Grandad II - the sequel to Game 83, comes on 2 disks 1 Meg+. £3.50.
- GAME 148 - Operation Blue Sunrise - 3 massive STAC adventure game. 1 Meg+.
- GAME 150 - Course Angler 1.02 - go tackle fishing on your ST!
- GAME 151 - Sim Pig! - a brilliant pig farm simulation! Like Sim City & Sim Earth.
- GAME 153 - Wormhole - nice vertically scrolling shoot em up with slick graphics.
- GAME 155 - Three Realms of Suspicion - STAC adventure. Spaceball - like Ice Hockey.
- GAME 157 - B17 - bomb the buildings, F16 - very good flight game, 8 missions.
- GAME 158 - Viking III - shoot em up/strategy game. Demon - but like Xenon.
- GAME 163 - Theme Park Mystery, Combat - kill everything!, Sumaria.
- GAME 164 - The Obscure Naturalist - STAC graphic adventure 1 Meg. Dominoes, Slither.
- GAME 166 - Nirvana - platforms, Pure Logic, Maze, Chain Reaction - columns.
- GAME 169 - Megaline - four player Tron/Light Cycles, Insectoid, Caps n Robbers.
- GAME 170 - Magic Tomb (1 meg+), Hysula - great new 3D CK game.
- GAME 171 - Oxyd (1 meg+) - superb puzzle/strategy game, Duck Dash.
- GAME 172 - Boffin Brothers - the best Trivia game yet! Excellent presentation!
- GAME 173 - Lobby Invaders - uses hardware scrolling, stereo sound. STE only.
- GAME 174 - Bludgeon 1.1a - fantasy role playing with full colour graphics.
- GAME 175 - Tradonian's Creation - the sequel to Three Realms of Suspicion - STAC adventure.
- GAME 176 - The Heavy Bunch - Wild West game of gunfights, gambling etc. Spot it - puzzle.
- GAME 177 - Fatemaster - superb arcade adventure/dungeons and dragons.
- GAME 178 - Argon, Out, Codename Bomb, Pyramid, Disk Hunt, Sirtet, Turbo, War Jeep, Plumber, Picker, Planet Man, Uboat, Ypsilon - 13 games!
- GAME 179 - Arcton, Bang 3, Battle, Bellum, Quiz, Blaster, Chunks, Europe, Explode, Fuzzball, Gems, Invaders, Megaroids, Micro, Octopod, Ohello, Pac Man, Plant, Rockball, Tanx, Tennis, Wall Street, Zappy.
- GAME 180 - Mystic Wall, Deep Lair, Football, Harris Goes Skiing, Haunted House, Invaders, Jumper, Room, Stoneage Deluxe, USA, Zyxx, Firestorm.
- GAME 181 - Utopas 1.5 - very slick STE only Oids/Grov type game, Endurance - 3D game.
- GAME 183 - Towers - a great new Dungeon Master Clone - the best yet! 2 disks (1 Mb+) £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, Mindwell - 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 192 - Kings of Power - shoot em up written with the SEUCK by Ken Reader.
- GAME 193 - World Fighting Championships - beat up opponents from all over the world.
- GAME 194 - Survival! Another shoot em up by Ken Reader made with the SEUCK.

BUDGIE GAMES - £2.75 EACH

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

POWERFIST GAMES - £3.00 EACH

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

ADR GAMES COMPILATIONS

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

MEGA-GAMES PACK ONE!

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

117 GAMES - JUST £14.95!

ART & GRAPHICS

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

DEMOS

- DEMO 339 - STAX Hat Keiron Pan Demo
- DEMO 336/337 - Troun't Int Ket Set Great Ben Breman (2 disks) 1 Meg+ £3.50
- DEMO 335 - Reality is A Lie demo - 1 meg+
- DEMO 328 - Ambience Demo by Chooos
- DEMO 325 - Perpetual Down Demo. 1 Meg+
- DEMO 323/324 - TNN Megademo. 2 disks £3.50
- DEMO 320-322 - Froggies Over The Fence - Three disks! 1 Meg+ £5.00
- DEMO 314/315 - Coding So Far Demo. 2 disks £3.50
- DEMO 311-313 - Relapse demo - Three disks. STE Only! £5.00
- DEMO 310 - Ecstasy 1, Ecstasy 2 - brilliant STE demos
- DEMO 276 - E605 - a great STE only demo by Percy of Light.
- DEMO 274/275 - Dreamzone - the latest megademo from the Wild Boys. £3.50.
- DEMO 270-272 - The Omikron Megademo - takes up 3 disks! 1 Meg+. £5.00.
- DEMO 258 - Brutal Techno - Fantastic STE and 1 Meg only demo.
- DEMO 242 - Music Dream II - 9 superb 50Khz tunes by E.L. - STE only.

SOUNDTRACKER MUSIC

- TRAC 129 - Four, Profrunk, Cull 2, Cull 3, Federal Force, Rave 1
- TRAC 128 - Con, Short, House, Jewel, Spassong, Celtic 6, Rappit, A-Team, Sweet Dreams
- TRAC 127 - More Lemmings, Backpocket, Psychic 1, Bushfire, Donna 2, Aca Base, Echoing
- TRAC 126 - Scrambled Mind, 1+ World, Wyrte II, Hope Part 2, Lotus Turbo 2, H-Metal
- TRAC 125 - The Loader Find, Artificial, Finally I Play, Space Journey, S11
- TRAC 124 - Donna, Hope Part 1, Mealy Man (1 meg+), S19, Piano TVA, Willow
- TRAC 123 - Electric Revenge, Telephone, Flash 4, Racer XXX, The Credits, View to a Kill
- TRAC 122 - Klisje Pao Klisje, Olanok, Absolute Muzak, Blenz-Vactor, Frog Mix, SNT Vector
- TRAC 121 - Enigma, Eve-o-War Remix, G-Loc, Galaxy, Ewck

WORDPROCESSING (ANY RES)

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

PD ZONE

SPOT IT

LAPD • DISK NO: G.323 • £1.50 •
MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *Spot It* is a computerised version of "spot the difference". It provides a selection of eleven hand-drawn scenes and the idea is simply to click on the discrepancies between two seemingly identical pictures. What's more, the changes are chosen randomly as each game is started so completing the lot once needn't mean binning the disk.



Sherlock here guides the player through Spot It. The random nature of the game means that long term playability should be good.

The game is presented by a hound in Sherlock Holmes get-up and, in general, the graphics are very nicely done. The only real criticism that can be made is the obscurity of some of the changes. Spotting a few pixels missing from a cactus in the desert scene is hard enough on a monitor – goodness knows what it would be like on a TV.

ST REVIEW COMMENT: "*Spot It* is a highly original idea and very enjoyable to play. The cartoony graphics work well in the setting and the whole game is nicely presented. If a little more thought were put into the changes themselves, it would be just about perfect."

★★★★



Some of the changes are quite obscure and can be very difficult to spot, especially on a TV.

EASTER EGG HUNT

THE ST CLUB • DISK NO: EDU.48 • £2.25 •
MEMORY: 0.5MB • SHAREWARE

IN BRIEF: *Easter Egg Hunt* is an adventure game for younger children. It's your job to guide the heroine of the story, Heather, around the house, opening doors and collecting the eggs that lie behind them. Her mischievous little brother Bink will do all he can to hinder Heather's progress and only a toy or an egg will make him go away.

Surprisingly, the game uses a text-only interface. It follows the standard pattern for adventure games although there are no mazes, monsters or anything else that might put off or scare younger players. All of the descriptions used are written in such a way as to be understandable by children and a map of the play area is provided to help out in an emergency. And get this – the shareware fee, if your children like the game, is one week's pocket money!

ST REVIEW COMMENT: "It's not often you come across a game that's set at exactly the right difficulty level for children and yet *Easter Egg* falls into this category. It's just a shame the programmers couldn't bolt on a more ambitious interface."

★★★★



HENRY V (1413-1422)
Pious, strong, courageous and esteemed.
Stormed into France where many battles were fought. He declared himself King of France and clinched the deal by marrying Catherine de Valois, daughter of King Charles VI of France.



KING OF FRANCE.

The most famous Battle was fought at Agincourt though many others followed. In any event Henry eventually ruled most of France. Charles VI was too nutty to be King. Shakespeare takes a quantum leap from MacBeth to Henry V.

From Picts To Parliament 3 takes a humorous, but accurate, look at the British monarchy.

FROM PICTS TO PARLIAMENT – PART 3

GOODMAN INTERNATIONAL • DISK NO: GD.2176 • £1.95 • MEMORY: 0.5MB •
FALCON-COMPATIBLE (WITH DIFFERENT PICTURE VIEWER)

IN BRIEF: I'm sure the vast majority of people today look back on their history lessons with an overwhelming sense of boredom. The way the past is presented in most schools – as a dull batch of figures interspersed with equally dull people – is hardly the sort of grounding that makes you want to explore the subject further.



BACK TO ENGLAND WHERE HENRY III (son of JOHN) RULED FROM 1216-1272.
He stuck with the French by marrying Eleanor of Provence, while Margaret, a daughter, married Alexander III of Scotland. (All bets covered !!)
This was an exciting time for the arts & science. Gothic art emerged as did gunpowder and telescopes. Henry III threw money around in a gracious fashion to develop churches, monasteries & the new Abbey of Westminster (French design) He was a weak & useless ruler & England was heading for a RECESSION !!

From Picts To Parliament breaks away from this traditionalist approach and attempts to inject some humour into the learning process. Now don't think for a minute that this compromises accuracy in any way – oh no, the basic information is still being taught but in a lively, interesting way.

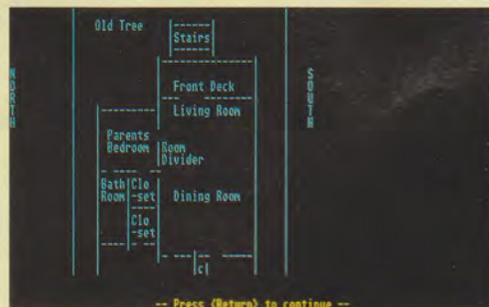
Graphics are used extensively to liven up the presentation, but this limits the amount of information on the disk.

The presentation is made up from a slideshow of Tiny-format images and although this limits the amount of facts that can be stored, it does mean that pictures and captions are used liberally.

ST REVIEW COMMENT:

"*From Picts To Parliament* breathes life into history with a humorous twist and gets my vote every time. If you are prepared to accept the lack of interaction, this disk comes highly recommended."

★★★★



A map of the play area is included with the instructions to make the game as easy to play as possible.

Once upon a time there was a little girl named Heather. She was 8 years old and had red hair.
One day her daddy decided that she should have an Easter Egg hunt. But this would not be an ordinary Easter egg hunt. This Easter egg hunt would be on the computer.
The Easter Egg hunt takes place in the house. The eggs, all brightly colored, are hidden somewhere in the house. Heather's job is to find them. Your job is to help Heather to gather all the Easter Eggs.
You Heather has a little brother named Alan. He is nicknamed-Alan the Bink. Alan the Bink is 4 years old and loves to bother his older sister.
Watch out for Alan the Bink. Sometimes he grabs your leg and says "I'm a gate". You can't go anywhere until Alan the Bink lets go. The only way to get Alan the Bink to let go is to give him a toy or
-- Press (Return) to continue --

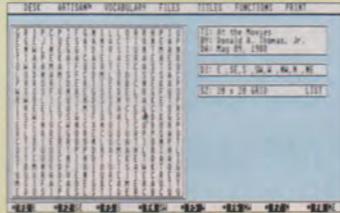
All of the descriptions are written in easily understandable English and the game is suitable for children between 7 and 12 years.

WORD QUEST 2

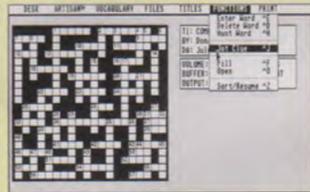
GOODMAN INTERNATIONAL • DISK NO: GD.2082 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

IN BRIEF: No matter what you do for a living, I'm sure there are times when you need to put together a crossword puzzle, be it for a company magazine, a school newsletter or just a bit of fun. *Word Quest 2* comprises two programs designed specifically for creating crosswords and the less common word-search puzzles.

Both started life as commercial offerings and feature an identical GEM interface. It's not the most intuitive front-end you'll ever see,



Dozens of demos cover most of the popular topics. In fact, play your cards right and you needn't type in any words at all!



Word Quest is good at its job, but you can't help wishing that it was more intuitive.

ST REVIEW COMMENT: "Even though the creation process is not totally automatic, *Word Quest 2* is definitely good news for puzzle fanatics everywhere. With a little more attention to the interface it could quite easily surpass Budgie's *Crossword Creator*."

☆☆☆☆

but certainly usable enough once the verbose documentation has been digested. The building process involves putting together a word list and then the ST fits them into the grid itself. Several examples are provided on the disk to get you started and once a finished article sits on screen, it can be saved to disk in Degas format or printed with an <Alt><Help> key-stroke.

GRID WORD

LAPD • DISK NO: L.40 • £2.50 • MEMORY: 0.5MB • LICENCEWARE

IN BRIEF: If you're a fan of TV programmes like *Countdown*, *Grid Word* will be right up your street. Basically, the game presents a series of letters and it's up to you to build as big a word as humanly possible from the selection. Bonuses are awarded if an exceptionally large number of letters are used and the number of vowels is adjustable to provide several different levels of play.

It all sounds very good in principle and indeed the game is nice to play, but for one rather important aspect – the interface. To be honest, working your way around *Grid Word* is a bit of a hit and miss affair. Occasionally mouse clicks are missed and scrolling from page to page in the help screen involves holding a finger on the mouse button for at least three seconds.



A slightly tacky front end dogs what is a very good game, especially if you are a fan of Countdown.

ST REVIEW COMMENT: "Put aside the slightly tacky interface and *Grid Word* becomes a very enjoyable game. It would be nice if it was capable of checking the validity of a word, but I suppose that would slow things down even further – not a pretty thought."

☆☆☆☆

TOP TEN EDUCATIONAL PROGRAMS

1 SPOT IT • LAPD • DISK NO: G.323 • £1.50 • MEMORY: 0.5MB • SHAREWARE

Spot the difference hits the '90s. This innovative game is hosted by a cartoony character and makes a real change from the run-of-the-mill educational title. Only one small point mars the game itself – the subtlety of the changes, but with a good quality monitor you should be fine.

2 BURGER • THE ST CLUB • DISK NO: EDU.44 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

A wonderfully good looking breakout clone for children. Ronald McDonald is the star of the show and it's up to you to keep him bouncing up towards the hamburgers with the help of a little trampoline. It's fully mouse-controlled and ideal for very young children.

3 FROM PICTS TO PARLIAMENT – PART 3 • GOODMAN INTERNATIONAL • DISK NO: GD.2176 • £1.95 • MEMORY: 0.5MB • FALCON-COMPATIBLE (WITH DIFFERENT PICTURE VIEWER)

From Picts To Parliament attempts to teach the history of our monarchy in a lively and interesting way and succeeds as far as such a feat is possible. Because the whole thing is pictorial, the amount you get on the disk is limited, but that's one sacrifice you're going to have to make.

4 PICTURES FROM SPACE • EMERALD CITY • DISK NO: SK.26 • £2.50 • MEMORY: 0.5MB • SHAREWARE

No, not a parody of a '60s drama series – *Pictures From Space* is, in fact, software to control Maplin's satellite decoding hardware. Programs for displaying received data and for calculating when to "listen" are supplied and everything is fully mouse-controlled.

5 WORD QUEST 2 • GOODMAN INTERNATIONAL • DISK NO: GD.2082 • £1.95 • MEMORY: 0.5MB • SHAREWARE • FALCON-COMPATIBLE

Crosswords and word-searches are easy to design with *Word Quest*. Just feed in an appropriate list and out pops a perfectly formed puzzle. Both programs included on the disk were previously commercial releases and as such are of very good quality.

6 CLOCK TIME • LAPD • DISK NO: M.166 • £1.50 • MEMORY: 0.5MB • PUBLIC DOMAIN

Wean your children out of the digital generation with a little help from *Clock Time*. Although the visuals lack a degree of professionalism, buried underneath is a solid game with entertaining rewards. Good use is made of sampled sound throughout.

7 DOT TO DOT • THE ST CLUB • DISK NO: EDU.47 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

The vast majority of young children enjoy dot to dot puzzles and this program brings the concept to your ST. Mouse control is the order of the day and once all of the dots have been joined, a miniature art package appears on screen and you are given the opportunity to colour in your work.

8 ROBIN • THE ST CLUB • DISK NO: EDU.44 • £2.25 • MEMORY: 0.5MB • PUBLIC DOMAIN

A charming little flutter-'em-up for younger children. There's not a sniff of violence anywhere and the plot involves helping mother robin to catch flies to feed her young. Candle flames and spiders complicate life and it's relatively challenging without being overly difficult.

9 THE SEARCH • FLOPPYSHOP • DISK NO: EDU.4202C • £2.50 • MEMORY: 0.5MB • PUBLIC DOMAIN

An interesting educational adventure for older children. The idea is to roam around a village trying to trace the history of the Griggs family. Help can be found in the form of the family Bible and there are plenty of places to visit to keep interest at a high level. A full solution is documented for teachers (and cheats!).

10 WORKOUT • THE ST CLUB • DISK NO: EDU.47 • £2.25 • MEMORY: 0.5MB • SHAREWARE

Workout is a flexible teaching aid. It comes ready programmed to improve French language skills, but questions on any topic under the sun can be entered in a matter of minutes.

PD ZONE

OCTALYSER

**FLOPPYSHOP • DISK NO: F.4366 • £3.00 •
MEMORY: 1MB • SHAREWARE • HD DISK
DRIVE ONLY**

IN BRIEF: *Octalyser* is a soundtracker with a difference. It doubles up on the usual limitation and provides eight distinct channels of crystal-clear sound. This opens up all sorts of possibilities for proper backing and the Falcon's hardware is exploited to make sure that quality is not sacrificed.

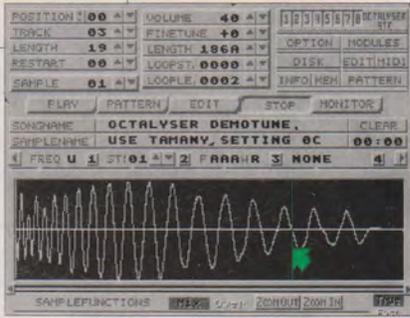
One really nice aspect of *Octalyser* is the documentation. Too often programmers assume that everybody knows how to use a tracker program and include nothing more than a few scraps of text pleading for shareware contributions. Not the case here I'm pleased to say; not only do you get a full instruction manual, but also a tutorial full of helpful hints and tips. STE owners will be pleased to hear that this version of *Octalyser* is compatible with their machine but you'll need to transfer it off the high density disk first (deleting *OCTALYSER.RSC* also seems necessary).

ST REVIEW COMMENT: "Without a doubt the best tracker released to date. The extra four channels allow much more freedom in composition and with that Falcon module loaded, you could honestly be listening to a *Jarre* CD."

★★★★



Superlative quality sound and Falcon compatibility are what Octalyser has to offer.



Buy four, get four free! Octalyser doubles up on most soundtrackers by providing eight simultaneous sound channels.

FUJI RAY

**FLOPPYSHOP • DISK NO: F.4337 • £3.00 •
MEMORY: 4MB • PUBLIC DOMAIN • FALCON
(RGB) ONLY • HARD DISK REQUIRED**

IN BRIEF: A good raytraced animation can sell a machine – witness what the juggler did for the Amiga. Of course, the Falcon with its true colour screen mode is the ideal platform for these visual delights and the *Fuji Ray* demo aims to show exactly what it is



Take one semi-impressive raytraced image, add a bit of animation and you have the Fuji-Ray demo.



The Jaguar Demo lacks originality in any shape or form, but it is a good showcase for some forthcoming 64-bit games.

THE JAGUAR DEMO

**GOODMAN INTERNATIONAL • DISK NO: GF.67 •
£1.95 • MEMORY: 4MB • PUBLIC DOMAIN •
FALCON ONLY**

IN BRIEF: I guess every Falcon owner has an interest in the Jaguar, if only to see what all the fuss is about. Basically, this demo amounts to a slide show of Jag screen-shots. A gorgeous true colour fade washes across the screen to reveal each new picture and you'll find grabs from most forthcoming games. *Tiny Toon Adventures*, *Alien vs Predator*, *Raiden* – all are present and correct and the picture quality is fairly good. Admittedly, one or two show signs of colour reduction, but that's more to do with the source of the pictures than any deficiencies in the Falcon's hardware.

A rocky sound module beats along in the background and the show is completed by the statutory sine-distorted scroller. The demo prefers running on an RGB monitor, but it does tolerate VGA at a push, albeit with an ugly border at the bottom of the screen.

ST REVIEW COMMENT: "Jag fans unite! Technically speaking, the Jaguar Demo is a bit of a flop, but you owe yourself at least one look at these *Alien vs Predator* screen shots!"

★★★



Some very impressive true-colour fades are used to switch between the various pictures.

capable of. The demo is supplied as a self-extracting archive which expands to fill just over three megabytes of disk space. Run the program and you are presented with a raytraced scene featuring the usual selection of abstract shapes and a Fuji logo positioned at the top left of the screen. The animation loops seamlessly and is overscanned to remove those nasty black borders. It's not that elusive "machine-selling" demo, but will probably entertain for a few minutes.

ST REVIEW COMMENT: "*Fuji Ray* would make a good demo for a shop window, but in terms of raw entertainment it's certainly no high flyer. The raytracing quality is pretty good, but the Falcon is unquestionably capable of better things."

★★

The animation player is dead simple to use – just find the right folder and click OK!



CUT OUT 'N' SEND COUPONS

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and Games –
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poison and
send a coupon
or two winging
through
the post...*

ATARI ST REVIEW

Goodman Int.,
16 Conrad Close,
Meir Hay Estate,
Longton,
Stoke-on-Trent,
Staffs,
ST3 1SW

NAME.....

ADDRESS.....

- Score ST £2.75
- Word Quest 2 £1.95
- Picts To Parliament 3 – £1.95
- The Jaguar Demo – £1.95

ATARI ST REVIEW

L.A.P.D.,
P.O. Box 2,
Heanor,
Derbyshire,
DE75 7YP

NAME.....

ADDRESS.....

- Clock Time £1.50
- Grid Word £2.50
- Spot It £1.50
- Munchkin £2.50
- Pegasus £3.00
- Counter Atak £1.50
- Jewel Buggy £1.50

ATARI ST REVIEW

Floppyshop ST,
P.O. Box 273,
Aberdeen,
AB9 8SJ

NAME.....

ADDRESS.....

- IMG GDOS Driver £2.50
- Fuji Ray £3.00
- Octalyser £3.00
- World Cup £2.75
- Internet Help £2.50
- Gemar £3.00
- Desktracker £2.50

ATARI ST REVIEW

The ST Club,
7 Musters Road,
West Bridgford,
Nottingham,
NG2 7PP

NAME.....

ADDRESS.....

- Easter Egg Hunt £2.25

ATARI ST REVIEW

Merlin PD,
11 Grange Close,
Minchinhampton,
Stroud,
Glos.,
GL6 9DE

NAME.....

ADDRESS.....

- Quest For Knowledge £1.25

ATARI ST REVIEW

The Shareware Co.,
51 Thornleigh Road,
Bishopston,
Bristol,
BS7 8PQ

NAME.....

ADDRESS.....

- GDOS Solutions £1.75

ATARI ST REVIEW

Emerald City,
P.O. Box 28,
Southampton,
S09 7HS

NAME.....

ADDRESS.....

- League Tables £2.50

SHORT CUTS

A replacement for your mouse, some clip art and a couple of programming goodies head up Short Cuts this month...



| PRODUCT NAME | RATING |
|--------------------|--------|
| EGALE | ☆☆☆ |
| DEVPACDSP | ☆☆☆☆ |
| LEGEND TRAKBALL | ☆☆☆☆ |
| BITMAPPED CLIP ART | ☆☆☆ |

SCORING

All products in this section have a rating out of five stars.

- ☆☆☆☆☆ = An absolute essential for your computer.
- ☆☆☆☆ = Great product – well worth investing in!
- ☆☆☆ = Nice item – but you could live without it.
- ☆☆ = Not really – unless it happens to be your cup of tea.
- ☆ = Definite turkey – avoid like the plague!

| | |
|-----------------|--------------|
| PRODUCT: | EGALE |
| CONTACT: | JOE CONNOR |
| TEL: | 0206 851488 |
| PRICE: | SHAREWARE £6 |
| RATING: | ☆☆☆ |

EGALE

Review by Mike Robinson

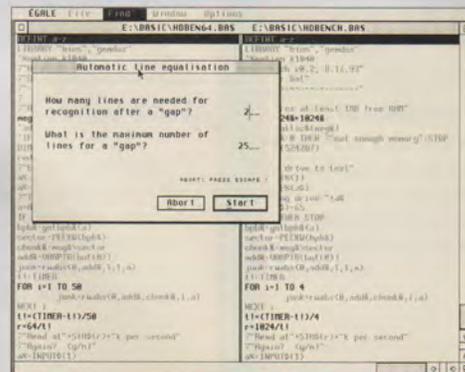
Most programmers will be familiar with diff utilities that enable you to trace differences between files. A diff program is also useful for writers or ordinary users who have two files with the same name and similar contents and need to find which is the later version. The problem with most diff utilities is that they are not GEM-based and so have a less than friendly command line-driven interface.

Egale is a fully-fledged GEM application with intelligent diff handling. It provides a clear display of the two files under comparison, in a window with the differences highlighted. A common problem is that one of the files may have some lines added, making direct comparison rather difficult. Egale has an automatic line matching facility that intelligently matches corresponding lines, hiding the additional lines or inserting blank ones appropriately. The program can cope with text and binary files, and runs in medium, high and extended resolutions.

Other features include *Selectric* support so that you can load both files at once and if you use an alternative desktop, both files may be dragged onto Egale at once. Egale can be run from a command line and accepts wildcards. The program also supports GDOS screen fonts, allowing you to squeeze a little bit more data into the window.

The user interface is simple and employs all the latest techniques such as keyboard shortcuts and moveable dialogue boxes. In use, the program is a little slower than command line-based utilities and does not provide the full functionality of Unix-based diffs. A glaring omission is the lack of any form of output; the results of a comparison cannot be saved as a file or printed out although this feature is planned for the next version.

On the whole, Egale is a simple and friendly utility, ideal for those who do not like using command line-based programs and are willing to sacrifice some features in favour of ease of use. In any case, Egale is an essential utility for programmers, writers and anyone else who needs to compare files. Being a shareware program, you can try it before registering – and the full version provides some extras for a modest fee of £6.



Egale-eyed – here's a simple utility that can help you find the differences between files...

DEVPACDSP

Review by Graeme Rutt

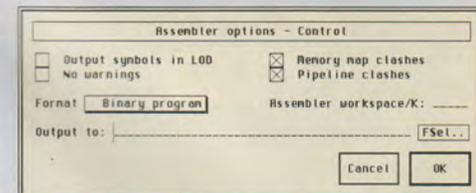
Inside the Falcon beats a heart of steel. The DSP – Digital Signal Processor – chip can pump in data, process it and pump it back out at a rate that's difficult to believe. Programmers have so far been hampered by two things; the DSP is usually a new chip to most Atari coders, and the tools to program it have been rather lacking. Enter HiSoft's *DevpacDSP*.

The package contains a single disk, the *DevpacDSP* manual and a registration card. It comes with a very good installation program and requires 384Kb of free disk space. Included on the disk are an editor/shell, an assembler, a debugger, a DSP control accessory and a few example files.

There's a 120-page manual that includes a short tutorial followed by sections on each of the different programs. It's well written, clear and concise. In particular, the tutorial is excellent – taking novices to DSP coding through editing, assembly and debugging. It's also full of hints and tips as to how to "interface" DSP code with standard 68030 programs.

The editor/shell should be familiar to anyone who programs in any of HiSoft's other language packages. It's a GEM editor offering up to ten editing windows and with the usual standard keyboard shortcuts, although it still uses the rather confusing block operations – the sooner HiSoft use the Atari GEM clipboard convention, the better. That said, it's a good, solid source code editor which does the job.

It also acts as an interactive shell for both the



Heart of the matter – the assembly control centre.

assembler and debugger. From the comfort of a few user-friendly dialogue boxes, you can set up just about every assembler and listing option available and call the assembler, debugger or any other program. The level of interaction that the editor/shell provides is one of the great strengths in all of HiSoft's language packages.

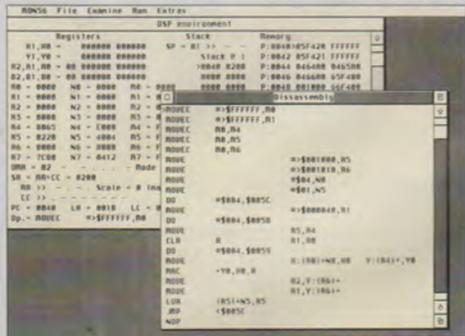
The macro assembler does its job very quickly and there are many options available. Object code can be output in a number of formats: .LOD, an ASCII version of object code introduced by Motorola, .P56, the format expected by the XBIOS *Dsp_ExecProg* call and .B56, straight binary code as used by the XBIOS *Dsp_LoadSubroutine* call. The interactive aspect of the editor/shell means that if there are any errors in your source code you are sent back to the line that the error occurred on – ready to edit.

Once your code has been assembled, a single key-press flips you into the debugger. If you're using the editor/shell then the object code will have already been loaded into DSP memory and is ready to be debugged or run. The debugger is very different from HiSoft's *Mon* – it's a GEM program, with every-

thing shown in a number of windows. One shows the values of all the DSP's registers and a definable area of memory; the other shows a disassembly of any portion of DSP memory. The latter is a very flexible window – you can choose to display a whole welter of information in it or just to show the disassembled opcodes and operands.

The debugger is a little disappointing. Its display is *much* better than *Mon* but its functionality is a lot lower. All you get are simple breakpoints and single stepping; there's none of the bells and whistles that make *Mon* such a joy to use. Maybe in future versions?

And that, in a nutshell, is the *Devpac*DSP assembler. An excellent tool, much better than the one or two PD/Shareware offerings available. If you're a Falcon programmer who wants to use your machine to its full potential I can recommend it wholeheartedly. Let the blood flow!



Friendly touch – debugging in GEM is a novelty!

| | |
|-----------------|---|
| PRODUCT: | DEVPCADSP |
| CONTACT: | HISOFT |
| TEL: | 0525 718181 |
| PRICE: | £59.95/£69.95 WITH DSP56000/1 REFERENCE |
| RATING: | ○○○○ |

LEGEND TRAKBALL

Review by Andrew Wright

Anyone who has used a mouse for any length of time will appreciate the strain it puts on the wrist and fingers, even with a mouse mat. For many users, the only answer is to throw away the mouse and concentrate on keyboard shortcuts but that goes against the grain when you own a computer with a built-in graphical user interface. For others, the trackball is the answer.

Trackballs are the opposite of mice – instead of rolling the mouse around the desk on the rubberised ball, a trackball remains stationary while the ball is rotated in its fixed mounting. Just as the position of the mouse relates to the position of the pointer on screen, the trackball's ball controls the pointer. In theory, as your wrist isn't required to move as much, you'll suffer less aches and pains.

The Legend Trakball was originally built for the Amiga but Ladbroke Computing have devised an adaptor for the ST or Falcon. It is fitted simply by removing the mouse lead from the port underneath the ST and replacing it with the trackball one.

The trackball itself is a curiously-shaped black plastic affair, slightly oval in shape and about 12cm across at its widest. Four thin rubber mats keep it firmly on the work surface and there are two



Folk lore – of such stuff are Legends made!

micro-switched buttons on the front, much as on a mouse, with a third raised button (unused on Ataris) in between. There is a round protrusion where the ball of the hand rests to give added grip and easier location. A large ball (about 3cm in diameter) is mounted on the left, close to the thumb. This makes it rather different to most trackballs and very comfortable to use.

In action, the trackball offers high resolution (320 dots per inch) and fine control over the mouse pointer. After two days I was quite proficient, although a whole new set of muscles started grumbling soon afterwards, particularly in my thumb which is rarely asked to do anything except hit the space bar occasionally!

The Legend will be a useful option if you're short on desk space or if your mouse is getting you down. I've never been a lover of trackballs, finding most of them unwieldy and uncomfortable, but if I had to choose one, this might well be it.

| | |
|-----------------|--------------------|
| PRODUCT: | LEGEND TRAKBALL |
| CONTACT: | LADBROKE COMPUTING |
| TEL: | 0772 203166 |
| PRICE: | £29.99 |
| RATING: | ○○○○ |

BITMAPPED CLIP ART

Review by David Nilson

Following on from the release of their vector collection last month, Goodman now brings us yet another set of exclusive clip-art – this time bitmapped – from Germany. Once again there's certainly no shortage of images and you'll find a total of 130 files spread neatly across the two disk set. It would be almost impossible to describe everything it contains, but suffice to say there's a wide range of very usable clips and the majority are based around people.

Essentially you've got everything from amusing caricatures to scans of historical nobodies and plenty more besides. The second disk is a little more polarised than the first and you will find five pictures dedicated to eyes, a wide range of cartoon characters and several sets of miniature icons. All of the filenames are very descriptive so long as you

have a basic knowledge of the German language; I think most ST owners should be able to cope with words like FRAU, MUSIK and POLITIK!

The file format used in the review version is .PAC (really rather obscure) but by the time you read this, the whole lot should have been converted to .IMG. Even so, this doesn't overcome the inherent limitation to 640 by 400 pixels per picture and each file contains a number of clips reducing the resolution further. It really doesn't matter too much if you are using a nine-pin dot matrix printer, but anything more sophisticated is likely to show up those jagged edges pretty badly.

The image quality on some of the pictures isn't that hot at times either. Don't get me wrong; there are one or two really good pictures – King Kong in particular – but a good deal of the scans do contain stray pixels and a small amount of *moiré*. I don't want to make matters sound worse than they are; providing you are not expecting perfection, these will probably suit you down to the ground and at this price there's certainly no cause for complaint.

So there you have it – a reasonably competent collection of clip art. It's not the sort of thing that makes you jump up and down or eagerly dive for your desktop publisher, but at this price who's complaining? Essentially you are paying public domain prices for public domain quality images – if you are prepared to accept that fact, this one could certainly be worth investigating.



Fair quality – most of the clips are pretty good if you can live with the relatively low resolution.



Heavy shades – nasty patterns creep into one or two of the pictures, but at this price you can afford to take the rough with the smooth...

| | |
|-----------------|----------------------------|
| PRODUCT: | BITMAPPED CLIP ART – SET 1 |
| CONTACT: | GOODMAN INTERNATIONAL |
| TEL: | 0782 335650 |
| PRICE: | £3 |
| RATING: | ○○○ |

This month Andrew Wright looks at how to use the Atari control panel – which also happens to be on our cover disk...

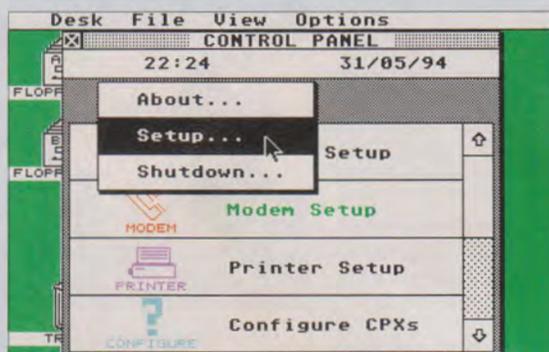
BEAT THE

PART SIX: THE CONTROL PANEL

If you've been following these tutorials closely, you should be getting quite proficient with the GEM desktop and all of its little mysteries. In fact, there's very little else to tell you about the menus and features you can see on a basic system, so the rest of the series will be devoted to showing you, in a similar step-by-step fashion, how to add the bells and whistles that can really make your ST a joy to work with.

Before we depart into new realms, though, let's take a brief look at the first ever system enhancement that was provided with your computer as an extra: the control panel. This is

Figure 1: open XCONTROL and click on the Setup button.



GENERAL BUSINESS

Selecting the **GENERAL CPX** results in an odd looking screen. Clicking on the Status button at the top gives you a run down on free RAM plus your TOS version and date. The wobbly bell – well that's what it looks like to me – shuts off (or activates) your system sounds, and the big button marked "C" turns off the keyboard click.

The response rate controls how long the system waits when a key is pressed down continuously before it repeats the relevant character. Move the slider to the left and the keys repeat sooner, to the right later. The repeat rate controls the speed at which the keys repeat. Move the slider to the left and the speed increases, to the right it decreases. Simultaneously hold down a key and adjust the sliders, with the keyclick enabled, and you'll hear the difference.

If you have trouble double-clicking, try adjusting the boxes marked Double Click! The lower numbers mean you can double-click slower and the system will still interpret it as a double-click rather than two separate ones. Choose number 4 if RSI holds no fears for you...

Setting up the GENERAL CPX.

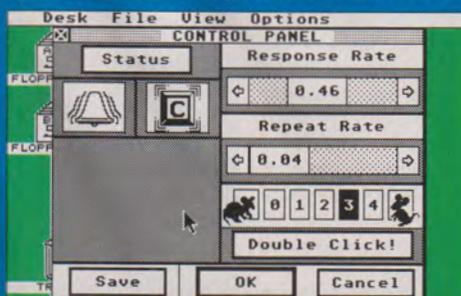


Figure 2: Click on the box labelled A:*.CPX and you will see your system file selector appear asking you to point to the folder where the CPXs are stored.

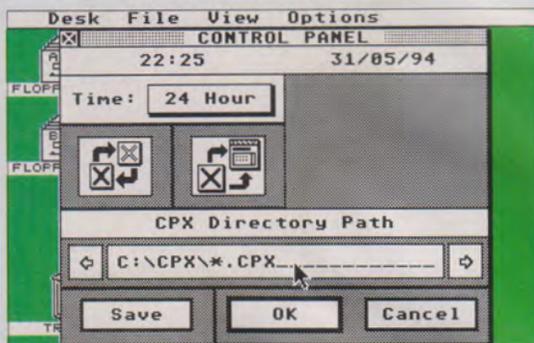
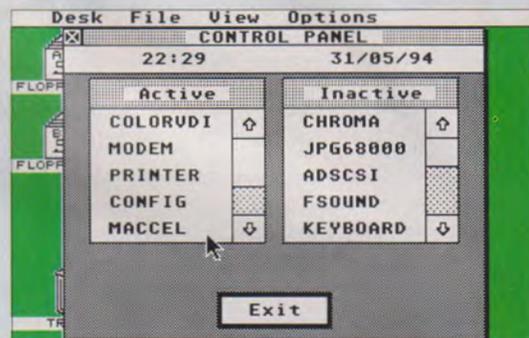


Figure 3: The left-hand icon under the time box shows you which CPXs are active and which aren't.



another of those mysterious programs you can find on your *ST Language* disk, along with an appalling version of BASIC and a totally useless accessory called *EMULATOR.ACCL*. Why anyone buying a home computer should want to emulate a VT52 terminal is completely beyond me – I'm sure Atari could have found something a little more interesting to put on the disk...

IN CONTROL

So what's a control panel? Do you need it? What does it do? First of all there are two main versions of the control panel: the older *CONTROL.ACC* and the newer, modular, version called *XCONTROL.ACC* (short for eXtensible CONTROL panel) which was released with TOS version 2.0x.

The new Control Panel is on this cover disk. It works on any version of TOS, including the Falcon, and acts as a kind of multiple desk accessory, in the sense that it takes up only one accessory slot but it can load and manage up to 99 different modules. These modules are called Control Panel eXtensions or CPXs – and there are 22 of these on this very cover disk! Many new programs take advantage of the control panel's modular nature – the *Ultimate Virus Killer*, for example, comes with a CPX module to check disks as they are

put in the drive. More and more commercial, PD and shareware programs are offering such extras.

About six CPXs are normally distributed with *XCONTROL*. The four important ones are *COLORVDI*, to control the main colour palette, *PRINTER* and *MODEM*, to configure the printer and serial ports and *GENERAL*, which sets the time, date, sound and keyboard parameters. With these four installed you have the same functionality as the original though there are others such as *MACCEL*, to configure the Atari mouse accelerator, and *CONFIG*, to configure the other CPXs.

Others are available from PD libraries and cover everything from JPEG compression to virus killing and reporting on disk space – check out the top ten on the disk.

GETTING STARTED

If you have copied *XCONTROL* onto your boot disk, you'll need to copy the CPXs across too. It's best to put them in a folder called CPX, for obvious reasons, but it's not vital. The first thing to do is open *XCONTROL*, click on the Setup button, hold down the mouse button until some other options pop up and move the mouse over the Setup box as in figure 1.

Click on the box labelled A:*.CPX. You will see your system

SYSTEM

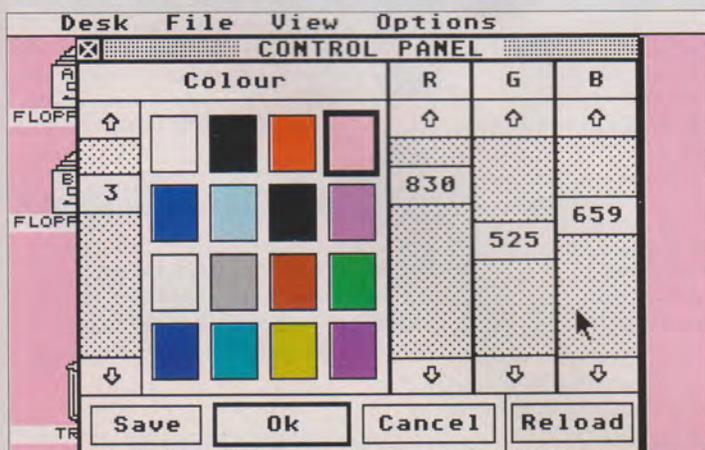


file selector appear asking you to point to the folder where the CPXs are stored as in figure 2. From this screen you can also set the system time and date by clicking on the relevant entry and using the numeric and arrow keys followed by <Return> to finish. The time can follow the 12 or 24-hour clock.

Now click on the left-hand icon under the time box. This shows you which CPXs are active and which aren't (figure 3). Active modules have the file extender .CPX while inactive ones have a .CPZ extender, but you can specify which ones you want loaded and which you don't by using this menu, rather than altering the file names manually. If you select a module from the left list you can click on the **Deactivate CPX(s)** button to remove it – and vice versa, of course. Try it and see. You can then click on "exit" and select the right-hand icon to reload the selected CPXs. Click on the "Save" button to keep the configuration.

Now comes the fun and games – using the modules. Did you know you could change the background colour of the desktop? Press "OK" from the Setup screen after making sure *COLORVDI.CPX* is installed. Now double-click on the relevant box and you'll see the colour box. By selecting a colour to alter and then adjusting the sliders, you can alter the appearance of the entire system. Do it carefully, especially if you have selected black or white, as you can often end up with black text on a black background, which makes it rather hard to find your way around. Only a reboot (or a lucky mouse click!) will solve that little problem.

Incidentally, you'll notice that it appears to be possible to adjust each of the colours from 0 to 1,000. This would give you a total palette



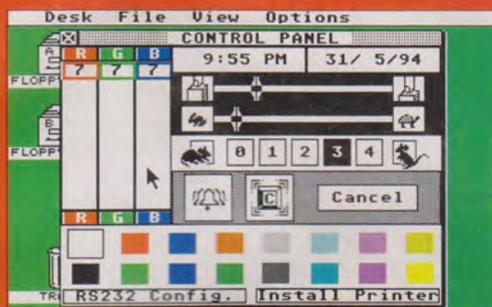
Did you know you could change the background colour of the desktop?

OLD ORIGINAL

The original control panel has several advantages over the later extensible version. It only takes up 24Kb of your precious RAM, so if you only want to adjust the colours and a few system parameters, it's a better bet.

In contrast, *XCONTROL* takes up a minimum of 64Kb. Of course, you can load any of the others without too much trouble, giving you much more flexibility, but 64Kb is a big overhead by anyone's standards. The more modules you add and make active, the more memory gets used up. An assortment of 20 CPXs can take up 150Kb of memory while if the same 20 are made RAM-resident, this can go up to 450Kb!

You'd have to be mentally deranged to boot up with this arrangement on a regular basis but it indicates what a memory hog the extensible control panel can be. If you do use it, watch it doesn't start eating away at that memory upgrade you paid the earth for...



The updated version of the original control panel – the main screen provides all the option except for printer control and RS232 settings, which are accessed from the buttons on the bottom.



How to calculate how much memory an accessory or program uses – a memory checking utility can measure the free RAM before and after installation.

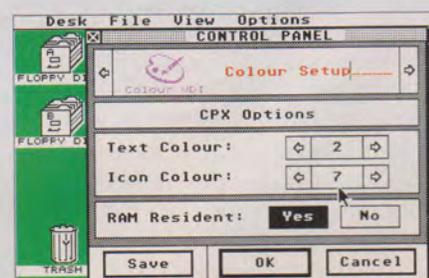


The **PRINTER** set-up screen. The only button of interest here, for most users, is the "pixels per line". If you are doing screen dumps to a dot matrix and you can't get the whole screen across the page, adjust this figure to "1280".

approaching a billion colours (1,000 x 1,000 x 1,000). In fact, you notice as you move the slider that the colour shifts spasmodically rather than smoothly.

This is tied into your machine's palette – an ST has only eight shades each of blue, red and green

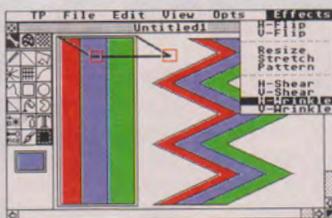
(8 x 8 x 8 = 512, the ST's full palette) while the STE has 16 shades of each (16 x 16 x 16 = 4,096). As a matter of interest, even the Falcon only supports 64 shades of each colour (64 x 64 x 64 = 262,144) so the 1,000 shade slider is pretty optimistic!



The **CONFIG** screen. Modules can be designated as RAM-resident which speeds up access slightly but at a dreadful cost to memory. Leave it well alone. Have fun adjusting the colour of the icon and text instead – it's far more fun and twice as useful. Don't forget to click on Save afterwards...

The Hot Spot alternative to the Zoom function. The cursor area is magnified to help with accurate cursor positioning for Fills and the like. Its size, position and magnification are adjustable but you cannot draw inside it.

With Block frame tool selected, draw a frame around an area and adjust the steepness of the zigzag with the grab handles. Drag to required position and double click to complete.



Keith Berry gives some advice on working with TruePaint, the late entrant into the Atari painting arena...

FINE ART

Aimed at both STE and Falcon owners, TruePaint is HiSoft's graphics package and, not unexpectedly, most of the real power is reserved for the Falcon's superior facilities in terms of resolution and colour range.

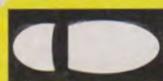
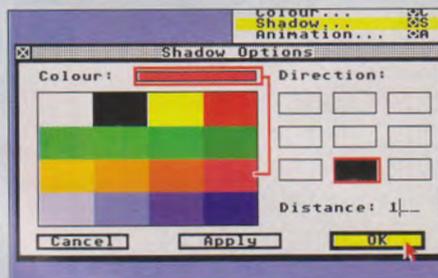
It's not that STE owners are left out in the cold when compared with other graphics utilities, for there are sufficient features with which to spend many happy, creative hours, but the colour plates in the manual illustrating True Colour mode could well undermine any resolve you may have not to upgrade! That manual,

incidentally, has to be the epitome of software documentation: clearly written with tutorial and reference sections, well illustrated and comprehensively

indexed. We're talking about a spiral-bound, compact A5 masterpiece that lies flat, stands up, and even has an integral bookmark in the form of an extended back cover.



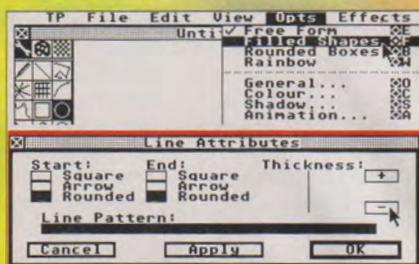
The Shadow function adds a duplicate of any drawn line in the colour, direction and separation of your choosing. Aided by the Shade function, the palette has three colours each of four tones.



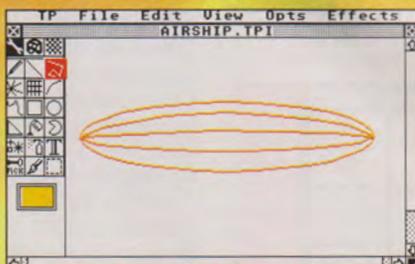
STEP BY STEP GUIDE

UP IN THE AIR

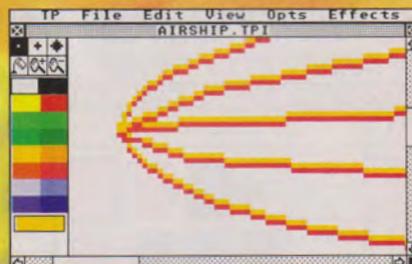
Creating this picture of a classy air balloon is the closest that most of us will ever get to the wild beyond...



Before starting drawing, check from the Options menu that the parameters for Line types, whether boxes are to appear as filled or not, and so on, have been set to your requirements.



With the K-Line tool selected, the shape of a dirigible has been drawn. The Shadow function was turned on and set at Distance 1 to make the ribs stand out.

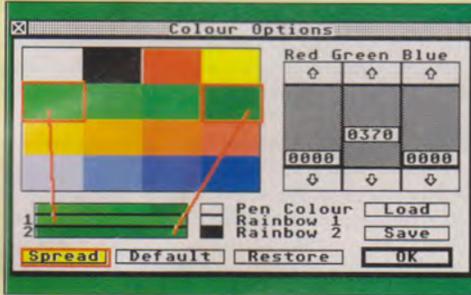


As the shape is to be filled, Zoom mode is used to check that there are no gaps to allow the Fill to "leak" out. Always save your picture before selecting the Zoom function though.

SPREAD IT AROUND

Restricting yourself to just a few colours with several shades of each can conceal the paucity of the STe colour range. *TruePaint* makes this easy: just choose a light shade of a colour and click on the middle of the three horizontal bars. Now choose a dark shade of the same colour (or create it using the RGB sliders) at least two palette blocks away and click on the bottom horizontal bar. Click on Spread and a range of shades will appear between the chosen blocks. The completed set may be jumbled on reloading a saved picture.

The Spread function makes perfect use of the STe's restricted colour palette.



DOWN TO BUSINESS

So the manual's beautiful, but what of the program itself? On an STe it runs in 16 colour low and monochrome high resolution; when a new picture is selected, it displays a dialogue box into which its required size in pixels may be entered.

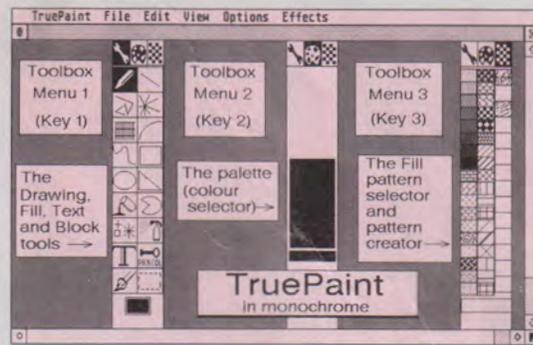
Your picture is not limited to the screen size but your view of it, the arrow keys allowing you to scroll around it with the use of the <Shift> key for larger jumps. Pictures are normally shown in a standard GEM window but the <Clr Home> key toggles a full-screen view.

By selecting Animate from the Options menu, you can increase the number of screens within the current

window and if your original window contains a drawing, it will be reproduced in each. This assists with animation, but the <Delete> key and <Return> at the prompt can clear each screen in turn. Pressing the "<" and ">" keys enable you to move between the screens in this set.

Although you can save any of them either individually or as an animated set, you cannot directly import a picture file into one of them as any such import will appear in its own separate GEM window. You can, however, use the Block functions to Cut it, or a portion of it, and click on the window delete box. Your underlying screen will reappear and you can Paste the cut area into it.

The range of modules supplied lets



TruePaint can be used in mono though loaded TINY pictures are "creatively distorted". This composite shows the three Toolbox menus, selected by pressing keys 1, 2 or 3.

you save in a wide range of file formats, with even more for loading, and the manual provides an excellent description of them.

They tend to display some of the exotic formats well within the STe's comparatively limited colour range, but in monochrome mode a .TN3 Tiny picture loads unsatisfactorily – in the form of a four-way multiple image!

HINTS 'N' TIPS

The drawing tools are pretty utilitarian, largely untouched by innovation, and the Block functions lack any rotation ability other than simple horizontal and vertical flip, although the parameters of existing functions are very adjustable. Nevertheless, the creation of pictures with *TruePaint* on an STe is no hardship since menu screens are well laid out and most functions have a short-cut keypress alternative – if you find that your keypress is having no effect, check that you are not in Text mode!

The Undo feature follows the style of several recently introduced graphics utilities, in that it cancels the

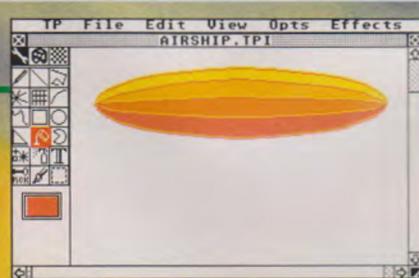
last whole sequence of operations since a particular function was invoked and not just the last single operation. As with all such programs, leave and reactivate a function occasionally to prevent the possible loss of such a series.

The HotSpot magnifies the area surrounding the cursor, ensuring its precise location, and the HotSpot's size, location and magnification are all adjustable.

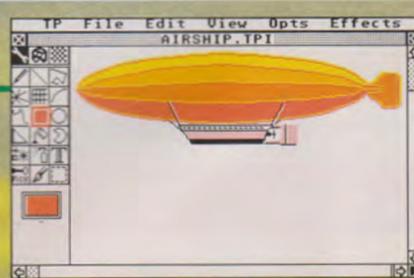
Employ the HotSpot rather than the Zoom because all drawing tools remain available and, upon leaving the Zoom, the image sometimes becomes displaced on screen. It is wise always to save your current picture to disk before venturing into Zoom mode.

The new release of *TruePaint* (1.03) has fixed a few bugs – hopefully this is one of them.

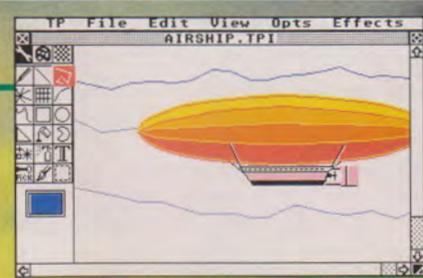
If you feel any awkwardness in using *TruePaint* it is probably due to its departure from earlier "standard" methods, but as the programs that set them are no longer being marketed and *TruePaint* is, perhaps we should embrace these as the New Standards...



4 The four plain areas of the dirigible have been filled with progressively darker shades of the same orange/brown colour to give an impression of modelling.



5 The shape has been extended to form a rudder, filled with a suitable shade and the cabin, a solid rectangle with detail courtesy of the Zoom mode, has been added.



6 Four areas of the sky and detail in the ground area have been marked off with K-Lines ready for solid filling. The Hot Spot function was used to check for potential leaks.



7 The sky has been solid filled downwards with each of the four marked-off zones in a progressively lighter shade of blue, though the GEM window restricts the view and shows only three of these zones.

8 The fields have been filled and details such as livestock and furrows have been added, often with the aid of the HotSpot or Zoom functions. Some of the trees were added using Copy and Paste.



TOP NOTCH

Continuing his search for useful utilities on a floppy disk system, Ofir Gal investigates RAMdisks...

Some programs can steal part of your computer's memory and make the system "think" that it's a disk. Known as "RAMdisks", the obvious question is why should anyone want to use one?

The main advantage of a RAMdisk is that it is very fast – hundreds, if not thousands, of times faster than a floppy drive. An average file load or save appears to be instantaneous. Typically, a RAMdisk can be used to temporarily store commonly-used files: dictionary, spell checker, printer fonts or source code for programs. The files will be available at any time without the need to swap floppy disks. If you have enough RAM, you could even install full programs like HiSoft BASIC or Calligrapher onto a RAMdisk.

The disk can be used to save your work as you go along. Only when you are about to switch your ST off will you have to save the files "for real".

RESET-PROOF RAMDISKS

The obvious disadvantage of a RAMdisk is that it cannot be used for long-term storage as its contents are lost as soon as the computer is reset or switched off. In fact, a program crash will usually have the same result. The solution is to use a reset-proof RAMdisk that will survive a reset or even a system crash; a simple

system reset will find the contents of the RAMdisk intact although a severe crash is still likely to destroy the data being stored.

RDE, on last month's cover disk, is a well-tested, "save-with-contents", reset-proof RAMdisk that offers some unique features not usually found on public domain software. The program allows you to create a RAMdisk and then use it as you would any other. Whenever you wish, you can load RDE and save the RAMdisk along with its contents as a normal disk file. You can then place the file in your AUTO folder so that the next time you boot the system, the RAMdisk will be created along with its original contents.

Before I had a hard disk, I created several such RAMdisk files and saved each to a separate floppy disk. Each RAMdisk was designed to serve a different need; the collection included a Calligrapher disk and a BASIC development disk. I could then boot the system with the appropriate disk.

INSTALLING RDE

RDE features a simple-to-use GEM installation program. To get started, run RDE.PRG and select **Create RAM Disk** from the File menu. Enter the required size for the RAMdisk and click on "OK". Follow the prompts to install the disk. After creation, the program will display the file selector

and let you select the path and enter the name for the RAMdisk file which should have the extension .PRG and can be started from the desktop or from the AUTO folder. Next, RDE enables you to load the RAMdisk. Selecting this option causes a system reset – this is normal and is used to place the RAMdisk in a reset-proof area of memory. This also occurs when loading the RAMdisk program from the AUTO folder or desktop.

BACKING UP A RAMDISK

In most cases, a RAMdisk is used to temporarily store files as you work; simply copy the files over to a floppy disk for long term saving. However, sometimes it is desirable to save an "image" of the RAMdisk. A practical example of this is given in the box entitled "Installing Calligrapher On A RAMDisk". RDE simplifies this process – just load it again and select **Backup RAM Disk**. The file selector is displayed, allowing you to choose the RAMdisk file or enter a new one.

The resulting file is an "executable image" of the RAMdisk. This means that you can double-click on it from the desktop or load it from the AUTO folder to automatically recreate the RAMdisk along with its contents at any time. If you have 2Mb of RAM or more you should be able to install complete packages onto a RAMdisk, speeding up tasks like printing, spell checking and saving of documents.

INSTALLING CALLIGRAPHER ON A RAMDISK

If you have 2Mb of RAM or more, you can use the Calligrapher installation program from our March issue to install the full program on an RDE RAMdisk. The biggest advantage is that you will not need to swap disks before printing or using the Paks. Some operations, like printing, will also be faster as Calligrapher will be able to load the printer driver and fonts much quicker.

First, create a 700Kb RAMdisk as drive C, save it as CALRAM.PRG and load it. Now run the cover disk installation program which will "think" that you have a hard disk and ask you whether you want to use the hard disk. Type "Y" and then the drive letter, which is C. Follow the installation through as before. You will notice the speed difference in the installation procedure as compared with a floppy-based system.

Now create a drive icon for drive C (notice the capital "C") if required on your desktop and double-click on the icon. You will see two folders.

Inside the folder called CAL there is a program called CALSETUP.PRG which you should run.

Make sure you turn off the Disk Cache Mode and the Screen Vector fonts options as shown here. If you have 4Mb or more, you may leave the Screen Vector fonts option enabled. Now click on "OK" to exit the set-up program. Next, get a blank formatted disk and create a new AUTO folder on it. Load RDE again, select **Backup RAM Disk** and save the RAMdisk into the AUTO folder on the blank disk.

If you now reset the system, the contents of the RAMdisk will remain intact, if you switch the computer off and on again, the RAMdisk with the Calligrapher files will load and all will be as you left it. You can now load Calligrapher from drive C and start enjoying the improved performance...

On a 2Mb system, turn off the Disk Cache Mode and Screen Vector fonts.

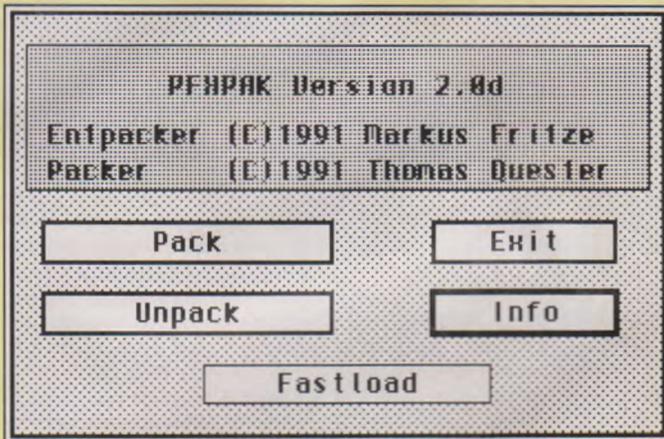
TIGHTLY PACKED

Creating a RAMdisk with *Calligrapher* or some other large package tends to produce a very large RAMdisk file which, in turn, means that booting the system is slow as the floppy "grinds" away loading the file. This can be reduced quite substantially using a program packer.

PFXPAK has been well tested - in fact, many of the cover disk programs are packed with it. The program is shareware, and compressed programs tend to compress to around fifty percent of their original size. Unlike normal archivers, there is no need to unpack the program; the packed version will run as before.

To use *PFXPAK*, load it from the desktop and click on **Pack** which displays the file selector. Select the program you wish to compress and click on "OK". Compression takes a while and progress is shown in the dialogue box. When complete the file selector is displayed again so that you can save the compressed file. That's it!

PFXPAK can only be used on executable files, which includes *RDE* RAMdisk files, .PRG, .APP, .TOS, .TTP and even desk accessories. However some programs, and especially accessories, do not work properly when compressed, although this is very rare.



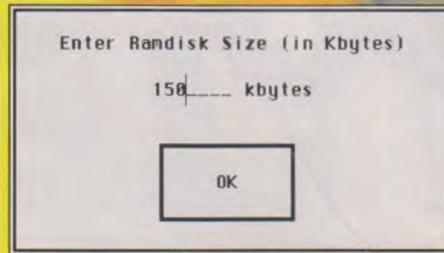
PFXPAK is a real time-saver where the loading of RDE RAMdisks is concerned.



STEP BY STEP GUIDE

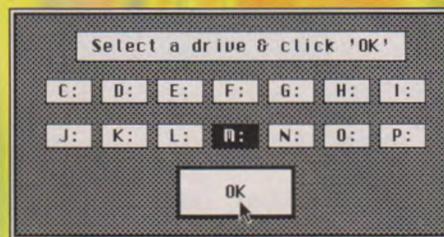
CREATING A RAMDISK WITH RDE

Follow *ST Review's* instructions and have *RDE* working faster than you can say "I've run out of disk space"...



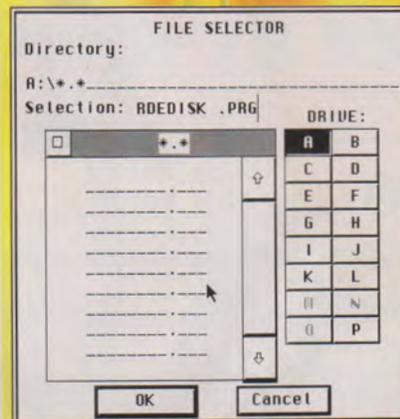
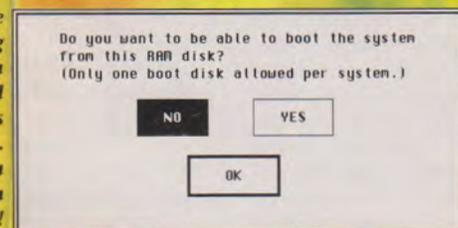
Select **Create RAM Disk** from the menu and enter the required size. Remember to leave some memory for your applications.

Next select whether you want a 12 or 16-bit file allocation table. With 12-bit, the RAMdisk is structured exactly like a floppy disk; 16-bit is slightly faster.



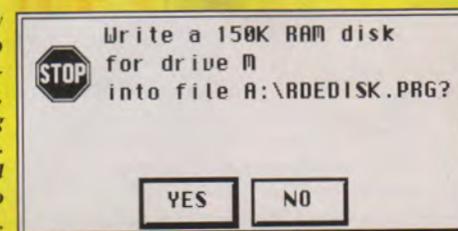
The next dialogue box is where you give the RAMdisk a drive letter. If you want to boot from it, then C is the safest choice.

RDE can create an auto-booting RAMdisk so you could even install all your Auto programs and accessories. Booting the system will be quicker than with a hard disk!



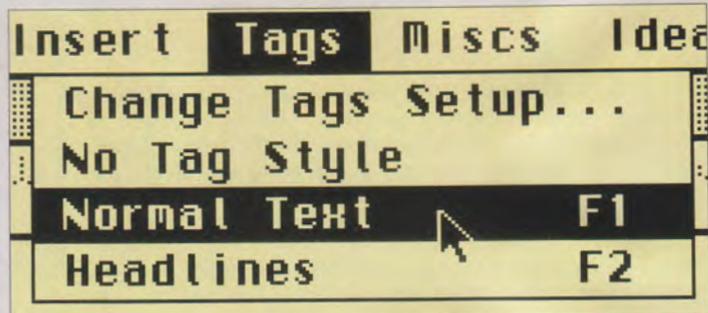
The next stage is to save the RAMdisk file. The default name is *RDEDISK.PRG*, but any name is fine as long as you keep the .PRG extension.

RDE will now prompt you to load the newly-created RAMdisk, effectively installing it into the system. Selecting "OK" will cause a reset so don't be alarmed.



WITH STYLE

To help you achieve better results with Calligrapher Professional, Mike Robinson considers some more features, including style tags...



Installed tags are displayed in the Tags menu and are also accessible from the keyboard.

One of Calligrapher's most useful features is that of "tags". Text tagging enables you to quickly change the format and appearance of text in a controlled fashion. The idea is that you have preset styles that you can quickly apply to text – such as Holland 12 for body text and Zurich 16 Bold for headlines.

bold in this case, and install it as a second tag entitled Headlines. Continue to build tags containing all the text styles you are likely to need for your document.

USING TAGS

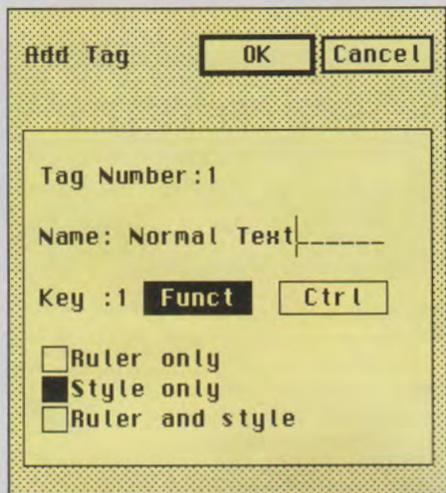
Tags can be used in more than one way. To start with, select the tag *before* you start entering text. If you already have some text and need to tag it, select the text and then insert the tag. Tags can be selected directly from the menu bar or by pressing the keyboard shortcut as displayed in the menu.

CREATING TAGS

Let's create a body text tag. Select a 12 point Holland font from the font menu and select **Change Tags Setup** from the Tags menu, selecting **Add Tag** from the small menu that pops up. In the displayed dialogue box, enter a name for the text style – something like Normal Text or Body Text. You may also assign a keyboard shortcut that will insert that tag into existing text. Enter "1" and make sure that the Function button is selected so assigning the <F1> key to this text style. A new entry is automatically added to the Tags menu.

Say that you decide that Zurich 16 is a bit too large for your headlines and a 14 point bold Zurich font would be more suitable. Normally, you would have to select each text segment and change it individually. With text tags this is much simpler. Place the cursor in a headline and select 14pt from the font menu. A small dialogue box will appear asking if you wish to change all the text tagged as "Headlines"; selecting

Next, follow the same procedure for a new text style, Zurich 16 point



Text tags are fully configurable. You can even include the current ruler setting in the tag, name it and assign a keyboard shortcut to it.

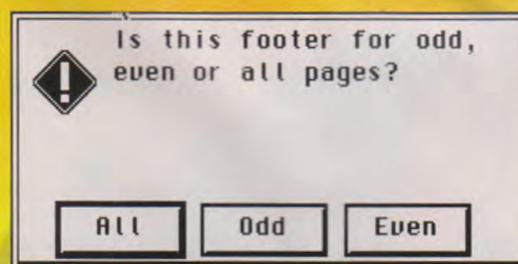


STEP BY STEP GUIDE

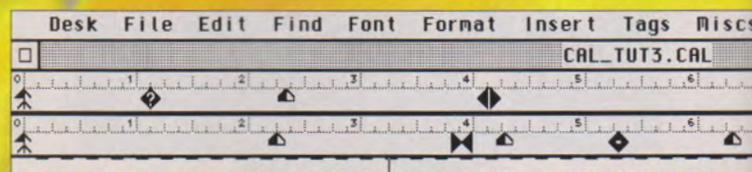
CREATING HEADERS AND FOOTERS

Page numbers and document information on the top or bottom of each page is a useful feature. Calligrapher has very flexible facilities to help you achieve this. Follow this step by step guide...

Press <ClrHome> on the keyboard to go to the top of the document. Next, select **Start Footer** from the Misc menu. Make sure that all the entries at the top of the menu read **Hide Rulers, Hide Headers** and so on.



Calligrapher can generate separate footers for even and odd pages. In most cases, you will simply select the default "All". You can always experiment once you are familiar with the footer facility.



Select the font and point size, which are independent from the rest of the document, and make sure the ruler is the same size as the standard one. If you double-click on the ruler, page numbers can be "centred".

CUSTOMISING PAKS

One feature of the *Calligrapher* paks that has never been documented is the user-configurable side. This is of particular use if you are working on a floppy-based system with 1Mb of RAM. Time for a little hacking...

Open the **CAL** folder from the desktop and locate the **IMPORTER.CPK** file. This is the module *Calligrapher* uses to import and export text files. Normally, *Calligrapher* loads the pak from disk whenever required. If the program disk is not in the floppy drive you are prompted to insert it, making the process a little tedious at times. It is possible to configure the pak so that it is installed into memory, removing the need to load it from disk and so speeding up its use.

Rename **IMPORTER.CPK** to **IMPORTER.TOS** and run the file by double-clicking. The pak can now be configured by pressing <Y>. The first question should be answered with a "Y" so that *Calligrapher* can remove the pak from memory if necessary. The answer to the second question depends on the amount of RAM available in your system. If you have 2Mb or more, you can answer "No". The last question determines whether the pak will be loaded into memory when

```

Import/Export Pak for Calligrapher
Version 1.00
Copyright WorkingTitle 1989-1992 All rights reserved.

Do you wish to set the options (Y/N)?
Do you want the pak to be removed from
memory when space is short? (Recommended) (Y/N)
Do you want the pak to be removed from
memory during printing? (Recommended) (Y/N)
Do you want the pak to be loaded when
Calligrapher starts (YES) or when you first
use the pak (NO)?
  
```

You can configure some of Calligrapher's paks. Always use a back-up copy of your program disk, though...

Calligrapher is first run. Press <Y> and the configuration will be saved to disk.

Now rename the pak as **IMPORTER.CPK** and run *Calligrapher*. You will notice that using the importer pak is much quicker now. Note that not all of the paks can be configured in this way – always use a back-up copy of the program disk when experimenting with pak settings...

"Yes" will immediately change all headline text to 14 points. In addition, the tag definition itself changes as well, so that any new text tagged as Headlines will also be 14 points.

This method makes it very easy to reformat long and complex documents such as manuals, brochures or contracts. It removes the need to manually change each text segment and gives you global control over text. You may want to save a set of tags as a default file, in which case create the tags and save them into the **CAL** folder as **DEFAULT.CAT**.

Tags can also be deleted. This does not delete the actual text but simply removes the tag itself. Select Change

```

Import Ascii (line-based)
Import Ascii (para-based)
Import .DIF (from Spreadsheets)
Import 1st Word Plus documents
Import Rédacteur documents
Import RTF document
Export Document as Ascii
Export Document as RTF
Cancel
  
```

The Import-Export pak is capable of loading 1st Word Plus documents and also supports the RTF file format.

Print Grid...

```

Ins Serial Num...
Check Grammar...
FlexText...
Insert Barcode...
AutoSave
Thesaurus uk
Key Selector
Import-Export
Hyphenate...
Import Degas/Neo
Cancel
  
```

Selecting Open Pak from the Find menu reveals all the installed paks. Simply select one from this menu to activate it.

Tags Setup from the Tags menu and simply click on the tag you want to remove in the pop-up menu.

IMPORT AND EXPORT

Calligrapher can load documents created by other word processors. Many of you will have *1st Word Plus* in your disk collection and have probably used it to write some letters. You can use the *Import-Export* pak to import the documents directly into *Calligrapher*.

Selecting **Open Pak** from the Find menu pops up a small menu. Next, select the *Import-Export* item; a second menu appears where you can select the type of document to import. Of the various formats, import and export as RTF is useful if you need to exchange files with a Mac or PC word processor. **Import 1st Word Plus** documents will enable you to load those old *1st Word Plus* files and edit or print them with *Calligrapher*.

To change tagged text, place the cursor and make the change. Calligrapher will then ask whether the change should be applied to all text with that tag.

```

Do you wish to
change all the
Tags called
Headlines
  
```


Insert Tags Mis

Ins Ruler
Date
Page Break
Column Break
Page Number

Ins First Number
Next Number
First Roman
Next Roman
First Alpha
Next Alpha

Ins Merge Field
Question
Merge Test

4 Select Page Number from the Insert menu and choose between Roman and standard numerics or simply cancel – the page number will be inserted into the footer. Printing now prints page numbers at the bottom of the page.

MISSED THE MARCH ISSUE COVER DISK WITH CALLIGRAPHER?

No problem – just turn to page 90 for information on how to order back issues.



ALL THE EXTRAS!

If you like our cover disk program, you might like to consider some of the add-ons...

THE BIG BITS!

| | | |
|--------------------|---|--------|
| Manual | All 368 pages, including a ring binder | £19.99 |
| Upgrade Kit | Complete Calligrapher Professional disk set, including English dictionary, Thesaurus, all five fonts and all printer drivers (including BJ10e, NEC P6, Ricoh 1200 and PostScript) | £24.99 |
| Both | | £34.99 |

THE PAKS

| | | |
|-----------------------|------------------------------|--------|
| Flextext | Curved text manipulation | £9.99 |
| Formula Editor | For all you scientific types | £14.99 |
| Labels | Perfect for wine makers! | £9.99 |
| Barcodes | For a nation of shopkeepers | £24.99 |
| Grammar | Check ST Review's editing! | £19.99 |
| Indexer | Create custom indexes | £9.99 |

THE DICS

| | | |
|----------------|-----------------------------------|--------|
| French | Including thesaurus | £14.99 |
| German | Including thesaurus | £14.99 |
| Italian | Includes Catalan but no thesaurus | £9.99 |
| Spanish | Including thesaurus | £14.99 |

THE FONTS

Each typeface is listed by number and name. The number is necessary to identify the typeface disk – all typefaces must be ordered by number. Next to each name is the weight and styles available in the typeface. There is also a lead character which identifies the type of typeface:

B – Typefaces that are designed for normal body text.

D – Display typefaces for headlines and larger sizes.

C – Display typefaces that contain only capital letters.

Most typefaces can be printed in any size from 6 to 128 points but Commercial Script cannot be printed less than 24 points due to its complexity.

If you have a hard disk and at least 2Mb of memory, Calligrapher displays vector typefaces on screen.

You can only install one extra font if you have a floppy disk system in addition to those provided with the Upgrade Kit. With a hard disk system the only limitation is memory!

| | | | | | |
|---------------|-----------------|--------|-----------------|--------------|---------|
| Any 1 | Your choice | £17.99 | Any 3 | Your choices | £34.99 |
| Any 10 | Lots of choices | £79.00 | The Lot! | All 80 fonts | £149.00 |

| | | |
|--------------------------|---------------------|---------|
| <input type="checkbox"/> | MANUAL..... | £19.99 |
| <input type="checkbox"/> | UPGRADE KIT..... | £24.99 |
| <input type="checkbox"/> | MANUAL AND KIT..... | £34.99 |
| <input type="checkbox"/> | FLEXTTEXT..... | £9.99 |
| <input type="checkbox"/> | FORMULA EDITOR..... | £14.99 |
| <input type="checkbox"/> | LABELS..... | £9.99 |
| <input type="checkbox"/> | BARCODES..... | £24.99 |
| <input type="checkbox"/> | GRAMMAR..... | £19.99 |
| <input type="checkbox"/> | INDEXER..... | £9.99 |
| <input type="checkbox"/> | FRENCH..... | £14.99 |
| <input type="checkbox"/> | GERMAN..... | £14.99 |
| <input type="checkbox"/> | ITALIAN..... | £9.99 |
| <input type="checkbox"/> | SPANISH..... | £14.99 |
| <input type="checkbox"/> | ONE FONT..... | £17.99 |
| <input type="checkbox"/> | THREE FONTS..... | £34.99 |
| <input type="checkbox"/> | TEN FONTS..... | £79.00 |
| <input type="checkbox"/> | ALL FONTS..... | £149.00 |
| <input type="checkbox"/> | FONT CODE (S)..... | |

TO: ST REVIEW CALLIGRAPHER OFFERS, PLEASE RUSH ME THE ITEM(S) AS TICKED IN THE BOXES OPPOSITE.

I ENCLOSE TOTAL PAYMENT OF £.....

PAYABLE BY: CHEQUE P.O. CREDIT CARD

NAME:

ADDRESS:

POSTCODE: TEL

(DAY):

EXPIRY DATE: / /

SWITCH ISSUE NO. / /

SIGNATURE:

IMPORTANT!

Paying by CHEQUE or POSTAL ORDER – please make payable to GO DIRECT and write your cheque card guarantee number on the back. All prices are inclusive of postage & packing and VAT. Please allow 28 days for delivery from when we receive your order. For non-receipt of goods phone 0480 891171, Monday to Friday between 10am and 6pm.

Send your order to: ST REVIEW CALLIGRAPHER OFFERS, 7 VINEGAR HILL, ALCONBURY WESTON, HUNTINGDON PE17 5JA

| | | | |
|------|----------------------------------|------|-----------------------------------|
| B001 | Washington Light | B045 | Eurostile |
| B002 | Windsor | B046 | Clearface Gothic |
| B003 | Windsor Condensed | B047 | COPPERPLATE |
| B004 | Weiss Rundgotisch | D048 | COPPERPLATE CONDENSED |
| D005 | Vag Rundschrift | B049 | Congress |
| D006 | <i>Vivaldi</i> | D050 | Caslon Graphique |
| D007 | <i>Vladimir Script</i> | C051 | DAVIDA |
| D008 | Arnold Boecklin | D052 | Dynamo |
| D009 | Arsis | D053 | Dom Casual |
| D010 | Alte Schwabacher | B054 | Congress Bold |
| D012 | Alternate Gothic 3 | B055 | Eurostile Expanded |
| D013 | Alternate Gothic 1 | D056 | Egyptienne Bold Condensed |
| D014 | Accolade Light | D057 | Egyptienne Black Condensed |
| C015 | <i>american uncial</i> | B058 | Egizio |
| B017 | Baskerville Normal | B059 | Egyptienne 505 Light |
| B018 | Belwe Light | D060 | Fette Engschrift DIN 1451 |
| B019 | Brittanic Extra Light | D061 | Flyer |
| D020 | <i>Brush Script</i> | D062 | Franklin Gothic |
| D021 | Blippo Black | B063 | Garamond |
| C022 | BINNER | B064 | Garamond Condensed |
| D023 | <i>Brady</i> | D065 | Gill Kayo |
| C024 | BROADWAY ENGRAVED | B066 | Gill Serie Light |
| D025 | Broadway | B067 | Goudy |
| D026 | Baskerville Old Face | D069 | Hobo |
| D027 | Bodoni Black | D070 | <i>Neilson Casual</i> |
| B028 | Bodoni Antiqua | D071 | Playbill |
| B029 | Bodoni Antiqua Med | C072 | STENCIL |
| B030 | Bodoni Condensed | C073 | STOP |
| B031 | Berling | D074 | Serpentine |
| B032 | Brittanic Medium | D075 | Thorowgood |
| D033 | Bodoni Ultra | C076 | THUNDERBIRD |
| C034 | BALLOON | C077 | THUNDERBIRD CONDENSED |
| D035 | Bernhard Antique | D078 | Latin Wide |
| D036 | <i>Bernhard Fashion</i> | D079 | <i>Murray Hill</i> |
| D039 | Cooper Black Bold | D080 | <i>Park Avenue</i> |
| B040 | Century Old Style | B081 | Maxima |
| B041 | Century Schoolbook | D082 | Old Towne No 536 |
| D042 | <i>Commercial Script</i> | B084 | Raleigh |
| B043 | Castle Book | B085 | Romana Demi Bold |
| D044 | Cheltenham Bold Condensed | B086 | Stymie |

UP AND RUNNING

If you missed last month's tutorial you will be glad to know that the additional header file I introduced – a list of constants and their values – is included on the cover disk. The idea is that using a constant called *ob_state* in the source code is more meaningful than the number "10" although the values are identical. The file is named *AES.BH* and should be included in any GEM program.

START A PROGRAM

All GEM programs start by loading the resource file and including the header file generated by the resource editor. All programs can use the startup template shown in listing 1. Note that the actual toolkit is included as an external file. The toolkit

Ofir Gal continues to build his GEM toolkit while showing how important it is to start out on the right foot...

will grow as we go along and will gradually contain a large selection of all-purpose GEM routines that can be used in any GEM program. The toolkit starts by including the AES header file.

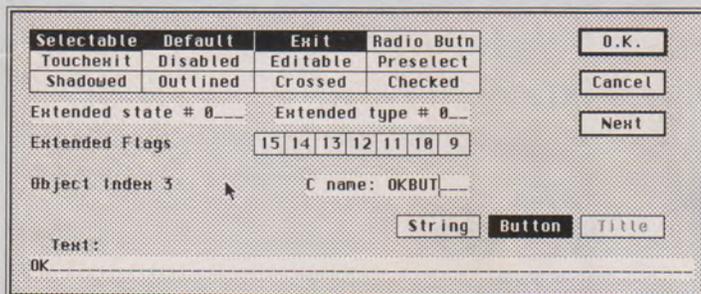
Let's look at the program startup code. The program starts by allocating its workspace which is 50Kb in our example, although predicting how much memory a program requires is not simple. On the same line we also use the "y" option which stops *HiSoft BASIC* from opening its default window. Next the program includes the toolkit file. This in turn

Listing 1

```
'typical startup code for a GEM program

'Soption k50,y           'keep 50kbytes for the program,
                        'do not open window
'Sinclude toolkit.bas   'include the toolkit
'Sinclude gem3.bh       'this may need to include the
                        'full path while developing
                        'the program. gem3.bh and
                        'gem3.rsc should be replaced
                        'with the name of the resource
                        'file in use.

IF FNrsrc_Load("GEM3.RSC")=0 then
  junk=FNform_alert(1,"[3][Error while loading]resource
  file.[C] Abort [3]")
  'can't continue without resource so quit.
  SYSTEM
END IF
```



Using *K-Resource*, you can peek into the resource file *GEM4.RSC* and learn a bit more about each object. The *OK* button is selectable as well as being the default exit object.

MISSED THE FEBRUARY ISSUE COVER DISK WITH K-RESOURCE?

No problem – just turn to page 90 for information on how to order back issues.



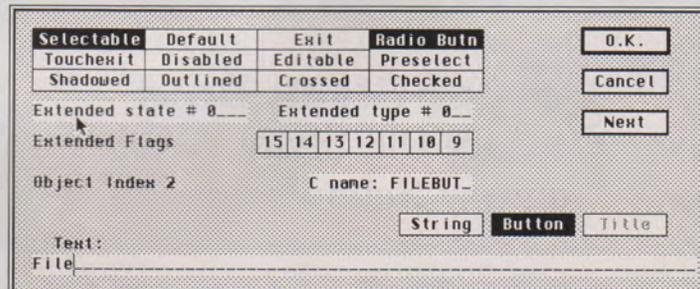
includes the AES library and header file and also declares the variables *junk* and *tree* as global. The following line is yet another include file, this time the resource headers file that contains all the constants we will use to access the various buttons and text objects.

The actual program code can now follow. The last thing to do is to load the resource file. Once it is in memory, the program can display it and the user can click on buttons and enter text. You may use this code to start any GEM program.

HANDLING A DIALOGUE BOX

On the cover disk this month you will also find the resource file *GEM4.RSC* and its accompanying header files. This file contains a single dialogue box with five objects – two exit buttons, two radio buttons and one editable text object.

Most GEM programs use dialogue boxes like this. Which requires several steps to be taken when handling. First, the tree address is obtained, something which is now easier thanks to our *SelectTree* routine. This is



File and Printer are both radio buttons. Notice that the selectable bit is set but the object does not cause *FNform_do* to exit.

Listing 2

```
'toolkit.bas

DEFINT a-z
LIBRARY "gemaes"

'$include aes.bh      'include the GEM header file

DIM SHARED tree&,junk

'routine to select a form
'places the tree address in the variable tree&
SUB SelectTree(VAL treeno)
junk=FNrsrc_gaddr(0,treeno,tree&)
END SUB

'obtain address of object structure
DEF FNObjectAddr&(VAL object)
FNObjectAddr&=tree&+object*24
END DEF

'Removes a given mask from the ob_state field
'in the given object of the current tree
SUB Exclob_state(VAL object,VAL flag_mask)
STATIC t&,state
t&=FNObjectAddr&(object)+ob_state
state=PEEKW(t&)
POKEW t&,state AND (NOT flag_mask)
END SUB

'display and handle a dialogue box
DEF FNhandleDialog(VAL edit_obj)
STATIC x,y,w,h,but
form_center tree&,x,y,w,h
form_dial 0,0,0,0,x,y,w,h
junk=FNobjc_draw(tree&,0,8,x,y,w,h)
but=FNform_do(tree&,edit_obj)
form_dial 3,0,0,0,x,y,w,h
FNHandleDialog=but
END DEF
```



The editable object. The C name field is used to enter the CONSTANT name which is then used in the program to access the object.

followed by several calls that centre the form, tell the AES about it and draw it on screen. Next, *FNform_do* allows for user interaction. Rather than go through this procedure each time you need to display a dialogue box in your program, you could use the *FNHandleDialog* function, as found in listing 2.

The routine does all the hard work for you and also returns the exit button. It also takes a single parameter which is the first editable object – the object to place the cursor on. If there are no editable text objects in the form, just pass 0.

Listing 3 shows how to display and handle a dialogue box with the help of the toolkit. The loop causes the dialogue box to re-display until the user selects the "Quit" button. You will notice that if you select the "OK" button, the second time the dialogue is displayed this button is already selected and you need to click on it twice to exit. This is because the action of clicking on a button actually sets the SELECTED bit of that object.

DESELECTING AN OBJECT

This effect is not desirable in most cases and a general purpose routine is required to solve this. Rather than

write a routine that specifically deselects an object, I will show how to write a routine that can be used to change other object states such as CHECKED or even SHADOWED. The routine is taken from the *HiSoft GEM Toolkit* and is called *exclob_state* which stands for "exclude object state". The logic of the routine is quite complex – try it first as shown in listing 4.

exclob_state takes two parameters: the object and the actual mask value of the attribute to clear. The actual value is stored in the *AES.BH* headers file, so you only need to pass the constant *mask_selected*. If you run the program now, the button should be deselected each time the dialogue box is displayed. This sort of object manipulation is very common in GEM programming and toolkit routines such as *exclob_state* make the complex task of writing a GEM program much easier.

AND WHY NOT

One of the most difficult facets of programming is the use of logical operators such as *AND*, *OR* and *NOT*. With GEM programming there's no escape – you just have to use them. Let's examine them one by one starting with *AND*.

To get a clear understanding of the effect of logical operators, you must think in binary numbers. Let's take the decimal number 5; its binary equivalent is 0101. If this was a representation of an object state this would mean that the object is both selected, crossed and checked, but how do we know this? By using *AND*, an operator that works like a sieve. To check if an object is selected, *AND* 5 with *mask_selected* which is 1. *5 AND 1* gives 1 which means that the object is selected.

$$\begin{array}{r} \text{AND} \\ = \\ \hline \begin{array}{cccc} 0 & 1 & 0 & 1 \\ 1 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 \end{array} \end{array}$$

Figure 2: *ANDing 5 with 8 provides a result of zero.*

$$\begin{array}{r} \text{AND} \\ = \\ \hline \begin{array}{cccc} 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 1 \end{array} \end{array}$$

Have a look at figure 1. Only places in the two numbers where both bits are set (equal to 1) pass through to the result. Since the result is not zero, the object is selected. Now let's see if the object is disabled.

The mask value of the DISABLED bit is 8 which is 1000 binary. Figure 2 shows that the result is zero; the object is not disabled.

Figure 1: *the result of ANDing 5 with 1.*

HOW DOES IT WORK?

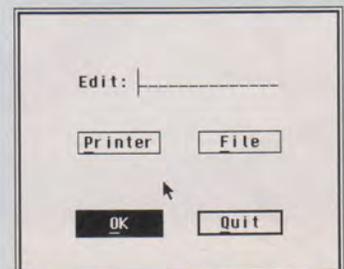
The routine *exclob_state* uses some logical operations that are clever enough to clear the SELECTED bit of the object state value without affecting any of the other bits. First, it obtains the memory address of the object using another toolkit function – *FNObjectAddr&*. This function returns a long value (larger than 32,767).

FNObjectAddr& may appear complex, but in fact it works by taking the object number and multiplying the size in bytes of each object structure by 24. The result is added to the tree address to give the memory location of the object.

Once the address is known, we *PEEK* the object state and store the value in the variable *state* that contains the full object state. The value is then *ANDed* with the result of *NOT SELECTED*. The result of the expression *NOT SELECTED* is a value in which all the bits except the

SELECTED bit are set. *ANDing* this value with the current state clears the SELECTED bit and so deselects the object. The value of this technique is that the actual state of the object is not important and remains unaffected unless the object happens to be selected.

If you find all this confusing, that's because it is!



The dialogue box in action. The OK button remains selected when it is displayed for the second time. This is cured by using *exclob_state*.

Listing 3

```
'handle a dialogue with the toolkit

DO
  SelectTree DIAL1
  res=FNHandleDialog(TEXT1)
LOOP UNTIL res=QUITBUT
```

Listing 4

```
'handle a dialogue take 2

DO
  SelectTree DIAL1
  res=FNHandleDialog(TEXT1)
  exclob_state res,mask_selected
LOOP UNTIL res=QUITBUT
```

Dialogue boxes are an essential item in GEM programs.

Jon Ellis
considers how
to work with
them in C...

In the last tutorial we covered the basics of object trees and their representation. In this article you will see how theory is put into practice by looking at the necessary code to display and animate a dialogue box. To get the most out of this instalment, it will probably help to refer back to the previous issue. If you missed it, the *ST Review* back issue service should be able to help you out (see page 98).

Straight back into the code. Listing 1 shows the function used to display the dialogue box. In C terms, the source code is very simple as it is largely made up of calls to library functions. Many GEM programs share this nice property, which makes them approachable for inexperienced C programmers. To explain how `get_purge_details()` works, we will look at each of the library functions in turn. Most of these functions use the OBJECT type introduced in a rather abstract way in the last tutorial. The functions are concerned with processing dialogue box object trees. To specify a

particular tree, we pass a pointer to the start of the array of OBJECTS. We have already seen how to obtain such a pointer using the `rsrc_gaddr()` function. By storing the value in a global variable (in this case, "box"), the pointer has been made accessible to `get_purge_details()` and all other functions in our program.

`form_center()` takes an object tree representing a dialogue box, and alters it so that, when displayed, the box will appear in the centre of the screen. In doing this, it takes account of screen enhancements such as overscanning or the Falcon screen expanders, BlowUp030 and ScreenBlaster. The function returns the x and y coordinates of the top left-hand corner of the dialogue box, and its width and height using four variable pointers. These four quantities describe a rectangle of screen that the box will occupy; see the "Screen Basics" box for more about rectangles.

The `form_dial()` library function is capable of operating in several different modes. The selection between

modes is made by the first argument, an integer between 0 and 3. These modes have standard names defined by Atari. To make the source code easier to read, the `aes.h` header file #defines symbols that allow the standard names to be used instead of the numbers. A similar approach is also adopted for some other GEM functions: it is worth browsing through `aes.h` and `vdh.h` to get an idea of what is available.

The `FMD_START` mode for `form_dial()` is used to signal to the AES that a particular area of screen will be used to display a dialogue box. The second to fifth arguments are ignored, and should be 0. The final four arguments specify the area in the by-now familiar x,y,w,h format.

ZOOMING ONWARD

The `FMD_GROW` mode is used to draw the expanding outline box that indicates the appearance of a window or dialogue box. This effect should only be used sparingly, as many users find it irritating after a while. The obvious way of coping with such issues of personal preference is to give a user the choice. A simple technique is to define a global variable, say "zoom_boxes", whose value is alterable by a menu option, and then make all calls to draw outline boxes conditional on the value of this variable.

In this mode, all nine arguments to the `form_dial()` function are used. The arguments specify two rectangles, and the AES draws outline boxes expanding from the size of the first rectangle to that of the second rectangle.

In Listing 1, a 20-pixel square is expanded to the size of the dialogue box. To make this work visually, the

BOXING CLEVER

SCREEN BASICS

Since the whole point of GEM is that it is a graphical interface, it makes sense to spend a little time thinking about something fundamental to graphics – the screen.

On-screen dimensions are measured on a standard pixel coordinate system. Under the default conditions, the pixel at the top left-hand corner of the screen is the origin with the coordinate (0,0). The standard ST monochrome screen is 640 pixels wide and 400 pixels high. However, to ensure compatibility with all the odd screen resolutions of the Falcon, not to say the least of those generated by hardware add-ons, a program should never rely on the screen being a standard size. The housekeeping code provided as part of the GEM program under development shows how to safely obtain the width and height of the screen from the `v_opnvwk()` call.

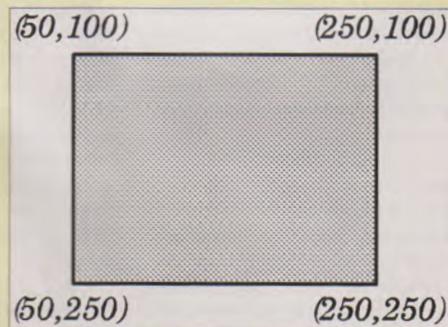
Many of the library functions used in GEM programs require the programmer to specify a rectangular portion of screen. For example, a rectangle may define an area to be filled with a pattern, or a portion of a dialogue box to be

drawn. However, to complicate matters, the two parts of GEM (AES and VDI) use different methods to describe rectangles.

Rectangles for VDI functions are specified by means of the coordinates of two diagonally-opposite corners. These are usually expressed as an array of four 16-bit integers. As an example, consider a 200 by 150 pixel rectangle with the top left-hand corner at pixel (50,100); in this example, the rectangle would be specified to a VDI function as the array (50,100,250,250)

The AES functions also expect rectangles to be specified as a series of four integers. However, rather than an array, these integers are treated as separate values that encode the x and y coordinates of the top-left corner of the box, and the width and height of the rectangle. Our example rectangle would be specified in the x,y,w,h format as 50,100,200,150.

In our prototype GEM program we are largely confining our screen manipulations to those provided by AES functions. This means that, for now, there is no need to worry about the VDI



Specifying the coordinates of a dialogue box for a VDI function.

rectangle descriptions. Later in the series we will come across window-handling code that needs to mix AES and VDI functions, and then conversion between the two formats will be required. As a simple programming exercise, can you write code to interchange rectangles between these representations?

Listing

```

/*
** Function to display and animate the dialogue box
** that prompts the user to enter the path and
** extension of files to be purged. There are no input
** arguments. The function returns TRUE if the user
** clicked on the OK button, or FALSE if not.
**
** Usage:          button = get_purge_details();
**
**                  int get_purge_details(void);
*/

int get_purge_details(void)
{
    int button;
    short bx, by, bw, bh;

    form_center(box,&bx,&by,&bw,&bh);
    form_dial(FMD_START,0,0,0,0,bx,by,bw,bh);
    form_dial(FMD_GROW,bx+bw/2,by+bh/2,20,20,bx,by,bw,bh);
    objc_draw(box,0,9,bx,by,bw,bh);
    button = form_do(box,0);
    form_dial(FMD_FINISH,0,0,0,0,bx,by,bw,bh);
    form_dial(FMD_SHRINK,bx+bw/2,by+bh/2,20,20,bx,by,bw,bh);
    if (button == OK)
        return (TRUE);
    return (FALSE);
}

```

two rectangles need to have the same centre point. This calls for a little simple maths, which is done in the function call.

At the end of `get_purge_details()`, after the dialogue box has been finished with, `form_dial()` is called again twice with the remaining two modes. `FMD_SHRINK` does the opposite of `FMD_GROW` – a series of outline boxes shrink from the second rectangle to the first. Finally, calling `form_dial()` with the `FMD_FINISH` mode causes the specified rectangle of screen (the bit under the dialogue box) to be redrawn.

THE GUTS OF IT

`objc_draw()` is the AES function that actually displays the dialogue box. Its arguments specify the object tree to be drawn and the index of the first object – starting at 0 displays the whole tree. The last four arguments define a *clip rectangle*. Although the whole object tree will be processed, only the part that falls within the clip rectangle will be displayed. In `get_purge_details()`, the clip rectangle has been set to be equivalent to the outer dimensions of the whole box, so the entire dialogue will be drawn.

Restricting the area affected by `objc_draw()` can be extremely useful when only a part of an object tree is changed and so requires redisplaying. The argument given as "9" in the listing controls a parameter of `objc_draw()` operation known as the drawing depth. The value given will suffice for the vast majority of `objc_draw()` calls. Displaying the

dialogue box is not the whole story – the box must be animated to allow the user to interact with it. This is done by the `form_do()` function. All that it needs by way of input is a pointer to the object tree and the index of an editable text field at which to put the vertical line cursor. An index of 0 can be used if there are no editable fields or to default the cursor position to the first editable field.

`form_do()` only returns when the user selects an object tagged with the `EXIT` or `TOUCHEXIT` attribute. In our program, these are the <OK> and <Cancel> buttons. The return value from `form_do()` can be used to identify the object that caused the exit. By using the header file prepared by *K-Resource*, we can process the result symbolically: the return from `form_do()` is compared with the symbols `OK` or `CANCEL`, the names given to the buttons when they were created in *K-Resource*. `get_purge_details()` uses this information to determine its return value; `TRUE` for `OK`, else `FALSE`.

Here is another simple programming challenge: the return value from `form_do()` is a 16-bit integer. The bottom fifteen bits encode the index of the object used to exit the dialogue box. The remaining bit is set to 1 if the exit was caused by the user double-clicking the mouse on an object with the `TOUCHEXIT` attribute. As it stands, the code in `get_purge_details()` cannot cope with this eventuality. Although the situation cannot arise, as there are no `TOUCHEXIT` objects in the dialogue box, it is still poor programming

practice not to take account of the possibility. Can you change the code to make it more robust? For a hint, look again at the Christmas issue...

NEXT TIME...

In this tutorial you've learnt about some of the fundamental GEM library functions used to create a simple dialogue box interaction. Hopefully,

you've also seen that GEM programming does not require intricate C skills, just an appreciation of some C basics. In fact, there has been no new C in this tutorial – just familiar ideas used to gain access to the GEM library functions.

Next time we'll look at a further stage in the evolution of our GEM program. Oh yes, and some new C tool!

COMMON BUGS AND ERRORS

Continuing with our occasional mini-series on nasty common errors in C that can be tricky to track down, here's another hot tip:

● Equals signs

To test an expression for equality, C uses two equals signs (`==`), as you saw in the second tutorial. Assigning a value to a variable is achieved by using a single equals sign (`=`).

This can cause problems if you make a typing error in an if test. Look at the code below:

```

if (balance == 0)
    printf("No money is owed\n");

```

This will do what the programmer wanted: print the text if the variable "balance" is zero. However, missing out one of the equals signs causes a problem:

```

if (balance = 0)
    printf("No money is owed\n");

```

This code won't work; "balance" will be always be zero, but the text will never be printed. You can imagine how confusing this could be in a large program!

We've already met part of the reason for this behaviour. In a previous tutorial we saw how a variable assignment can be evaluated as a mathematical expression. What the construct above is doing is to perform an assignment and then to subject the value to a logical test. The result will be "false" if the variable is having zero assigned to it, otherwise it will be "true". In our example above, "balance" is set to zero, and the if test then fails, because this is evaluated as "false".

To help you get logical tests right, here's a simple rule. All comparisons in C that involve equality have two characters, and the second of these is always an equals sign:

```

A == B  Test for A equal to B
A != B  Test for A not equal to B
A >= B  Test for A greater than or equal to B
A <= B  Test for A less than or equal to B

```

Remember, the compiler isn't telepathic – it can only read what you write, not what you meant to write!

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| Crystal Kingdom Dizzy | 14.99 | Int. 3D Tennis | 7.99 | Robocop | 6.99 | WWF1 | 8.99 |
| Crystals of Aborea | 8.99 | Int. Rugby Challenge | 17.99 | Robocop 3 | 10.99 | WWF2 | 8.99 |
| Cybercon III | 10.99 | Int. Sports Challenge [512K] | 19.99 | Rookies | 17.99 | | |
| D Day | 22.99 | Ishar | 19.99 | Rorke's Drift | 6.99 | | |
| Dizzy Collection | 16.99 | Johar Khan World Championship Squash | 7.99 | Scrabble | 20.99 | | |
| Dizzy's Excellent Adventure | 16.99 | Jimmy White's Snooker | (see The Greatest) | Secret of Monkey Island | 12.99 | | |
| Dogfight | 22.99 | Killing Game Show | 9.99 | Sensible Soccer '92/'93 | 16.99 | | |
| Double Dragon 2 | 7.99 | Kingmaker | 22.99 | Shadow Lands | 8.99 | | |
| Dynablaster | 19.99 | Kings Quest 2 | 10.99 | Shuttle | (see The Greatest) | | |
| Elite 2 (Frontier) | 19.99 | Knights of the Sky | 12.99 | Shinobi | (see The Greatest) | | |
| Elvira The Arcade Game | 16.99 | Laser Squad | 8.99 | Sim City + Populous | 19.99 | | |
| European Champions | 17.99 | Leader | 9.99 | Slicks | 14.99 | | |
| European Super Soccer | 16.99 | Legends of Valour | 24.99 | Space Crusade | 8.99 | | |
| Eye of the Beholder | 12.99 | Lemmings 2 (The Tribes) | 17.99 | Space Quest | 12.99 | | |
| Eye of the Storm | 19.99 | Lemmings Double Pack | 19.99 | Space Quest 2 | 10.99 | | |
| F1 | 17.99 | Loom | 12.99 | Space Quest 3 | 10.99 | | |
| F15 Strike Eagle 2 | 14.99 | Lords of Chaos | 8.99 | Spellbound 2 | 8.99 | | |
| F19 Stealth Fighter | 12.99 | Lotus Esprit Turbo Challenge | 7.99 | Spellbound Dizzy | 6.99 | | |

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 125+ | 7.99 |
| Cheetah Bug | 1.19 |
| 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 Turbo | 10.99 |
| Quick Joy Jet Fighter | 10.99 |
| Quick Joy Pedals | 17.99 |
| Suncom Tac 2 | 7.99 |
| Suncom Stick 2 | 5.99 |
| Wico "Q" Stick | 4.99 |

EDUCATIONAL

| | |
|------------------------------|-------|
| Better Maths [12-16 GCSE] | 13.99 |
| Better Spelling [8+] | 13.99 |
| Cave Maze [8-12] | 9.99 |
| Fraction Gobblins [8-13] | 6.99 |
| Fun School 2 [UNDER 6] | 9.99 |
| Fun School 2 [6-8] | 6.99 |
| Fun School 2 [8-10] | 6.99 |
| Fun School 4 [UNDER 5] | 16.99 |
| Fun School 4 [5-7] | 16.99 |
| Fun School 4 [7-10] | 16.99 |
| Junior Typist [5-10] | 10.99 |
| Magic Maths [4-8] | 13.99 |
| 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 |

SPECIAL OFFERS

| | |
|-------------------------------|------|
| Breach 2 | 5.99 |
| Chaos Strikes Back | 5.99 |
| Charge of the Light Brigade | 5.99 |
| Conflict Europe | 4.99 |
| European Championship 1992 | 5.99 |
| Kick Off + Extra | 9.99 |
| Sabre Team | 9.99 |
| Shadowworlds | 9.99 |
| World Class Rugby [5 Nations] | 9.99 |

3.5 BLANK DISKS

| | TKV 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 |

Graeme Rutt continues on his quest to go where he wants others to follow...

FLYING VISIT



This month, it's the turn of the Blackwater BBS, which lives in Dulwich and is run by Gordon Drayson. Unlike other most bulletin boards this one isn't networked, it doesn't have large file areas and only has a reasonably small message area. So, why does it boast a usership of well over 300? Well, maybe it has something to do with being the System Solutions support board for the UK...

These kind of support boards have become popular over the past couple of years. With more and more people buying modems, companies have realised just how useful messaging and file access can be for their customers. System Solutions caught the comms wave a while ago, and as well as offering support on CIX they also decided to run their own bulletin board.

WHAT'S ON OFFER?

There are three main areas of business that the Blackwater BBS deals with: Systems Solutions, The Atari Workshop and Sumner Type. The first two (hardware/software sales and

```

CoNnect
Terminal Setup Risc **** 00:00:00 00.00 / 00.00 DR
| 0024 C001 17:38 OFF ONL REPL NUR
Mar 29, 1994 12:13 AM
Connected: 2 minutes, 28 minutes remaining.
Return for Menu >
BLACKWATER Main Menu
+-----+
| SYSTEM |
|-----|
| [E] E-mail system | [C] Chat with SysOp |
| [F] File directories | [L] Leave mail for SysOp |
| [M] Message bases | [B] Bulletins |
| [U] Utilities menu | [D] Database |
| [MEU] New files/messages | [O] Other BBS listing |
| [G] Goodbye |
+-----+
Mar 29, 1994 12:13 AM
Connected: 2 minutes, 28 minutes remaining.
Return for Menu > d

```

The main menu – nice and simple...

repairs) you'll be familiar with but the latter you may not heard of before. Sumner Type is a print bureau, one of a very few that can take *Calamus* output and turn it into bromide or film, ready to be sent to the printers

– witness our stunning *Calamus* layout on page 19!

You speak with each by sending email or mail (see boxout) to user name "sysop". Gordon sorts out which message – or file – should be

```

CoNnect
Terminal Setup Risc **** 00:00:00 00.00 / 00.00 DR
| 0024 C001 17:42 OFF ONL REPL NUR
BLACKWATER BBS File System
+-----+
| File areas |
|-----|
| [1] Updates : All program updates will be here |
| [2] Sumner Type : Files for Sumner Type (typesetters) |
| [3] General : Any file of interest |
| [4] Falcon : Falcon files |
| [5] Calamus : An area for Calamus Users |
+-----+
Type the number shown to enter a file area. If you don't
have access to the file area you've chosen, you are returned
to the file prompt.
Select: 1
BLACKWATER BBS File System
Current file directory is UPDATES

```

There's not a great deal in the files areas, but plenty else where!

sent to which company and acts accordingly. So, with a single log-in you can request a price on a hard-disk, find out whether it's worth repairing your faulty ST or send a hundred page .CDK file ready to be turned into a manual!

The message and file areas should be familiar to anyone who has ever used a Turbo BBS – like the <<<Internet>>>, covered in the first article of this series. General questions may be asked on a range of

subjects, and there a few Atari files available for download. I'm not going to pretend that these areas are big though – the strength of this board lies in the level of support offered by the companies that back it. That said, Gordon is currently thinking about joining the NeST Atari network – and a BBS with networked messages, files and support would be formidable.

MOVING AROUND

In the database section you will find price lists (for both Systems Solutions and Sumner type), any bulletins – often including special offers – and also a number of press releases. To access this section, just hit <D> and follow the menu prompts. As usual, with a Turbo BBS, you can press <T> to toggle "read" or "download" mode. The former is the default and sends any bulletin text straight to your terminal and the latter downloads the text as files.

Finally, there is the standard Turbo Qmail system – available from the main menu under <Q>. If you intend reading or sending messages to the board then use this, as described in an earlier issue, to save money. That's it for this month; see you on-line – maybe even at the Blackwater BBS...

HOW TO... EMAIL

EMail, or electronic mail, is the general name for any kind of message sent via modem, or communications network. Words, though, become corrupted through time and EMail commonly refers to messages that you send to a single user – private mail in other words.

It is a feature that you'll want to use a lot on Blackwater BBS, so let's have a look at how you go about it. From the main menu, hit <E> to bring up the Email section. To read any new mail, hit <R> and follow the prompts to read the mail. Note that on most Turbo boards, mail is deleted as soon as it's read – or sometimes, if you quit the board, even without reading.

To send mail, hit <S> and enter the username it will be sent to and the subject of the mail as requested. Remember, on Blackwater any message for the three supported companies goes to "sysop". It is also possible at this prompt to type in *search* to hunt for a user name, or *list* to send a message to a number of different users.

Finally, FMail works just like Email but allows you to attach a file to your mail. Hit <F> from the Email menu and follow the prompts – it's very much like sending a standard Email message but with additional prompts to let you upload a file. If any Fmail has been sent to you, there will be a note appended to any messages that you read, as described above.

Go to the messages areas for general chat.

```

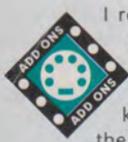
CoNnect
Terminal Setup Risc **** 00:00:00 00.00 / 00.00 DR
| 0024 C001 17:44 OFF ONL REPL NUR
Mar 29, 1994 12:14 AM
Connected: 4 minutes, 26 minutes remaining.
Return for Menu > e
+*--Contains messages new to you --*Base OFF
+-----+
| 1) HelpLine : Help Area for Supported Products |
| 2) System Solutions : System Solutions/Atari Workshop |
| 3) Sumner Type : Trade Typesetters |
| 4) General : General Chat |
| 5) Falcon : Falcon News |
| 6) Bargain Basement : Special deals from us, and users |
+-----+
[Alt] [C]lear [F]lagged [R]everse [S]IG's [T]oggle [I]Quit [?]HELP
Select Base> q
Mar 29, 1994 12:15 AM
Connected: 4 minutes, 26 minutes remaining.

```

ASK THE EXPERTS

Another month, another mailbag – ST Review's panel of experts are here again to answer your questions...

FORGET ME NOT



I recently received the Forget Me Clock and very useful it is too. It's much easier to know which files are the most recent when it comes to updating them, and it is so easy to set up – a few clicks of the mouse and the job is done.

There are two things that the READ_ME file didn't mention concerning the battery: how long it lasts and how to replace it. I feel it could be of benefit to other readers by answering this through your problem pages.

D. Smith, Mid-Glamorgan

Marpet inform us that the Forget Me Clock's lithium battery should be good for two years or thereabouts. The battery is a 3.2 volt cell, with a model number of CR2032.

When you need to change it, unplug the cartridge and open the plastic casing by carefully prising apart the two halves. Buy a cell with legs already soldered on – soldering to a battery casing is not easy. Desolder the old battery and fit the new one in its place. Voilà!

Remember to use the program on the disk that came with the cartridge to turn the clock on, after which the Auto folder



Clock on – two years of hassle-free time with the Forget Me Clock...

program loads the clock time into the ST's system whenever you boot up. Jane Plessey

NO SCORE



I want to upgrade my current MIDI set-up and top of the list is my sequencer, *Pro 12*. I was fortunate enough recently to spend a little time working with *Cubase* and feel that this will do nicely! However, I've been told that I'll need at least 2Mb of RAM in my machine and my budget is very tight. Is this true?

A. Curtis, Longleat, Wilts

***Cubase* has certainly grown over the years and, yes, to run it in its entirety does require 2Mb of memory. However, as with most decent German programs, *Cubase* is modular and allows you to specify which modules are loaded into memory. If you want to run on a 1Mb machine, simply ensure that the *Score Editor* is unloaded and you will have at least 200Kb of RAM free – more than enough for most musical projects. If scoring is a vital ingredient of your work, then you are going to have to bite the bullet and upgrade to 2Mb.** Vic Lennard

MONO MONITOR



I have just purchased a 520 STE, upgraded to 1Mb. Even when using mono emulators, the text in my *Easybase* files is very hard to read. I need a monitor!

Being poor I must buy second-hand, but looking for Atari ones is rather limiting in terms of choice. Can I use any monitor – say from an IBM or, heaven forbid, Amstrad? The same question applies to my search



Peace of mind – ST Secure prevents prying eyes...

for a printer. By the way, I think your barking mad giving away copies of *Easybase* and *Prospero C*. So I've subscribed to take advantage of your dubious mental health!

Trevor Townsend, Cheshire

Well, one good insult deserves another – I think you're barking mad even considering anything other than an Atari monitor! Seriously though, the Atari monochrome monitors offer stunning image quality, far better than any monitors adapted from other machines are likely to give you. The SM124/S are the best and the SM125 has a useful swivel base. The SM144 was introduced relatively recently but the picture quality wasn't as good as the earlier models. You should be able to pick up a secondhand SM124/S for anywhere between £50 and £80. Try the classified pages of the computer exchange and mart-type magazines or ask a friend with access to a bulletin board to post a message.

You can, of course, use the monitors from old Amstrads such as the 6128 (the CPC464 is colour only) or "IBM" monitors provided they are VGA or better. CGA or EGA type monitors won't work at all. Leads are available from Paul Rossiter on 0602 631631.

As for printers, this will depend on your software and the availability of the right driver but if you look for a cheap Epson FX80 or IBM Proprinter-compatible 9-pin dot matrix, you shouldn't go far wrong. Other printers for which printer drivers are widely available include the Star LC10 and HP DeskJet. Andrew Wright

CLIPPING CLIPART



I have an Atari 1040STE with an Atari SC1435 colour monitor and when I load clip-art in .IMG format, the picture is always larger than the screen shows.

Is there a way of reducing .IMG pictures so that they just fill the

screen without any loss of definition?

F. Ellison, Lancs.

Although there's no way you can reduce .IMG clips on screen without any loss of definition, GEMView 3 on this month's cover disk does a reasonably good job of adjusting their size. If you want the changes to be temporary, use the "Pic. Size" menu option; if you'd prefer them to be permanent so that you can save them in their reduced state, use the "Vertical/Horizontal Half" external modules. Nial Grimes

FRIEND OR FOE?



Please can you tell me if there is a utility that will put password protection on programs – one that I could copy onto my system disk and set to automatic load by placing it in my Auto folder. When I reboot my system, I want it to ask me to type in the password; if I get it right it will go to the desktop where-as if I get it wrong it will just keep asking me to enter the password again and again.

I really need this and just in case you're wondering it is the typical sisters again!

Richard Claydon, Surrey

There are several software utilities available from PD libraries, including Occult and Password. Such a utility works by pausing the boot process until a password is provided and so is of limited use – if you only have a floppy drive, anyone can simply place a blank floppy and boot from that!

A better solution is ST Secure from Ladbroke Computing (0772 203166), a hardware kit costing £9.99.

Fitting this involves opening up your ST and stripping it down to the motherboard. Once installed, your computer will boot and then "ask" for a password. If this isn't forthcoming it's Crystal Maze time – lockout! Michael Robinson

TOO MANY COLOURS



Many adverts for the newer computers in magazines state that the machine in question is capable of demonstrating millions of colours. I have been trying to see how many colours I could think of but have only managed to come up with just 51 colours, shades or tints. These are: red, blue, buff, fawn, grey, pink, puce, ruby, wood, amber, azure, beige, black, brown, coral, cream, ebony, green, hazel, khaki, mauve, ochre, olive, sable, sandy, sepia, white, auburn, bluish, cerise, cherry, claret, flaxen, golden, indigo, maroon, orange, purple, silver, violet, yellow, carmine, crimson, cyanine, magenta, saffron, scarlet, lavender, navy-blue, sapphire, chocolate and vermilion.

I would be very interested to see in print the manufacturers' list of the millions of colours they boast about. Incidentally, one issue of *Atari ST Review*, at about 800 words for each of, say, 100 pages, could only list about 80,000 words, and would require almost a year's worth of issues to list the names of only the first million colours. Please do not even think about using the pages of your excellent magazine for such a trivial task.

Douglas Hutchinson, Glasgow

On-screen colour is generally made up of a blend of Red, Green and Blue, hence the term "RGB" used to describe many computer monitors. Let's say that you have eight steps for each of these; by combining them together, you end up with 8 x 8 x 8 or 512 colours as the total palette, which is the case with a standard ST. The STe offers 16 steps of each colour leading to a total palette of 4,096 colours. However, not all of these "shades" has a specific name.

If you want to see this, setup XCONTROL from our cover disk, as described earlier in this magazine, and ensure that the COLORVDI CPX is loaded in. Push the red fader right to the top; what colour do you get? Red. Now take the fader down a notch. What colour do you get now? A slightly paler shade of red, but could you accurately name this colour? Yet if you place the two tints next to each other you can see the difference, and it's these slight changes that allow us to see and print smooth colour graduations. Colour naming and



Loads a colours - TruePaint's colour wheel shows tints by the thousand...

HP DESKJET AND TIMEWORKS

DTP problems? Then Nial Grimes is your man...

Help! I am having difficulties with my new Hewlett Packard DeskJet 510. I'm using a 1Mb STE, with *Timeworks Publisher 2* and no matter what I adjust, it will not print below 3cm from the bottom edge! I have set *Timeworks DTP* to A4, set the printer to A4 (as well as trying every other DIP switch combination) but to no avail. But, as soon as I load up *1st Word Plus* everything is fine - print will continue to a reasonable 1.5cm as you'd expect!

Martin Waterhouse, Bedford

Could you please answer a couple of questions I have regarding *Timeworks Publisher*, as I am thinking of upgrading to release 2, providing I can overcome two potential problems:

1. I have been told that using *Timeworks 2* at 300 dpi with a floppy-based system will limit the size and type of fonts available to me to the space available on my fonts disk (so that's 720Kb or so). If this is true, is there a way around this (a hard disk is not an option at this time) for instance, by creating a large RAMdisk?

2. I am using the original *Timeworks* given away back in issue 7, but I cannot seem to print to the bottom 3cm of an A4 page. My printer is an HP DeskJet 510. This doesn't appear to be a problem with the printer as I have no problem with printing to within half an inch of the bottom of the page with other applications: *Write On*, *K-Spread 3* and so on.

If there is no solution to either, or both, of the above, would I be better off going for *Easy Text Vector* and *SpeedoGDOS*, running from a RAMdisk?

Finally, I am using a 1040 STe upgraded from new to 2Mb. Can I upgrade to 4Mb by purchasing your 2Mb upgrade offer? If not what is my best way forward?

Phillip Hills, Leics.

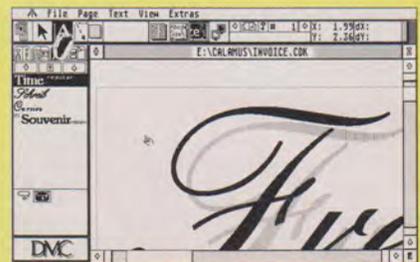
Timeworks 2 will indeed restrict you to one disk full of fonts. By creating a ten sector format disk (using Fastcopy III or similar) you can push past the 720K limit to about 800K, but that's still not an awful lot of space to play with. In theory, with a reset-proof RAMdisk and a lot of patience you could increase that space a little further, but as the ASSIGN.SYS file is checked at boot-up time it could get very complicated.

As for your page size problem, this is down to the Timeworks printer driver, some versions of which refuse point blank to print beyond the 11 inch mark (US Letter size). A replacement used to be available, but unfortunately the company that produced it disappeared some time ago. However I do seem to remember that the driver supplied with Timeworks 2 was a proper A4 version. If yours isn't, it might be worth contacting GST to see whether they can supply a suitable replacement.

Easy Text Vector is a nice system, but once again it does really prefer to be run from a hard disk. To be honest, your best bet would be to go for Calamus. Although it might take you a while to adjust from the relative comforts of Timeworks, Calamus 1.09n runs well from two floppy drives and you can use as many fonts as will squeeze into memory - quite a few on a 2Mb machine. You will, of course, need a mono monitor to go for this option.

And finally, upgrading your STE to 4Mb can indeed be performed with the 2Mb upgrade offer. For 99% of machines it's a relatively simple operation and should be within the capabilities of most ST users. Nial Grimes

King of the jungle - the more memory you have with Calamus 1.09N, the more fonts you can load...



perception is very subjective. I'm certain that many readers will be looking at your list, Douglas, and coming up with 10 or 20 further names. But if you really want to see the difference, take a colour picture saved in .GIF or .TIF format and view it on an ST and then on a Falcon from GEMView...
Vic Lennard

PORT PUZZLE



I have owned my Falcon (TOS 4.04, 4Mb RAM, 85Mb internal IDE hard disk) for nearly a year now and most of my old software runs on it

without any problems - in fact, with a great deal of improvement, especially *Pagestream*.

But I have two questions. What is the difference between the cartridge port on the Falcon and that on the ST. Some devices work happily on both, like the dongle for *Cubase 3* but not, for example, my *Unitor-C* MIDI expander.

I understand that the *Midex* expander can be modified to work on the Falcon, so can a similar modification be done to *Unitor*.

Secondly, why do I frequently get "not enough memory" messages when I certainly do have enough memory for the task involved. For example, while typing this letter with *Word Writer*, I tried to load the *General Setup CPX* using *XControl* and was told "There is not enough memory to load the CPX."

By the way I have phoned the Atari "helpline" regarding these and other Atari-specific problems and would have got more help from my cat - if I had one...

I Pearce, Essex

The difference between the cartridge port on the Falcon and the ST was never documented by Atari. Nevertheless, there is a difference which only manifests itself with some devices while others work perfectly, apparently due to several of the pins having different memory addresses. There is no way to modify the Unitor so that it works with the Falcon - I suggest you contact Sound Technology on 0462 480000.

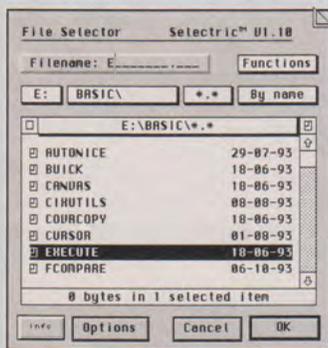
The Control Panel allocates memory as and when you try to load a module. The problem is that some programs like *Word Writer* and *1st Word Plus* grab all available memory and so the Control Panel cannot load the module. One way around this is to use the *CONFIG CPX* and make all the modules you require memory-resident. The other solution is to get a PD patch program, like *Reserve*, which prevents programs from grabbing all the memory for themselves.
Ofir Gal

*Criticism?
Adulation? Speak
your mind and be
awarded with a
£25 cheque the
for Star Letter...*

SHAKY SHAREWARE

I have read with interest recent comments in *ST Review* about the poor returns to shareware authors. However the other side needs to be stated:

1. Regarding the difficulty of payment to programmers overseas, I discovered that the total transfer cost



You decide – is Selectric worth £9?

LETTERS

to the USA of one shareware package was more than the purchase price of a (superior) commercial package in the UK!

2. Shareware authors appear to be greedy. The programmer of the stunning commercial game *Elite 2* (RRP: £30) will probably earn no more than £5 per copy sold. Shareware authors typically want £5 to £20 for trivia like improved file selectors; moreover they do not have to get involved with writing popular manuals and distribution. Shareware authors would undoubtedly get better results by a policy of "pile them, sell them cheap".

3. The high memory requirement. Far too many shareware (and PD) utilities do not justify their exorbitant memory requirements, regardless of cost (to say nothing of problems of compatibility if too many are installed). Therefore distribution numbers should not be taken as a measure of royalties due.

4. Handing out unrequested copies

of shareware (for example, by *ST Review* and certain PD houses that do not differentiate in their advertising between PD and shareware titles) represents a form of inertia selling. Under British law, such unsolicited items become the property of the recipient after six months.

I'm all in favour of the principle of "crippleware" (shareware with some features disabled). This makes the programs into demo items only. And I suspect that shareware authors will find sales from crippleware demos to still be so lousy that they might think about lowering their prices to more realistic levels...

P. Fletcher, Berks.

One at a time...

First, as mentioned in the reply to the star letter, it is a pain to have to send a small payment to the States. Point taken and accepted.

Second, everyone who legitimately uses Elite 2 has paid for it.

The programmer was probably paid an advance which was then deducted from future royalties. This is not the case with shareware products – the majority of those who use such programs on a regular basis in the UK do not appear to pay for them. Take the example of Selectric, a piece of software of a genre that you refer to as "trivia". There are less than 50 registered users over here; in Germany there are over 1,200 such users. Is a file selector with substantially superior features to the Atari version worth £9? Put it another way – how often in a day do you play Elite? And how often do you utilise a file selector...

Third, if you buy a commercial program and find that it's too large to comfortably be used on your ST, tough. But with shareware you can try before you buy – and register if, and only if, you regularly use the program. Failure to do this will ultimately lead to

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.

OPEN LETTER TO ST FORMAT

As the editor of this magazine, I have the responsibility of ensuring the accuracy of whatever is written in the name of *ST Review*. This is a role that every editor should play, but recent comments from within the April 1994 *ST Format* subscriber's newsletter, *Between The Covers*, and on the rear cover of the magazine appear to question this:

● "We currently produce around 80 editorial pages per month...". This is economical with the truth. Editorial is defined as: "a newspaper article written by or on behalf of an editor..." (The Concise Oxford Dictionary), but the quoted figure of 80 editorial pages includes offers, subscriptions and advertisements for internal magazines such as *PC Format* and *Future Music*. In terms of true editorial, *ST Format* has not produced 80 pages since Issue 41, December 1992, a 140-page issue. Since reverting to 100 pages, true editorial has been less than 74 pages per issue.

● "The number of editorial pages has barely changed over the last two years". This is a blatant untruth. Going back two years to issue 34, May 1992, almost 132 pages of the 180-page issue was dedicated to "editorial" in *ST Format* terms, or 116 pages of true editorial – over fifty per cent up on the current scenario.

● "You won't find a better Cover Disk on any ST magazine". Not by any measure, in terms of quality or quantity, can this be accurate. Since becoming a Europress publication in May 1993, *ST Review* has included ten commercial programs on cover disk, more than twice the number on offer from *ST Format*. The April issue is a

perfect example: a full, commercial organiser along with a further eight utilities on *ST Review*; two shareware games, two demos and two utilities on *ST Format*.

This is not a case of one editor attempting to take the moral high ground over another; an editor of any magazine must be accountable to its readers. My criticism is based on being a long-term *ST Format* reader (since it shared its title with the Amiga) and as a former writer for the magazine.

While *ST Format* comfortably outsells *ST Review*, this is due to the magazine being aimed at a different market of readers – 26 pages were devoted to games in the April 1994 issue. However, the responsibility of attitude to dedicating 16-page sections over the last three issues to a games machine that is unlikely to be freely available in the UK until 1995 is certainly questionable.

No comment is made regarding quality of editorial; this is for you, the readers, to decide. *ST Review* is penned by a team of some 20 writers, many of whom are experts in their subject area. All are ST enthusiasts – and none more so than myself which accounts for why *ST Review* has very few errors, both in terms of production and accuracy of fact. To ensure such quality, *ST Review* is not prepared to adopt a similar policy to *ST Format* of allowing a single employee to write more than 25 pages, issue after issue, in the cause of cost-cutting.

This is an open letter; if a reply is forthcoming from Ms. Richards, it will be printed. I trust that any such response will be based on fact.

Vic Lennard, Editor

HOW DO I PAY?

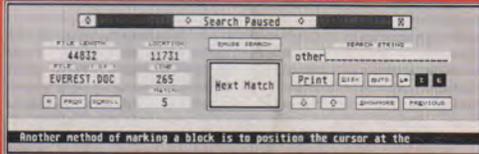
On the cover disk of issue 21 was a demo of a program called Nosey. To obtain the full program, you need to send \$10 to the USA.

I asked my bank if writing a cheque for \$10 and posting that to America would result in my receiving the program and was told "no"! Apparently one is not allowed to send currency out of the country, so maybe you can explain how one can obtain this program.

I am not being critical but some explanation in the magazine of how to get hold of this program would have been appreciated.

T. Yendle, Mid-Glamorgan

I put your question to my local branch of Barclays Bank and obtained the reply I expected, having trodden a similar path some years ago. You can buy \$10 in notes, place it in an envelope and send it to the States – but cash cannot be insured and you have no way of ensuring delivery; even Express mail doesn't guarantee that an item is received by the addressee. However



Yes please – here's the demo, but how do you get the full program?

such an action, I have been reliably informed, is not illegal.

The alternative is to buy an IMO (International Money Order) which will cost you

£7 on top of the cost of the \$10! While the cost for an IMO is immediately deducted from your bank account, should it go missing there is a claims procedure though this can take some time.

Before anyone writes in and suggests opening an American dollar account in the UK, I've tried that! As the USA is constructed of various states, you will often find that banks are state-specific – there isn't a clearing house system like the UK. This is why you will often find that American companies state that cheques sent to them have to be drawn on an American bank or transferred to a specific account number; sending a dollar cheque drawn on, say, Barclays in the UK can incur substantial charges for the American company. And for you to hold a bank account with an American bank entails the transfer of currency from the UK to the USA which incurs substantial costs for you!

I sympathise with your predicament – and we haven't even mentioned the fact that as you are effectively buying a product from the States, there may be the question of VAT and import duty! If anyone has a solution, please drop me a line. In the meantime, perhaps you'd like to use the lion's share of your £25 to get the full version of Nosey via an IMO...

£25 STAR LETTER

the disappearance of some of the best applications we've seen on the ST. That would be a shame, especially as two of ST Review's writers actively distribute "supported shareware" – German programs that have been accurately translated into English. Such a system ensures that sterling payments can be made for registration in the UK – and surely nobody can question the quality of the likes of Kandinsky, GEMView and Everest?

Fourth, how can you say that the software on ST Review's cover disk is unsolicited? You choose whether or not you buy the magazine and while I haven't investigated the legal implications, I would be very surprised if your point is factually accurate. Of course, I stand to be corrected if needs be.

I'm not too certain what your beef is. Shareware is like good advice – you can choose whether or not to accept it but it's clear from your letter that you've had bad experiences with some shareware programs. Perhaps you, and other readers, would like to write in and detail the good and bad programs in this category – and honestly own up to whether there are shareware products in your collection that you regularly use but haven't registered yet...

ALL IS FORGIVEN

First came an Amstrad 464 – nice, but a lot of typing. Next came an Atari STF520 – brilliant and input-downable. Then came a PC 386...

At first there were few problems but in the course of a year, less and less worked properly, each boot-up being a new experience. Now, little works without a lot of CONFIG.SYS-ing and AUTOEXEC-ing. No wonder the makers and publishers give a

lifetime helpline – you need it, and you need to understand DOS and Windows or none of their advice helps.

I am not prepared to struggle every time I start up just to run a program so I have given the PC to my son and now have my ST back. I wonder how many ex-ST, PC users will return from frustration to the ST and your magazine, like me. I have learned to my cost that vast games, stunning graphics, and fabulous hype soon lose their charm when they won't run. How about this; the last PC magazine I bought had the cover headline: *Solving the 50 most common problems on the PC!* Nuff said...

John Birch, London

There are two words in your letter that go together perfectly: PC and hype. The PC was never intended to provide 8-bit colour via an S-VGA monitor and to run art, graphics and music programs. Use a spreadsheet, database or business application under DOS and you'll see the power of the machine; the problems really start when you run that kludge of an environment, Windows.

I'm not going to get involved in a slanging match with any of you as to whether a PC is better than an ST; let's just accept that there are horses for courses. But if anyone ever succeeds in convincing me that the words "PC" and

"user-friendly" belong in the same sentence, I'll eat that item on the top of my head. And no, I don't wear a wig!

THANKS!

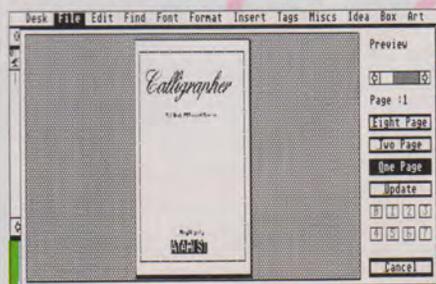
Many congratulations and thanks for a superb cover disk on the March issue, namely *Calligrapher*. I am quite inexperienced when it comes to computers as I have been "dabbling" since I retired a year ago, but I don't need a great deal of experience to recognise a gift when I see one.

I buy your magazine regularly every month and it is always to be found by the side of my chair so that I can put my hands on it any time. I have especially enjoyed the DTP tutorial series by Nial Grimes and am now looking forward to his *Calligrapher* Tutorial with eagerness. I must tell you that I never write letters of praise to magazines but I am so impressed with this cover disk that I had to tell you what a novice thinks. *ST Review* is the number one magazine for the ST and if you carry on with such excellent work, it will always be so!

Ken Turner, Gwent

I rarely print letters such as yours Ken, because I would hate readers to think that we need to resort to such flattery. But just now and then, it's nice to know that my job isn't quite as thankless as it sometimes feels! Cheers guy...

You're welcome – Calligrapher appears to have gone down a storm with you...



FALCON SUPPORT

Thank you for mentioning the Falcon Fact File in the news section of issue 21. I hope you will print this letter to give a little more detail of what the FFF is all about.

The Falcon Fact File is a free-to-join Membership club set up to encourage users to help users. Application forms can be obtained by sending a stamped self-addressed envelope. The completed form should be returned to us with a High Density disk and stamped return envelope. Members' details will be added to the FFF and the disk returned along with a selection of the best Falcon PD Shareware to fill the disk. The file itself is a *NameNet Address Manager* data listing of all members. The version of *NameNet* sent, apart from displaying the FFF, is also a demo of the shareware version of *NameNet*. The FFF is updated regularly, members can upgrade at any time by returning their disk – with return postage!

If you are thinking of buying a new word processor, find a member who has the one you are interested in and give them a call to ask what they think of it.

Or if you have just bought a printer and are having trouble setting it up with your word processor, look for a member with the same or similar set-up and call for advice. In this way you soon build up a merry band of contacts (*do you include the Lincoln-green tights... Ed*).

We are not a commercial organisation or sponsored in any way, therefore it is imperative that stamped return postage is supplied with all correspondence.

Colin Fisher-McAllum,
Hampshire

Good luck Colin and stay in touch...

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