RITAIN'S BEST-SELLING ST MAGAZINE

ST FORMAT

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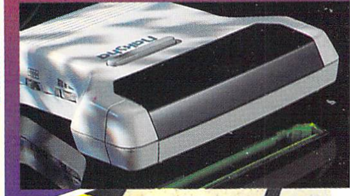
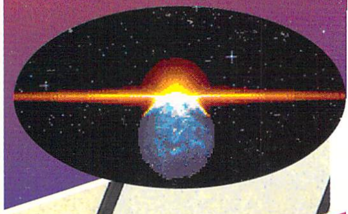
We round up the best hand scanners



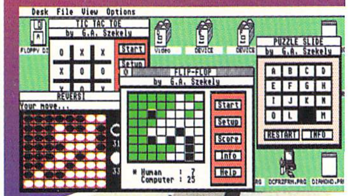
ARE YOU GREEN?

And do you need to be in the world of ST games?



ACCESSORIZE!

Inside! Over 35 essential Desk Accessories



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Desk  File  View  Options
TIC TAC TOE
by G.A. Szekely
Start
Setup
FLOPPY DI   Video   DEVICE   DEVICE
PUZZLE SLIDE
by G.A. Szekely
RESTART   INFO
FLIP-FLOP
by G.A. Szekely
Start
Setup
Score
Info
Help
* Human    : 7
  Computer : 25
REVERSI
Your move...
DCFRZFRM.PRG   DIAMOND.PR
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We show you how to make light of art on your ST - it's as easy as painting by numbers

ILLUMINATE IT!

4 COVER DISK

ST FORMAT

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A severe blasting all round

Little bugs meet their maker in INSECTICIDE

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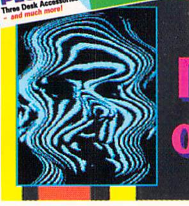
COVER DISK 44



15 PROGRAMS on this disk!

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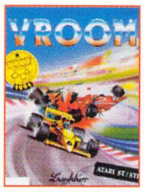
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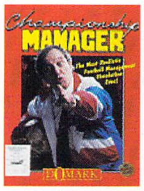
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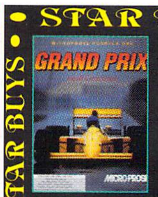
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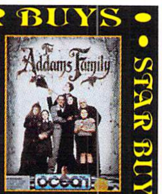
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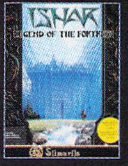
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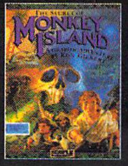
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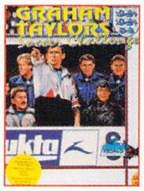
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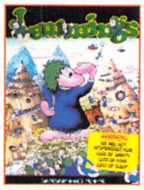
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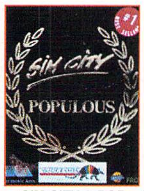
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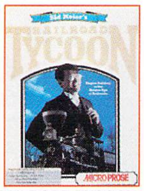
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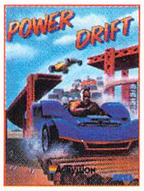
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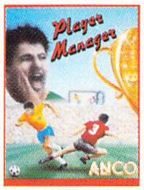
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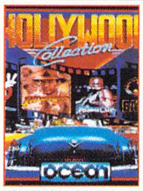
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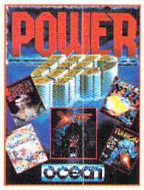
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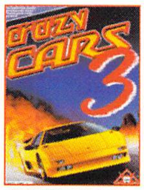
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Editor Paula Richards
Art Editor Steve Fardy
roduction Editor David Roberts
Disk Editor Chris Lloyd
Technical Editor Clive Parker
Staff Writer Rob Mead
Art Assistant Helen Hayward
Contributors
Billy Allan, Stuart Campbell,
Peter Crush, Andy Curtis,
ac Marsden, Jon Pillar, Ed Ricketts,
Tony Wagstaff, Mark Winstanley
Photography
Ashton James, Stuart Whale
Cover Illustration
Barry McCullock
ADVERTISING
Ground Floor, Rayner House,
23 Higher Hillgate,
Stockport SK1 3ER
Advertising Manager
Gail Blincow
☎ 061 474 7333, fax: 061 476 3002)
Ad Sales Exec David Eckett
(☎ 0225 442244)
Ad Production Laurie Van Huss
(fax: 0225 423929)
EDITORIAL
30 Monmouth Street,
Bath, Avon BA1 2BW
☎ 0225 442244 • FAX: 0225 465982
BBS: 0225 461330
Telex: 9312134560 (FU G)

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e would also like to point out that we cannot be held responsi-
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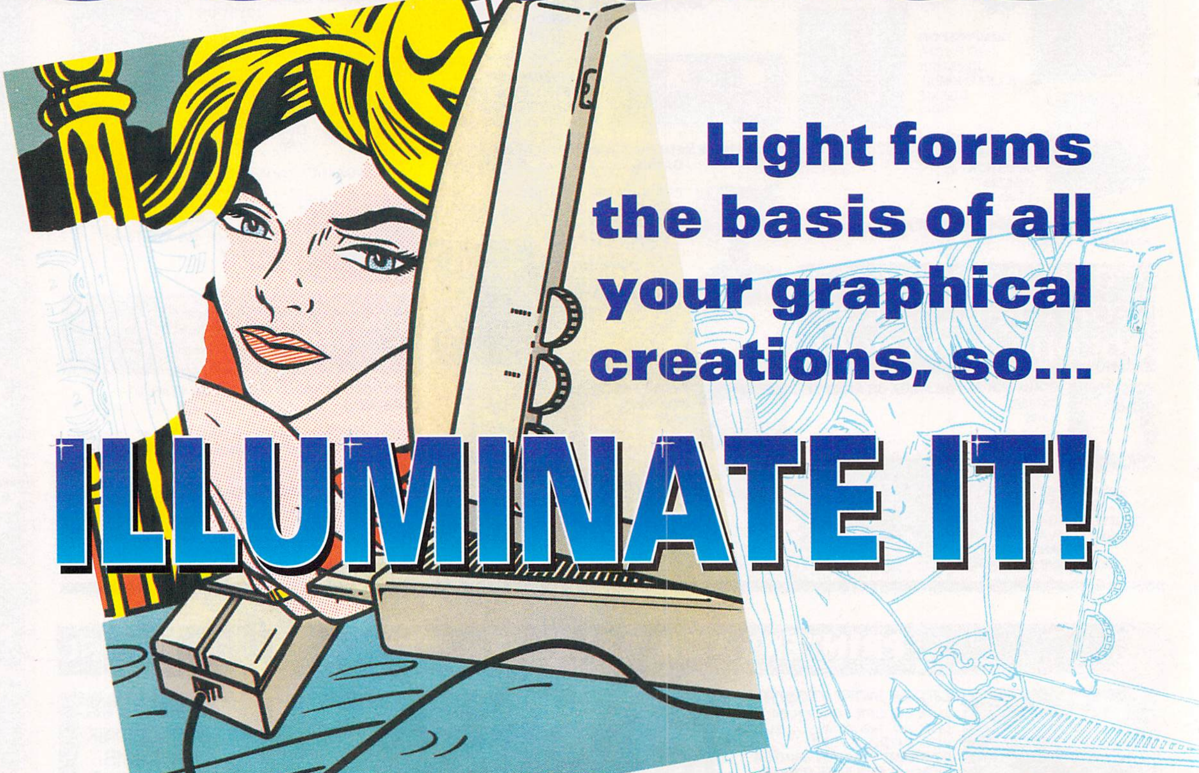

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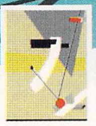

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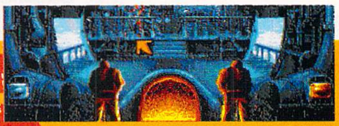
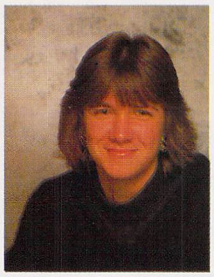


■ Fancy an adventure on a train? Turn to page 78.



Paula Richards, Editor

WELCOME TO *ST FORMAT!*

How's this month going for you? Well, I trust – even if it could be better we're here to brighten your day with another great issue of *ST FORMAT*. As usual we're covering a huge selection of subjects so there's bound to be something of interest to you whatever your passion. Starting on page 14 there's a huge feature on getting into art and graphics on your ST, taking inspiration from great – or at least famous – artists. Tying in with this is the ultimate scanners roundup starting on page 38 – you can even find out how they work! We go on to discover how well games producers are into the '90s, supposedly the decade of environmental friendliness and general goodwill to all mankindm whatever your colour or sex. There's also the usual wide selection of news, games and serious reviews, hints and tips – and more – that you've come to expect from *STF*. Fill out the coupon on page 35 if you've anything to say about the issue – I look forward to hearing from you. Have a brilliant month.

SCANNER FORCE

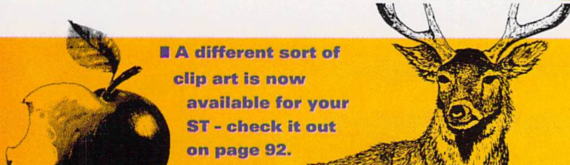
Check out our roundup of hand scanners before you buy one – *ST FORMAT's* essential selection is on page 38

DO ST GAMES REFLECT THIS DECADE?

And should they bother trying? Turn to page 42

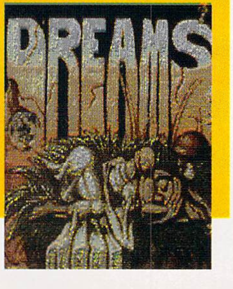
THE BIGGEST BEAT-'EM-UP?

Street Fighter 2 **comes to your ST – does it live up to the hype? Find out on page 76**

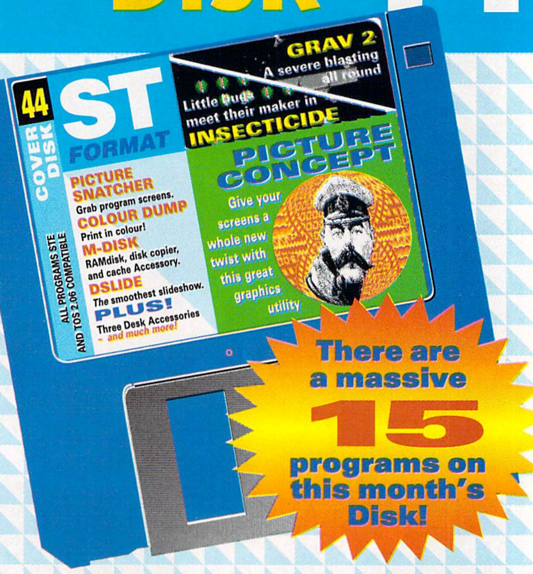


■ A different sort of clip art is now available for your ST – check it out on page 92.

■ Delve into your unconsciousness in *Dreams* from the PD.



COVER DISK 44

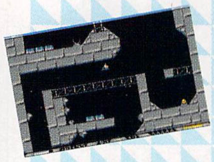

44
COVER DISK
ST FORMAT
ALL PROGRAMS STE AND TOS 2.06 COMPATIBLE
PICTURE SNATCHER
Grab program screens.
COLOUR DUMP
Print in colour!
M-DISK
RAMdisk, disk copier, and cache Accessory.
DSLIDE
The smoothest slideshow.
PLUS!
Three Desk Accessories – and much more!
GRAV 2
A severe blasting all round
Little bugs meet their maker in INSECTICIDE
PICTURE CONCEPT
Give your screens a whole new twist with this great graphics utility

There are a massive 15 programs on this month's Disk!

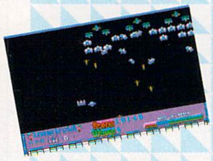
INDISPENSABLE!

There are so many brilliant programs on this month's Disk that "indispensable" is the only way to describe it. First up, to tie in with the graphics feature (starting on page 14) there's *Picture Concept*, which enables you to distort your pictures in weird and wacky ways and *Deluxe Slideshow* so you can view all your creations. Then, as part of the Matching Tie and Handkerchief feature starting on page 48 we've got five Desk Accessories, including three games – *Puzzle Slide*, *Tic Tac Toe* and *Flip Flop* to entertain you when you should be working! *MDisk*, an incredibly useful disk utility and *Monitor Magic* make up the total. *Insectroid* is exclusive to *STF* and gives you the chance to bash the hell out of all those nasty creepy crawlies – serves them right for existing, really, doesn't it? Also on the games front is the great *Grav 2* – be prepared for lots of wall-bashing. On top of this there's the *Supreme Screen Snatcher*, *Colour Dump*, *Spectrum 512 Colour Printer*, *Funk Alert* and much, much more.

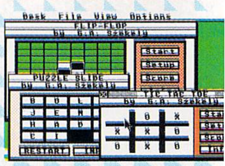
■ Distort your pictures like this!



■ *Grav 2* earned a huge 83%...



■ Erase your irrational fear of bugs with *Insectroid*.



■ Oi! You should be working!

TURN TO PAGE 22 FOR THE FULL DETAILS!

Dracula, The Frankenstein Monster, The Mummy, The Wolf Man, The Bride of Frankenstein and The Creature from the Black Lagoon. Classic monsters from a movie age gone by. But more than that... creatures from our oldest dreams and our darkest nightmares. They have met and battled before, but now they are back. Back to form an unholy alliance to make our worst fears turn into a terrifying reality.

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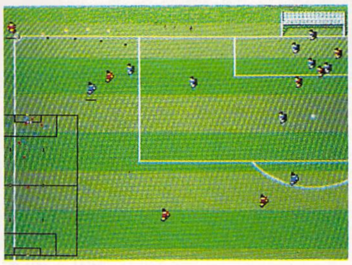
THIS ISN'T *KICKOFF* 3

Dino Dini, the creator of *Player Manager, Kick Off* and *Kick Off 2* has deserted Anco for Virgin and has taken his brand new footy game with him.

Dino Dini's Goal, as the game is provisionally titled, looks set for release on the ST in May, price £30.99. Although the game is essentially the same as its predecessor, Dino has reconfigured the joystick controls to make gameplay easier and included individual player statistics which determine team members' skills and likelihood of injury. In *Kick Off 2,* players went from rest to full speed with the flick of the joystick, while in *Goal,* players actually accelerate and decelerate like the real thing. They can no longer suddenly change direction either, but have turning circles associated with the speed at which they're travelling – the faster the player is going, the larger the turning circle. Dribbling with the ball is now more realistic, because you have to slow down before you change direction, otherwise you lose the ball.

Goal retains the ability to customise team strips and there are also replay, video playback and slow motion options – video playback during replay operates like the real thing and you can even watch a sequence backwards. Other features include aftertouch and the ability to set throw In and free kick trajectories. The gameplay has been improved with the inclusion of bigger player sprites and an improved viewing angle – you now see the action at a 45 degree angle rather than at 20. There are also larger scale pitch sizes for a close-up view of the action. For further information about *Goal* phone Virgin on ☎ 081 960 2255.



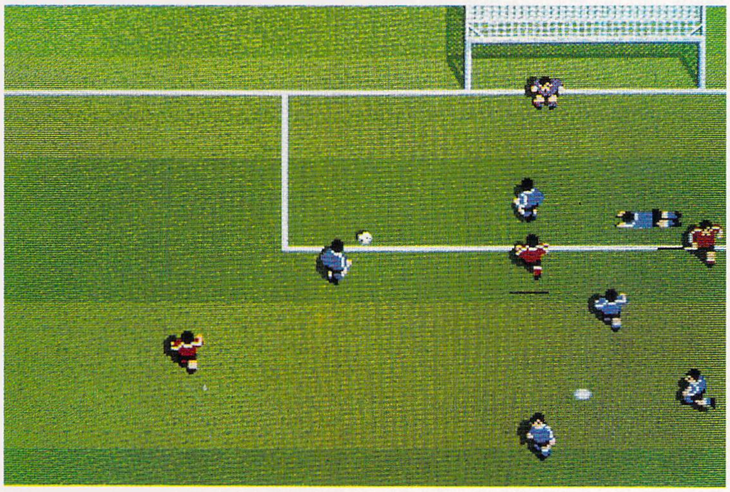
Thankfully, *Goal* doesn't have any offside rules and, unlike in *Kick Off 2,* your automatic players won't go around fouling the opposition - Dino's left that for you to do.

Because Dino's still working on the ST version he's offering readers of *ST FORMAT* the chance to get in on the act. Simply answer the three questions below and Dino will name *Goal's* referee after you, and, naturally, you'll get a complimentary copy of the game.

1. What was the name of Virgin's last footy game on the ST?
2. Where has Gazza gone?
3. How many pixels make up the player sprites in *Goal?*

Send your answers on a postcard to; Shoot The Referee, *ST FORMAT,* 30 Monmouth Street, Bath BA1 2BW. Entries must be received before Friday 26 February 1993.

Rules 1. Employees of Future Publishing, Virgin Mastertronic, their relatives and programmers from Cambridge are not eligible to enter. 2. Duplicate entries will be posted to Brian Clough and given a severe ticking off. 3. No alternative prizes can be offered 4. The editor's decision is final. 5. Bribes, cream eggs and Cindy Crawford's telephone number would be greatly appreciated but won't make any difference to our decision.



He shoots, he scores... he gets a £2 million transfer deal. *Dino Dini's Goal* in close-up. The sprites are now 16 x 24 pixels high which makes for a much better gameplay than in *Kick Off 2.*

GREYSCALE MONITOR

If you strain your eyes using a TV for medium resolution word processing, and can't afford £150, why not get the ViewTek VT12 monitor from Silica Systems? The VT12 is a greyscale 12 inch stereo and mono monitor compatible with ST low and middle resolution modes. This makes it ideal for word processing and other application software that run in medium res. The monitor costs £69 including a mono emulator – call Silica on ☎ 081 309 1111 for more details.

At last a low cost medium resolution monitor for your ST. OK, so it's a greyscale monitor, but what do you want for £69? At least it has stereo speakers for those fantastic stereo sound samplers!

SNIPPETS

New vector graphic tool

DA's *Vektor* is a professional colour vector graphics program from CGS ComputerBild, and it's compatible with any ST, TT and Falcon sporting at least 2MBytes of RAM. The program is designed to be used with a graphics board and supports 16.7 million colour (24-bit) graphics at a minimum screen resolution of 640 x 400 pixels. The graphics editor has a huge variety of functions including object scaling, rotation and projection onto 3D Bezier surfaces.

Postscript Type One and *Calamus* fonts can be used, charts can be generated and there is a full vector animation suite enabling animations to be created and recorded to video tape, or replayed by a special movie player program. A number of file formats are supported by *Vektor* including GEM Metafiles, Didot VG files, CVG files and Postscript EPS files (export only). The program can also read a number of other picture formats including IMG, TIFF and *Degas.*

DA's *Vektor* will be on sale at the Seventh International Computer Show for under £200, and CGS claim it is as good as *Didot Professional.* CGS ComputerBild are on ☎ 081 686 8121.

Working improvements

Working Title have upgraded *Calligrapher Professional* and *Calligrapher Gold* to v3. While they have made various improvements to the program, its general look and feel remain exactly the same with most of the changes being "behind the scenes." The main improvement is that GDOS has been written into the main program code of *Calligrapher* and does not need to be run as a separate program, making *Calligrapher* more compatible with other GDOS programs such as *NVDI* and *Timeworks.*

You need at least 1MByte of RAM to use *Calligrapher Professional 3,* and *Calligrapher Gold 3* requires 1MByte of RAM and a hard drive. *Calligrapher Professional 3* is £99.95 and the *Gold* version costs £139.95. Call Working Title on ☎ 0865 883592 for upgrade prices from v2. A Falcon030 version of *Calligrapher* is in the pipeline but there is no firm release date as yet.

Mono monitor

Since there are no Atari mono monitors available on the market at the moment, Gasteiner (☎ 081 3651151) have come up with an alternative fully compatible 14 inch paperwhite high resolution monitor. Costing £149, the monitor is compatible with the entire range of ST machines and comes complete with speakers, volume control and an SM144 style tilt and swivel base.

SHOWING SOON!

The season of shows is upon us, so make sure you take note of these dates in your diary

MIDI show

The fourth MIDI and Electronic Music Show has managed to drag itself away from the Novotel to the Wembley Conference Centre this year. The show will be showing the latest MIDI innovations from Roland, Yamaha, Fostex and Korg along with many others, and includes seminars on *Cubase* and other ST related products. There will be reams of stuff for all ST MIDI musicians to get their teeth into. The show runs from Friday 23 April to Sunday 25 April and tickets cost £8 on the door for adults or £6 children under ten years old – advance tickets can be obtained for £4 by calling ☎ 081 547 1183.

Ten pairs of Ideal Games Show tickets to be won

There's an added attraction to the Ideal Home Exhibition this year with the arrival of the Ideal Electronic Games Show.

The Show is to feature major exhibitions from software publishers and hardware manufacturers, competitions and non-stop arcade action. People going to the Games Show can also get into the *Daily Mail's* 70th Ideal Home Exhibition with its extensive displays of domestic and entertainment products.

Daily Mail
ideal home plus
EARLS COURT, LONDON
18 MARCH - 12 APRIL 1993

The Show is being held at Earl's Court 2 between Thursday 25 and Sunday 28 March 1993. Tickets cost £7 each, but ten pairs of lucky *ST FORMAT* readers can sneak past the doorman and not pay a penny. All you have to do is answer the following questions and send them on a postcard to the Ideal Game Show Compo, *ST FORMAT,* 30 Monmouth Street, Bath BA1 2BW by Friday 26 February, 1993.

1. Who invented the flush lavatory?
2. How many colour registers are there in the medium resolution setting on your ST?
3. In which year did the BBC first begin television broadcasting?

Rules: 1. Employees of Future Publishing and the *Daily Mail* Ideal Home Exhibition are not eligible to enter. Neither are their friends, relations or domestic appliances. 2. Multiple applications will be force-fed to the *ST FORMAT* liquidiser. 3. The editor's decision is final. 4. Entries received after the closing date will be forced to go on caravan holidays to Totnes for the rest of their natural lives.

Seventh show

The famous 16-bit shows of the past have yet again been renamed, to the Seventh International Computer Show and it takes place at Wembley Conference Centre between Friday 19 and Sunday 21 February. Attractions include virtual reality, music, advice centres and the Falcon030 making its first UK public show appearance. Even Atari are to be there! Tickets are £6 and £4 on the door or £5 and £3 for advance bookings, call ☎ 0726 68020 to book your tickets.

Midlands show

The Telford Exhibition Centre is playing host to "the largest collection of computers, games, hardware and accessories ever (in this area)" at the Computer Shopping Spectacular on the weekend of 6 and 7 March. Competitions, demonstrations and a roadshow are all part of it. Full details from Nelton Exhibitions, ☎ 0474 536535.

AFFORDABLE COLOUR PRINTER

■ **Seikosha launch yet another printer onto the the burgeoning market, the rather snappily named SL-95 - oh, and it prints in colour too.**

The new SL-95 24-pin colour printer is being promoted as an affordable high quality colour printer costing just £249, and is intended as an entry level machine for small businesses, local authorities and for educational use.

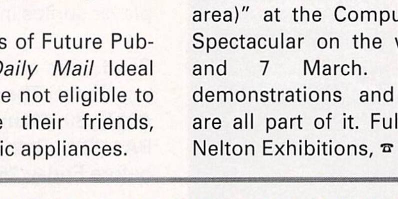
The printer is equiped with a 43K printer buffer and has reasonably high printing speeds of 240 cps super draft, 192 cps draft and 64 cps in LQ mode. Epson LQ 850 and LQ 860 emulations are built-in, so it can be used immediately with practically any software.

A 12 month on-site warranty is offered for an extra £10 and a cut sheet feeder is available for £82 – both are useful optional extras. If you would like anymore information about printers and accessories, call Seikosha on ☎ 0753 685873.

DESKTOP VIDEO EDITING

Editman Super is a professional hardware desktop video editing module from Syntronix which uses the ST for controlling a complete video editing setup. Two VCRs (plus other video sources such as camcorders) can be connected to the Editman Super editor and the ST, and the computer controls the entire editing process without using expensive timecode equipment.

The ST can be used to import captions or graphics while you are editing tapes – animation and A/B Roll editing functions are now supported with programmable fades, dissolves and other special effects. The Editman is also compatible with 24-bit colour cards and other video effects ensuring that future developments are fully supported. For additional information on the Editman, call Syntronix on ☎ 0332 298422.



■ **Ignore the overpriced PC in this picture, the Editman Super desktop video editing suite works perfectly on your ST system.**

Now you too can put together unrelated clips of popular media stars to produce misleading news items, don't forget to splice in those "noddy" shots.

SNIPPETS

Inkjet refills

Care Electronics are now supplying low cost HP Deskjet and Canon Bubblejet ink cartridge refills, costing £14.95 for three refills or £24.95 for a pack of six. The refills are available in black, magenta, yellow, cyan, red, blue, green, brown, purple and black. Care can be contacted on ☎ 0923 984064.

Imagecopy colour

The ST Club continue with their policy of releasing low-cost high quality software with *Imagecopy Colour.* This new version of *Imagecopy* enables colour pictures to be printed on dot matrix and inkjet printers with full control over blueness, brightness and contrast of the images. Colour separations can be printed on black and white printers which can be superimposed to produce colour output by feeding the paper through the printer several times. *Imagecopy Colour* can be used to produce full colour pictures using *Hyperpaint* on a wide variety of colour printers. The program costs £14.95 from the ST Club ☎ 0602 410241.

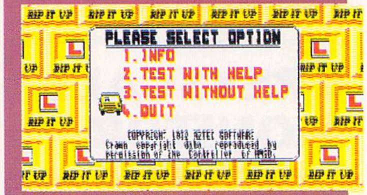
Little drummer boy

If you want your MIDI drum patterns to have a bit more "feel" to them, you need the *Realfeel Groove Library.* An enterprising professional drummer has drummed 99 drum patterns directly into a sequencer using drum pads, giving more realistic sounds than programmed drum patterns. Volume One contains a whole range of patterns including rock, soul, funk, reggae, latin, indy and jazz for just £13.95. The patterns are available as *Creator or Notator* files or in standard MIDI file format. Call ☎ 071 241 0621 for more information.

Noddy says Oops!

Apologies to the Bell Fruit Manufacturing Company for printing the wrong contact number for *Noddy's Playtime* in *STF* 43. The correct number should be ☎ 0602 792838.

Pass first time



PLEASE SELECT OPTION
1. INFO
2. TEST WITH HELP
3. TEST WITHOUT HELP
4. QUIT

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■ **Want to find out why everybody flashes their lights at you when you're in the middle lane of the motorway?**

Aztec Software have come up with a novel idea to help you learn your Highway Code. *Rip It Up* features 150 questions about various aspects of the Highway Code, with road signs and symbols, making it ideal for learner drivers. The *Rip It Up* disk costs £4.95 and runs on all STs. Call Aztec on ☎ 0329 235249.

Atari Peripherals at Perfect Prices...

STOP PRESS...STOP PRESS...STOP PRESS
Atari Lynx BATMAN RETURNS pack now in stock at Merlin
The FALCON is coming!

New ATARI FALCON
Available Soon!

ailable in TWO configurations both packs include...
torola 68030 CPU 16MHz - 3.84MIPS, Possible 262144 Colours, ter Graphics Co-Processor, Super VGA: 640x480 - 256 Colours, e Colour 16Bit Mode: 640x480 - 65536 Colours, True Colour Bit Overlay Mode: 640x480 32768 Colours, SCSI Ports, Stereo dio In/Out, Analog RGB Colour [ST or VGA], Composite PAL-SC-SECAM-SCART, RS232 Serial, Bi-Directional Printer Port, di In/Out, 2 x Joystick Ports, 8 Channel 16Bit DMA Sound Port, MUCH MORE.... This is the one you've been waiting for...

" Disk Drive with 1Mb Version	3.5" Drive, 65Mb. Hard Drive, 4Mb. Version
Great New Atari £449.99	New Power Atari £799.99

ATARI 1040STE Family Curriculum
'Two Great Learning Packs'

TH PACKS CONTAINS...
ri 1040STE Keyboard, 1024K RAM, 256K ROM, 4096 Colours, Ports inc. MIDI, 8-BIT PCM Sound in Stereo, 1Mb. Floppy " Disk Drive, Mouse, External Genlock support, Built-in Modulator PLUS... Some Great Educational Software:

ay & Learn For younger members of the family, fun learning!
nior School Maths, Spelling, General Knowledge for Juniors.
CSE Revision Maths, French & Geography for GCSE levels.
reative Computing Paint, Music & Basic programes.

CK 1: The Business	PACK 1: Great Games
tains all the above plus... Vord Processor, Database, a Spreadsheet	contains all the above plus... Two great games: 9 Lives and Prince
Great Value... £289.99	Great Value... £279.99

ATARI 1040STE Music Master Pack
'The Melody Maker'

NTAINS...
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STEINBERG PRO 24 III

Track Recording, MIDI, Quantising, Score Edit, rid Edit, Cycling, Step Programming, UNDO, aster Track, Controller Mapping...BRILLIANT!

Great Value... £289.99

ATARI 520STE Starter Pack

NTAINS...
ri 520STE Keyboard, 512K RAM, 4096 Colours, Stereo, 1Mb. ppy 3.5" Disk Drive, Mouse, Built-in TV Modulator PLUS... EAT STE SOFTWARE:

oductivity Disk 1st Word WP, Neochrome Paint, ANI ST, Tour, Self Test Utility, Calendar, RAM Disk Accessory.
tertainment Disk Missile Command, Crystal Castles, ber Breakout, Battlezone.
art Disk STE Language Disk.

reat Value... 12K Version £239.99

TARI 520STE 1Mb LUS Starter Pack

the Atari 520 STE Starter Pack above but upgraded by Atari tribution to A FULL 1Mb. RAM MACHINE and also lusive of Family Curriculum software as follows...
y and Learn Pack - Jumior School Pack - GCSE Revision Pack usiness Computing Pack - Creative Computing Pack
MEMBER... You still get all the software [ie, Productivity, tertainment and Start Disk] as included in the 0.5Mb. pack too!

reat Value... Mb Version £289.99

star DOT MATRIX PRINTERS

	No. Pins	DPI	SPEED Draft/NLQ	No. Fonts	Buffer	Columns	
LC 20 Mono	9	240	150/38	8	4	80	£134.99
LC 200 Colour	9	240	185/40	8	16	80	£194.99
LC 24-20 Mono	24	360	230/75	10	16	80	£199.99
LC 24-200 Mono	24	360	220/55	10	7	80	£219.99
LC 24-200 Colour	24	360	220/55	10	30	80	£264.99
XB 24-200 Col[❖]	24	360	275/80	18	29	80	£Phone
XB 24-250 Col[❖]	24	360	275/80	18	76	136	£Phone

CITIZEN DOT MATRIX PRINTERS

	No. Pins	DPI	SPEED Draft/NLQ	No. Fonts	Buffer	Columns	
120D+ Mono	9	240	120/25	2	4	80	£129.99
SWIFT 9 Mono	9	240	160/40	4	8	80	£179.99
SWIFT 9 Colour	9	240	160/40	4	8	80	£184.99
224 Mono	24	360	160/53	4	8	80	£Phone
224 Colour	24	360	160/53	4	8	80	£Phone
SWIFT 24E Mono	24	360	180/60	7	8	80	£Phone
SWIFT 24E Colour	24	360	180/60	7	8	80	£Phone

OTHER TYPES OF PRINTERS

STAR SJ 48 STARJET PRINTER[❖] *Near silent Inkjet Printer similar to BJ10e but with Epson LQ/IBM Proprinter emulations.360dpi. 100cps. 28K Buffer.*	£239.99
CITIZEN PN48 NOTEBOOK PRINTER[❖]	£269.99
STAR LASERPRINTER 4[❖]	£769.99
Postscript compatible laser printer...Brilliant Quality Print!	£969.99

GENUINE RIBBONS

		Mono	5 Pack Mono	Colour	5 Pack Colour
STAR	Star LC10/20	£4.75	£19.95	£5.95	£27.95
	Star LC200	£6.49	£29.95	£12.49	£59.95
	Star LC 24/200	£6.99	£32.99	£12.99	£59.95
	Star XB Printers	£6.99	£32.99	£12.99	£59.95
CITIZEN	120D+/Swift9	£4.99	£22.95	-	-
	124D/Swift24	£4.99	£22.95	-	-
	Swift9/24/224/24E	-	-	£16.45	£76.95

GENUINE ACCESSORIES

	Printer	LC10/20/200	LC24-200	LC24-10	XB24-200/250
STAR	Sht Feeder	£69.99	£69.99	£69.99	£99/£149
	Buffer U/G	N/A	£32.99	£64.99	£32.99
	Font Cards	N/A	£27.99	£54.99	£27.99

CITIZEN	
120D+ Cut Sheet Feeder	£74.99
124D, Swift 9/24 Semi-auto Sht.Feeder	£44.99
124D, Swift 9/24 Auto-Sheet Feeder	£94.99
124D, Swift 9/24 Printer Stand	£24.99
124D, Swift 24 - 32K RAM Expansion	£13.99
Font Cards Swift 24 (6 Different Sorts)	£39.99ea

Please state printer model when ordering

CITIZEN STARTER PACK

£9.99 *when purchased with a Citizen Printer*
(£17.95 if purchased separately)

200 - Sheets of Continuous Paper, 5 - Continuous Envelopes, 100 - Cont. Address Labels, 1 - Amiga/Atari ST Printer Driver 3.5" Diskette

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WITH EVERY PRINTER (EXCEPT THOSE MARKED WITH AN [❖]) YOU WILL GET THE FOLLOWING INCLUDED FREE OF CHARGE...

QUALITY DUST COVER
2 PART PRINTER STAND
LEAD TO YOUR ATARI

([❖] = all FREE items EXCEPT a dust cover)

WORTH £25 FREE
WORTH OVER £25 IF PURCHASED SEPARATELY

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Euro Disney

With each hardware purchase you will receive a FREE ENTRY form* for our Euro Disney Holiday Competition.

**Full Details available on written request to Merlin Express Ltd. Please include a SAE.*

Euro Disney is the Copyright of The Walt Disney Corporation

ST SECOND DRIVES

CUMANA CSA 354 3.5" Second external drive with throughport and extra long cable.	£69.99
ROCTEC 5.25" DISK DRIVE 5.25" Floppy Drive, 360K, 48/96TPI, complete with PSU and connection cable.	£109.99 (rrp £129.96)

CITIZEN NEW PRINTERS star

Both Star and Citizen have announced new products...

Citizen 240 - Mono... 24 Pin, 80 Col, 200cps/66cps, 9 LQ/2 Scaleable Fonts, 8K Buffer **£249.99**
Citizen 240C - Colour Vers of above... £269.99
Citizen 200 - Mono... 24 Pin, 80 Col, 180cps/60cps, 6 LQ Fonts, 8K Buffer, Colour Option **£219.99**
Citizen 200C - Colour Vers of above... £Phone
Star LC100 - Colour... 9 Pin, 80 Col, 180cps/45cps,8 Fonts, **£164.99**
Star LC24/100 - Mono... 24 Pin, 80 Col **£189.99**

ATARI SUNDRIES

MOUSE MAT High quality, save your mouse from dirt!	£3.99
DUST COVER HIGH QUALITY vinyl covers for hardware... Atari keyboard, printers, monitors etc, etc.	£3.99 each
DISK STORAGE BOXES High quality, smoked perspex lid fully lockable, complete with dividers in two capacities...80 Capacity	£6.99
DISK LIBRARY CASES Plastic case for 10 disks, 3.5"	£0.99
PRINTER STANDS 2 Part plastic, paper fits under.	£7.99
ATARI CONTROL CENTRES Metal stands for K/Board, Monitor, 2 Disk Drives.	From £19.99
NAKSHA SCANNER The one you've been waiting for!	£109.99
NAKSHA MOUSE+Free Operation Stealth while stocks last	£29.99
SQUIK MOUSE Budget priced... but GREAT quality	£16.99
ATARI SOFTWARE...Games, Educational and Business software is always available at discounted prices please phone & ask for prices.	
ATARI BOOKS...Covering everything Atari! Phone for details	
KONIX SPEEDKING MEGAPACK... KONIX SPEEDKING JOYSTICK with FOUR GREAT GAMES!!! MIG 29 Soviet Fighter, BMX Simulator, Pro Tennis and Treasure Island Dizzy.	£19.99
QUICKJOY II...Auto-Fire, Stainless Steel Contact Switch	£9.99
ZIPSTICK...Auto-Fire, Microswitched,	£11.99

PLUS LOTS OF OTHER ACCESSORIES TOO MANY TO LIST!!!

MORE ATARI PRODUCTS

ATARI PORTABLE ST BOOK COMPUTER

NEW...NEW...

FANTASTIC NEW PORTABLE FROM ATARI FEATURING...
Small Footprint: 8.5" x 11.4" x .25" thk, TRULY PORTABLE
20Mb. Built-in Hard Drive — 3.5" Built-in Floppy Drive
Weighs in at ONLY 4.2lbs — Up to 10 Hrs battery life [charger optional]
Supplied with File Transfer and Organiser software
Optional FAX modem due to be released soon!

AVAILABLE SOON!!! £1149.99 [rrp. £1295.00!]

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ATARI PORTFOLIO SOFTWARE AND PERIPHERALS...
Phone for a detailed listing of all these great Portfolio products

NEW ATARI MEGA STE RANGE - Available soon!!!

MEGA 2 STE - 2Mb. RAM, 3.5" Disk Drive	£429.99

NEW ATARI TT RANGE - The Serious ST Computer!

The incredibly powerful Atari TT range is a true professional work station compatible with most ST software, but with fantastic speed! Ideal for graphic intensive applications such as CAD, studio animation and DTP.

ATARI TT With 2Mb. RAM, 3.5" Floppy Drive	£879.99
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HARD DRIVES FOR MEGA STE's & TT's

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ADDITIONAL 52Mb. QUANTUM SCSI Hard Drive	£209.99
ADDITIONAL 120Mb. QUANTUM SCSI Hard Drive	£309.99
ADDITIONAL 240Mb. QUANTUM SCSI Hard Drive	£519.99
ADDITIONAL 420Mb. QUANTUM SCSI Hard Drive	£979.99

In order to fit the Hard Drive you will need to INCLUDE for a fitting kit & fitting/installation by Atari Agents to retain the Atari Warranty!
For the Mega STE add £78 fitting For the TT range add £74 fitting

GENUINE ATARI PERIPHERALS & ACCESSORIES

ATARI MEGAFILE 30 HARD Drive for ST's, 30Mb.	£279.99
ATARI MEGAFILE 60 HARD Drive for ST's, 60Mb.	£339.99

GENUINE ATARI MONITORS

ATARI SM 124/144 MONO 14"HIGH RES. MONITORS	£Phone
ATARI SC 1435 STEREO COLOUR 14" MONITOR	£209.99
ATARI PTC 1426... COLOUR 14" MULTISYNC MONITOR TT's	£379.99

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*INTRO TO: *SOUND & MUSIC, Contains: Music Maker+, Sampler Master+*	£19.99
*INTRO TO: *PROGRAMMING, Contains: Clock & Calculator, Works, Saved, Archive, Font Kit+*	£24.99
*INTRO TO: *PERSONAL FINANCE, Contains: Pers. Finance Manager+, Datafax*	£19.99
*INTRO TO: *PRODUCTIVITY, Contains: ST Word, ST Base, ST Calc*	£19.99
INTRO TO: *BASIC PROGRAMMING, Contains: Power Basic*	£19.99
INTRO TO: *DATABASES, Contains: Superbase Personal*	£24.99

*Require an ST or STE with a D/S drive and 1Mb. memory

PLEASE PHONE FOR DETAILS OF ANYTHING NOT LISTED WE'D BE DELIGHTED QUOTE YOU!!!

MERLIN SORCERORS PACKS

ST STARTER PACK Mouse Mat, Dust Cover, Ten Blank Disks in a Plastic Library Case, Quickjoy Joystick...	£19.99
ATARI 10 GAMES PACK Asterix, Chess Player 2150, Drivin' Force, Skweek, Live & Let Die, Onslaught, Pipemania, Rick Dangerous, Rock-'n'-Roll and Trivial Pursuit	£24.99
ST 'TERRIFIC TEN' PACK Turtles, The Flintstones, Uridium, Thundercats, Saint & Greavsie Trivia, Spy v Spy III, Turbo ST, Hammerfist, The President is Missing and A Question of Sport.	£29.99

NOTE! the above prices are based on purchasing WITH an Atari

PHILIPS
CM8833/II COLOUR MONITOR

14" Stereo Colour Monitor with Green Screen Switch AND...
Free Dust Cover and Computer Cable
With 12mths. on site maintenance **£Phone**

Monitor Dust Cover Quality Bound Vinyl	£5.95
Univ.Monitor Stand	£12.95

PHILIPS Tilt/Swivel Stands...
- CM8833 MkI £14.95
- CM8833 MkII £14.95

FREE...Dust Cover and Lead to your Atari...from Merlin

PHILIPS
TELEVISION MONITORS

A great alternative to a dedicated monitor that allows you to watch TV programmes too!

BRAND NEW PHILIPS RANGE OF TV SETS WITH ALMOST MONITOR QUALITY OF OUTPUT TOO! CHOOSE FROM THREE MODELS... All with superb quality reproduction when used as a monitor or TV! 2000 Character High Definition FST specifically designed for use as both a high quality TV and a monitor. Full two year warranty!!!

PHILIPS 3332 - 15" remote control with sleeptimer	£219.99
PHILIPS 2331 - 15", spec as 3332 but with Teletext	£249.99
PHILIPS 2341 - 17" version of the 2331 with Teletext	£299.95

Take £10 off if bought with other Hardware

VIDEO Plus+™
INSTANT VIDEO PROGRAMMER™

Makes 'child's play of programming your video and satellite

Only... £54.99

DELIVERY

Small items are despatched by post to all UK Mainland addresses for a no fee, unless otherwise discussed. Hardware is despatched by courier servic to 25Kg) as follows: NEXT WORKING DAY... add £7.50 to order, TWO W ING DAYS...add £6, or for SPECIAL SATURDAY DELIVERY...add just £12 (Please note courier service applies to MOST UK Mainland addresses).

WARRANTY

Hardware proving faulty within 30 days will be exchanged for NEW (subje condition etc). After 30 days and within 12 months from purchase, faults w rectified by the relevant manufacturers' repair agent and returned to you courier. Software and small items carry various warranties, just ask for de

BFPO & EXPORT

Merlin are happy to supply BFPO and export markets for which VAT is no deductible. Delivery charges vary from UK rates and, as products carry U warranties only, faulty items are to be returned to Merlin by customers & delivery charges will apply.

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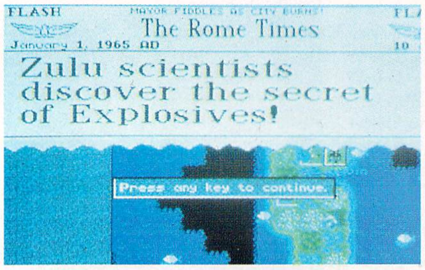
24 HOUR ORDER LINE ✆ 0602 441442

PREVIEWS

CIVILISATION



FLASH MAYOR FIDDLES AS CITY BURNS! FLA

The Rome Times

January 1, 1965 AD 10

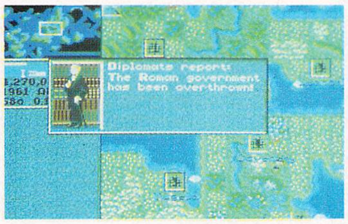
Zulu scientists discover the secret of Explosives!

Press any key to continue.

■ Forget the sheer weight of numbers argument - the reason why Michael Caine and his cronies were defeated by the Zulus was because they had invented gelignite.

Voted the most original game at the 1992 European Computer Trade Show, *Civilisation* has finally made it on to your ST.

Set for release in February, *Civilisation* is a god/strategy game which begins in 4,000 BC. Your job is to take a small tribe of nomadic people and build them up into a thriving, technically advanced civilisation. You have just about 6,000 years to get the right balance of trade, politics and defence. If that wasn't tricky enough you also have to cope with changing technologies, *Neighbours* and those little milk cartons you get in Happy Eaters. If it's any consolation you also get to meet famous historical figures like Genghis Kahn. *Civilisation* is available from Microprose (☎ 0666 504326).



Diplomats report:
The Roman government
has been overthrown!

■ "You were born in a humble mud hut, but soon you became one of the most powerful and destructive animals on the planet. Mankind - this is your life."

TORNADO

■ Tornados are like buses - you don't see any for ages and then they all come at once. Where was that tin helmet?

The Tornado fighter-bomber has proved to be one of the technological success stories of the Gulf War. Now you can get your hands on this awesome machine thanks to Digital Integration's latest flight sim.

Digital Integration (☎ 0276 684959) claim *Tornado* is going to be the most realistic flight-sim yet, with over 100 square miles of combat zone packed with 16,000 static objects and a wide variety of moving vehicles. The game features 20 individual combat missions, air campaigns and training sequences as well as a two-player option for dogfights. With each of the individual missions you are given a different *Tornado* variant and a different target to destroy, while both the Air Campaign and Air Commander options enable you to engage in a series of missions in a bid to defeat your enemy.

Digital Integration already have plans to develop additional mission disks for the game. *Tornado* goes on sale in April and the price is yet to be confirmed.

ORDERING FROM GERMAN SUPPLIERS

If you order direct from Germany you can pick up some good bargains and get hold of gear that your mates don't have – VAT is 2.5% lower than in the Britain, although you have to accept that delivery is likely to take longer than ordering from the UK. The sterling prices quoted in Duncan Bell's article are estimates, and do not include delivery – they shouldn't rise, though – unless the UK economy gets really bad. As a rough guide, £1 is worth DM2.50, but things might improve. Language isn't a problem – most companies claim to have English-speaking sales staff. Let them know what you want, and they'll send you a quote for the price in sterling. Then you can see what you are letting yourself in for, and arrange payment. Be prepared to wait a while – the German Post Office isn't famous for its speedy deliveries.

Paying

Usually German companies accept crossed cheques, but they might also do Cash On Delivery (COD), or ask you to send cash, or transfer money to them up front – you can do this via the Post Office Giro Bank or via SWIFT (ask your bank for details). COD is easiest for you, and you can check that your package isn't damaged before you accept it. Sending cash in the post is best avoided. If you have a choice of sending the money to a Post Office account or a bank account, send it from the Post Office, with a Giro credit; the money gets there quicker, and the charges cost a bit less – better all round.

When you write to German companies, put the post code and the name of the town on the same line (say, W-6900 Heidelberg), and put "Germany," otherwise the German post sorters tend to foam at the mouth, and send your letter back! Also, put your address on the back of the envelope, and they'll have somewhere to send it back to, without ripping your letter open. Otherwise, it can take weeks before you find out that the company you wrote to never heard from you...

NOT JUST BEER

BY **DUNCAN BELL IN SCHWETZINGEN**

Over half the STs in Europe are owned by Germans: that's a massive 3 million machines. They're popular partly because of the obvious price and performance advantages over other makes, but also because of the portability of the ST range: some estimates reckon that over 400,000 made it over the border into East Germany, when Granny went to visit relatives before the Wall came down.

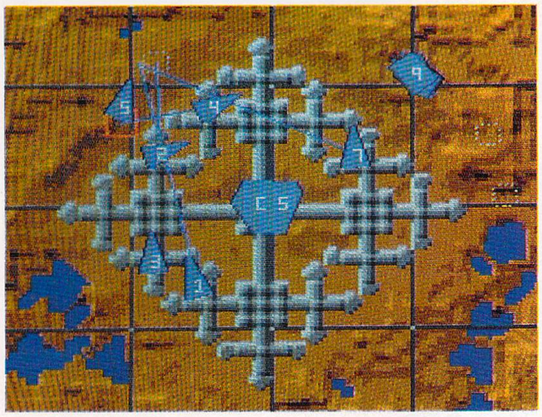
As well as being a popular games machine, STs are also used for word processing, MIDI, professional DTP, and electronic image processing on a much greater scale than it is in the UK. For instance, over 80% of German students have home computers – half of which are STs – mostly bought when they were kids. The market is so large that it is worthwhile for third party manufacturers to produce hardware and software add-ons, and to keep prices low. So, it's hardly surprising that the range of hardware and software available for ST users is wider, and cheaper, than in many parts of Europe – even if most other currencies are taking a nasty hammering from the Deutschmark (thanks Norman!).

DTP - from the sublime to the ridiculous

Fonts from the Public Domain are cheap and plentiful in Germany. If you need new fonts for your DTP program, check out Com Putt Alexander Schütz, who sells 70 *Calamus* fonts – which you can easily convert into other GEM fonts – for around £16. Contact them at Buchenweg 7, Postfach 24, W-7935 Rottenacker, ☎ 010 49 7393-6261. Alternatively, for around £8 you can get 50 complete *Calamus* fonts by ordering Vektorfont-Paket-3 from EU-Soft Peter Weber, Josefstr. 11, W-5350 Euskirchen, ☎ 010 49 225173831.

If you use *WordPerfect* at work and *1st Word Plus* at home, here's a little something for you. *WP 1.0*, this no-frills but effective utility converts text files between these two word processors, and keeps the formats: you can get it for about £40 from Megasystems,

AIR SUPPORT

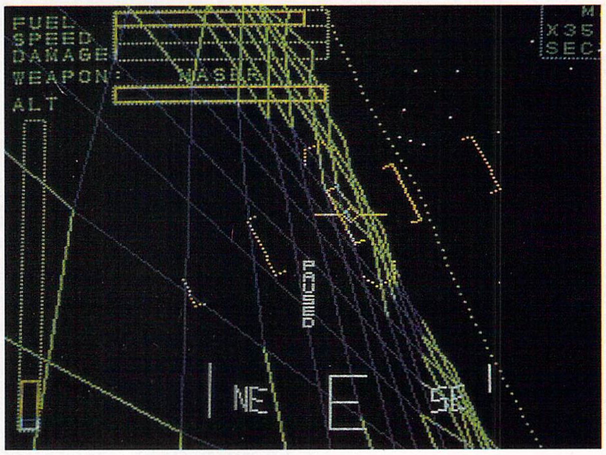


■ *Air Support's* map view - here you can see your carefully planned Defence Complex in all its glory. You have to deploy your forces sharpish or it doesn't stay like that for long.

By the beginning of the 21st Century the earth has split into two distinct military zones – the southern and northern hemispheres – each are at loggerheads with the other. As a trainee at the West Point military academy in the northern hemisphere you are introduced to the Air Support Battle Simulator, an incredibly powerful combat strategy computer.

This is essentially a futuristic flight/strategy sim where you have to defend your territory from attack, while infiltrating your enemy's lines. You are placed in control of a Defence Complex with a variety of vehicles, aircraft, factories – which enable you to manufacture more vehicles – and missile defences at your disposal. The decisions of how you deploy your resources and what strategy you choose to take are now all down to you. The action takes place in map, isometric or 3D views and with three difficulty levels, 20 different training missions and 40 full simulations, *Air Support* should keep even the most hardened strategy addict glued to his ST.

Check out the Cover Disk demo of *Air Support* on *STF* 41 (turn to page 66 to order your copy if you missed it) or phone Psygnosis (☎ 051 709 5755) for further information. *Air Support* is to be released at the end of March, and is priced at £29.99



■ Wireframe animation is a bit old hat, but it has the advantage of making the gameplay faster.

AND SAUSAGES...

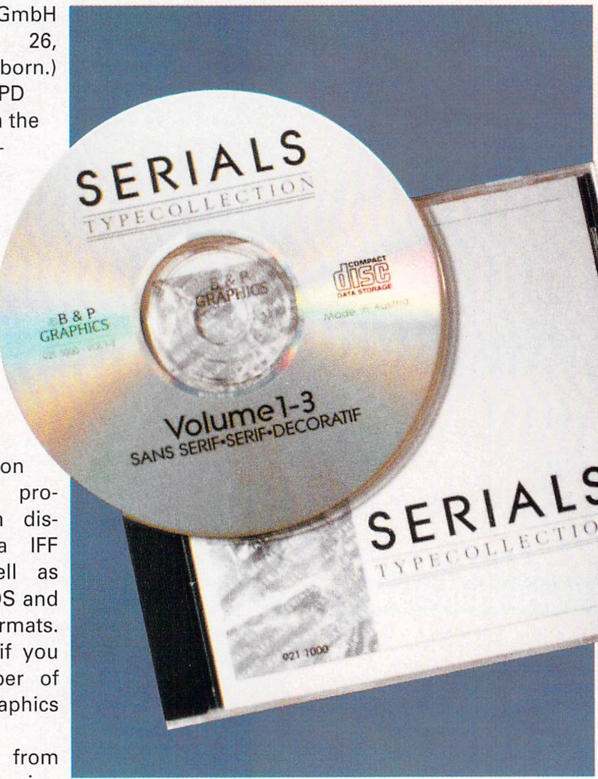
Maanderweg 82, NL-6711 NG Ede, in the Netherlands, and you can call them on☎ 010 31 8380 10010.

If you use your ST for professional DTP work, how about a Sysquest removable hard disk or CD-ROM containing 999 *Calamus* or Postscript format fonts? This goes for around £999 plus VAT (15% in Germany), as offered by Integralis GmbH, Aussere Kanalstr. 10-12, W-5000 Cologne 30, ☎ 010 49 221 546 1222. Their UK agent is Paul Burnett of GMB Group PLC, 2 Heyrod Street, Ancoats, Manchester M1 2WW, ☎ 061 273 5562. The quality is superb, but you do need a program that can handle them as well as a high-quality printer to do them justice. If you don't want to buy them all at once, you can order 12 of them on disk direct from Integralis, for around £40.

Best-sellers

The three top PD hits in Germany last month, according to a survey in a leading ST magazine, were *FastCopy, Sagrotan Virus Killer 4.17* and *PAD 2.4,* a versatile graphics program. There are lots of PD suppliers, and you can get some smart deals: for instance, Maxon Computer GmbH (Industriestr. 26, W-6236 Eschborn.) just released PD Disk 491, with the *Meta-Bit-Konverter,* which converts between eight popular graphic formats, including IMG and GFA block files, and *Gemview,* a multi-resolution slide show program, which displays Amiga IFF files, as well as many MS-DOS and UNIX formats. Good value if you use a number of different graphics packages.

Also from Softwareservice seidel, come eight disks full of vector graphics in CVG or GEM format, for around £16. Their address is Hafenstr. 16, W-2305 Heikendorf, ☎ 010 49 431 241247. Useful for budding Michaelangelos!



SNIPPETS

MIDI classics

Words and Music have released four new classical MIDI file format disks – might be interesting if you can't stand rave. Each disk is packed with classical music in standard MIDI file format and is supplied with a four page leaflet giving details of each file plus a four page instruction manual.

The disks are priced at £10.95 each and can be ordered by calling Words and Music direct on ☎ 091 529 4788.

Compress it!

LogiLex in Germany have produced a compression program which, they claim, doubles the disk capacity of any disk on the ST, TT or Falcon – including floppy disks. This little program is called *DataLight 2* and works by compressing all files to half of their previous size and then decompressing them when they are being loaded back in.

The loading speed is said to be greater than loading without *DataLight* and the decompression routine is faster than a hard drive's loading speed. In effect, you can convert a 20MByte hard drive to a 40MByte capacity drive, or a 720K floppy disk to a 1.44MByte disk and not worry about the speed of information transfer.

There is no UK distributor at the moment so you have to order direct from the suppliers in Germany, the program costs DM129 (about £50) and you can contact LogiLex on ☎ 010 49 228 658346 or fax them on ☎ 010 49 228 655548. Watch out for the full review in a future issue of *ST FORMAT.*

Computer visionaries

A Tilehurst-based company has recently launched a new electronic software distribution service for ST owners.

EDOS (Electronic Distribution of Software) contains a catalogue of over 2,000 game titles from software publishing companies including Gremlin, Ocean and Virgin. According to Computer Visions – the company running the service – you're unlikely to find a title out of stock. This is because titles can be duplicated from two CD-ROMs on an individual basis. For further information about Electronic Distribution of Software just phone Computer Visions on ☎ 0734 452416.

Alive and kicking

MT Software, the Public Domain library, would like to point out that, despite recent rumours, they have not gone into liquidation. In fact, they have expanded into commercial software and have just taken on their 20,000th customer. Remember, this is where you read it first.

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DRAWING ON INSPIRATION

SOUP, CANS, NUDES AND MODERN ART

There's a lot more to creating masterpieces on your ST than drawing dragons, film characters, cars and nubile women... erm, perhaps not. Anyway, there's a whole wide world of art history for you to delve into and take your inspiration from. Start with this brief guide to Modern Art and work your way backwards. You never know, you could start off a whole new art movement

Impressionism

By the second half of the 19th Century, political and social events in Europe led to the formation of a new movement among France's artistic community – Impressionism. Artists were no longer constrained by the conventions of the Renaissance – they were suddenly free to invest more "realism" into their paintings and sculptures through the creative use of light and colour. Famous Impressionists include people such as Renoir, Monet, Seurat and Cezanne.

Symbolism

While the Impressionists wanted art to become more representative of real life, Symbolists turned their subjects into idealistic portrayals of how life could be. For example, many of Jean-Dominique Ingres' paintings were of beautiful women in exotic settings, like a 19th Century Pirelli calendar. These women were "ideal" types to which people could aspire. Not surprisingly, these paintings were incredibly popular and were frequently found in upper class dining rooms. Other artists, like Gauguin, used their "inner eye" to portray the emotional, rather than physical, worlds.

Expressionism

Like Gauguin, the Expressionists were obsessed with the emotions, leading them to paint in strong, vibrant colours. Edward Munch's paintings, for instance, are often seen as representations of his inner turmoil – during his lifetime he was surrounded by images of poverty, disease and death. Ironically, *The Scream*, one of his most famous paintings, was recently turned into a designer dress for Dame Edna Everage!

Futurism, Constructivism and Cubism

By the turn of the century, three significant art movements had begun; Cubism – with its angular, distorted representations of figures and landscapes, Futurism – which celebrated violence and action, and Constructivism – an abstract form that took its cues from simple shapes and primary colours. Picasso, Mondrian and Balla are just some of the artists whose work is representative of these movements.

Dada and Surrealism

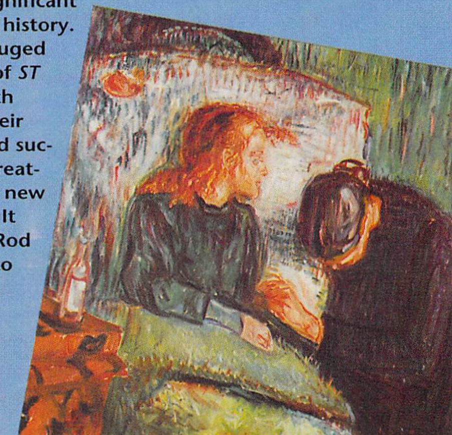
The aftermath of WW1 shattered many illusions, and there was a violent reaction against the established authority. This found its expression in Surrealism and the work of the Dadaists. The Dadaists believed art was an absurd irrelevance, then set about proving it with the publication of manifestos, paintings and sculptures. Surrealism emerged a couple of years later and featured many of Dadaism's motifs. Surrealists like Magritte, Salvador Dali and Picasso used their dreams to create unsettling images on canvas.

Pop Art

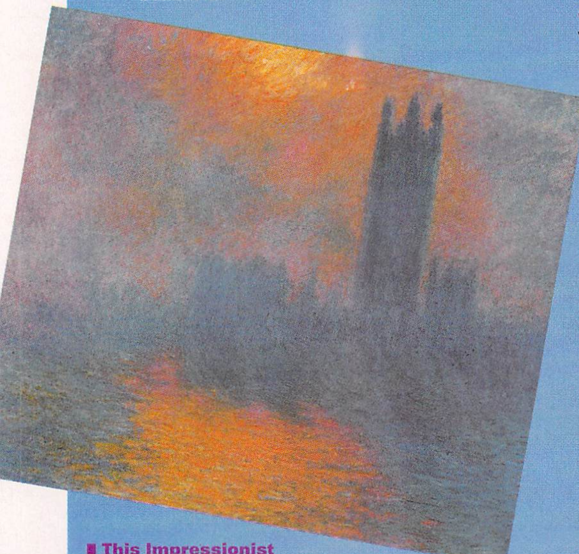
From Andy Warhol's *Marilyn* and the *Campbell Soup Can* to Peter Blake's *Sgt Pepper* album sleeve, Pop Art is the most recent, and familiar, of the modern art movements. Inspired by contemporary consumerism, Pop Art takes realism to its ultimate extreme – Oldenburg's sculpture *Kitchen Stove* looks exactly like a kitchen stove, for example. The use of familiar icons – petrol stations, advertising and so on – makes it instantly accessible to ordinary people. Some paintings, like Warhol's and Lichtenstein's (who inspired this month's cover), have become icons in their own right.

ST-ism

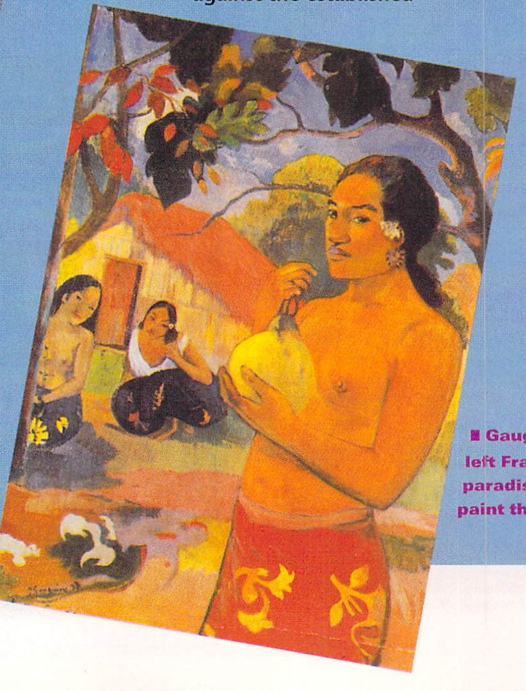
The 21st Century got off to a flying start with the most significant event in art history. Readers deluged the offices of *ST FORMAT* with copies of their art work and succeeded in creating a whole new movement. It took Dyno-Rod three days to clear the resulting blockage.



■ Edward Munch was the life and soul of the party at funerals - he liked to cheer up the mourners with his tales of sickness, disease and death. This pic of a Sick Child was used on Christmas cards to his friends.



■ This Impressionist painting of the House of Parliament is one of Claude Monet's best. There are no rigid outlines, just shades of colour which help to capture the atmosphere of a fog-bound London.



■ Gauguin was one of Symbolism's major stars. He left France for the South Seas in 1891 in search of a paradise which no longer existed, so he decided to paint the natives instead.

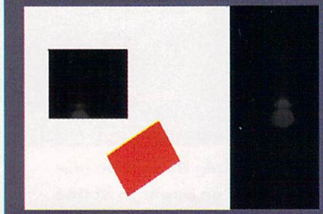
No strangers to the art world, Rob Mead, Chris Lloyd and Clive Parker break into Frank Spencer voices all at the same time when asked about the Impressionists

Art is... human creativity or work exhibiting it. There, that's sussed that one out and put an end to those daft "what is art?" discussions. The question is, why bother? Well, art gives expression to the inner state, art transcends the human boundaries, gives voice to your soul and is a jolly pleasant way to pass the time as well. At the end of the day, you have a piece of art to impress your friends with and influence people at parties.

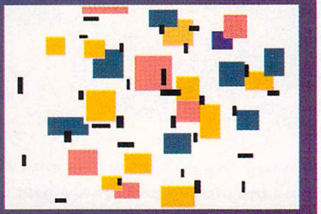
Your ST makes a particularly meaty art-type tool. You can work endlessly on a picture, changing and processing it, without loosing

TUNE IN, TURN ON, SHAPE UP

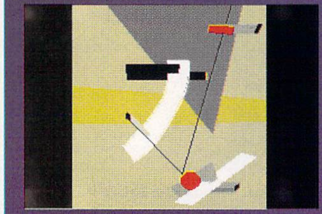
Of all the different modern art movements, Constructivism is the easiest to emulate electronically on your ST because of the simple shapes and patterns used by its artists



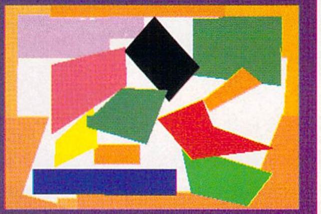
■ This is a copy of one of Kasimir Malevich's most famous paintings - *Suprematist Composition: Square and Black Square*. It takes about ten minutes to draw on your ST and - judging by the state of the art market - could net you £1,000,000 or so. When your friends laugh and say "That's not art, that's crap," tell them you're a misunderstood muse at the cutting edge of Constructivism - that should shut them up.



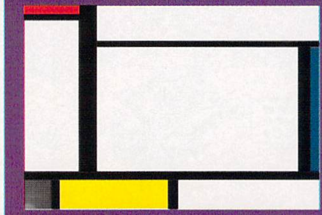
■ Another Mondrian, imaginatively titled *Composition in Colour*. Mondrian believed that horizontal and vertical lines together represented perfect harmony - he spent the rest of his life living in a cardboard box. This pic takes a bit longer to create in *Spectrum 512*, principally because you have to keep swapping between the Line and Fill tools, which is time consuming not to mention being a tad on the dull side.



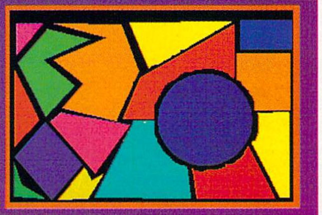
■ Another Constructivist pic reconstructed. This time it's a copy of El Lissitzky's *Proun 12 Ec* using *Spectrum 512*. It's worth while taking the time to get the colours and shades right, otherwise you end up with a kiddie daubing and not some great work of art. The curves are created using the Line and No Zag options in the main menu.



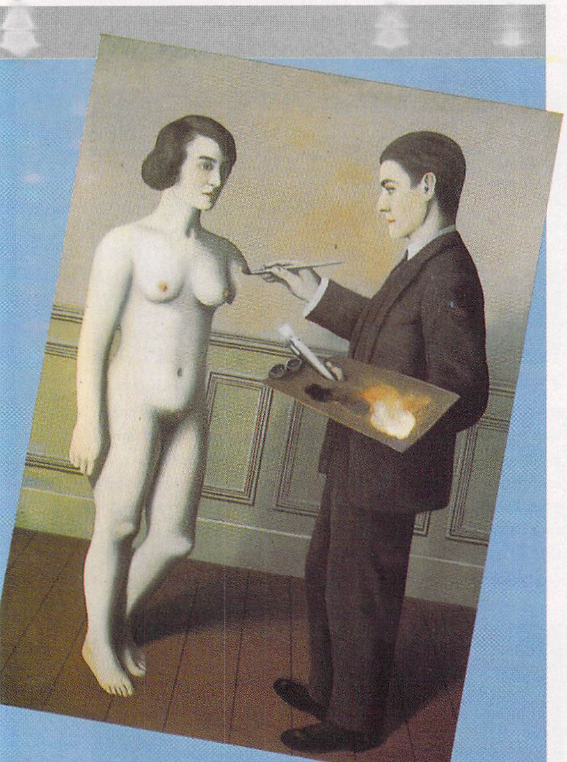
■ OK, so he's not strictly a Constructivist, but this loose translation of Henri Matisse's *The Snail* displays many of the movement's characteristics. It tends to be a bit on the tricky side getting the shades just right and you really need to play around with them to get a reasonable approximation. Still, this pic gives you an idea of what's possible.



■ Piet Mondrian had a strange obsession with "plastic ideas," however, he didn't let this stop him from creating the next two highly complex pictures. His *Composition with Red, Yellow and Blue*, painted in 1921 was often mistaken for a noticeboard when it was displayed in his local art gallery. Still, Mondrian didn't care, he used to bosh out things like this in his tea break - see if you can do the same.



■ When you've made a successful career of ripping off other people's work, it's about time to let your own creative juices flow. Creating this pic was basically an excuse to use all of *Spectrum 512's* tool palette - even drawing the blue circle was quite an achievement, although it doesn't look very amazing. With the Magnify option on you can edit individual pixels and make your pic really special.



■ We couldn't have a feature on art without a nude, so here's Magritte's *La Tentative de L'impossible*, a typically Surrealist pic. That woman doesn't look too healthy, does she?

■ During his lifetime Picasso painted in different styles: from Cubism to Surrealism and everything in between. This flattering portrait of his hideously deformed mother was used as a bird-scarer on the family estate.

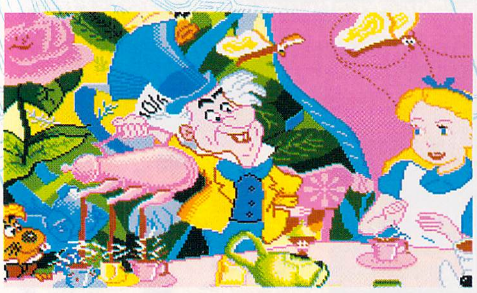
any quality or having to clean paint off anything. You can also duplicate it perfectly any number of times. The better art packages available for your ST enable you to do things that are impossible using traditional paint dabbing skills. The amount of control and the possibilities for experimentation mean digital art is getting bigger. It won't be long before original art is exhibited on monitor screens in art galleries. Nothing stands still for long.

Perhaps the most important ingredient in any piece of art is originality. A new angle, a new perspective, something to lift your effort from the maddeningly repetitive crowd. Original people are those who are remembered, it's better to be copied than to copy somebody else's work. Techniques and ideas don't come easy and a dollop of inspiration and work helps. You have to do the work, but these pages should help provide the inspiration. Enough, we hope,

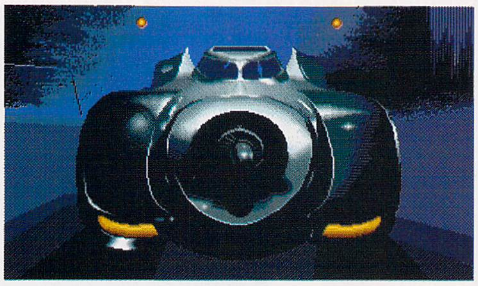
> **The most important ingredient in any piece of art is originality**

GALLERY: THE RETURN

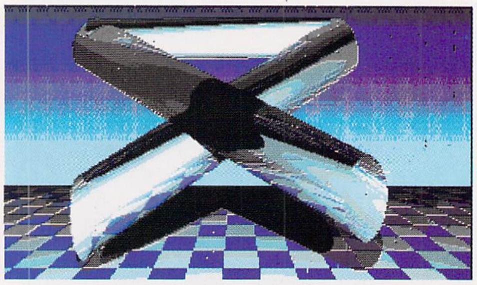
We've sifted through our gallery submissions and picked 12 of the best pictures you sent in. These show a variety of styles and methods used to create art



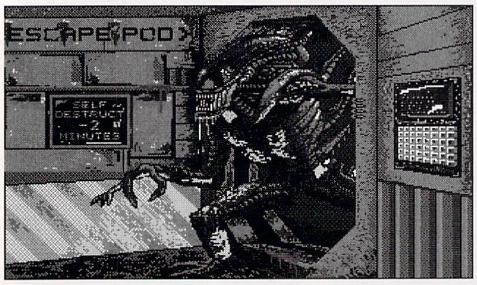
Andrew Grisdale drew this with *Deluxe Paint*. "I traced the picture and drew a grid over it to copy it to the screen. I used the grid for the two main characters and fitted the rest around them. Alice's face was the hardest part, I did that first and went on to do the Hatter, the table and the rest of Alice. I did all the detail work pixel by pixel. The background is simply a mass of colours and I added more things to the table to make it look hectic."



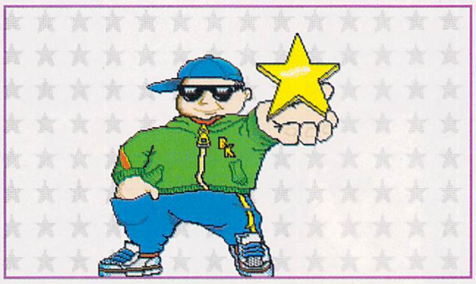
Andrew Grisdale provided this Batmobile picture. "I first drew the picture on paper to define the main lines. I used the grid method to ensure the proportions and curves were correct. Because the shape is symmetrical I drew the outline of one side and then cut, flipped and pasted it."



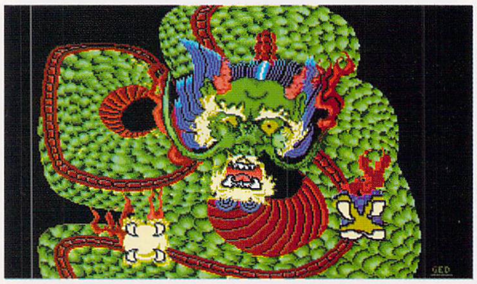
Andy Lankester created Tubular Bells saving it as a *Spectrum 512* picture. "In *GFA Raytrace* I set the horizon level of the ground and used blue and white squares to create the chequered pattern and imported a *Neo* pic for the sky. I then created one horizontal cylinder using bright material and two diagonal cylinders using 60% mirrored material, using colour 7,7,7. After setting three lamps, I raytraced the picture and saved it to disk."



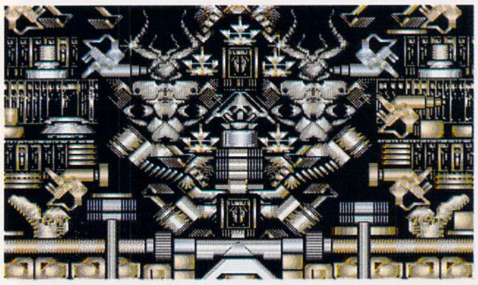
Craig Garrett created an Alien picture in *Degas Elite*. "I started with a rough sketch and set the palette, I then tidied up the sketch using Magnify. I then filled in the alien's body using Magnify mode. Next I used K-line to draw the framework of the hatch and corridor on a separate screen. I pasted the alien onto the hatchway and started filling in the background. A chequer board fill pattern was used to merge the shades of grey."



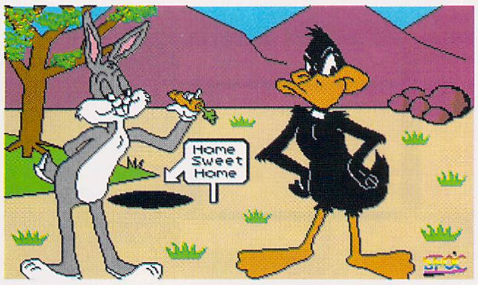
Gavin Sayce used *DPaint*. "Straight lines made up the correctly proportioned outline, then I chose the palette. I worked on the head first, blending and anti-aliasing. Zoom is good for detail. I then worked on the clothes using shading to get the curved effects. I created the star on another screen and pasted it into the picture, adding detail and reflections. I then drew a grey star on another screen and used it to fill the background."



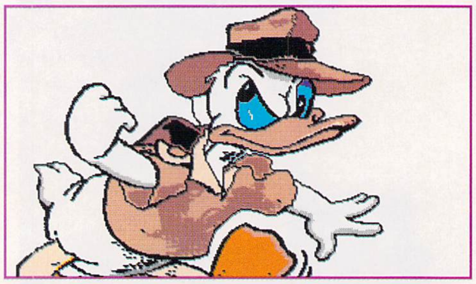
Gerard Sargent of **Withernsea** sent this picture of a dragon based on a record sleeve. He uses *Deluxe Paint* for his work. "The picture was coloured over a four or five day period because of the amount of concentration required. Total working time was about 14 hours."



R S Hall created this complex abstract picture with *Degas Elite*. "I use three different shades and create shapes and objects until I end up with something interesting. I then cut out the shape as a block and save it to a separate workscreen. When I have enough shapes I cut and paste them back into the main screen and join them together to create an eye-catching abstract pattern, using the block flipping option to get mirror images."



S F O'Connor uses *Canvas* : "I drew the rough outlines in grey, then I went over the outlines in black using Zoom to tidy up the details. I changed the background to blue and coloured Bugs in. I drew Daffy on a white background using Cut and Resize to scale him. I coloured in Daffy using Zoom for the detail, I usad Fill for the main areas creating leaves by drawing one and then pasting it repeatedly. Finally, the logo was added."



Simon Sweeney uses *Deluxe Paint*. "First I drew the bill and eyes to the correct scale, then I added the head and neck and reshaped the eyes so that they looked OK. I added the shoulder and left wing, drew the rest of the body, then added the rest of the fine details. I coloured Donald in starting from the top and working down, using Zoom to add fine detail and shading as required. I then drew and coloured in the background."

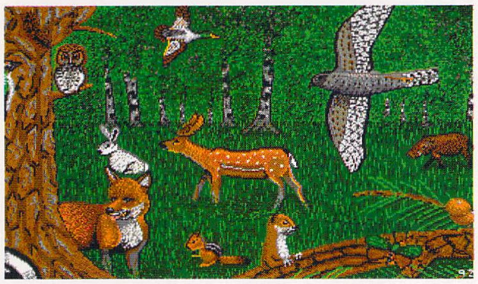
to have you throwing off the conventions of society, moving into a draughty loft, staying up late and hanging about in coffee bars talking about life, overcoats and fish.

Going dotty

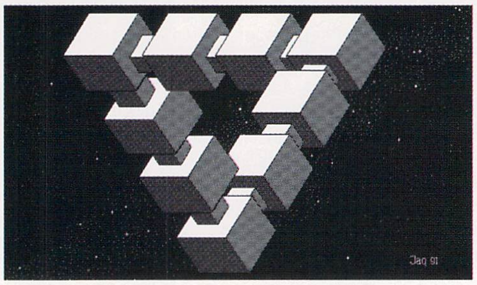
Before you start wrestling with your mouse and burning the midnight oil producing this art business, it helps to know how your ST displays its screen. The picture you look at is made up of a number of pixels – little dots. How many you have on your screen depends on what resolution you're working in. Your ST can handle three different screen resolutions. If you're using a colour monitor or TV, then you have a choice of low or medium resolution. Low gives you a screen of 320 x 200 pixels while medium offers 640 x 200. High resolution is only available using Atari's very own dedicated monitor and boasts an impressive 640 x 400 pixels. Just about every ST game runs in

> **It's better to be copied than to copy somebody else's work**

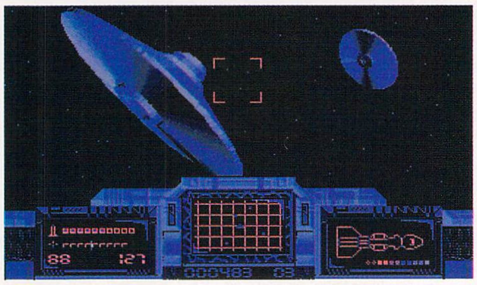
on the ST. Examples range from cartoon characters to rendered and raytraced pictures, there is even a high resolution mono example of the tricks that can be made with perspective.



■ Colin Thomson uses *Deluxe Paint*. "I began with rough coloured outlines of the animals and trees, then coloured each item individually. I used a 4 x 4 pixel brush for the rough bark effects and a single pixel brush for the finer detail. The background was created from two shades of green, with some black for contrast, and I used the Smooth tool to merge things together. The animals and trees were then pasted over the background."



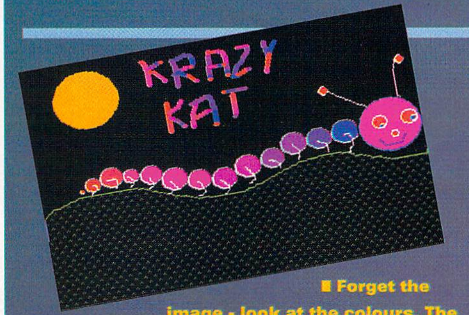
■ J Trollope drew this abstract with *Pad 2*. "I drew a triangle, copied it, flipped it, then pasted it over the original triangle to create a star. I then drew a 3D cube with sides twice the length of the star's arms, then copied and pasted the cube six times into the angles of the star. I pasted three cubes, one to each corner. I tidied them up, removed hidden lines and added the joins between cubes. Finally I added the starfield background."



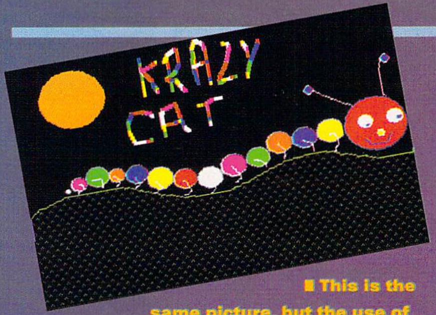
■ Tony Skraga from Gosport used *Volume* and *Neochrome*. "I rendered two flying saucers in *Volume* and saved them as *Degas* files. I imported them into *Neochrome* via the cutter. I drew the instrument panel freehand with a lot of cutting and pasting to make it symmetrical, then I added all the "technological" grooved effects and the vector graphics. I then tinkered with the palette, added the target sight and the starfield."

TECHNICOLOUR DREAM

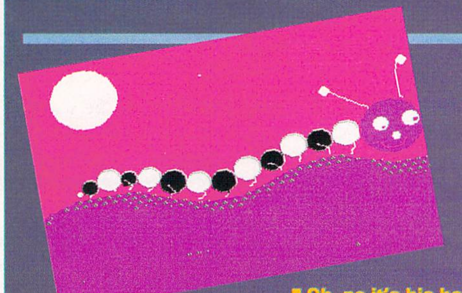
You can be sure that a lot of art is the result of frenzied experimentation. It's worth your while trying a number of different colour choices on your painting to see how you can affect the mood - even the simplest picture can be transformed into an artistic tour de force



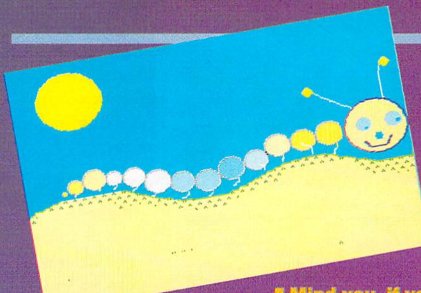
■ Forget the image - look at the colours. The combination of all blended purples and blues creates a harmonic, pleasing effect to the eye. If you were Prince, this is the sort of stuff you could have on your bedroom wallpaper. The body parts were drawn using *Spectrum 512's* Circle tool - the grass texture was created using the Fill and Pattern options.



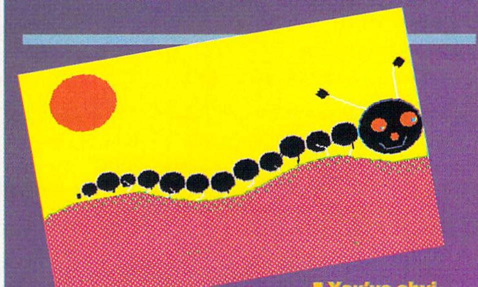
■ This is the same picture, but the use of wildly contrasting colours makes the subject leap out at you. This is the kind of thing Tony Hancock managed to get away with in *The Rebel* - primary, kiddie colours and badly drawn subjects. Perfect. The multi-coloured "Krazy Cat" writing was created using the Cycle option with the pencil in *Spectrum 512*.



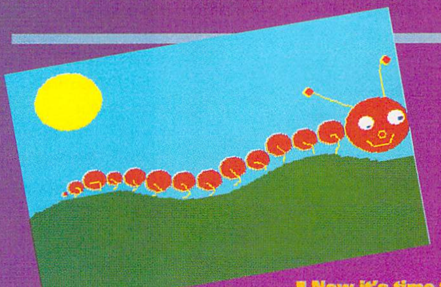
■ Oh, no it's his holy Purpleness again. Or is it a nursery painting for baby Goths? Somehow this one works - purple, black and white obviously sit together well as a combination - ask any Siouxie and the Banshees fan.



■ Mind you, if you pick the wrong colour combination you could end up with something like this - those blues and yellows just don't gel, do they? The problem with this pic is that the sky colour is too strong and the other shades have a hard time trying to compete. Oh well, back to the drawing board...



■ You've obviously taken a trip to the planet Zog with this one - the contrast between the yellow sky, black caterpillar and red sun works well. The speckly soil was again created using the Fill and Pattern options.



■ Now it's time to plunder a more natural palette - the grass is green, the sky is blue and the overall effect is rather pleasing. The caterpillar is still pretty abysmal, though - and have you ever seen a red one? See if you can do any better.

low resolution, while more serious programs use medium or high res.

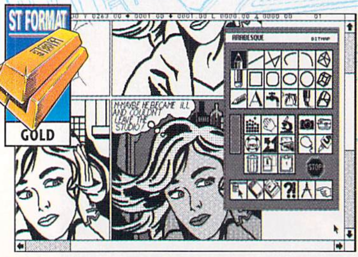
Each pixel can be assigned a colour, in low resolution you have a choice of 16, in medium four and in high resolution you choose between black and white. The colours used are chosen from a total palette of 512 on an STFM and 4,096 on an STE. You use a set of colours taken from a much larger one. There are tricks to get round this limit, *Spectrum 512* from Cover Disk 38 and *Canvas* from Cover Disk 34 (if you missed either of these, turn to page 66 to find out how to get them) use clever-clog methods to get the full range of colours on screen, it's a bit fiddly but the results can be stunning.

On a colour monitor or TV, each pixel of your digitised piece of artistic expression is produced by mixing red, green and blue light. These are emitted from coloured phosphors on the inside of the glass. Each colour is described by

> **You would get a puddle of paint that's a horrible dark brown colour**

MONEY FOR ART'S SAKE

These days you can choose from a number of commercial art packages for use on your ST, ranging from professional quality programs for enhancing DTP clip art and graphics – *Retouche*, *Arabesque Professional*,



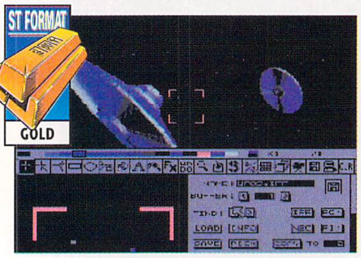
■ ***Arabesque* has so many excellent drawing functions and features that it truly deserves to be tagged as a professional program.**

Arabesque Professional

MACHINE: **ALL STs WITH 1MBYTE RAM MIN, HIGH RES ONLY**
PRICE: **£129**
FROM: **COMPO SOFTWARE**
CONTACT: **☎ 0480 891819**

Arabesque Professional is designed to be used for high quality graphical illustration work in conjunction with a DTP program. You need at least 1MByte of RAM and a high resolution environment.

It has a wide range of functions in both Vector and Bitmap modes which are accessed from an icon pad. It has many drawing tools including lines, Bezier curves, arcs, ellipses, segments, triangles and other polygons. GDOS (Graphical Device Operating System) can be used with *Arabesque* – in bitmap mode – to produce text output using standard GEM fonts –

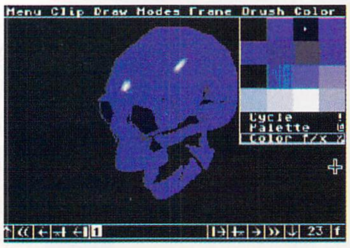


■ ***DPaint's* functions are available from the icon menu, there's also a sub-menu and a zoom box. You can remove the icons at will too.**

Deluxe Paint ST

MACHINE: **ALL STs, LOW RES**
PRICE: **£59.99**
FROM: **ELECTRONIC ARTS**
CONTACT: **☎ 0753 549442**

When it comes to looking at art packages for your ST, *Deluxe Paint* stands head and shoulders above the rest because of its built-in animation functions and its unmatched variety of drawing tools and functions. Apart from *Cyber Paint* and *Prism Paint*, most other art packages are restricted to palette cycling animation effects – these give an illusion of movement by changing colours. *Deluxe Paint* enables you to create custom brushes by cutting blocks from any screen and manipulating them in a pseudo-3D world using X, Y and Z co-ordinates, so you can move a block up, down, left, right, forwards and backwards.

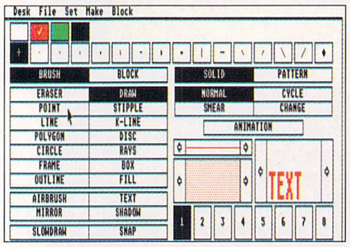


■ ***Cyber Paint 2* is ideal for creating animations using objects designed with *CAD3D2* and other members of the *Cyber* series.**

Cyber Paint 2

MACHINE: **ALL STs, LOW RES**
PRICE: **£58.69**
FROM: **GST SOFTWARE**
CONTACT: **☎ 0480 496789**

Cyber Paint 2 is designed specifically to be used as part of the *Cyber* series of drawing and animation programs. It is perfect for creating animations, TV titles and demo sequences. It has a full range of animation controls so you can move, spin, twist, distort and rotate pictures. Like *Deluxe Paint*, *Cyber Paint* has a tweening option enabling you to define start and end frames for an animation, and get the program to fill in the frames in between. This is not true tweening where two different shapes are drawn and the shapes in between are calculated, it is simply movement and position tweening. The program uses

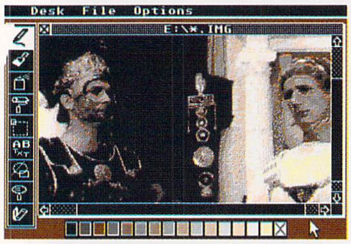


■ **The menu screen of *Degas Elite* is clearly set out so you can immediately recognise all the functions. Block and Magnify are also available.**

Degas Elite

MACHINE: **ALL STs**
PRICE: **£25.99**
FROM: **ELECTRONIC ARTS**
CONTACT: **☎ 0753 549442**

Degas is one of the oldest commercial art packages around that you can get for your ST, but it is still one of the most popular. Although it has only ever been upgraded once since it was first released in 1986 – from *Degas* to *Degas Elite* – it still has all of the basic functions required to create excellent 16 colour low resolution pictures, and can also be used to create graphics in medium and high resolution. Most of the functions can be accessed by clicking in the appropriate box or from a drop-down menu – most of them also have a keyboard shortcut. Apart from the usual graphics functions, *Degas* has a built-in Magnify

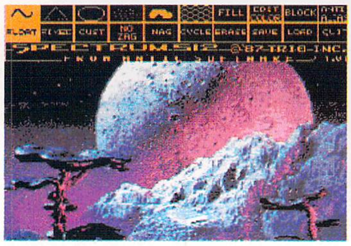


■ ***Hyperpaint* is can use colour .IMG files on your ST, if you're a serious ST artist, then this makes it a worthwhile program to own.**

Hyperpaint 2

MACHINE: **ALL STs**
PRICE: **£39.95**
FROM: **ATARI UK**
CONTACT: **☎ 0753 533344**

Hyperpaint 2 is the "official" Atari paint package for your ST and is GDOS compatible so you can use the huge range of GEM fonts available within the program and print to any printer. The previous version of *Hyperpaint* needed GDOS installed to run; *Hyperpaint 2* runs with or without it. If you don't use GDOS, the text function is limited to the system fonts. All 4,096 colours are now available when you're using an STE. It uses a large work area with drawing and painting functions available from an icon bar down the left edge of the screen or from a drop-down menu. Perversely, double-clicking on some of



■ **Alien moonrise over a distant planet, this picture shows the excellent results that can be obtained using 512 colours in *Spectrum 512*.**

Spectrum 512

MACHINE: **ALL STs, LOW RES, MEGA STE IN 8MHZ ONLY**
PRICE: **£35.19**
FROM: **GST SOFTWARE**
CONTACT: **☎ 0480 496789**

Spectrum 512 is a great leap forward in the development of low resolution colour graphics for your ST, enabling 512 colour pictures to be created even on the 512K STFM. *Spectrum* file format pictures are the default format for most programs which create, save and load 512 colour graphics. *Spectrum 512* itself is not really that brilliant an art package, however, since most of the functions are very basic. All of the functions are accessed from a pop-up icon bar containing all the main drawing tools, each tool icon bringing up a further sub-menu. Clever use of the

the amounts of red, green and blue in it. This is an additive system rather than the subtractive one of mixing different coloured paints, and behaves quite differently. If you had a funny turn and mixed together all the paint from a decent sized art studio, you would end up in a lot of trouble. You would also get a puddle of paint that's a horrible dark brown colour. Turn up the red, green and blue elements on a colour in an ST art package and you get white. If you've learnt about mixing colours in art class, you are going to have to rethink, 'cos blue and yellow no longer make green. Unless your artwork is destined for a DTP program or output on a black and white printer then you probably want to work in the multicoloured glory of low resolution. There are dozens of powerful art packages (see the reviews below and on page 20), utilities and other goodies, so the lack of artistic tools is no excuse. ***stf***

> ***Blue and yellow no longer make green***

Megapaint Professional and *DA's Vektor,* to the more "ordinary" art programs such as *Degas Elite, Deluxe Paint* and *Cyber Paint.* Take a look at the following program reviews to start to get to grips with art on your ST.

vector fonts can be used in vector mode. Among the special functions in the bitmap mode is the ability to use a block as a fill pattern, so if you have a block cut from a picture, you can use it to fill any shape you like. *Arabesque Professional* is an excellent new graphics program that any serious desktop publishing user must have – look out for the full review that's going to be appearing next issue.

***STF* Rating: 91%**

You can rotate the block in all three axes and use the tweening functions which generate the in between frames. You access all drawing tools via an icon bar which you can remove from or recall to the screen by pressing the Spacebar. Each icon displays a sub-menu, giving you control over drawing modes. *DPaint* is easy to use and after a while, use of the icon bar and sub-menus becomes second nature.

***STF* Rating: 90%**

drop-down menus rather than icons, and although there are many options, the program is not as intuitive to use as some of the others tested. Most of the drawing tools are standard; lines, brushes, blocks and so on, but there are some unique special effect tools. Functions such as stretching, fading, sine waves and various wipes can be combined to produce outstanding results.

***STF* Rating: 79%**

mode accessed from the function keys, a cut and paste block facility, rotation of blocks and a palette cycling animation function. Although there are no built-in font facilities, *Degas* is fully GDOS compatible, so you can use GEM fonts. With the huge number of GDOS GEM fonts available as PD this means that you can get an almost unlimited amount of typefaces from within *Degas.*

***STF* Rating: 68%**

the icons causes a drop-down sub-menu to appear – you just can't escape them these days. All standard drawing tools are included. One excellent function is the ability to load in low or medium resolution pictures and save them as low or medium resolution .IMG format files for use in DTP packages. This makes *Hyperpaint* one of the few ST programs that supports colour .IMG files.

***STF* Rating: 65%**

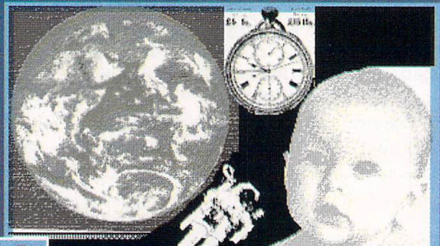
screen borders is made to enable palettes to be accessible without using the pop-up selector. *Spectrum* can also load *Neochrome,* .IFF and *Degas* pictures and convert them to 512 colour pictures. *Spectrum 512* is rather an ordinary art package toolwise, and some functions are rather slow. Having said that, some stunning 512 colour pictures have been created and are available from PD libraries.

***STF* Rating: 58%**

THE SKY DOESN'T HAVE TO BE BLUE

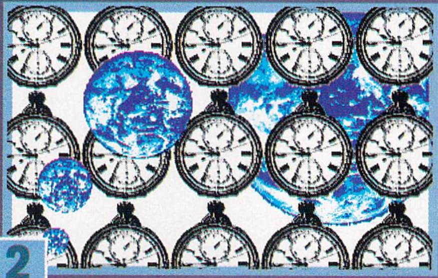
Let loose with a scanner, some library books, an art package and a dollop of imagination you could end up with a real mess. On the other hand if you sort of squint while you look at it and think of fish it makes a lot more sense – maybe. You don't have to be able to draw to make interesting art. Andy Warhol got famous by colouring in photocopies with his crayon set. There are no rules – the sky doesn't have to be blue at all. Disparate and contrasting objects can conjure up all sorts. Think sideways. Or you may be better off not thinking at all...

Time, innocence and the art of interpretation



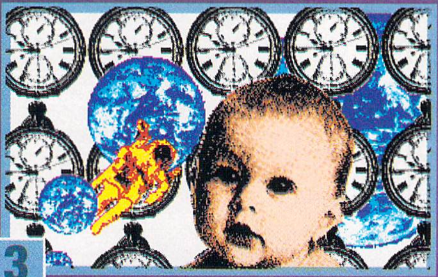
1

■ **Phase one, four scans converted into greyscales. Each is going to get three or four shades of colour as well as black and white. This is a surreal montage designed to get you thinking. The exact meaning is left entirely up to you, the viewer.**



2

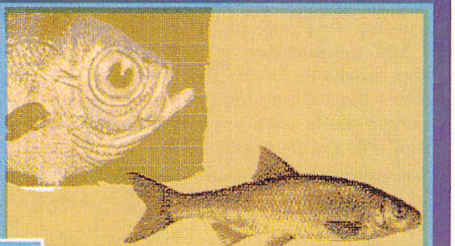
■ **The background, a wall of watches and images of the earth. Each has four shades of colour. Should get you thinking about time and the cyclic nature of things, or something equally deep. The biggest earth is put behind the watches to give it depth.**



3

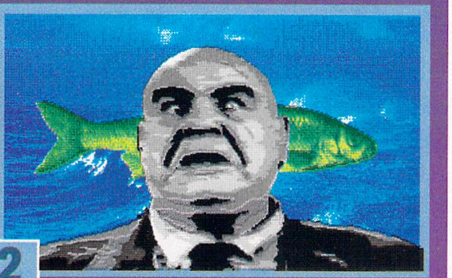
■ **At last – the baby symbolises innocence, potential or sharing humans. The spaceman could be the future, achievement or exploration. To a baby the world looks big, to the spaceman, small. Carefully chosen images open an array of interpretations.**

Life, the universe and fish



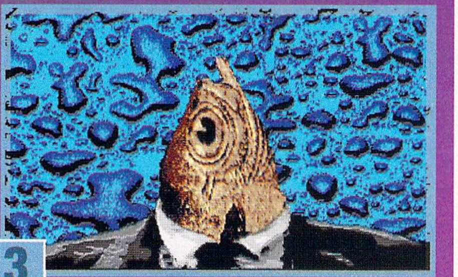
1

■ **How many surrealists does it take to change a lightbulb? Answer – lots and lots of fish. Two unlikely-looking scans ready to be matched with some backgrounds. Have the palettes tweaked, sprinkled with breadcrumbs and deep-fried.**



2

■ **This character seems strangely familiar, even with a fish through his head... Three separate images joined to form a comical whole. Each image has a different palette so you are free to mess around with the colours until you're happy.**



3

■ **The scan of the fish's head has been rotated, resized and put into the clothes of our zombie friend. The background is made up from a scan of droplets of water on glass. If you can fathom the symbolic depths of this piece, please keep it to yourself.**

WHY NOT WIN £50,000!

Well, not quite £50,000 – actually nowhere near that much. In fact, the prize isn't money at all but a shiny new Golden Image scanner complete with *Deluxe Paint.* Armed with this sleek piece of kit, you can scan anything into your ST. All we want from you is an original and expressive piece of ST artwork, not copied or necessarily representational at all. Have a look inside yourself, tap into your feelings and let them out onto your ST. The most imaginative and original piece gets printed and wins the artist the snazzy gear – get in that garret and suffer a bit.

■ You too could create roses like this if you win!

RULES BOX

1 No cheating.
2 No, honestly, we said no cheating, and no duplicate entries or ripped-off graphics either. We will certainly notice then we'll put your name and address on file and make sure you are on every advertising mail list in the country. And abroad.
3 The competition is not open to anybody who works at Future Publishing or their families – even if you happen to know somebody very vaguely who once entered the building that still seems pretty dodgy.
4 The judge's verdict is highly suspect, but final no matter what.
5 Any entry featuring Arnie, Porsches or Batman will be laughed at unrelentingly and then binned without a second thought.
6 The scanner is the prize and the prize is the scanner – no bargaining, that's that.
7 Entries to be sent to Now That's What I Call Art, *ST FORMAT,* 30 Monmouth Street, Bath Avon BA1 2BW.
8 Closing date for entries – teatime Friday 5 March 1993, absolutely finally.

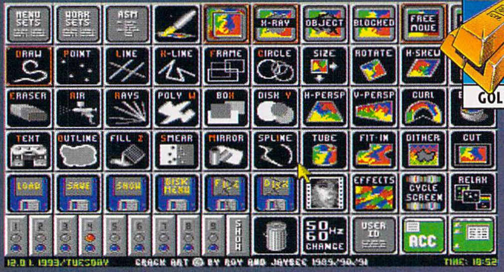
The art of jargon busting

Art has always used a language of its own, so there's no reason why digital art shouldn't follow suit

ANTI-ALIAS – a method of smoothing the transitions between colours using intermediate colours.
BLOCK – a section taken from a picture, it can be any size.
BRUSH – a painting tool, a shape which replaces your mouse pointer, used to lay down colour.
FILL – flooding an area of colour with another colour or a pattern.
FLIP – reversing a block either vertically or horizontaly.
GREYSCALES – pictures in greyscales are made from different shades of grey, like black and white TV pictures.
GRID – an overlay on the screen making it easy to position things accurately.
K-LINE – a drawing tool that produces a continuous line.
PASTE – putting a copy of a block onto the screen.
PIXEL – short for Picture Element, these are the dots that your ST uses to build up an image on the screen.
ZOOM – vital for detailed work, it takes a section of screen and blows it up to make pixel-perfect editing easy.

NEXT TO NOTHING, APPARENTLY

For one reason or another, art programs are a popular choice for programmers. There are a good few examples doing the rounds as Shareware and Public Domain software. Some of them are truly dire, mostly passable and there are a few that sparkle. These are they



■ *Crack Art* needs 1MByte to run and you can easily see why - it's got more functions than you can comfortably hold in your head at any one time.

CRACK ART

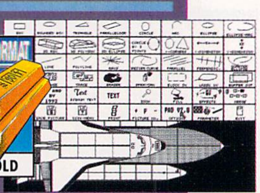
GOODMANS INTERNATIONAL – DISK GD 1524

A brilliant piece of software, if you want to work with low resolution graphics then check this one out. Very slick, very fast and jam packed with features. There is a small army of special effects including two versions of anti-alias, relief, diffuse and loads more that aren't in any other package. There's a good clutch of block effects too. They don't come much better than this.

***STF* Rating: 94%**

PAD

FLOPPYSHOP ST – DISK ART 73



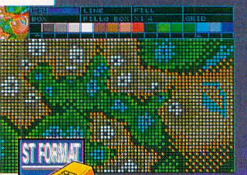
■ Look no further - in the high res images game, *Pad* is terrific, smooth and fast.

If your artistic bent takes you into high res, *Pad* is a good place to start. There is a full range of tools and block functions, plenty of parameters to fiddle with and it supports a whole clutch of file formats. It follows the familiar pattern, half the screen is the drawing area and the rest juicy icons. There are fill, brush and spraycan editors, Bezier curves, dimensions, cuddly toy, editable printer driver and more. You're going to need 1MByte.

***STF* Rating: 91%**

SYNTHETIC ARTS

FLOPPYSHOP ST – ART 3139



■ *Synthetic Arts'* impressively fast zoom mode, add this to a list of equally impressive features and everything starts to look rosy.

A glittering low resolution paint program with icons in all the right places. It operates in a similar way to *Neochrome;* half the screen is the drawing area, the other half is packed with icons. Everything is well presented with plenty of options to adjust. Among the goodies are overscan pictures built up from four smaller screens. A slick and comprehensive job that gives all but the very best art programs a run for their money.

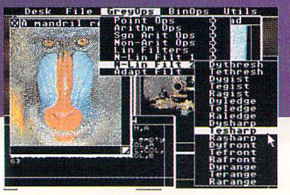
***STF* Rating: 90%**

AIM

FLOPPYSHOP ST – DISK ART 3488 AND 3489

The *Atari Image Manager* is a massive and powerful image analysis and processing tool – not the sort of thing you can pick up by testing the options out; you need to send off for the 100 page plus manual before you can get the most out of it. *AIM* handles 8-bit pictures with 256 greyscales, although you can gear things down a bit and use *Neochrome* and *Degas* pictures. The list of functions is impressive and almost unintelligible. A unique and remarkable program.

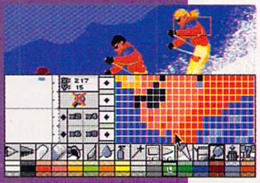
***STF* Rating: 81%**



■ Look at the huge number of options available in *AIM!* Quite amazing.

EZ ART

GOODMANS INTERNATIONAL – DISK GD 1470

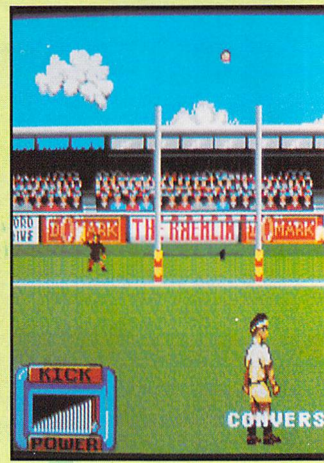


■ *EZ Art* in full flow, zoom box out, strip of icons and the like.

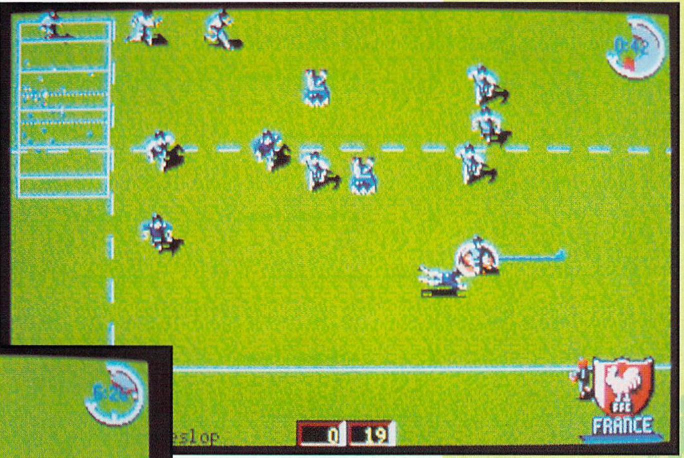
Version 1.7 of *EZ Art* uses the familiar screen of icons to select the drawing functions. It runs in low resolution and there are the full range of tools you would expect, including lock to grid, mirror and a fairly wide range of drawing tools. Its main claim to fame is the ability to edit A4 and A5 pictures as well as *Neochrome* and *Degas* screens. It's not the fastest or well-featured of programs, but has all the basics and a few flashy bits as well.

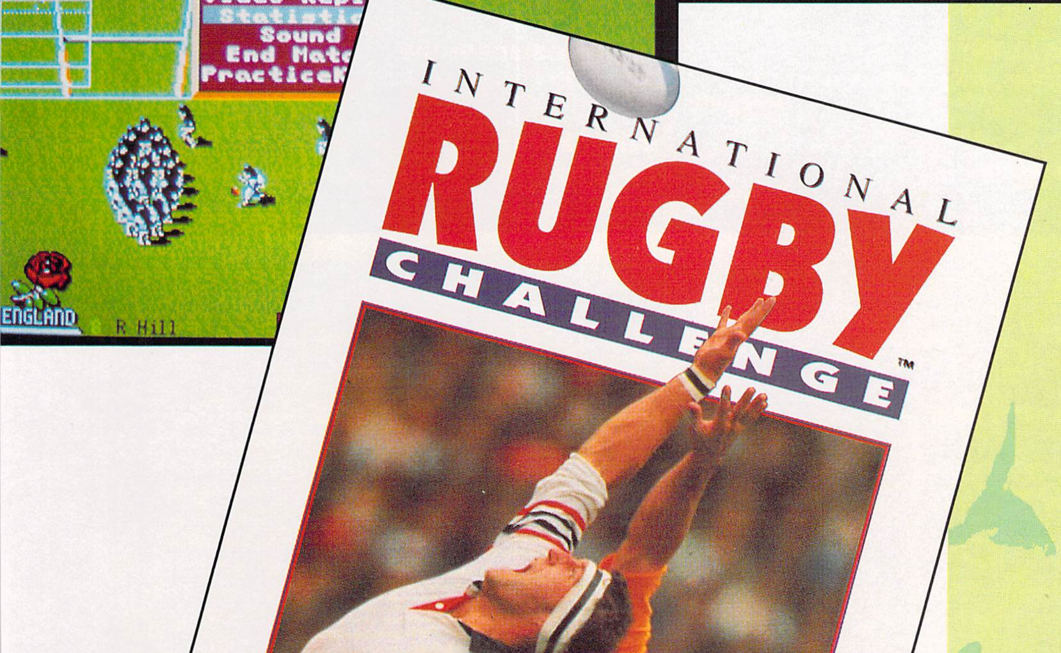
***STF* Rating: 79%**

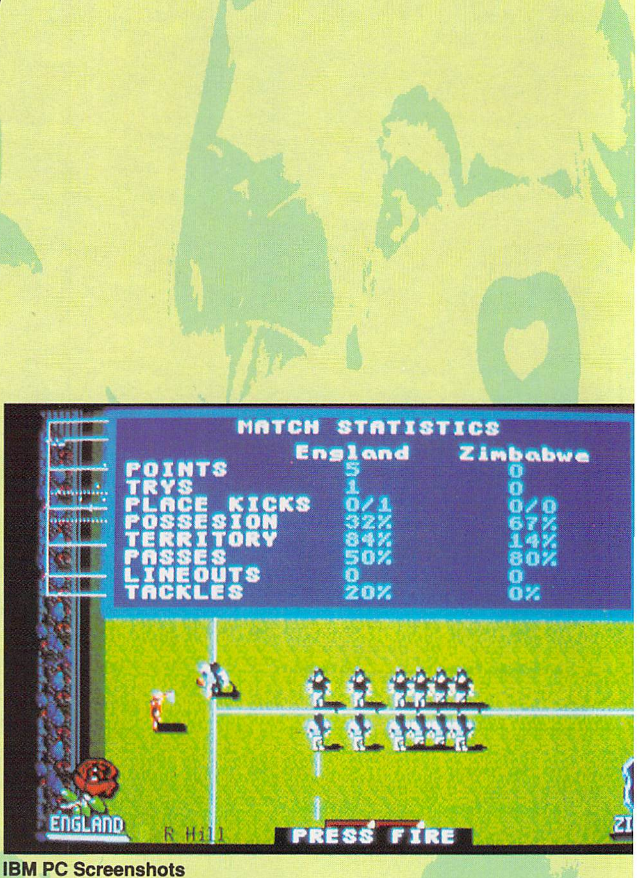
INTERNATIONAL RUGBY™ CHALLENGE



THE DEFINITIVE RUGBY SIMULATION







MATCH STATISTICS

	England	Zimbabwe
POINTS	5	0
TRYS	1	0
PLACE KICKS	0/1	0/0
POSSESION	32%	67%
TERRITORY	84%	14%
PASSES	50%	80%
LINEOUTS	0	0
TACKLES	20%	0%

IBM PC Screenshots

Artwork, Packaging and Instructions © 1993 Domark Group Ltd. Ferry House, 51-57 Lacy Road, Putney, London SW15 1PR. Programming by Oxford Mobious. Produced by Kris Hall and Nathaniel Wilson.

DOMARK

44
COVER DISK
ST FORMAT
GRAV 2
A severe blasting all round
Little bugs meet their maker in INSECTICIDE
PICTURE CONCEPT
Give your screens a whole new twist with this great graphics utility
PICTURE SNATCHER
Grab program screens.
COLOUR DUMP
Print in colour!
M-DISK
RAMdisk, disk copier, and cache Accessory.
DSLIDE
The smoothest slideshow.
PLUS!
Three Desk Accessories - and much more!
ALL PROGRAMS STE AND TOS 2.06 COMPATIBLE

COVER DISK 44

With a massive 15 programs on this month's disk, Chris Lloyd doesn't know where

■ Are your pictures looking a little, you know, square? Straight edges everywhere and no groovy organic curves. No problem - *Picture Concept* can sort that out for you with the Planet effect. Wow!

FOR YOUR DELECTATION

PICTURE CONCEPT
An excellent graphics distorter and fiddler.
Page 22 - 23

■ Have you read the feature on digital art yet? Page 14.

GRAV 2
Brilliant point and thrust game with buildings to blow up.
Page 24 - 25

INSECTROID
Classic shoot-'em-up action with yucky insects.
Page 26

PROGRAMMING LISTINGS
GFA and assembler code cracked.
Page 26

■ Assembly tutorial starts on page 110.

SCREEN SNATCHER
Steal graphics straight off the monitor screen.
Page 25

BACK-UP
Better be safe than sorry.
Page 27

ACCESSORY GAMES
Three games to fill your Desk menu with.
Page 24 - 25

■ For more information on useful and useless Desk Accessories turn to page 49.

MDISK
Dead flashy RAMdisk and copier utility.
Page 24 - 25

MONITOR MAGIC
Change those screen colours.
Page 24 - 25

COLOUR DUMP
If you have a colour printer, you need this.
Page 27

DELUXE SLIDESHOW
Completely smooth and reliable.
Page 26

FUNK ALERT
Dead handy utility for handling alert boxes.
Page 26

THE BIG USEFUL BOX

FILE MENU

Load and Save – uses the selected file format to load and save your pictures.

Clear – clears the screen completely, use only if you are absolutely sure that that's what you want to do.

Delete – deletes a file from the disk selected with the file selector – use only if you are totally sure.

New Drive/Folder – enables you to type in a new file path to load or save pictures in other directories – that's if you don't particularly want to use the file selector to move your disk about with.

Degas and Neochrome – selects the file format you want to save your picture as.

Full Screen/Undo – if you didn't like your last move, you can undo it. The screen flickers between the current picture and the previous picture, press the mouse button to stop it. The screen flickers very quickly so you might have to try it more than once to reach the right screen.

Quit – ends your session and sends you back to the Desktop.

EFFECTS MENU

Rectangle – degrades the picture, making it pixellated. You are prompted for the new size of the pixels – numbers between two and five look best.

Reduce – squashes down your picture. A box appears, move your mouse around until the box is the size you want and click the mouse button. Your picture is redrawn in the new size.

Curve Hor and Curve Ver – gives your picture a lovely wavy shape. A line appears – this is the edge of your new picture. Move the mouse around until you like the look of it and press the left mouse button to redraw the picture in its new wibbly form.

Inversion Hor and Inversion Ver – simply flips the picture round horizontally or vertically giving a mirror image.

Tear – adds a torn-looking edge. You are prompted to enter the value of the jaggedness of the border. Nought is a straight line and 500 is very jagged.

Plane – an ellipse appears. You can change the size of it with the mouse – when you're happy, press the mouse button. Your picture is then mapped onto the new shape.

Cylindre – maps the picture onto a cylinder. You are first asked how many copies of the pictures are going on the cylinder. Then an ellipse appears, this is the end of the cylinder. Move it about with the mouse until you're happy and press the button.

Frame Hor and Frame Ver – these are very powerful commands that squash the picture into the shape of your choosing – either vertically or horizontally. First, choose between whether or not you want a symmetrical shape, then press the mouse button and move the mouse about. The line that is traced is the new edge of your picture. It takes a few seconds to produce the new screen, but the effects are remarkable.

Mix – this is an unusual one, it mixes two pictures together. Select a second picture with the file selector and the two are

Before you take even one step further, read this carefully

Tread carefully
To keep your *STF* Cover Disk safe, write-protect it by moving the black tab so you can see through the hole. Nothing can now be written to your Disk. Write-protection also keeps your Disk safe from viruses.

Study the map
Space on the Cover Disk pages is limited, so you may find text files for some programs on the Disk. These have the file extension .DOC. It's always a good idea to read these for more information on a program. Double-click on them and select Show to display the text. If text disappears off the screen when you try to read a DOC file in low res, change to medium resolution and try again.

Avoid the pitfalls
To keep your *ST FORMAT* Cover Disk safe you should make a backup, so if anything goes wrong, you still have the original. Because we use a special disk format to squeeze programs on to the Disk, you can't do a direct disk to disk copy. We've made life easy for you, however, with this *Back-up* program. Follow the instructions on page 27 and you can't go wrong. Now there's no need to risk damaging or losing your disk again!

Some programs are compressed to fit on the Disk and cannot be run directly from it. Follow the instructions here and it'll all be fine.

Is your drive obsolete?
We use a double-sided disk format. If you only own a single-sided drive you can't read *STF* Cover Disks, or much of the new software since single-sided drives are obsolete. We showed you how to fit internal drives in *STF* 32 – turn to page 66 to order a copy if you missed it.

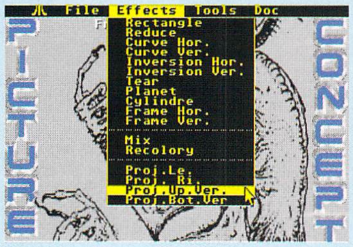
Picture Concept

BY: THE CONCEPTORS
RESOLUTION: LOW RESOLUTION
FOLDER: PICTURE
FILES: PICTURE.TOS
GET STARTED WITH: SEE BELOW

■ **Add that special dash to any picture with *Picture Concept* - and here's one we prepared earlier. Notice the fetching wavy wobbly effect. The original was halved in size by using Reduce. A small band of piping around the base completes the effect.**

The real power of using your ST for graphics comes when you start applying special effects that are completely impossible with traditional methods. Using the techniques of stretching, squashing and recolouring adds a whole new dimension to your artistic life. *Picture Concept* can do all this and more, including mapping pictures onto cylinders, linking them to a sine wave and generally distorting them so that their own mother wouldn't recognise them.

To fit so many goodies onto the Cover Disk, *Picture Concept* has been compressed. Copy the PICTURE.TOS file to another disk with plenty of blank space on it, and then run it. The files then start depacking and writing themselves to your new disk. After a few minutes you have a working copy. Run PICTURE.PRG from your new disk. The first thing that appears is an introduction screen, from here you can press <F2> to go to a disk coping program. You are asked for the *Picture Concept* disk, but it copies all standard disks. Pressing <F1> takes you into the strange world of picture squashing, press the Spacebar to get the menu on-screen.



■ ***Picture Concept* shows off a healthy looking menu of effects. Armed with such weaponry no self respecting picture is safe from their weird twistings.**

Picture Concept is a totally menu controlled program. You can practise with the picture that is already loaded, or you can go to work on your own creations first. *Picture Concept* can load and save *Neochrome* and *Degas Elite* low resolution pictures, and every decent colour art package can handle these formats. Have a read of our exploration of the functions, dig out all your graphics and have a good fiddle.

Shareware

A lot of the programs on the Cover Disk this month are something called Shareware. This is a method of distribution – the author gives permission for his work to be copied and used by anyone who fancies it. In return you are asked to register your copy of the program with him if you use it a lot. It's generally not much money, a fiver or tenner. You often receive updated versions, other programs and/or documentation as well as a pleasant warm feeling for having done the right thing. If you like seeing quality software distributed on the ST then the Shareware principle needs your support. If an author receives lots of encouragement, then they release more stuff and write bigger and better programs. Now, you want that to happen, don't you? If you regularly use or play any Shareware program, then register it, and the whole scene becomes a lot healthier.

blended together. It works best when the palettes of the two pictures are similar with lots of shades of the same colour.

Recolory – recolours the current screen with the palette of another picture that you've chosen with the file selector.

Proj Le and Proj Ri – gives you a symmetrical picture vertically by copying either the left or right half onto the other side

Proj Up Ver and Proj Bot Ver – as above but copies either the top or the bottom half to the other side giving a horizontally symmetrical picture.

TOOLS MENU

Zoom – a little square appears on your screen – move it over the section you want to zoom in on and click on your mouse button. The display changes to show the choosen area close-up. You can actually edit individual pixels if you want. Choose the colour from the palette at the top and click on the expanded image to edit it. Click with the right mouse button when you've finished and pick another area with the left mouse button or the right mouse button if you want to return to the menus.

Get – this grabs a section of the screen – move the intersecting lines to where you want the top left corner of the block to be, press and hold the left mouse button down. A box appears, move it around until you are happy and then release the button. This area is now captured as a block.

Put – any captured block can be placed onto the screen with Put. The captured block replaces the mouse arrow. Move it around until you're happy with the position and click the left mouse button. A copy of the block is placed at that position on the screen. Click the right mouse button when you've finished.

Stipple – Works like the above Put command but places lots of copies down in slightly different positions – can be useful with small blocks to make interesting and quick backgrounds.

Invert H and Invert V – works like Inversion but only works on the selected block, flipping it vertically or horizontally. You don't see the final effect, though, until you go to put the block back on the screen.

Stretch – a copy of the block appears in the top left of the screen along with a rectangle you can move about with the mouse. This is the new size of your block. To choose the new shape, click the left mouse button; the right button takes you back to the main screen.

Eraser – a small square appears – this is your eraser, click on the left button to wipe the area under it or the right button to return to the main menu.

+ – Change – takes you to a screen showing two rows of colours. Select the colour you want to change from the top row and the colour you want it to change into from the bottom row. Right click when you're done. The picture is not affected until you use the Change tool.

Change – intersecting lines appear, click and hold the left mouse button and drag it to form a rectangle. The colours inside this area are swapped around depending on your selected colour, using + – Change.

MASTER CONTROLS

***Grav 2* is either keyboard or joystick controlled, depending on whether you press the Spacebar or your <Fire> button when the title screens appear**

Menu screens

JOYSTICK: Move the cursor with your joystick, use <Fire> to select the equipment and move your joystick left and right to adjust the ship's abilities.

KEYBOARD: <Control> and <Alternate> to move cursor up and down, <;> and <,> to move left and right or adjust the ship's abilities and the Spacebar to select the equipment.

In combat

JOYSTICK: Use your joystick left and right to rotate the ship, forward to thrust and furiously hit that <Fire> button to, er, fire.

KEYBOARD: <;> and <:> to rotate the ship, <Control> to thrust and <Alternate> to fire.

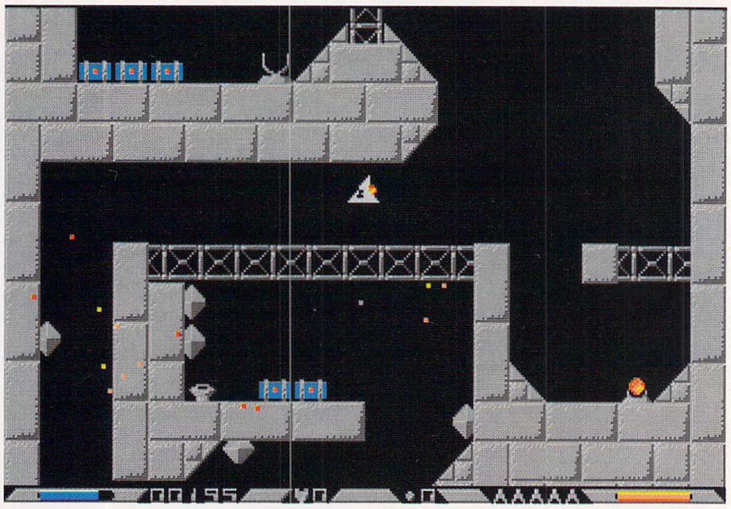
Special equipment

<Return> selects special weapons or different pieces of equipment and the Spacebar activates it – or you can always use the following individual keys.

<Q> fire bomb.
<A> use defence laser.
<S> use programmed retro rockets.
<Z> use cloaking device.
<X> use timer shield.

Other useful keys

<S> saves high score to disk while you're on the menu screens.
<P> pauses things.
<Backspace> scuttles ship.
<T> teleport up and end mission.



■ **The field of play in *Grav 2* - some hostile planet full of strange new lifeforms that have taken a distinct disliking to you. Along the bottom from left to right you have - fuel, score, number of impact shields, special weapon, number of ships remaining and ammunition remaining.**

Grav 2

BY: MARTIN BROWNLOW
RESOLUTION: LOW ONLY
FOLDER: GRAV2
FILES: RUN_ME.PRG, X_GRAV2.BWE, X_GRAV2.TOS
GET STARTED WITH: RUN_ME.PRG

Do you consider yourself a calm and rational person? Not the sort who's going to jump around the room shouting very loudly, just because you've smashed into the wall at exactly the same point you did with your last three ships? If you don't, then *Grav 2* could be the program that has you jumping around the room shouting very loudly because – er, you just smashed into the wall at exactly the same point as you did the last three times.

Grav 2 is a classic point and thrust game – you guide a little space ship through tortuous tunnels, blowing up anything that takes your fancy, challenging stuff this. To pack this multi-level monster onto the Cover Disk it has been compacted. Get a spare disk ready, open up the GRAV2 folder and run the cunningly-titled RUN_ME.PRG, then insert your new disk when prompted. A few minutes later you have a working copy. Run GRAV2.PRG from your new disk and away you go. Press the Spacebar or the <Fire> button on your joystick to get past the beginning screens, after you have admired the digitised soundtrack, of course. Depending on which you use – <Fire> or the Spacebar – it dictates the active control method, joystick or keyboard.

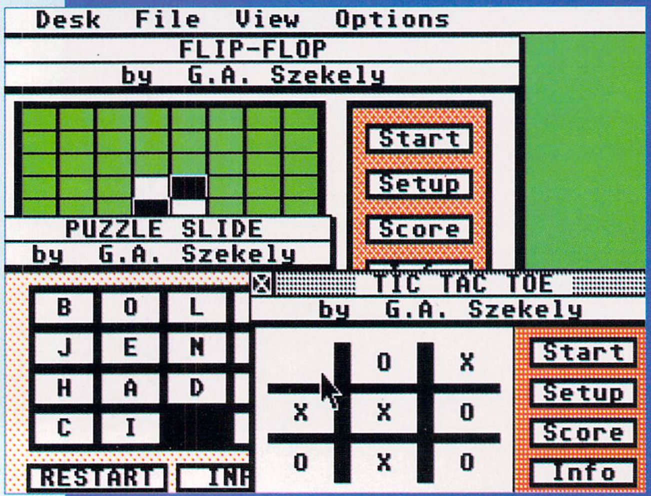
Each planet has a mission – generally to destroy a base or something – when you have completed it, there is a bleep and a flashing "T" appears, press <T> to teleport out and end the level. There are three useful buildings to look out for – fuel dumps, ammunition dumps and computers. Land next to them if you want them to be activated. Landing next to a computer causes a flashing "C" to appear, meaning you have downloaded your status – this changes your starting position if you should die before completing the planet or replaces the planet with another if you have achieved your objective. This is the only way to reach the new planets and the higher levels.

Success requires a steady hand and nerves, you need to develop pixel perfect manoeuvring and shooting. The sense of achievement when you complete a planet's objective and teleport out of there, is almost indescribable. On the other hand, the frustration and urge to start shouting very loudly you feel when you smash into the wall for the fourth time in a row at exactly the same point... er, yes. Good luck. You'll need it.

ACCESSORIZE!

These programs are a special kind – they're known as Desk Accessories and you don't use them in the normal way. First you need to copy the .ACC files to the root directory of a blank disk, and boot with that disk in the drive to load them. They are then memory-resident and can be used by selecting them from the Desk menu. A trifle confused?

Turn to page 46 for our feature explaining all the ins, outs and roundabouts of Desk Accessories.



■ **Three games on the go at once, clever things, these Desk Accessories. You shouldn't have too much trouble with *Puzzle Slide* and *Tic Tac Toe*. *Flip Flop*, however, has your ST playing a damned difficult game.**

Accessory Games

BY: G A SZEKELY
RESOLUTION: ALL RESOLUTIONS
FOLDER: ACCGAMES
FILES: ENT_PACK1.DOC, FLIPFLOP.ACC, READ_ME.DOC, TIC_TAC.DOC, PUZSLIDE.ACC
READ: READ_ME.DOC, ENT_PAK1.DOC

With the best will in the world, word processing or working on a database can sometimes get a bit dull. What you need is a quick relaxing and diverting game. Trouble is, you need to save all your work, exit the program and load the game and then reverse everything again afterwards. Hardly worth it for a few minutes diversion. The answer is, of course, in Desk Accessory games – and here are three little brain teasers to keep you amused during long hours of serious stuff. The games are *Puzzle Slide, Flip Flop* and *Tic Tac Toe*. All familiar and easy to use.

Puzzle Slide has you rearranging letters to form the alphabet, like those little plastic puzzles. Just click on a letter above, below or to the side of the space to slide things about and Restart to, er, restart. Simple and engrossing.

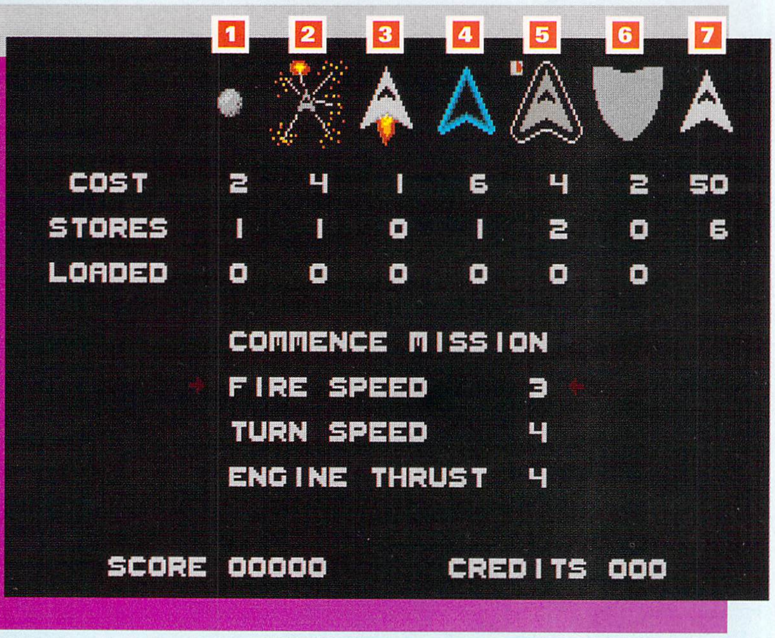
Tic Tac Toe is the American name for noughts and crosses. Click on Setup to decide who is what, and who goes first. You can play your ST or another sentient lifeform. Click on Start and away you go.

Flip Flop is similar to *Othello* but with a few subtle differences. You can place your pieces anywhere on the board next to an opponent's piece. Any of his pieces between yours now change colour. It's a simple enough game to play but difficult to master. Click on Setup to choose sides and Start to get the ball rolling. Full details of all three games are in the ENT_PAK1.DOC.

TOOLING UP

Before launching yourself into the turmoil of Grav 2, you can bolt on all sorts of goodies to your little pointy ship and adjust its abilities. These additions should make you journey more comfy. Move the cursor over the cost of the equipment you would like to buy, and place it into your stores, then select the stores to bolt them onto your ship. Adjust the handling characteristics to your liking and select "Commence Mission" to test your mettle

1. **Bombs** – a nice big shot that can take out a few enemies at once.
2. **Defence laser** – when activated, destroys all nearby projectiles.
3. **Retros** – computer-aided retro rockets that stop you dead.
4. **Cloak** – hides you from the aliens for a while.
5. **Shields** – protect you from all those nasty bullet things for a limited time.
6. **Impact shield** – protects you from one bullet hit.
7. **Space ships** – you start out with six of these; if you save up a bit you can buy more.



```
COST      2   4   1   6   4   2   50
STORES    1   1   0   1   2   0   6
LOADED    0   0   0   0   0   0

          COMMENCE MISSION
          FIRE SPEED      3
          TURN SPEED      4
          ENGINE THRUST   4

   SCORE 00000          CREDITS 000
```

Screen Snatcher

BY: DOUGLAS HENDERSON
RESOLUTION: ALL RESOLUTIONS
FOLDER: SNATCHER
FILES: READ_ME.DOC, SUPREME.PRG
READ: READ_ME.DOC
GET STARTED WITH: SEE BELOW

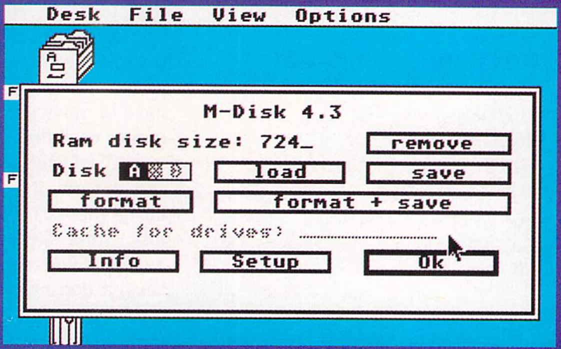
If you've looked longingly at graphics on your ST and wished you could capture them for your own nefarious purposes, then look longingly no more. The *Supreme Screen Snatcher* is a terribly clever little program which enables you to break into programs and save the screen to disk as a *Degas Elite* file; these are then ready to be loaded into your art packages and edited. Do a couple of little changes, put your signature in one corner and flog it off as all your own work. No, of course you wouldn't even think about doing that.

Grabbing graphics directly off the screen can be dead handy, though. The *Supreme Screen Snatcher* is what's known as a TSR program – that's short for Terminate and Stay Resident. Once it's up and running it sits in the background waiting to be used while you use other programs. To get things going, you need to run the SUPREME.PRG either directly from the Desktop or by putting it into an AUTO folder.

A lot of commercial games are auto-booting only and have copy-protected disks – this makes it impossible to run *Snatcher* first. Apart from these you should be able to break into anything. There is a quick text message to show you when it has installed properly – this then disappears. Get the graphics you want to grab onscreen and then press either the right <Shift> key or <Alternate> and <Help> together, or connect pins 20 and 22 on the RS-232 port. The *Supreme Snatcher's* main screen now pops up, press <F1> to see what you've captured; the Spacebar returns you to the main menu and <F2> saves it to disk.

If it's not the screen you wanted or you fancy having a look at the rest of the program, then you can scroll around in memory. Flip to the screen again and press the cursor keys. The <Clr Home> and <Inset> keys move you about in larger chunks and the <Undo> key returns you to the original position.

Once you've done your grabbing, press <Esc> to return the control to the other program as if nothing had happened. Clever or what?



M-Disk 4.3
Ram disk size: 724_
Cache for drives:

***M-Disk* with its disk formatter, RAMdisk and copier, settles back onto the Desktop and strikes a "am I cool or what?" style poise - the cheeky blighter.**

M-Disk

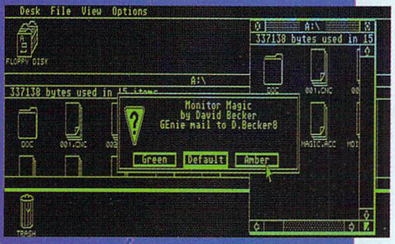
BY: CHRISTOPHER STRUNK
RESOLUTION: ALL RESOLUTIONS
FOLDER: MDISK
FILES: MDISK.ACC, MDISK43.DOC, MDISK43.TXT
READ: MDISK43.DOC, MDISK43.TXT

M-Disk provides a RAMdisk with an integral disk copier, a hard drive cache and backup program and a disk formatter – phew! It is ideal for copying disks on a single disk drive system. You can copy an entire disk into the RAMdisk, then copy it all back to your new disk with a couple of clicks of the mouse. A RAMdisk is an area of memory which is treated exactly as if it were another disk drive. *M-Disk* uses drive M as its RAMdisk. If you want to get at it from the Desktop, you need to install a drive M. Select an existing drive icon, then choose Install Disk Drive from the Options menu, enter the letter M as the drive identifier and click on Install. Bingo! You have a new icon; select Save Desktop from the Options menu to save this new configuration so you don't have to keep installing the icon. Copying disks is now just a matter of clicking on Load and then Save, swapping disks as appropriate. Select Format and Load if your target disk isn't formatted – dead easy. MDISK43.DOC has the details of all *M-Disk's* wonderful features.

Monitor Magic

BY: DAVID BECKER
RESOLUTION: ALL RESOLUTIONS
FOLDER: MAGIC
FILES: MAGIC.ACC, MAGIC.DOC
READ: MAGIC.DOC

If you find the standard black text on a white background a strain, then *Monitor Magic* should bring welcome relief. If you don't – not even slightly – find black on white a bother then it won't be a welcome relief at all and you'd probably be advised to stop reading this bit now. When this program is selected in medium resolution, you are offered the choice of a mellow green or soothing amber on a black background. In high resolution you can invert the screen and in low, all you can do is return the Desktop colours to their default colours. All except the bright green that is, which is now a pleasing ocean blue. That's it, eye strain misery is banished and peace and harmony are restored to the optical equipment.



Monitor Magic
by David Becker
GEnie mail to D.Becker8

The mellow colour green, promoting harmonious thoughts and a sense of well being from your ST with *Monitor Magic*. If you fancy a more vibrant experience, you can always try amber.

Insectroid

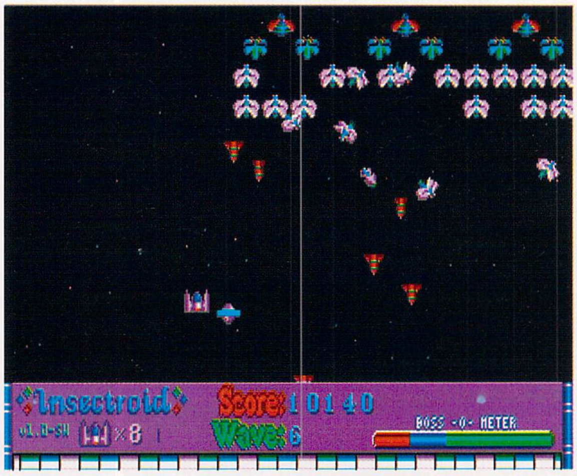
BY: ROBERT DYTMIRE
RESOLUTION: LOW ONLY
FOLDER: INSECT
FILES: INSET512.PRG, INSECT.DOC, INSADULT.TBL, INSCHILD.TBL, REGISTER.DOC AND INSECT.1 TO INSECT.8
READ: INSECT.DOC, REGISTER.DOC
GET STARTED WITH: SEE BELOW

Some games just never go away, do they? *Insectroid* is not unlike that *Galaxians* affair, featuring waves of horrid insect things swooshing and diving down at you. Your task is very simple, shoot everything. It's all joystick controlled.

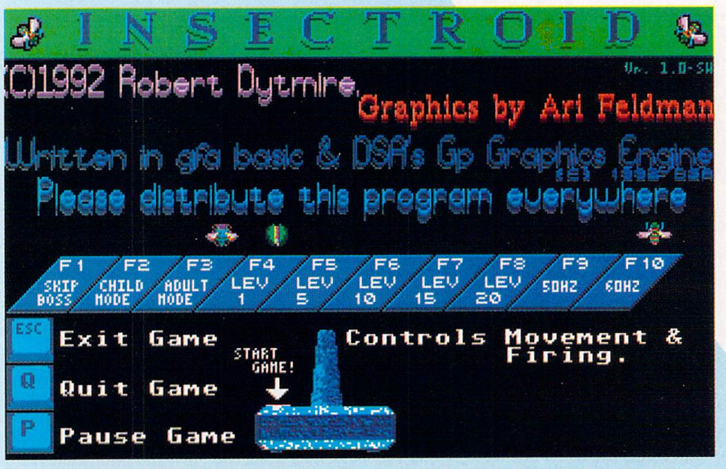
You can run *Insectroid* directly from the Cover Disk, running the INSET512.PRG program from inside the INSECT folder, your disk needs to be write-enabled, though. Running your Cover Disk write-enabled won't do it any harm, but it does make it possible to accidentally erase something – not a good idea. It's best to run it from your backup copy.

Once you're up and running, you can start blasting away. You score more points if you zap the aliens while they're diving at you. Shoot all of them and you are just going to enter a new level. Every fifth wave is what they call a challenge wave, with the chance of a healthy bonus score. Every tenth wave there's a large and nasty boss thingie which takes lots of hits to get anywhere near destroying it – the Boss-O-Meter shows how tough it is.

You can also give yourself a boost, if you want. Allow an alien from the top row to reach the bottom of the screen – if blue beam things appear then fly into them. Your ship is then whisked up to the top of the screen and replaced with another. Shoot the alien holding your old ship as it dives down towards you, and the alien releases the ship – it hasn't got much choice, since it's dead – which comes and joins you. Hey presto, you now have double firepower. Waste one wave of aliens and another appears; it's all fast and furious and ready to be run, so what are you waiting for?



If you're looking for an arcade shoot-'em-up involving lots of insects, and a small ship armed with a gun of some sort, with lots of levels, you're in luck, aren't you? *Insectroid* has all that as well as funny sampled sounds.



INSECTROID

Vr. 1.0-SW

(C)1992 Robert Dytmire

Graphics by Ari Feldman

Written in gfa basic & DSA's Gp Graphics Engine

Please distribute this program everywhere

Controls Movement & Firing.

This is *Insectroid's* main option screen. There is a child mode, which is a bit easier, and you can start at different levels. Once you've sussed out the names of the bosses, you can skip to that level too.

Fractal Landscape Utility

BY: DAVID BILLINGTON
RESOLUTION: ALL RESOLUTIONS
FOLDER: FRACUTIL
FILES: ANTOPI.TTP
GET STARTED WITH: SEE BELOW

Last month we brought you the amazing *Fractal Landscape* which could not only use the principles of fractal mathematics to draw amazingly realistic landscapes but could do animations of wild helicopter rides through them. The only trouble is, if you want to take these animations and work on them in an art package – or any other graphics utility – you can't. This is because the animations were stored in one big file. This little utility splits the file down into individual *Degas* pictures. Just enter the path and name of the file at the dialog box when you run ANTOPI.TTP.

If your animation was called DEMO.AN1 on a disk in drive A, for example, you would enter A:\DEMO.AN1. The file is then loaded and the screens are saved out. Make sure you have enough room on the disk, though.

Deluxe Slideshow

BY: JOHN BROCHU
RESOLUTION: ALL RESOLUTIONS
FOLDER: DSLIDE
FILES: DSLIDE.DOC, DSLIDE.PRG
READ: DSLIDE.DOC
GET STARTED WITH: SEE BELOW

It's a pain to load up your art program just to display your work, especially if you have loads of pictures. This is when you need a slideshow program which displays piccies automatically for you. *Deluxe Slideshow* is a small and efficient example; it can handle a multitude of formats and has all sorts of options – it even converts pictures to suit the resolution. Copy DSLIDE.PRG to your disk full of pictures and run it. Press <Help> to see the range of commands. With an optional script file you can control the speed and order in which you pictures are displayed.

Funk Alert

BY: CHARLES F JOHNSON
RESOLUTION: ALL RESOLUTIONS
FOLDER: FUNK
FILES: FUNKALRT.DOC, FUNKALRT.PRG
READ: FUNKALRT.DOC
GET STARTED WITH: SEE BELOW

A tiny utility that does a tiny bit of surgery on the way alert boxes work. Usually, you use the mouse to select which option you use, but with *Funk Alert* installed, you can use the function keys instead. Sounds like a small thing, but when you're working away at the keyboard it's a real pain to have to move your hand away to the mouse each time.

To install *Funk Alert* you can run it from the Desktop or pop it inside the AUTO folder on your boot disk. Next time a GEM alert box appears, you can use the function keys. It doesn't work from the Desktop because of the way the functions are called, but from within any GEM application all is hunky-dory.

Assembly Listing

BY: TONY WAGSTAFF
RESOLUTION: ALL RESOLUTIONS
FOLDER: ASSEMBLY
FILES: ASM_EGS.S
GET STARTED WITH: SEE BELOW

Assembly is the most powerful and most difficult of computer languages – but you can get to grips with it, though, if you start following *STF's* new tutorial on page 110.

The Cover Disk listing is directly linked with the tutorial, but if you are into assembly programming and fancy sussing out this listing, then you are welcome to take a look. If it's all a mystery to you and you are ready to have a bash at learning it, turn to page 110.

GFA Listing

BY: MAC MARSDEN
RESOLUTION: ALL RESOLUTIONS
FOLDER: GFA_LST
FILES: BINARY.LST, COPY.LST
GET STARTED WITH: SEE BELOW

Isn't programming wonderful? The chance to test your stuff against the world of logic and against new and strange syntax. Here are two pieces of *GFA Basic* that go with questions in ST Answers.

One, COPY.LST, copies files and the other, BINARY.LST, performs something called a binary search. If you feel that these are the sort of programs you need, turn to ST Answers on page 58 for a more sympathetic and detailed explanation.

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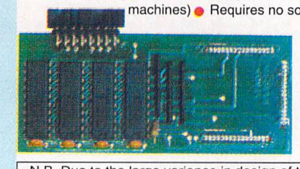

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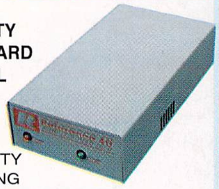

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Before you do anything else, check that you don't have a single-sided drive (one older than 1988, that can't format any disks to more than 360K) – they can't read *ST FORMAT* Cover Disks. Single-sided drives are obsolete and it's well worth upgrading. Replacement drives are easy to fit and cost as little as £35. We covered fitting new internal drives in *STF* 32 – turn to page 66 to order a copy if you missed it. So your drive's spanking new, or at least it's double-sided. *ST FORMAT* duplicates hundreds of thousands of Disks every month so, unfortunately, some are bound to be defective or damaged in some way. If the Disk just won't load, or you can't open a window at all, there's nothing in it, or the folder names are gobbledegook – the Disk is defective. It doesn't happen often, but please accept our sincere apologies. You're guaranteed a free replacement if you return the Disk to:

***ST FORMAT* March Disk Returns, DisCopy Units 2 and 3, Omega Technology Centre, Drayton Fields, Daventry, North Hants NN11 5RT.**

Enclose a sturdy self-addressed envelope (unstamped – we'll pay for the postage) and a brief letter explaining the problem. If you're worried about trusting your precious Disk to the mails, the Royal Mail's Recorded Delivery service costs only 30p on top of the normal postage. Please don't send your defective Disk to any other address than the above one – we have no stocks of Disks at the Bath offices.

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Your Disk seems OK; everything loads, but you've got a problem with one of the programs. Make sure you've read all the relevant Cover Disk pages and any document files on the Disk. Try consulting your ST owner's manual – that may have the information you need. Still got a problem? Then give us a ring on Wednesday afternoon. Telephone the ST FORMAT Cover Disk Hotline ☎ 0225 442244 on Wednesday between 2 – 6 pm only.

We don't write the Cover Disk programs ourselves and don't know as much about them as the programmers, but we'll do our best to sort your problem out. Please note that the above phone line is for Cover Disk problems only. If you have any other queries, read on!

3. I have a problem with this other program I bought!
The best place to start is the distributor of the program. Most software houses run some kind of helpline service – check the information that came with your software for the number.

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You *could* win loads of cash!

We'll pay for your software – games, utilities, demos – anything good, original and short. If you've written anything worthy of appearing on *STF's Cover* Disk, send it with this form and full documentation to: Chris Lloyd, *ST FORMAT* Cover Disk Editor, 30 Monmouth Street, Bath, Avon BA1 2BW. Please be patient: we get absolutely loads of submissions, and we try to give them all a fair testing!

Name

Address

________________ Daytime phone ________________

________________ Program title ________________

________________ Total size in K ________________

On a separate sheet, explain concisely what the program does and why you happen to think it's so brilliant.

Remember to: ■ Include on-disk and paper documentation ■ Write your name and address on the disk ■ Use a virus-free disk ■ Keep a copy of your program, because contributions are non-returnable ■ Enclose an attractive bribe. Not that it makes a difference.

Please sign the following declaration: This program is submitted for publication in *ST FORMAT*. It is wholly my own work and I hereby agree to indemnify Future Publishing against any legal action should copyright problems arise.

Signed ________________

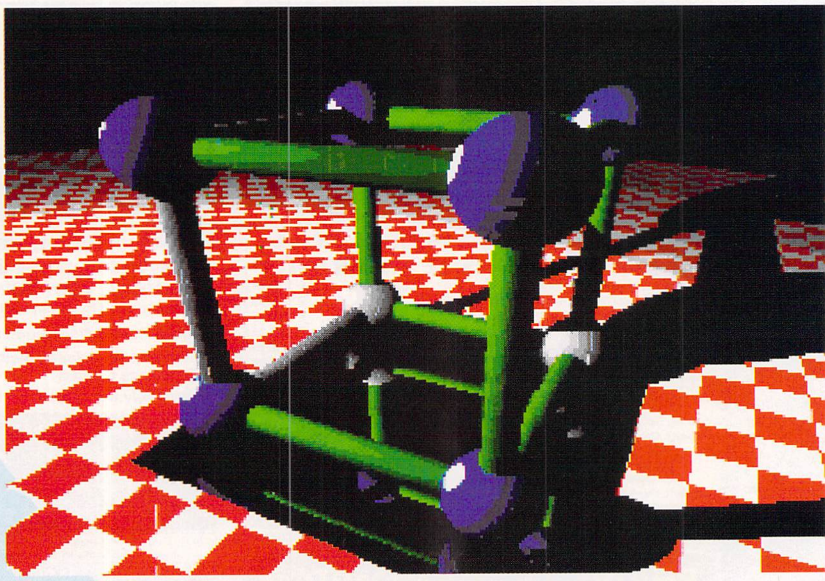
Printing utilities

BY: TONY BARKER
RESOLUTION: LOW RESOLUTION
FOLDER: COLPRINT
FILES: COLDUMP.DOC, COLDUMP.PRG, SPECPRNT.PRG, SPECPRNT.PRG
READ: COLDUMP/DOC, SPECPRNT.DOC
GET STARTED WITH: SEE BELOW

Got a colour printer? Yes? Bet you're annoyed 'cos you can't easily get decent colour print-outs, aren't you? These two programs should sort you out. *Colour Dump* replaces the standard printer dump with a colour one and *Spectrum Print* handles the previously impossible task of printing out *Spectrum 512* pictures. *Colour Dump* replaces the printer dump obtained by pressing the <Alternate> and <Help> keys.

Just run COLDUMP.PRG from the Desktop or an AUTO folder and answer the questions as they appear, just press the appropriate keys – you can save the configuration to make things a bit quicker next time. The program then disappears into the background until you press the right keys and, as if by magic, it then appears in colour.

Spectrum 512 Print does the more complex job of handling the special file format of *Spectrum 512*. Run SPECPRNT.PRG, select Continue and then use the file selector to pick your picture and choose your print options, and away you go. There are text files with more details on both these programs on the disk.



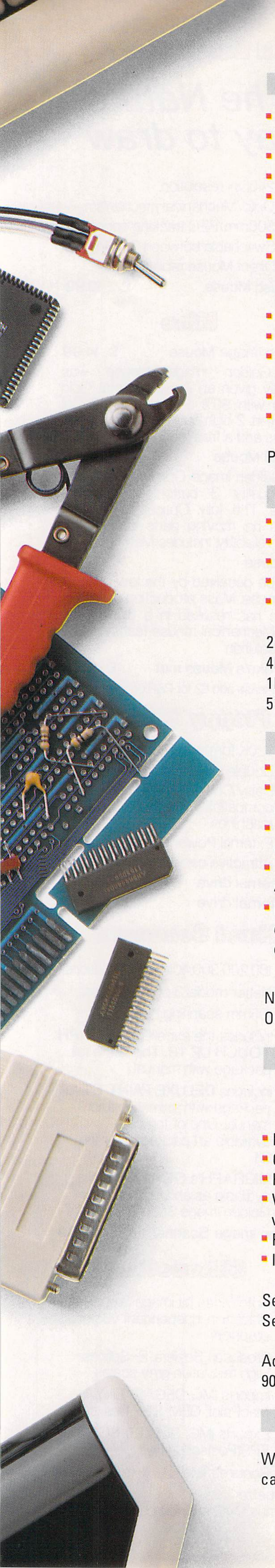
■ **Stunning pictures like this *512* colour effort are, for the first time, printable on colour printers. Thank you, *Spectrum Print*, we love you.**

Back-up

BY: BRIAN TILLEY
RESOLUTION: ALL RESOLUTIONS
FOLDER: BACK_UP
FILES: BACK_UP.TOS
GET STARTED WITH: BACK_UP.TOS

Your Cover Disk could go wrong. It's a horrible and sobering thought, but one day you could reach into your disk box only to find that it has mysteriously melted. To protect you from the emotional scarring such an event would induce, you should make a backup copy of all your applications, including your Cover Disk.

The Cover Disk uses a special extended format so we can pack more programs on it. It also means you can't do a standard Desktop copy. A simple solution is to use the utility *Back-Up* thoughtfully provided on the disk. It does the whole thing without breaking into a sweat. The first step is to write-protect your disk, so nothing can be written to or deleted from it. Move the little black tab at the corner of the disk so you can see through the hole. Now get a spare disk ready, and run BACK_UP.TOS. Up pops a menu, press <1> and things are set in motion, just swap disks when prompted. In no time at all you have a lovely fresh copy. The source disk is the one you make a copy of and the destination disk is the one you are copying it to. If you're lucky enough to have two disk drives, then drive A is used for the source disk and drive B for the destination disk. *Back-Up* is pretty smart and uses all the available memory, so if you have 1MByte or more, you only need to make one disk swap. *Back-Up* can be used to back up most other disks, press <2> to see if it's possible. Don't bother trying to make backups of commercial game disks unless the manual tells you to. They use some clever copy-protection tricks to stop you. Other than that, you can make quick copies of most disks without hassle, nice one.



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- Now you can switch between your disk drive and Blitz Turbo without disconnecting your Blitz interface

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Series 900 40MB	£329
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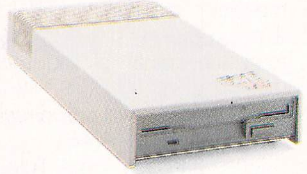
Add £10 for clock to be fitted to Series 900 hard disk

Special Offer

When you purchase this hard drive you can buy Lattice C v5 for £60

Floppy Drives

PC720B



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PC720OI

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(No case cutting but must be small button version)

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- Load and save graphic screens
- Low level disk editor
- Disk analyser
- File editor
- Directory editor
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- Play music
- Load and save music
- Search for soundtracker music
- Search for sound samples

The Ultimate Cartridge £25

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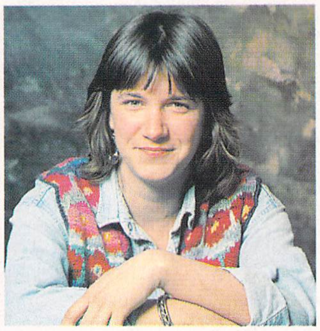
- Requires 1Mb ST, Hi-res monitor.

Silhouette	£	60

Calamus CVG support coming soon.

FEEDBACK



Is the ST world really getting you down? Don't let it! Share your problems with almost 70,000 others - write to The Editor, Feedback, *ST FORMAT*, 30 Monmouth Street, Bath, Avon BA1 2BW

Untrustworthy? No way!

One of the proud boasts in your magazine is that you only review games that are available to the consumer at the time they are published. Well, back in about May of 1992 I saw an advert for the forthcoming game *Plan 9 From Outer Space* and looked forward to buying it. The months went past and finally in your November '92 issue *– see page xx to order a copy if you missed it* – you did the business. I hurriedly contacted Eagle Software and ordered a copy. Weeks passed and I was getting rather concerned that I hadn't received my copy. When I telephoned Eagle, they told me that the game had not been released as yet which leads me to ask how you managed to give a review of a game that is not around? Perhaps your reviewer had nipped across to *Amiga Format* to ask their opinion of the game since that version has been around for some time.

Des Neal
East Sussex

stf: We do only review games that have been released – that is, complete versions – we do not review games that are unfinished and we certainly do not just pop into Amiga Format *and ask somebody else's opinion of the game so that we could write the review – we have high moral standards here, you know. Well, we try. Your problem with obtaining the game is more likely to be with the distribution system. We get the games directly from the software houses. If you're trying to go via a mail order company, however, there are several stages between the game leaving the softies and getting to your front door. Remember, the post is always a bit dodgy around Christmas time and that could have contributed to the delay in them receiving the game.*

Just the odd query...

I have several comments and questions about the Falcon – here goes:

1. Can the Falcon read double-density ST formatted disks?
2. How much is Falcon software likely to cost? I hope it's not assumed that users will pay much more than the average cost of ST software.
3. Despite the Falcon "revolution" this new beast will do absolutely nothing for the ST/E. Many ST owners will sell to buy the Falcon, the ST's games future will still be very worrying, and the main use of the ST that's left – for music, MIDI, DTP and so on – will also be lost as these richer users switch to Falcon. I accept that at some stage in the life of Atari machines, some must be left behind totally for improved versions to be established, but it can't be expected that all ST owners will buy Falcons.
4. Atari and Falcon developers must, as well as developing serious multi-media software, remember to develop feature-showcasing games software for the Falcon, because that's how PC owners and newcomers to home computing will be converted. We wouldn't want the Falcon to be exclusively for serious and business users only.
5. I think *STF* should continue covering Falcon news the way it is at the moment, as well as after the machine is released. However, sooner or later there will have to be a new Falcon mag, or a joint Atari mag with ST/E, TT and Falcon. The latter would be better in my opinion, for the moment anyway, as you couldn't possibly ask Atari owners to buy two £3 mags a month, if they are still deciding between the two computers.
6. Although I think *Gamesmaster* is a pathetic, juvenile, commercially-orientated program that is unfair by totally ignoring Atari computers, it might be a good idea to get the Falcon mentioned on the show. It is, after all, watched by lots of people (mainly console kiddies) who are the future home computer buyers, just as soon as they get rid of their Nintendos and Segas. It gives me great pleasure to see that more consoles are sold in the classifieds of our local paper than anything else.
7. Since no external drives are supported by Falcon, I suppose this means that normal users will end up paying loads for hard drives to run games that publishers have designed for hard drives only. Do Atari think that, by not having two floppy drives, they can prevent piracy on the Falcon?

Atari shouldn't price the machine out of the simple home users range. The £900 hard drive option is far too expensive for someone like me, who probably won't get much for selling her 1987/88 ST. The thing is, I don't want to sell my ST because I want be able to run existing software collections. I hope other ST owners won't abandon their machine in a rush for the Falcon – keep both!

8. Is it likely that existing software that's not in development any more like *TV Sports Football*, *Monkey Island 2* will be converted to the Falcon using its features to produce effects they deserved in the first place? Will it be worth software houses and developers' time and money to do it all again unless, of course, the prices are going to be very high?
9. Incidentally, if you intend to support serious programming on the Falcon and ST, I suggest you shrink the *STOS* section in favour of the far superior C. After all, who's going to buy a computer for its *STOS* support, eh? A lot of people actually buy PCs just for C or Pascal, you know!

A Gunn
Kent

WHO'S TO BLAME?

"It's the dealers' fault!"

It really annoys me when people say the ST is dead... over Christmas my STE sales outstripped Amiga sales by four to one. Of course, if I had explained to my customers that the STE was dead, perhaps they would have considered buying an Amiga, then I too would have noticed a slump in ST sales. Ultimately, the dealer is responsible for the sales or lack of sales of a particular machine.

Certainly, if I tell a customer that the ST is the machine for them, then they always ask me what I use – an ST!

Why do I sell STs? The simple reason is that I believe the ST is a far more versatile computer and certainly I push it as the ideal first computer because it is easy to use, there's plenty of edsoft available and the games are pretty good, too. Once you get as far as GCSE/A level, then there is a wide range of software available to assist with project work – *Timeworks 2*, *PageStream 2*, *1st Word Plus* – and even *Calamus*. As far as ST support goes, I for one will be supporting the ST as long as the software is available. Would I recommend it? Again, yes – every ST unit sold increases the chance of publishers continuing to support it – if dealers say a machine is dead, then it will surely die!

Mike Nash
Nash Computer Services
Cheshire

It's Atari's fault!

In reply to one of your articles about "who's got it in for the ST?" I quite agree with the feature, but you missed out the main culprit – Atari themselves. I didn't see any promotion or advertising in the build-up to Christmas. I went to the Future Entertainment Show, and there were Nintendo, Sega and Commodore, but where the hell were Atari? It makes you think they've given up on the ST – that they're going to hide and hope it goes away, which it will, with little support.

Kim Phillips
Hampshire

SHORT, SWEET AND SOMETIMES SLIGHTLY SOUR

Triumph!

I have just completed *Midwinter* without recruiting anyone at all. The end sequence shows a village with fireworks going off above it, accompanied by a victory passage scrolling vertically. I would like to hear from anyone who has finished it without any help – I think I deserve a reward!

Gavin Corry
County Antrim

stf: Well done, Gavin, that does sound pretty impressive! Well, has anyone else managed to do the same in Midwinter *or feels particularly proud of how they've got through a game without cheating? How do you feel about using cheats in games? Don't you find it more satisfying to use your own skill, judgment and sheer joystick-waggling capability to really get the most out of your games?*

Everybody needs...

Problem solved! All Paul Robinson's (of *Neighbours*, sorry) business problems are down to the fact that he persists in trying to run his hotel on an Amiga – someone ought to put him out of his misery by explaining how useless the machine really is. And Toby as well – on top of his parents going away and him being left with Dorothy, the poor lad's just received an Amiga – takes one amoeba to use one, though, eh?

Ben Irwin
Sheffield

stf: Paul Robinson doesn't seem to have shown much decent judgment in many of his activities, going round upsetting everyone in Ramsey Street, so it's not really surprising that he can't choose a reasonable computer for his hotel, either. Still, the makers of Neighbours *don't seem to learn, what with giving one to Toby, too. Why not cheer yourself up and go ST spotting –* Top of the Pops *is always a good place to start, or if you live in the south west, you could try looking at* Points West *when they feature the Avon and Somerset police offices. Clive Parker even reckons there's an ST on the "off and onable" electricity ad...*

Look! Free!

Thanks for the massive 78% for *SCool not School*, in your PD section of *ST FORMAT 41*. This program has now been vastly improved and anyone who has bought a copy can have a free update by sending their original disk to us, Greenshift Software (Sunset Suite, 23 Holland Road, Hove BN3 1JF) – and not to poor, overworked Mike Goodman – with sufficient return postage and an envelope. Then, maybe, they can start thinking about sending me the £5 registration... thanks, guys.

Andy Why
Greenshift Software
Hove

stf: Cheers for that – if you want that free update then, that's what you must do, sounds like a bargain to us!

We want more games!

Having been a rather pessimistic STE owner for a while, I was pleasantly surprised to see a numerous amount of games on show in *STF 42* – normally you need a magnifying glass to see anything gamewise, so please can we have more game reviews? Also, how about a readers' top ten or something – not only would it be interesting, but it would also show the software houses what games we are likely to buy.

Dave Gillett
Wiltshire

stf: We can only give you as many game reviews as there are games to review – we try and catch them all as they come out to bring you the very best possible games coverage, but unfortunately the number of ST games being released is decreasing every day and that, inevitably, affects us. Top ten games/fantasies/nightmares – anything really – send 'em all in! We love 'em!

What an affront

Have you seen the Digitise pages on ITV's new teletext service? Have you noticed how they choose not to review ST software? Appalling, isn't it? It is a personal affront to myself and all your readers that these people should imply we are so ignorant we would choose a machine that is inferior to the extent it should be ignored, particularly as we know far better. I feel the only way this slur on our ability to make a reasoned choice can be resolved is for as many readers as possible to write to the offending (offensive?) company and complain in the strongest possible terms. My missive is already in the mail.

Martin Davies
Cardiff

stf: Thanks for that info – here's the address to which you should make your complaint: Digitiser, c/o Teletext Ltd, PO Box 297, London SW16 1XT.

stf: Phew! What a lot of questions – here goes...

1. Yes, the Falcon can read double-density ST formatted disks.

2. The cost of Falcon software is likely to be comparable with the equivalent ST software.

3. Sadly, I think you're probably right, but it is likely to happen over a long period of time – computers don't just disappear into thin air; there's still a massive ST user base which software houses will continue to support as long as there is the demand – it's up to you as interested ST owners to continue to sustain this demand.

4. Atari have already started to develop such feature showcasing software – Space Junk *by Imagitec, which we featured in issue 43 (turn to page 66 if you missed it) is a case in point. Jeff Minter is also developing* Llamazap, *another game which promises to use all the Falcon's capabilities.*

5. Whether or not there is a new Falcon mag depends on how large the user base becomes – obviously not everyone who owns a particular computer buys a magazine devoted to it. We'll be continuing to cover the Falcon in ST FORMAT *for the moment – as yet there are no plans for a new magazine.*

6. As we reported in the news last month, there are plans for the Falcon to be shown on Gamesmaster, *although exact dates have not yet been finalised. You might have seen the Falcon on* Bad Influence *before Christmas... you see, Atari do recognise the need for the Falcon to get some sort of publicity. Although consoles don't have anywhere near the same capabilities as machines like the ST and Falcon, it's a "good thing" for the computer market that these consoles are so popular (although not so brilliant for the health of some of these kids...) – they increase their familiarity with technology making them more likely to recognise the benefits of a home computer.*

7. There's no second floppy drive on the Falcon largely because it's designed to be a hard drive based machine – any program that needs more memory is to be hard drive installable. Remember that the £900 price tag is a launch price and, with the prices of hard drives coming down all the time, you might even end up getting more memory for your money.

8. At the moment it's unlikely that such software will be released for the Falcon – software houses are more interested in waiting to see the size of the market before taking a step backwards. They are much more likely to develop new software that takes account of the Falcon's capabilities.

9. In the past six months we have had a grand total of two queries about C – STOS is without any doubt the most popular programming language for the ST. If you want to know more about C, let me know and, if there's sufficient interest, we'll see if we can rustle something up for you.

A CRY FOR HELP

Can anyone help me? I need a gifted amateur to write a program for the STFM.

I'm doing research into children's spelling and a vital part of the research is asking children to write something for me on a set topic. I shall have about 200 samples of about 200 words each. Analysing them by hand is slow and inaccurate. I used to write BASIC and some Cobol, but I have lost too many grey cells – and I never really grasped file handling.

I would be happy to send anyone who contacts me (Tim Bunn, 20 St George's Place, Northampton, NN2 6EP ☎ 0604 718327) a full specification and then to discuss what is and what isn't feasible. I have a 1MByte STFM with two double-sided drives. I don't have a hard disk but would buy one if I was advised that it was essential. I don't mind which language but would prefer something fairly widely understood. I would be happy to pay a modest fee for a working program ready in a month or so from starting.

Tim Bunn
Northampton

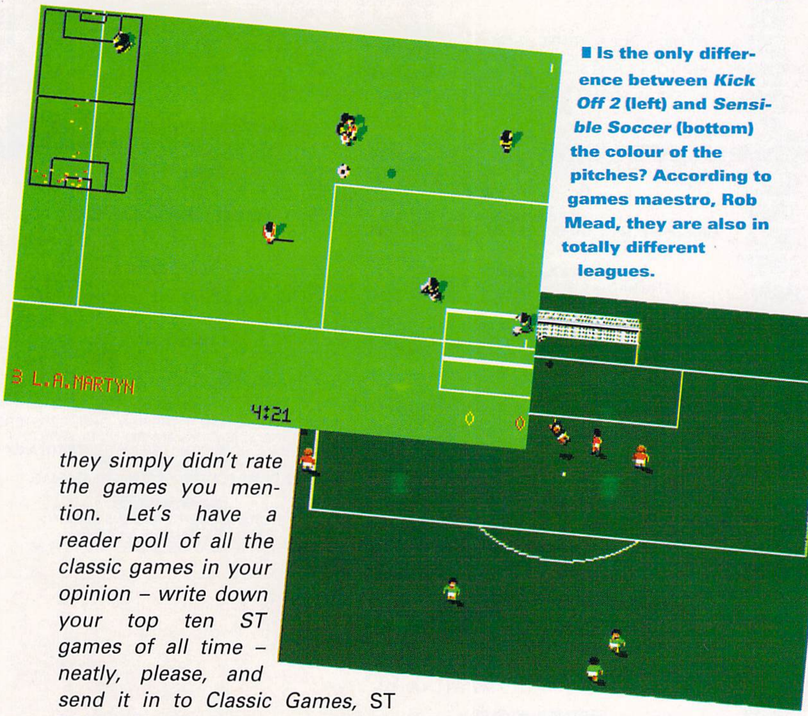
stf: Can anyone help? Please contact Tim directly with any intelligent ideas and suggestions.

Don't forget the classics!

I have a few queries about your "50 best games" article in *ST FORMAT 42*. Yes, it's true to say that, on the whole, the games chosen were classic (although *Kick Off 2* is far better than *Sensible Soccer),* but you seem to have left out many classics such as *Mega-lo-mania, Vroom, Rainbow Islands* and *Enchanted Land* – though the latter is about two and a half years old and pretty much unheard of – but how can you forget *Vroom* and *Mega-lo-mania*? Putting *Oids* at number 23 instead of these games is insulting – how can a third rate 75% PD game compete with a 94% masterpiece? I do think you should print a new updated chart.

Michael Dorritt
Somerset

stf: The problem with printing features like this is that someone somewhere is bound to disagree with the choice, no matter how many people you try to involve. This top 50 represented the whims of Andy Lowe, Andy Hutchinson and Chris Lloyd – it looks as if they simply didn't rate the games you mention. Let's have a reader poll of all the classic games in your opinion – write down your top ten ST games of all time – neatly, please, and send it in to Classic Games, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW by Friday 12 March. We'll get some mug to count them all up, then we'll print the results. We might even sort out some sort of prize for the person who votes for the most popular classic top ten.



■ Is the only difference between *Kick Off 2* (left) and *Sensible Soccer* (bottom) the colour of the pitches? According to games maestro, Rob Mead, they are also in totally different leagues.

LETTER FROM ABROAD

I got a rather nice surprise a few days ago when a friend called to tell me that *Sound Lab* had appeared on the *ST FORMAT* Cover Disk. At first I was very pleased – it's not every day I get one of my best programs put on the front cover of an extremely popular magazine. However, my enthusiasm dimmed slightly when this friend showed me the actual magazine – lo and behold the version was dated January 31 1992. Agh!

The version you placed on your Cover Disk was actually an early beta version of the program accidentally released on GEnie by Robert Glover. I would rather enjoy boxing him around the head and shoulders a bit for that "little" mistake of his. But, sadly for me and luckily for him, he's a few thousand miles away at the moment! But when he released that early version, not only was half the program incomplete, but there were also bugs in what was already there – and there weren't any instructions for using it. The program was first released this summer and has been updated four times since then. The latest version is 1.04 which runs in any TT colour or ST colour or mono resolution; all features are fully enabled – there are no limitations, complete on-line help is provided which is indexed to the included manual. The manual prints to about 40 pages and is also indexed. I do not release crippled programs or programs without documentation. However, one thing most certainly is correct – the program is Shareware. Users registering with me receive printed manuals, the complete program disks, information and source codes for using digitized sound in *GFA Basic*, C and assembly programs, as well as low-cost future updates to the program when they are released.

Damien Jones
PSC 8 Box 657
APO AE 09109
USA

Enterprising

Hi – here's something of interest to you and to all those people who bought the game *Enterprise* and promptly tucked it into the bottom drawer. I have found a subliminal message on it, well, in the file called WARNINGD.DAT. It's backwards in the file, but if, like me, you used *Soundlab* from Cover Disk 41 (if you missed it turn to page 66 to find out how to get your copy), you can pick it out and reverse it to hear a bloke say, with a slight echo, "*Enterprise* is rubbish." It's not advisable to erase this, but, by all means, make it louder – good, eh?

Adrian Swift
Kent

stf: Looks like every cloud has a silver lining, doesn't it, although I doubt this message would entertain you for as long as you hoped the game would. Has anyone else found any such messages?

Go public

Congratulations! At last an ST magazine has published the real truth about the state of the Atari games software. We all know how frustrating it is to walk into a shop and see all the great new games available for the Amiga and PC only to hear, "Sorry, it's not available for the ST."

Why must we always settle for this feeble excuse? Do publishers not understand that computers don't just disappear? Do they not know that the ST is capable of more than 16 colours and can also perform parallax scrolling and play excellent sampled music? The ST will always be around and so users will always want software for it, be it games or serious.

But do we really care what publishers do? The ST has a great source of cheap software available for it in the Public Domain and Shareware markets. This software costs a fraction of the price of commercial packages and there is no reason why PD should not be as good as, if not better, than what we see on the shelves. Now is the perfect opportunity for all ST programmers, graphic artists and musicians to get together and make the ST become strong once again.

Paul Bates
Leicester

stf: Come on then, let}s see if you lot can be creative! Show us what you can do – we're always on the lookout for programs to put on the Cover Disk and we're interested in keeping the ST alive (it's our jobs we're talking about here, you see), so even if you don't want to release your prized programs into the Public Domain yet, you can always send them along to Chris Lloyd, Cover Disk Editor, ST FORMAT, *30 Monmouth Street, Bath, Avon BA1 2BW.*

This is the last one, honest

Since *Astro 22* appeared on Cover Disk 35, almost every issue has had letters from "Disgusted from Trimley" types mouthing off about how obscure and unscientific astrology is. Have any of these people actually tested the program? I've done about 20 charts using it, a few were indifferent, most were good, some were jaw-droppingly accurate. I won't say I'm a convert but I think the results certainly warrant further investigation.

Astro 22's output cannot be compared with a human astrologer since *Astro 22* simply prints a standard text file for each planetary relationship. A human would use this merely as a starting point and take far more into account, producing a much more integrated and comprehensive reading. However, I must say my friends are very pleased with the results once they've been through my word processing and desk top publishing packages to smarten them up.

Far from astrology "quietly rewriting its rules" when new planets were discovered, there was enormous debate which led to much greater sophistication in techniques and understanding. Hopefully, the advent of computers should accelerate this process still further.

Eric Eagle
London N19 3NW

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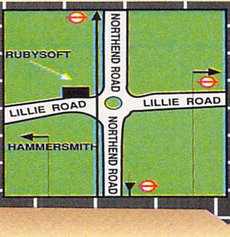

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TESTIMONIALS

MJC Computer Supplies of Letchworth must surely win the award of most efficient software suppliers. I ordered their special offer *Superbase Professional* package at 10am yesterday and was told that, since they were out of stock, I should expect delivery in no more than ten days. I received the package this morning! I rang them to thank them for such speedy service and was told that they'd received their delivery just after I'd placed my order and they had simply "done their best" as usual.
Andy Tagger
West Yorkshire

If you have any technical problems with hardware I cannot recommend GMC computers in Gaol Lane, Sudbury highly enough. I got one of the first STs that came out, a 520 STFM, and I was very happy with it. Then came the time when just 0.5MBytes of memory became a little too confining and I decided that it was time to upgrade. Rather than trust one of the plug-in upgrades (this in the days before SIMMs), I decided to get the chip set and fit it. More fool I. Over the next year, that upgrade blew a grand total of eight times for a still inexplicable reason. I saw the advert for GMC in the local paper and took it to them. And again. And again. Not once did they complain about me calling in with the same problem over and over again, they always bent over backwards to be really helpful – they really are unbeatable in my eyes.
Trevor Day
Essex

Your own worst enemy

I believe your *Knife ST* Cover Disk from issue 42 is a seriously dangerous piece of software and that warnings should be issued.

Needing to recover an important document which had been deleted in error from hard drive F, I ran *Knife ST* as directed. Sure enough, there was the document which I had erased with a little bomb beside it. The program did not perform as suggested and recover the document in any useable form. Though the name of the file appeared in the menu, no WP or DTP program could access it. However, I did manage to print the screen, so at least I had reference so I could retype the document. Then disaster struck. Having completed this exercise I tried to delete the "recovered" document. In absolute horror I watched while seven years of work rapidly deleted itself – every single item on drive F, except for the recovered document, was deleted. Not only that, but any floppy inserted to drive A was also cleaned, including the Cover Disk! I also lost one general utilities disk with various irreplaceable programs. This continued to happen until I rebooted my ST. I have spent weeks copying off every file on my hard disk, reformatting it and recopying everything back, just in case there is a lasting bug. The floppy drive still has a major bug and will not read, copy or save anything unless you call it B (even though there isn't a drive B). I am incredulous that a disk could be allowed to go out with such a glaring and potentially catastrophic fault on it. I only hope that no-one has had a worse experience than me. If it had been any of the other hard drives, the damage caused would have been incalculable.
David Shortt
London N5 1XB

stf: David, I'm very sorry that you have had such an unfortunate experience with Knife ST but there is no "major and catastrophic" fault with the program, it has been on-sale commercially for almost five years without causing any of the hardware problems you mention. It appears that you did not follow our instructions carefully, the article being concerned with repairing floppy disks, not hard drives. The second paragraph contained a warning stating that you should always work on a back-up copy, not the original. If you were working on a hard drive, you should have made a backup of the partition before you started editing it. We also warned that incorrect use of the program could destroy data, as well as stating that it is impossible to recover a deleted file if other information has been saved to the drive in question, since sectors used by the original file are likely to have been over-written by new files. If you try and reclaim an old file in this way, sectors from the new files will be allocated to it, effectively destroying those newer files by de-allocating sectors from them. This could be why your complete partition was wiped, but it is pretty unlikely.

We are also curious to know why you "watched in horror" as your files were deleted from your hard drive and why did you keep inserting disks into drive A to be wiped? An instant reboot would have prevented most of this – as we frequently state in STF, you should keep floppies write-protected at all times if they are not data disks. You say you are still having problems with your floppy drive and you attribute this to the software. It is absolutely impossible for any software to damage hardware in the way you describe. It seems more likely that you have a hardware fault with your machine that became apparent when you were using the software.

Write to The Editor, Feedback, *ST FORMAT*, 30 Monmouth Street, Bath, Avon BA1 2BW.

Thought for the month

Prospective Falcon owners should wait until we've finally found out what the finished version of the machine is going to be like – design and compatibility-wise we've heard enough about the capabilities; let's get some support up-front – software houses take note, after all, the ST has been a good earner for you which brings me to my next point – why turn your back on the ST? With a user base in the hundreds of thousands it must make bad business sense to ignore all that potential cash out there. Darren Smithson in issue 42 makes a cracker of a point – "Even when I get my Falcon in the New Year, my STE will stay." So before you rush out and buy the Falcon, remember the STE is still a damn good computer and I for one am not going to upgrade until Atari get their act together.
Eddie Cowie
Glasgow

SPEAK TO US!

We want to know what you think of *ST FORMAT* – it may be Britain's best-selling ST magazine, but it doesn't mean we're perfect. Fill in this coupon and post it to March Reader Survey, *ST FORMAT*, Future Publishing, Freepost, Bath, Avon BA1 2BW – you don't even need to buy a stamp.

How much do you like this issue?

☐ It's great! ☐ It's pretty good ☐ It's alright
☐ It's lousy ☐ It's absolutely terrible

Does this month's feature on digital art make you want to reach deep into your feelings and express them using your ST?

☐ Yes! I've already started ☐ I'm thinking about it
☐ No, I'm not interested in it at all

Is there anything missing in this issue as far as you're concerned?

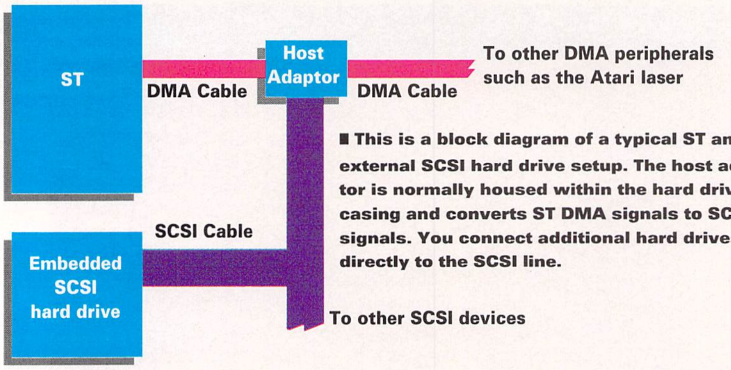
If so, what? ______

What do you most like about this month's issue? ______

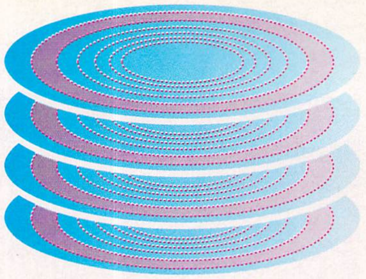
What do you least like about this month's issue? ______

Do you have any suggestions for future features or improvements to *ST FORMAT*? ______

Now just cut out this coupon or take a photocopy and post it to the address above. Thank you for your time.



▪ This is a block diagram of a typical ST and external SCSI hard drive setup. The host adaptor is normally housed within the hard drive casing and converts ST DMA signals to SCSI signals. You connect additional hard drives directly to the SCSI line.



▪ The actual disks, or platters, in a hard drive are parallel to one another. There are separate heads for each side of each platter which move in and out from the edge of the disk towards the centre in exactly the same way as in a floppy drive.

WELL'ARD

Hard drives are now becoming disgustingly affordable for the ST, and with 50MByte drives costing as little as £260, everyone can jump on the hard drive bandwagon.

A hard drive operates in a very similar way to a floppy drive (see top right boxout on floppy disks) except that the hard drive normally has more than one disk, or platter, inside it. The solid platter, similar to a floppy disk, is manufactured to very high tolerances and is coated with magnetic material which holds the data. All the platters spin on the same axis parallel to each other at a rate of 3,600 rpm, approximately ten times faster than a floppy disk accounting for the faster data transfer rate.

How does it work?

Data is written to and read from the disks in a hard drive by the read/write heads. The heads in a hard drive are positioned very close to the surface of the platter, but never actually touch the surface. The distance between the head and the platter is measured in microns – one micron being one-thousandth of a millimetre. If the heads of a drive do come into contact with the platter, it is called a "head crash" and the platter is normally destroyed.

Data is written to the platter by means of an alternating current being passed through the head creating a variable magnetic field. This field affects the magnetic particles of the coating on the platter, realigning them to represent data. When reading a drive, the magnetic field from the platter induces a current in the head. As within a floppy drive, the head is moved back and forth over the surface of the platter by a stepper motor.

A hard drive's platters are made up of a series of concentric rings called tracks. Each platter has its own set of tracks numbered from 0 to 500+, and all the tracks with the same number on each platter are collectively called a cylinder. Instead of refering to platter one, track one or platter three, track 247, for example, you refer to cylinder one or cylinder 247.

Formatting methods

If you scan through the ads in *STF* you can see that bare hard drives are normally refered to as MFM (Modified Frequency Modulation) or RLL (Run Length Limited). These acronyms refer to the way the drive is formatted, or in other words, the density schemes of the drive. The cheaper of the two methods is the MFM format and is used by the ST floppy drive systems. Hard drives with MFM normally have 17 sectors of 512 bytes on every track. RLL formatting, however, enables you to store about 50% more data in tracks containing 25 sectors of 512 bytes each. Obviously, RLL drives are the more expensive of the two and, usually, have a better quality magnetic coating on the platters. For this reason, it is unwise to format MFM standard drives to RLL format because data storage is likely to be unreliable.

ST hard drives

The ST has a built-in DMA (Direct Memory Access) interface to connect to hard drives and other peripherals. Most hard drives, however, use the SCSI (Small Computer System Interface) followed by an RLL or MFM controller to connect to the hard drive. Atari hard drives, therefore, used to have both a SCSI interface and a controller interface to communicate with your ST. Hard drives for the ST now use an embedded SCSI hard drive, meaning that the SCSI controller is built into it, and only one interface is now needed to connect the ST to the drive, making it cheaper to produce. One other advantage is that embedded SCSI drives are more reliable, faster and use less power than older systems.

The SCSI standard enables you to connect up to eight SCSI devices at once, each having its own ID number between zero and seven. All drives are set to an ID of nought as standard and to enable you to link a second drive in series, its ID number has to be changed. Most boxed SCSI drives have a push button which enables the drive's ID to be changed easily, if the drive doesn't have a push button then a jumper can be altered on the drive itself. ***stf***

BY **CLIVE PARKER**

FLOPPY DISKS INSIDE THE DRIVE

A floppy disk is a magnetic storage medium which reads and writes information via a magnetic head.

Data is stored on the disk in sectors and tracks. The storage area of the disk is split up into concentric rings called tracks, and each track is split into 512 byte sectors. There are usually 80 tracks and nine sectors on a standard ST formatted floppy disk giving you about 720K of storage space. Because the read/write head of the disk drive can only be over any one track at a time, a small motor is used to move the head from track to track.

Floppy disks are a lot faster than magnetic tape because any part of the disk can be read at any time, making it a time-efficient storage medium. With continuous tape, however, you have to wind or rewind the tape to get the section of required data.

TEN RULES FOR LOOKING AFTER YOUR DRIVE

Like all your ST peripherals it pays to look after your hard drive. Warning: most of the following rules are based on common sense

1 Never connect your drive to the ST while either is running. Never connect a second drive to the first while either drive or the ST is running. And never connect a third...

2 If you have an external drive then turn it on *after* the ST has been switched on. This is because random data signals may be sent down the DMA and SCSI bus by the surge of power caused by the ST initialising. The SCSI controller may interpret these signals as write commands and lose some of your data.

3 The same rule applies to turning off the drive, turn it off before your ST.

4 Never expose a hard drive to extremes of temperature, keep it well away from direct sunlight and heaters.

5 Never expose the drive to external magnetic fields because they may corrupt data. Magnetic fields can be generated by telephones, TVs, monitors and loudspeakers... oh, yes, and magnets of course.

6 Never move the drive while it is operating, if the heads touch the platter it causes a head crash destroying the platter, and all stored information disappears – not nice.

7 Treat your drive with care when transporting it. Although some drives can withstand shocks equivalent to 30G (30 times the force gravity), it is very foolish to be casual about moving it around.

8 If you have a non-SCSI drive then always park the heads before moving it, this is accomplished by using a small utility supplied with the drive. Parking the heads moves them safely away from the platters. SCSI drives are generally auto-parking, but check with the manual to be sure.

9 Keep all liquids away from your drive, do not use it as a coaster.

10 Be very careful about saving data. It is highly recommended to regularly back up the hard drive to floppy disk. Although a time consuming business, it is better to be able to restore data to a hard drive from floppy than losing data forever.

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SCANNER FORCE

Take a collection of scanners, some art books and a slightly salted Chris Lloyd. Lightly fry, leave to stand overnight then sieve the results. Look at the mess you've made for a while, bung the lot in the bin and pop out for a take-away

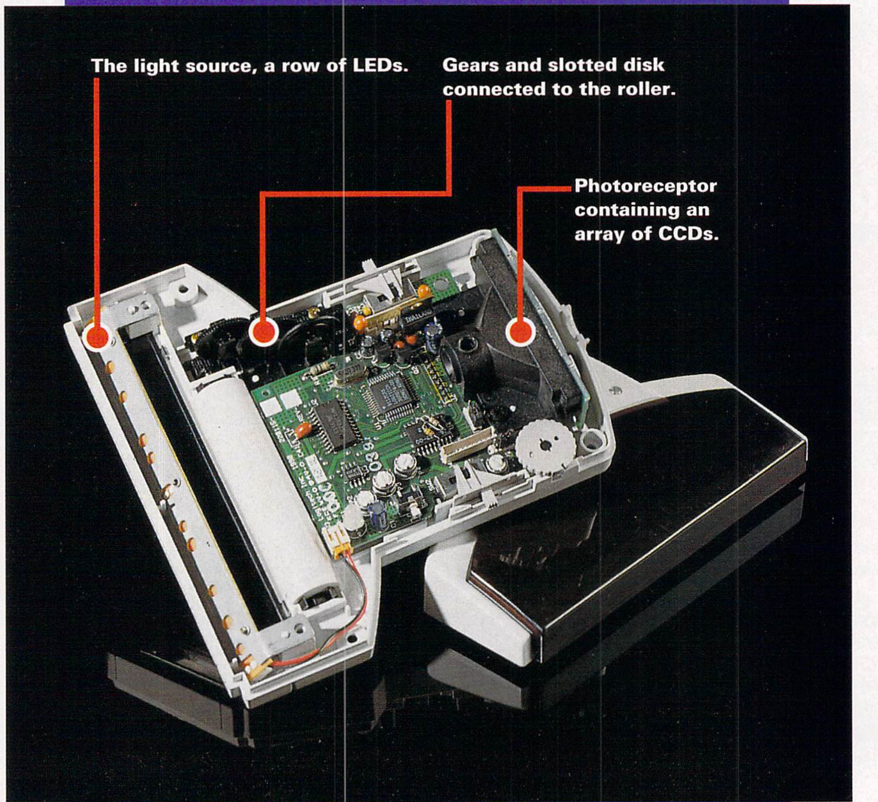
■ All lined up, the hand scanners of the world are ready for the ultimate challenge, the *ST FORMAT* comparative test. It's tough, it's thorough and it's highly respected - apparently.

THE TECHIE BIT IN THE CORNER

Now pay attention as we explain the technical bit, that is, how the hand scanner actually works

A row of LEDs – Light Emitting Diodes, basically, little lights – shine light onto the paper. Using a mirror, the light is reflected off and directed to a photoreceptor at the back of the scanner. Inside the photoreceptor is an array of CCDs – Charged Coupled Devices. These produce varying voltages depending on the intensity of the light. Depending on the contrast setting, this is converted into a black or white pixel. This gives you a horizontal row. Underneath the scanner is a series of gears ending in a disc with loads of holes in. This passes through an encoder which uses a similar trick with light to work out the vertical movement.

Circuitry inside the scanner converts all these inputs into numbers your ST can understand and uses them to build a screen image. Simple, eh?


The light source, a row of LEDs.
Gears and slotted disk connected to the roller.
Photoreceptor containing an array of CCDs.

■ The management would like to point out that the naked scanning head shown above is shown so entirely in the spirit of scientific enquiry.

Scanners make your head explode. They make you come over all funny, give you a strained expression and then the bonce goes boom! The other kind of scanners, of course, are those devices for capturing paper artwork in pixellated form – not quite as dangerous, and certainly a tad more socially acceptable.

The basic principle is very simple, try it for yourself – shine a light onto a piece of paper and measure how much light is reflected. Now move down the paper, measuring as you go. Do a spot of working out and, hey presto, you have a pixellated representation of the original. Perfect for getting realistic digitised graphics into your ST, scanners are ideal for DTP work, since you can save images and slot them into documents. You can capture any picture as long as you've got a flatish surface. Take your material from any book or magazine – watch out for copyright infringement – so you don't have to rely on your own artistic abilities or existing clip art. Armed with a scanner, professional-looking graphics are only a drag away. There are six hand scanners available for your ST – this month we rounded them all up on the same desk then pitted them against each other in the ultimate challenge – the *STF* test.

The basic setup is the same for all the hand scanners we looked at. You get a scanning head, which is a large mouse-like object you drag across your source material. This has the controls to set the resolution, the scanning mode and a little wheel which controls the contrast. The resolution is the number of pixels or dots produced per inch

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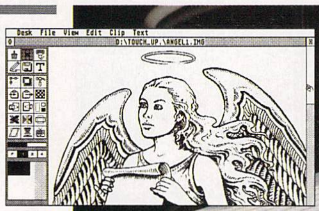
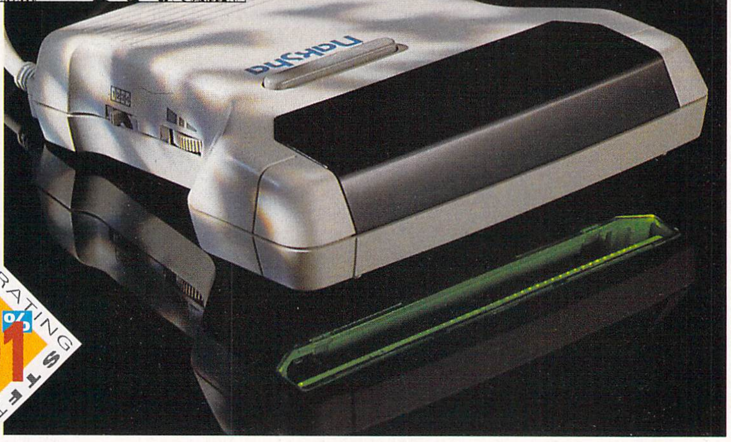
CONTACT: ☎ 0925 56398

ST FORMAT GOLD

This scanner doesn't use the obligatory Marstek scanning head, but a slightly fatter one and has a second rubber roller at the back, rather than two small plastic wheels. This makes it much easier to get steady scans. You can't go down to 100 dpi and the dither patterns look a tad better, otherwise, it's the same sort of gear as the rest of them. Software is the comprehensive *Touch-Up* by Migraph. This program can handle *Degas*, GIF, TIFF, IFF, *Macpaint*, PCX as well as IMG files. Monochrome images can also be saved out as 16 greyscale IFFs or 256 greyscale TIFFs. All the formats can be loaded in too, including colour ones which are converted into monochrome. As well as handling the scanning, *Touch-Up* is a complete art package with all the functions you would expect, including bezier curves, text functions, spray can, shapes and fills. It also has block manipulation functions such as slant, rotate and process which emboldens, outlines or clears an area of stray pixels. Although it has a multitude of features, *Touch-Up* can be awkward and fiddly to use – if you just want to whizz off a couple of quick scans, it's a bit of an overkill. With the best scanning head and most comprehensive software, the Naksha is at the top of the hill, only bettered by the Power Scanner's ability to scan directly in greyscales.



■ The Naksha scanner comes with the heavy-weight *Touch-Up* software, it runs in all resolutions and you need a 1MByte ST to get it off the ground.



STF RATING 91%

■ The Naksha scanning head, the most observant among you may spot the surprising difference between this scanning head and all the others. Yes, that's right, it's different. A gold star goes to the person at the back.

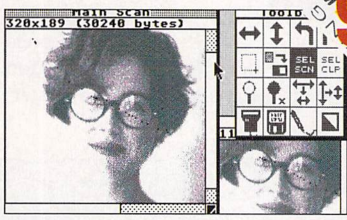
POWER SCANNER

FROM: POWER COMPUTING LTD
PRICE: £99
CONTACT: ☎ 0234 843388

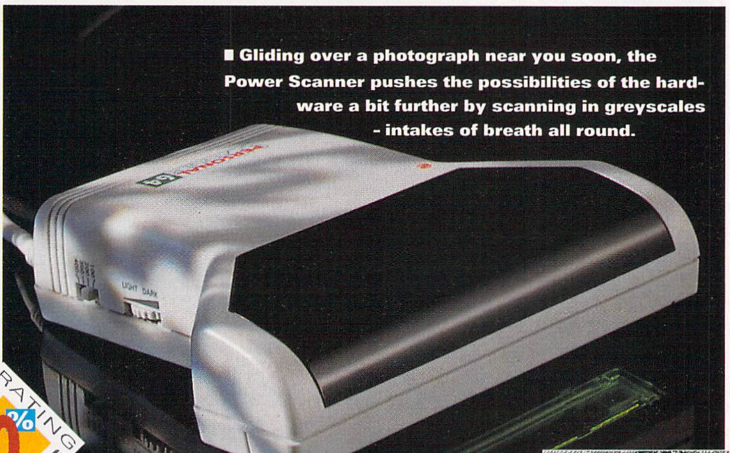
ST FORMAT GOLD

A newcomer to the scanning scene, the Power Scanner features the same standard of hardware as the rest. The only real distinguishing feature is in the software – *PowerScan Professional.* It has the unique ability to scan directly in greyscales. Run the program in low resolution, set the scanner between 100 and 300 dpi and dithered mode and scan away. The picture appears in 16 greyscales – spiffing! The only drawback is the limited size; it can't manage a full low resolution screen. Monochrome scans can also be converted into greyscales, although they shrink a lot. The editing abilities are fairly crude – you can cut blocks and store them in a clipboard, rotate, invert, shrink and flip sections. Drawing is limited to zooming in and editing single pixels. The software is limited but simple and easy to use.

If you plan to use your scans mainly for colour work, then this is the one to plump for.



■ The Power Scanner's main trick, scanning directly in greyscales in low resolution - and jolly groovy it is too.



■ Gliding over a photograph near you soon, the Power Scanner pushes the possibilities of the hardware a bit further by scanning in greyscales - intakes of breath all round.

STF RATING 90%

■ *PowerScan Professional* makes it dead easy to whizz off scans with the minimum of fuss. See this scan - we whizzed it off with minimum fuss.

SERIOUS CITY

Hand scanners are all very well, but if you want big images and lots of greyscales or colour, you're going to need something a bit more professional than these. Halco can get your ST hooked up to a seriously powerful Epsom GT6000. It has a resolution of 600 dpi and scans in 24-bits, that's 16.7 million different colours.

It can handle IMG, TIFF, SPU, *Degas* and a squillion other formats using the supplied *GT Scan* software. It really comes into its own when used with *Calamus SL* and the other high-end colour DTP programs. Give Halco a ring on ☎ 0734 441525 if you're interested – and have £1,625 spare.

of scan. For example, a setting of 200 gives you 200 dots for every inch you scan. Since the scanning head size is fixed at just over four inches across, you can't scan a wider area, but the height is only limited by your ST's memory and software. The higher the resolution, the bigger the size in K – or even MBytes – the finished image is; using 400 dpi gives a scan a massive 1,664 dots across, that's over two and a half high resolution screens. The scanning mode switches between text mode, which is used on line art and three different dithered or photo modes used to scan pictures containing shades. The scanning head is connected to a small box of tricks called a cartridge which plugs into the cartridge port. Completing the hardware is a power supply – a 12 volt transformer – which also plugs into the cartridge. All but the Naksha scanner use the same scanning head so the main differences lie in the software.

Getting going

Once it's all plugged in, you're ready to roll. Run the software then drag the scanning head over your source material. Getting good scans is a matter of trial and error – line art is relatively easy to get to grips with, but when you start scanning photographs and the like you need to fiddle about with the contrast and dither settings until you get the results you want. All the scanners have software which shows you the image as and when you are scanning, so you can fiddle with the settings and see the results immediately.

Having captured your scans you invariably need to touch them

■ The Golden Image scanner comes complete with two seriously hunky pieces of software armed with a suitably hunky manual - or is it chunky?

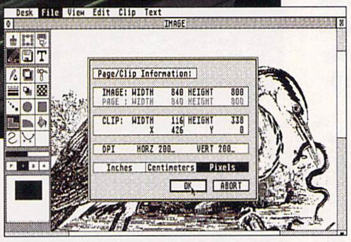
GOLDEN IMAGE SCANNER

FROM: LADBROKE COMPUTING INTERNATIONAL
PRICE: £119.99
CONTACT: ☎ 0772 203166

Unpacking the swish box reveals the ubiquitous Marstek scanning head, power supply, solid cartridge and seriously chunky manual. On the software front you get Migraph's *Touch-Up* and Electronics Art's excellent *Deluxe Paint* as an extra. The scanner performs up to the mark, offering up to 400 dpi resolution and three different dither modes. *Touch-Up* is a comprehensive piece of work, offering a zillion features and the ability to manipulate images too big to fit in your ST's memory. It uses GDOS to print out results, and is the undisputed heavyweight of scanning software. It has enough muscle on the editing side to alleviate the need for another art program to fine-tune your scans.

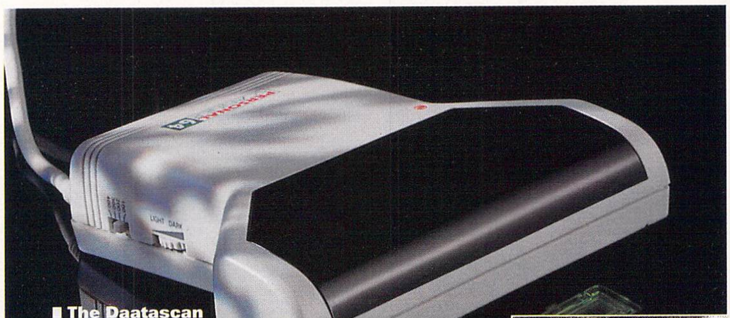
The manual is meaty but rather repetitive. There's little to choose from between this scanner and the Naksha apart from the Naksha's slightly superior scanning head. If you don't have *Deluxe Paint* and want to convert your efforts into colour, then you can save yourself a good few readies – otherwise the Naksha just scrapes in ahead. A very competent piece of equipment.

ST FORMAT RATING 90%



Page/Clip Information!
IMAGE: WIDTH 840 HEIGHT 800
PAGE : WIDTH 840 HEIGHT 800
CLIP: WIDTH 116 HEIGHT 338
X 426 Y 0
DPI HORZ 200_ VERT 200_
Inches Centimeters Pixels

■ Migraph's *Touch-Up* in full flow. There are enough icons, menus and dialog boxes to warm the heart.



■ The Daatascan Professional scanner causes a stir on dancefloors everywhere - that's because it's an inanimate object and can't dance. Doesn't stop it going, though.

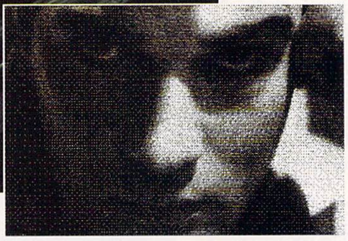
DAATASCAN PROFESSIONAL

FROM: PANDAAL
PRICE: £89.95
CONTACT: ☎ 0234 327422

The standard collection of hardware teamed up with the *Daatascan Professional* software. The program is easy to use, competent and runs in medium or high resolution. Commands are chosen from the menu bar or a set of icons – in the middle of the screen there's a master page display showing the total area available. You can zoom in and do a spot of pixel level editing once you've dragged the over-sized mouse across your source material, as well as perform a handful of special effects including rotating and cropping. There is no cut and paste and the only way to delete sections is to edit out every pixel – and that's a real pain.

GDOS is used to print out and there is a quick print option for the Atari SLM804 laser. Scans can be saved as PI3s or IMG files. All in all it's a functional rather than comprehensive or frilly program. You also get *Colour-In* – a very useful progette that converts your scans into five, ten or 15-level greyscales, saving them as either *Neochrome* or *Degas Elite* PI1s – ideal for converting dithered scans into impressive colour jobs. Overall a reliable and solid piece of kit with no prizes for being flashy.

ST FORMAT RATING 83%



■ A smouldering chap scanned at 200 dpi in dithered mode using *Daatascan Professional*. The ability to easily crop images means you don't have to be accurate when you set your scan size and do the slow drag.

JARGON BUSTERS

DEGAS ELITE – one of the first ST art programs, *Degas* produces picture files in PI1, PI2 and PI3 format that are almost universally used by subsequent graphics programs.

DITHER – method of representing greys using monochrome. The pixels are grouped together in small blocks, and depending on the density of the colour, a pattern is assigned to it.

DPI – acronym for dots per inch, for some reason it has never been capitalised. It is a measure of resolution – the higher it is, the more detail the scan is and the bigger the size of the resulting scan.

GREYSCALE – a picture which has greys in. The ST can handle pictures with up to 16 levels of grey in low resolution.

IMG – an ST file format. The picture can be of any size rectangle from minuscule to many times the size of the screen. Nearly all IMG files are monochrome.

LINE ART – a picture composed of black and white only, with no shades of grey at all. These produce the best scans. Examples of line art; technical diagrams, cartoons and some logos.

up a bit. The Naksha scanner and the Golden Image scanner come with Migragh's *Touch-Up* software which is good enough to give them a good going over, otherwise you probably need another art package to manipulate your images. All scanners can save images as *Degas Elite* or IMG files which most art programs can handle. Monochrome images can be converted into colour ones, though it costs you in image size. In the case of the Power Scanner, it can scan them directly in greyscales.

If you just want the occasional scan and already have software to edit finished images, something like *Megapaint, Arabesque* or even Public Domain stuff like *Butterfly Artist* or *PAD,* then the *Pandaal Datascan* is adequate – it's the cheapest, easiest to use and the results are up to scratch. If you want more sophisticated software and to have the ability to edit them as you scan them, then the Golden Image scanner and the Naksha are at the top with the *Touch-Up* software.

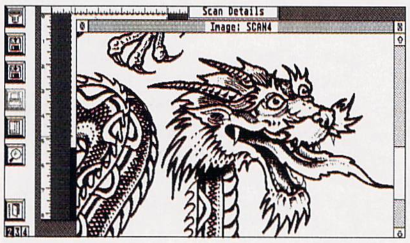
For colour work, you need the Power scanner – although you can convert monochrome images to colour with the other scanners, it is much better to scan in greyscales directly. There's nothing much in it if you want to choose between them on the scanning front, since they all use pretty much the same hardware.

On the software side the *Datel* is to be avoided, the others can all do the job, but with *Touch-Up* you can edit properly before saving. The *Power Scanner* software has the best colour handling. You pays your money and you takes your choice. ***stf***

ZYDEC HANDY SCANNER

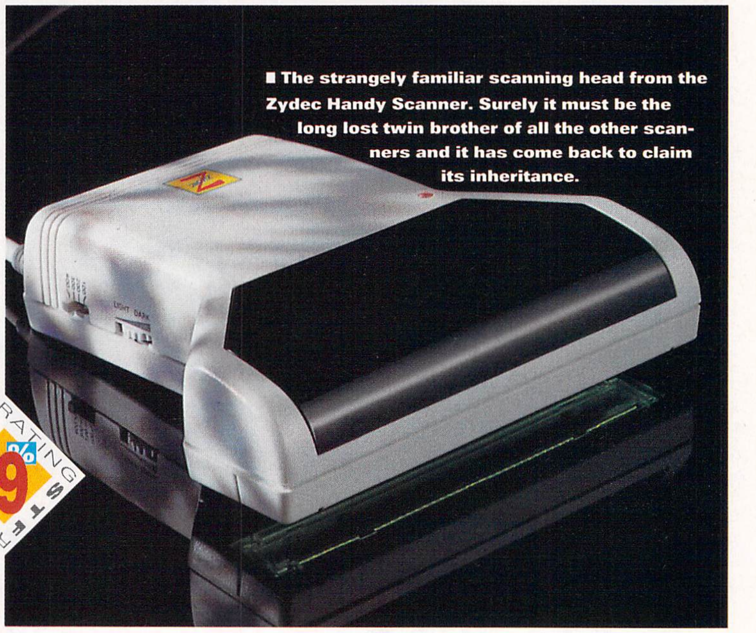
FROM: EVESHAM MICROS
PRICE: £99.99
CONTACT: ☎ 0386 765500

Almost identical to the Pandaal Daatascan Professional scanner, this has the same software and cartridge. The only real difference is the word "Zydec" on the scanning head, a slightly better quality power supply and the absence of the *Colour-In* program. The *Daatascan Professional* software is reliable and easy to use. The editing functions are only rudimentary so you need another program to do any proper mucking about with your images, but capturing them is a doddle. There are all the usual features and it goes up to 400 dpi with the image size only limited by memory. If you plan to use your scans for colour work, then you need the *Colour-In* software that comes with the Daatascan scanner, otherwise, there's nothing in it – apart from a tenner, of course.



■ The Zydec uses the simple and solid *Daatascan Professional* software. As with all of them, scanning line art in text mode gives impressive crisp results, ideal for DTP work.

STF RATING 79%

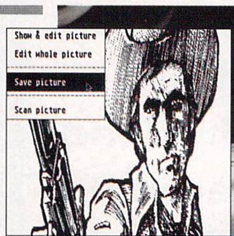

■ The strangely familiar scanning head from the Zydec Handy Scanner. Surely it must be the long lost twin brother of all the other scanners and it has come back to claim its inheritance.

DATEL HANDY SCANNER

FROM: DATEL ELECTRONICS LTD
PRICE: £99.99
CONTACT: ☎ 0782 744707

The hardware is all here – there's the familiar 105mm scanning head, capable of up to 400 dpi, power supply and cartridge, but the software leaves a lot to be desired. There are two programs – *ST Handy Scanner* and *Scandy.* The first comes in high or medium resolution flavours and is, to put it mildly, pretty basic. You are limited to 200 dpi and can only scan two screen lengths. Worse still, you can only save out the visible screen as a *Degas Elite* PI3. A separate utility is provided to convert these into IMG files. You can't save anything smaller or larger than the screen. Editing is limited to simple cut and paste and a couple of special effects. *Scandy* is a little better, it can handle up to 400 dpi, scans of any size and can save as IMG files. The editing is still on the basic side of damned basic, though and it only runs in high resolution. The Datel scanner has the same scanning head as most of its competitors, the cartridge looks a little ropey but does the job.

The quality of the final results can match the others, but the software is a dog – seriously out-gunned by the opposition.



■ The rather sparse-looking *Scandy*, no zoom, no pixel editing,the quality of the scan is up to scratch but the software is crude.

STF RATING 58%

■ The Datel Handy Scanner, low, mean, moody and prone to outbursts of Italian opera. Drag it over a picture or two and you can scan with it too.

ROUNDED UP AND LAID OUT

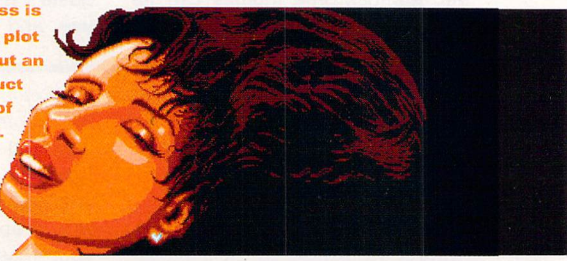
SCANNER	FROM	CONTACT	PRICE	SOFTWARE	*STF* RATING
Daatascan Professional	Pandaal	☎ 0234 327422	£89.95	Daatascan Professional/Colour-In	83%
Datel Handy	Datel Electronics Ltd	☎ 0782 744707	£99.99	ST Handy Scanner/Scandy	58%
Golden Image	Ladbroke Computing Int'l	☎ 0772 203166	£119.99	Touch-Up/Deluxe Paint	90%
Naksha	Naksha	☎ 0925 56398	£116.33	Touch-Up	91%
Power	Power Computing	☎ 0234 843388	£99.00	PowerScan Professional	90%
Zydec Handy	Evesham Micros	☎ 0386 765500	£99.99	Daatascan Professional	79%

A KICK UP THE '90S

Do you consider yourself to be caring, sharing and eco-friendly? Do you go out of your way to be non-sexist, sensitive and right-on, or don't you care? Rob Mead investigates the steaming underbelly of the ST and invites you to share in the experience

Pop into your local computer store and what do you find? Lots of gung-ho charging about, women with large cleavages and more death, destruction and mayhem than you could find on a weekend break in Sarajevo. But enough of the shop assistants, what about your ST? Does it hold a dark and dismal secret? Is the computer games industry the last bastion of the reactionary, the sexist and the mentally impaired?

When the 1990s kicked off, it was seen by many as a chance to repair the damage done by a decade of greed, materialism and selfishness. The '90s were going to be different – we were all going to become more self-aware and car-

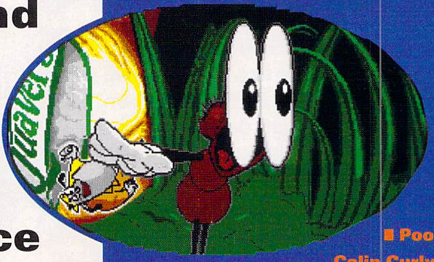


Doralice's voluptuousness is not a shallow, contrived plot to exploit women, but an attempt to deconstruct stereotypical portrayals of gender by parodying them. Discuss.

IT PAYS TO ADVERTISE

There's nothing very '90s about having advertising rammed down your throat. Everywhere you go you're constantly bombarded with the hard sell – on billboards, on TV and now, on your ST. There's a growing trend among software publishers to farm out their product to would-be advertisers – Colin Curly dropped his Quavers down an anthill in *Push Over,* and a gang of chocolate Penguins gave James Pond a hand in both of his ST adventures. The question is, do you really want to see advertising in the games of the '90s?

We spoke to Daniel Bobroff – Managing Director of Microtime Media, the company responsible for placing products in both *Push Over* and *James Pond* – about the ethics of advertising in the software market.



Poor Colin Curly has dropped his Quavers down an anthill. It's up to his faithful sidekick, GI Ant to rescue them and put an end to all this advertising malarkey.

This is what he had to say:

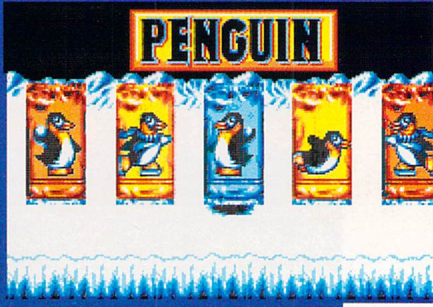
"Where some people might think it is unethical to be advertising to children, we take the opposite stance. Children, as one part of the market we're addressing, are very discerning consumers... They have very strong peer groups and decide among themselves what they like and what they don't like. Far from being able to convince them that black is white or white is black, you can only really assist with confirming things they already believe in themselves.

"With Colin Curly we weren't trying to tell them to go out and buy Quavers, what we were trying to do was put Colin Curly, the character, in an environment that the children would respond to, they would think was cool, because they (the advertisers) were trying to make Colin Curly a cool character. I think *Push Over* does that.

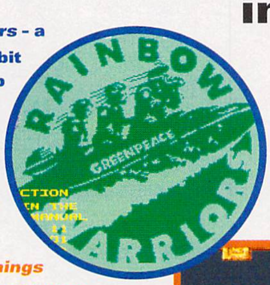
"...We are very strictly self-regulated. We would not accept any kind of advertising initiatives from cigarette or alcohol advertisers, even though we've been approached by both."

Daniel went on to stress that advertising was carefully integrated into the theme of a game. For example, both Duckhams Oils and 7-Up are co-sponsors of Microprose's *Formula One Grand Prix* and have been extensively involved in the real Formula One racing scene.

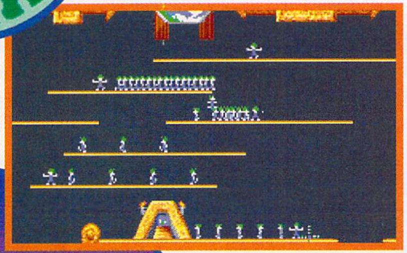
Despite Microtime's ethical stance, you can't help wondering where all this is going to lead – could we yet see tank sims being sponsored by armament manufacturers? Or god games being sponsored by evangelists? Sounds fantastical? Ronald McDonald is already waiting in the wings with his own game... you have been warned.



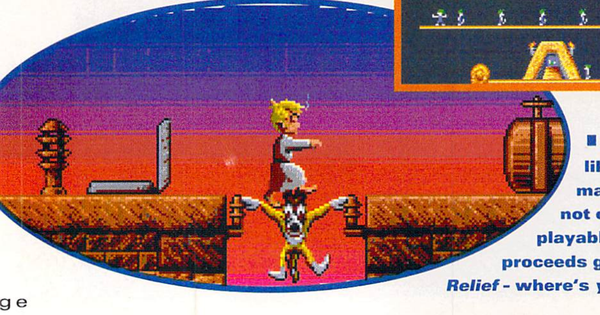
When you feel a bit p-p-p-peckish, don't eat Penguins – they give you a horrible stammer.



Rainbow Warriors - a good excuse for a bit of a gung-ho romp for a good cause. However, the game sold so badly that it's no longer on sale.



Although *Lemmings* are inordinately stupid creatures, they're a worthy cause for any "Save The... (insert furry animal of your choice)" freak.



Sleepwalker looks like it's going to be a massive hit this spring; not only is it extremely playable, but some of the proceeds go towards *Comic Relief* - where's *your* red nose, then?

ing. We were going to lie awake at night worrying about global warming and the mahogany sideboard in the lounge. We were, in short, going to put the world right. So, what happened?

We were, in short, going to put the world right

There were a couple of attempts in the early '90s to bring a spot of environmental awareness to your ST. First Greenpeace and Microprose got together to produce *Rainbow Warrior,* a game based on the adventures of Greenpeace's famous ship – there was lots of seal rescuing and baddie baiting, but, unfortunately, the game was a bit of a dog. A worthy cause was wasted on a game that had the playability of a marooned whale. The game was not a success and a spokeswoman from Greenpeace (☎ 071 354 5100) told *STF* that the unecological use of plastics in the manufacture of disks meant they were unlikely to repeat the exercise.

A little later, Mindscape gave us *Captain Planet and the Planeteers.* This was a slightly more playable, if highly derivative, plat-

▶

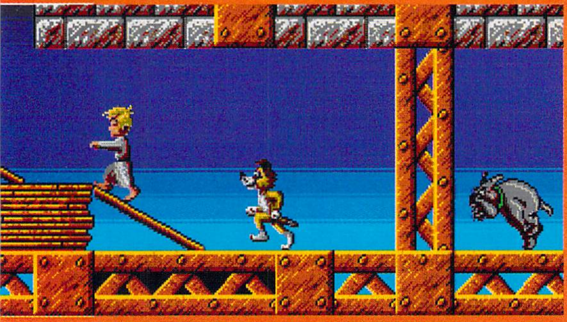
IN THE PUBLIC INTEREST

This nasty looking guy is supposed to be you. You have to traverse six astral planes and reach Seventh Heaven to get back to your original self. Very New Age... very '90s.

There are a host of games, demos and utilities in the Public Domain which have the caring, sharing '90s at heart, but there are also some decidedly dodgy programs

Charity Disks

16/32 PDL (☎ 0634 710788) list a number of charity disks from Micro Care and the Ellenor Foundation in their catalogue and Riverdene PDL (☎ 0734 452416) have a Band Aid demo (Demo 440), the proceeds of which go to the Band Aid Trust.



"And all the cuddly members of the Conservative party started following a man in a grey suit who seemed to know where he was going."

Unlikely heroes, brave heroines

In *Tark* (Disk Games 049, 16/32 PDL) you play a priestess who has to do battle with the evil Demon of Dark Desire, while *Love's Fiery Rapture* (Disk G161, MT Software ☎ 0983 756056) features a lonely lady in search of a perfect date in a parody of romantic novels. Other odd adventures from MT Software include *Whoopsy* (Disk B86), in which a baby tries to avoid its mother's relentless pursuit of tidiness by using the potent weapon in its nappy, and the *Adventures of Alice* (Disk G171), where our heroine is prepared to try anything to escape her maths lesson. But most bizarre of all, is a demo from Floppy Shop (0224 586208) *Predator 3 – Deadlier than the Male* (Disk DEM.807C) where Schwarzenegger gets his throat cut by a female protagonist.

Arnie gets his comeuppance as a mysterious woman slits his throat and puts an end to his macho posturing - all this, and more, in *Predator 2 - Deadlier than the Male.*

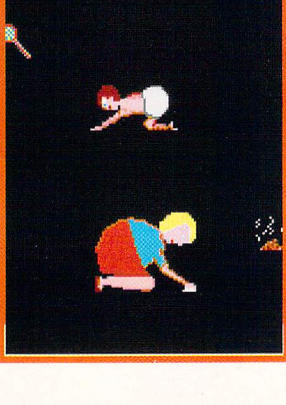
Rescue-'em-ups

If you're fed up with blasting everything to death, how about saving it instead – both *Froggy* (Disk GD497) and *Hedgehog* (Disk GD651, Goodman PDL ☎ 0782 335650) put you in charge of getting lovable little animals across a busy road, while *Dr Boris* (Disk GBU06, ST Club ☎ 0602 410241) has to run around a series of dark alleys and stop bombs from going off. In *Penguin* (Disk Games 081, 16/32 PDL) you have to rescue a bunch of penguins from imminent disaster.

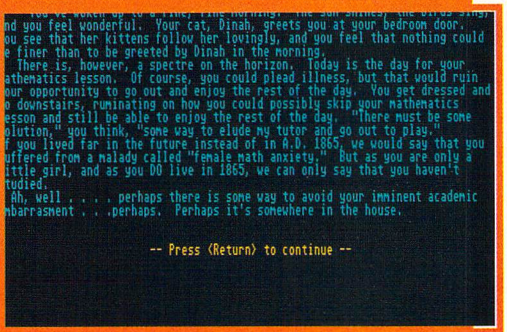
Froggy has obviously never learned the Green Toad Code. Doesn't he know he's supposed to use the zebra crossing?

Heal thyself

Keep your mind and body in tune with the help of the General 006 disk from 16/32 PDL which features an Astronomical star map and a Biorhythm chart program. Also from 16/32 comes General 041 which features an Aztec calendar, horoscope generator and another biorhythm program. Goodman PDL also have a disk (GD 761 *Astro 2.2)* devoted to this topic, as do Softville PD (☎ 0705 266509) with the *Mystical Astrology* (Disk 1031) and *New Age* (Disk 1033) clip art programs. Goodman PDL have a disk-based religious magazine (Disk GD 1556) from the Atari ST Christian User Group. More unusually, *Seventh Heaven* (Disk B73, MT Software) finds you in hospital suffering from two nervous breakdowns and a terminal illness.



There's been a lot of attention on the role of parenting in the New Age - now you too can rediscover what it's like to be a baby in *Whoopsy* from the Public Domain.



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nd you feel wonderful.  Your cat, Dinah, greets you at your bedroom door.
ou see that her kittens follow her lovingly, and you feel that nothing could
e finer than to be greeted by Dinah in the morning.
  There is, however, a spectre on the horizon.  Today is the day for your
athematics lesson.  Of course, you could plead illness, but that would ruin
our opportunity to go out and enjoy the rest of the day.  You get dressed and
o downstairs, ruminating on how you could possibly skip your mathematics
esson and still be able to enjoy the rest of the day.  "There must be some
olution," you think, "some way to elude my tutor and go out to play."
f you lived far in the future instead of in A.D. 1865, we would say that you
uffered from a malady called "female math anxiety."  But as you are only a
ittle girl, and as you DO live in 1865, we can only say that you haven't
tudied.
 Ah, well . . . . perhaps there is some way to avoid your imminent academic
mbarrasment . . .perhaps.  Perhaps it's somewhere in the house.

                    -- Press <Return> to continue --
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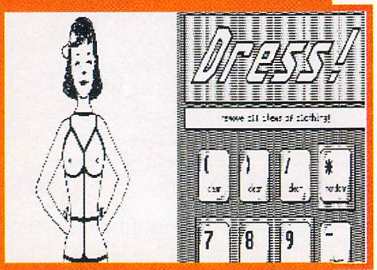
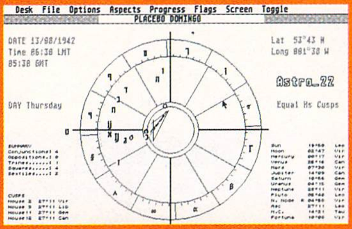
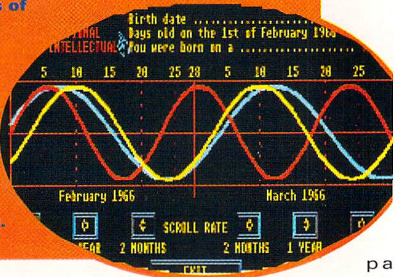
Lewis Carroll's Alice makes a fine heroine in this PD text adventure. It's your job to help Alice escape from her maths lesson.



***Dress* is a random strip game in the Public Domain. It's hardly realistic, but it could be offensive to women.**

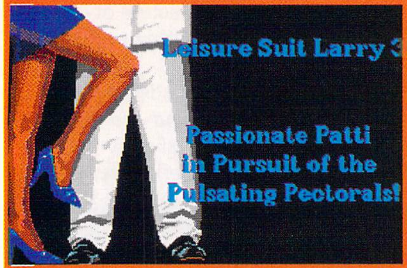


With the help of *Astro 2.2* you can generate birth charts for you and your friends - ideal for that New Age happening thang. *Astro 2.2.* runs in high res only.

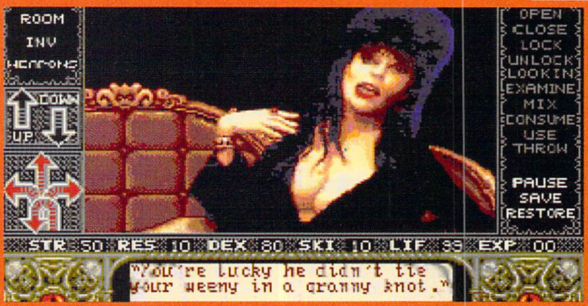


There are loads of biorhythm programs in the Public Domain which enable you to keep in touch with your emotional, physical and mental state.

I'm too sexist for my shirt, my ST and my bird



■ *Leisure Suit Larry* is a playboy with a mission to conquer an island's female inhabitants – pixellated nudity and dubious morals are much in evidence here.



"You're lucky he didn't tie your weeny in a granny knot."

■ "And you're lucky you haven't got rats living in your cleavage. What kind of a cliché do you think you are?"

The games software industry is unbelievably sexist – just look at some of the programs in your collection. You can bet the majority of them don't have female heroines – women are more likely to be portrayed as sex symbols, or helpless, passive victims that need to be rescued.

One of the most recent offenders was Digital Integration's *Fascination* (reviewed in *STF* 39). Although the game has a female lead, Doralice, she spends most of her time cavorting around virtually starkers, something which has nothing to do with the plot whatsoever. Other famous examples of gratuitous sexism include Sierra's *Leisure Suit Larry* series – with its portayal of a philandering playboy and Accolade's flashy *Elvira*.

Role-playing games – with their tales of knights, dragons and distressed damsels – can also be incredibly sexist. For example, the plots of Readysoft's *Dragon's Lair* series invariably involve rescuing the voluptuous Princess Daphne from the clutches of some evil character. Hackneyed plots and stereotypical characters hardly make for intellectually-challenging gameplay, but then it's only a bit of harmless escapism, isn't it?

Unfortunately, until ST gaming ceases to be a male-dominated activity, the portrayal of women in software is unlikely to change.

■ "If you're into bondage in a big way, but can't afford the ropes and leather, you can always kit yourself out with a length of garden twine and some cling-film," explains Blue Peter's new presenter.

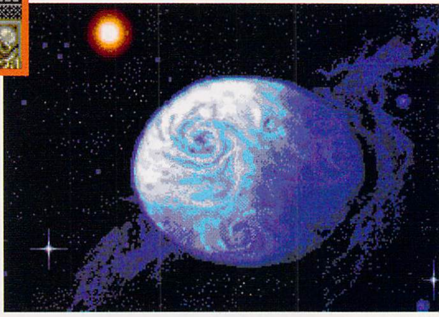
■ Elvira's obviously having trouble containing herself. Has she never heard of support tights and corsets?

former. You had to guide Captain Planet around a series of levels, saving rainforests and preventing the depletion of the ozone layer. Despite the good intentions, it only managed to scrape a 61% rating in *STF* 30. In the same issue, we also featured Imageworks' *Robozone*, billed as the first "green" game. No-one believed it – it was a shoot-'em-up for people on a guilt trip. We gave that a generous 54%. Another dismal flop was Hex's *Top Banana* (48%, *STF* 35), a platform game where a badly animated sprite wandered around a series of levels – Rainforest, Metal City, the Temple, Mindscape – collecting cakes and fruit. Still, at least the manual was printed on recycled paper and you could also save the non-renewable resources by reformatting the disk and putting something slightly more worthwhile on it.

> ***Robozone** was a shoot-'em-up for people on a guilt trip*

■ You can sleep tonight, safe in the knowledge that you are being protected by a superpower with large bazookas.

It's the end of the world...
That's about it really. If you wanted to escape all the violent death and sexism you had to escape to the Public Domain – check out the In The Public Interest boxout on page 43 – where you could at least check your biorhythms and play *Tark the Priestess* without getting any funny looks from your fellow gamers. Either that or you had to confine yourself to playing androgynous cutesy characters in *Parasol Stars* or *Bubble Bobble* and content yourself with rescuing *Lemmings*. At a push you could say *Sim City* was right-on, but inflicting fires, floods and japanese B-movie monsters on your citizens rather let the side down.



■ The earth has been condemned to a perpetual nuclear winter – it's up to you to restore its eco-balance and rescue humanity from an eternal darkness.

Dungeon Master from Psygnosis offered something new – a number of different character types

UMWELT FREUNDLICH? NEIN DANKE

Whether you're a rainbow jumper wearing veggie or a carnivorous cyberpunk with an attitude problem, you have to fill in our unique self-assessment survey

1 You see an attractive-looking girl walking along the street. Do you turn to your mates and say: (a) "Cor! Look at the legs on that." (b) "Mmm, I bet she's got a nice personality." or (c) "Can you feel the vibes coming from that love goddess?"

2 You see a bus load of travellers stranded at the roadside. Do you: (a) Shower them with McDonald's cartons and shout "Get a load of this, you cud-chewers." (b) Drive past thinking "I would give them a lift, honest, but I've just had the car valeted and I'm late for my dental appointment." or (c) Give 25 of them a lift in your 2CV and break the back axle?

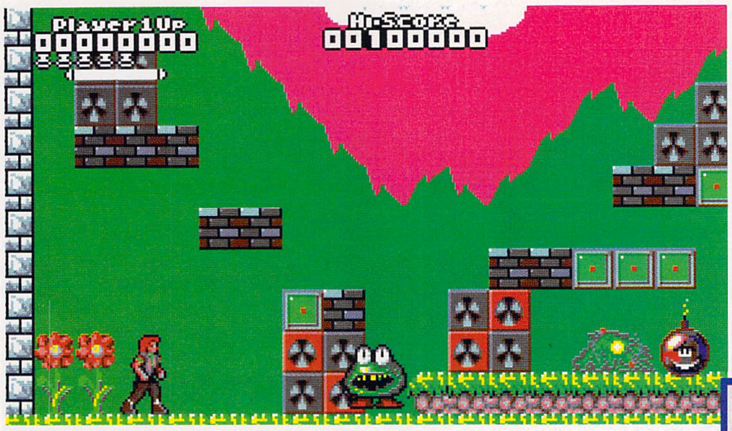
3 It's the night after a wild party and there's half an off-licence's worth of empty bottles and cans in your kitchen. Do you: (a) Stick them in the boot of your best mate's car and laugh loudly when he gets stopped by the cops? (b) Crush the cans before you put them in the bin so they take up less room in a landfill site? or (c) Stick all the stuff in a wheelbarrow and walk the uphill two mile hike to your nearest recycling centre?

Answers

Mostly As: You're as hard as H-bomb proof concrete and couldn't give a monkey's if the planet unexpectedly and surprisingly self-combusted tomorrow.

Mostly Bs: Come down off that fence! What are you a man, or a mouse? Eh? What? Oh, so you don't know.

Mostly Cs: Who are you trying to kid? I bet you don't recycle your toilet paper, do you?

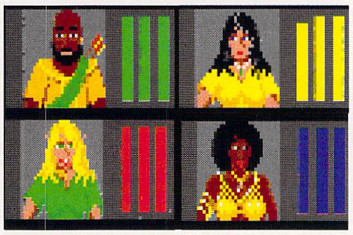


Captain Planet had the capability to save the earth, he just couldn't save himself from an abysmal game.

for you to choose from. You could be a hairy black female fighter cleric if you really wanted to. At least it gave female ST owners – and there are some – a chance to get in on the act.

... as we know it...

The New Age '90s may have got off to a less than promising start, but that could soon change with the launch of two new games – *Transarctica* from Daze (see the review on page 78) and *Sleepwalker* by Ocean. In *Transarctica,* the United Nations have failed in their final attempt to reverse the effects of global warming and plunged the earth into a nuclear winter. As the driver of the Transarctica you have to discover what went wrong and piece together the solution to a global problem. *Sleepwalker* is much more straightforward – for every game sold nearly five pounds goes to *Comic Relief.* Included in every game box is a sponsorship form, so now there's no excuse for you not to get in on the caring, sharing act. Best of all, though, must be the fact that both games are absolute corkers – proof positive that you can have fun and show concern for the world around you at the same time.



***Dungeon Master's* heroes gallery enables you to pick a politically-sound selection of heroes. Make sure they're good fighters and wizards as well, though.**

... and I feel fine

OK, you're fed up with feeling guilty and mortified. You know the world's a terrible, bloody mess – the last thing you want to do when you come home is switch on your ST and be reminded of it. You just want a bit of harmless fun. As for self-awareness, the last time you contemplated your navel was when you picked fluff out of it.

There's nothing wrong with having a good blast on your ST, beating up lots of baddies and marvelling at the sights and delights presented to you on its screen. Anyway, being right-on is dull – can you imagine having a Clint Eastwood movie where he rides into town and starts being kind to everyone? The other thing is, no matter what your personal views are, no-one likes to have someone else's opinions rammed down his or her throat. If you're not interested in war games, charity games or strip-poker games then you don't have to buy them.

At the end of the day, you choose what you want to see on your ST – and perhaps that's the best thing about the '90s. **stf**

***Robozone* has precious little to do with saving the planet and plenty to do with blasting the hell out of everything that gets in your way.**

WHAT THE PROGRAMMERS SAY

We asked some of the games industry's leading programmers what they thought about sexism, violence, advertising and the environment. This is what they had to say

Andrew Braybrook of Graftgold on violence:

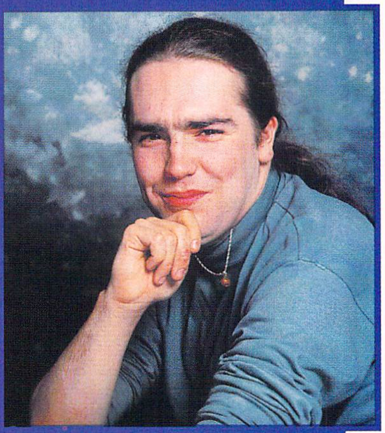
"I don't think what we do is driven by us – we do what people want to play... I'm not a great fan of beat-'em-ups, though if it puts violence on the screen and not on the streets, that has to be a good thing."

Peter Molyneux of Bullfrog on "green" games:

"When Mindscape did *Captain Planet,* they didn't do it to be bio or green, they did *Captain Planet* because everyone was being bio and green and they thought it would sell... I've always thought there was something a little sordid about people – not only in computer games, but films and records – making money out of something just because everybody's interested in the issues."

> ***"They did Captain Planet because everyone was being bio"***
> ***Peter Molyneux***

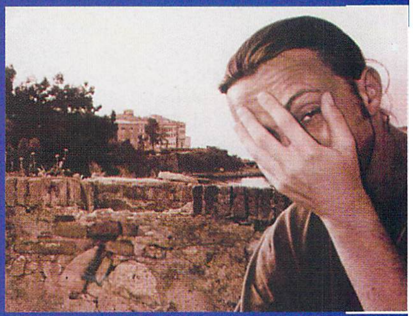
Jon Hare of Sensible Software on sexism:



"In *Wizkid* we had the 'how much is that doggy in the window' bit, which could be construed as being sexist, but, to be honest... women would laugh at it more than men do... You've got to remember there's a certain bitchiness in women."

> ***"I don't think what we do is driven by us"***
> ***Andrew Braybrook***

Shaun Hollywood of Digital Image Design on the caring, sharing '90s:



"What caring, sharing '90s? The question is not whether computer games should be more eco-friendly or less sexist and violent, but that, as a whole, the industry should... have reached a point of maturation, where objectivity about our products within a cultural context should occur. In the past, it is true to say, the industry has spontaneously evolved out of a society that is inherently flawed, who can be blamed then if our products are reflective of this. We at Digital Image Design are hoping to address these issues in our future projects."

LOADING AND UNLOADING DESK ACCESSORIES

Your ST's operating system restricts the number of Desk Accessory slots to a maximum of six - so what do you do if you need to use an Accessory not loaded into memory and you do not want to exit the program you are using?

There is a commercial Desk Accessory called *Multidesk Deluxe* (£39.95 from the Atari Workshop, ☎ 0753 832212) which enables Accessories to be loaded and unloaded at any time. If you cannot afford that, then there are two PD solutions to the problem. These are special Accessories that can load and unload other Accessories as you wish. Alternatively, you could use *Superboot 7.4* from Cover Disk 36 – this enables you to choose which AUTO folder and Accessories you wish to install on booting your machine. If you don't have a copy of *Superboot*, then turn to page 66 to order *ST FORMAT* 36.

Chameleon

Filename: CHMELEON.ACC. This is a German program that enables other Accessories to be loaded into the slot *Chameleon* occupies, in a way it's like having an unassigned slot. You simply load *Chameleon* as a normal Desk Accessory, and at any time, you can click on *Chameleon* from the Desk menu to access the file selector. You can then select an Accessory to load into the slot. Once loaded, the Accessory running under *Chameleon* is marked by an arrow. To load a replacement DA into the *Chameleon* slot, select the Accessory by clicking on the right mouse button and the file selector is called up. You can change DAs in this way as many times as you like. Please note that *Chameleon* is distributed under licence by Goodman International and cannot be distributed freely.

***STF* Rating: 77%**

DC Stuffer

Filename: STUFFIT.ACC. This is a completely different type of program to *Chameleon. DC Stuffer* enables you to load up to 32 Desk Accessories, as long as you have enough memory. The program is installed as a normal DA, but it enables you to load other Accessories into itself. These can then be selected from a menu when you call *DC Stuffer* from the Desk menu. If you want to be really silly, load *DC Stuffer* into itself to give another 32 slots for Accessories – you need more memory for this, though.

***STF* Rating: 88%**

MATCHING TIE

No outfit would be complete without vital accessories like matching gloves, shoes and handbag. Similarly, your ST is not the same without Desk Accessories - the handy memory resident programs. Clive Parker looks at what's on offer

Desk Accessories – what are they and how do you use them? Well, a Desk Accessory (DA) is usually a small program which provides a helpful function such as formatting a disk, creating a folder, printing a disk directory or taking notes.

The difference between a DA and an ordinary program is that a Desk Accessory is memory resident – that means it loads into your ST's memory while it is booting and remains there quietly until you call it from the Desk menu. This can be done either from the Desktop or from within any GEM program which has a menu bar across the

INSTALLATION

How do I install a Desk Accessory?

Desk Accessories can only be loaded into memory when the machine is switched on, or booted-up. To do this, the Desk Accessory you want to load must be on the disk in the drive when your ST is powered up or reset. The DA must also be in the root directory of the disk. This means it has to be visible in the main directory of the disk when you double-click on the drive A icon.

The easiest way you can ensure that you copy a DA to the root directory is to follow this procedure (assuming you've got a single floppy drive system).

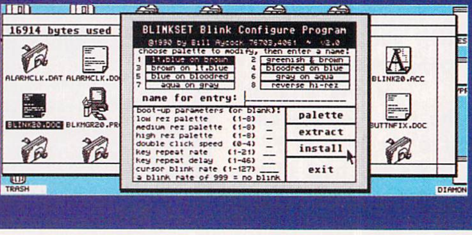
1. Format a blank disk and label it Disk B.
2. Put the disk containing the Accessory you wish to copy in drive A, and double-click on the drive A icon.
3. If the Accessory is in a folder, double-click on it so the folder opens.
4. Click on the Accessory and hold the button down. Now drag the Accessory to the drive B icon and release the button.
5. Your ST now asks you to put disk B in drive A. Do this, and then follow the on-screen prompts.
6. Repeat for all Accessories you wish to copy. Remember that you can only use a maximum of six DAs at any one time on your ST. The more Accessories you load the more memory you use.
7. To use the Accessories you have copied, place disk B in the drive and press the reset button. After the machine has booted you can access the DAs from the Desk menu either at the Desktop or within any GEM program.

CONTROL PANEL REPLACEMENTS

BLINK

***Blink Utilities* - BLINK20.ACC, BLKSET20.ACC and BLKMGR20.PRG.** This is a group of programs designed to replace, or work alongside, the Control Panel Accessory supplied by Atari with all their machines. *Blink* replaces many Control Panel functions and enables you to install different palettes, set key repeat and double-click speed. *Blink Set* is used with the Atari Control Panel and enables you to define custom palettes and save them to a library file for auto loading. *Blink Manager* enables full control over your pre-defined palettes from the Desktop. *Blink Utilities* are a good idea but are scrapily put together – one Accessory for the whole thing would have been much more effective.

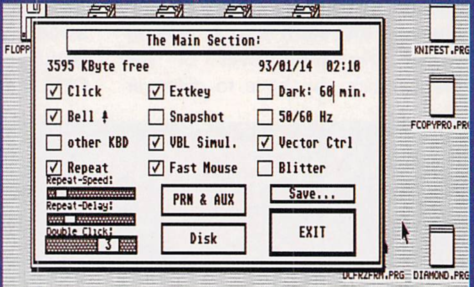
***STF* Rating: 52%**



BLINKSET Blink Configure Program
©1990 by Bill Aycock 76703,4061 ~ v2.0
choose palette to modify, then enter a name:
1 lt.blue on brown   2 greenish & brown
3 brown on lt.blue   4 bloodred on blue
5 blue on bloodred   6 gray on aqua
7 aqua on gray   8 reverse hi-rez
name for entry: ____________
boot-up parameters (or blank):
low rez palette (1-8) _
medium rez palette (1-8) _
high rez palette (1-8) _
double click speed (0-4) _
key repeat rate (1-21) __
key repeat delay (1-46) __
cursor blink rate (1-127) ___
a blink rate of 999 = no blink

■ The *Blink Utilities* are a carefully thought-out set of utilities. The way they are set out, however, is confusing and they are cumbersome.

BUTLER JAMES



The Main Section:
3595 KByte free   93/01/14 02:10
☑ Click   ☑ Extkey   ☐ Dark: 60 min.
☑ Bell   ☐ Snapshot   ☐ 50/60 Hz
☐ other KBD   ☑ VBL Simul.   ☑ Vector Ctrl
☑ Repeat   ☑ Fast Mouse   ☐ Blitter
Repeat-Speed:
Repeat-Delay:
Double Click: 3

■ *Butler James* is a full Control Panel replacement offering complete control over all the main system parameters and functions.

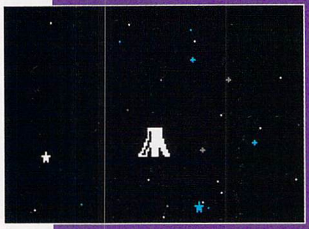
Filename: JAMES.ACC. This Accessory is designed to be a complete replacement for the standard Control Panel, enabling control over all the normal Control Panel functions. *James* also offers control over hard and floppy drives and has a built-in virus detector and killer. Other handy functions are a free memory display, a built-in snapshot facility to save the screen to disk, a screen saver and a 50Hz/60Hz

SCREEN SAVERS

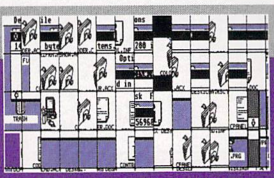
IDLE 2.2

This screen saver is simple to install and modify. Press <Shift> while selecting the Accessory and an options menu appears enabling you to set the time until activation, to use a starfield background, bouncy Atari Fuji logo or both. A "hot corner" can also be designated, moving the mouse to this corner will activate the screen.

***STF* Rating: 73%**



▮ See that Atari logo? That's the Fuji symbol, that is. The screen saver prevents "burn in" on the phosphor of your monitor screen when the same image is displayed for too long.



▮ Using *Rubrik's* certainly makes a mess of your screen with the squares whizzing around it.

RUBRIK'S

Filename: RUBRIK'S.ACC. Another simple to use screen saver for your ST. You should already have it, as it was on Cover Disk 42. *Rubrik's* is quite different from *Idle* or *Starstruck* because it takes the screen and splits it up into a sliding puzzle. The screen is chopped up into squares which then slide madly around. The program has many setup options and the settings can be saved to hard drive enabling automatic loading. For details of saving the settings to floppy drive see ST Answers on page 58.

***STF* Rating: 78%**

STAR STRUCK

Filename: STARSTRK.ACC. *Star Struck* is a screen saver that turns your screen into the viewscreen of Captain Kirk's Enterprise. After three minutes, the screen fades to black and stars burst forth from the centre of the screen. Moving the mouse or touching a key returns the screen to normal.

***STF* Rating: 65%**

STARS

Filename: STARS8.ACC. Essentially, this is the same as *Star Struck* except that it activates after two minutes, and takes up a huge amount of memory when installed – about 70K. This is alright if you are fortunate enough to have a 1MByte machine, but slightly on the restrictive side if you happen to have a 512K ST.

***STF* Rating: 60%**

AND HANDKERCHIEF

top of the screen. The great advantage with this, is that you can use a Desk Accessory from within another program – so if you don't have a formatted disk handy when you want to save chapter three of your latest novel, for instance, you can just call up a disk formatter from the Accessory menu, format the disk and save your file. You're saved – and so is your novel.

Of course, this is just a simple example of one particular situation. The Public Domain libraries are heaving with handy, useful, silly and sometimes completely useless Desk Accessories – check out our directory on page 102.

General utilities

THE BUTTON FIXER

Filename: BUTTNFIX.ACC. This Desk Accessory fixes a small problem that occurs with programs running on STs with versions of TOS 1.4 and above. When clicking on a scroll bar the system often acts as though two clicks were performed, making you zoom past the area you want to look at. If you install the *Button Fixer*, the problem vanishes. It may slow down normal button response.

***STF* Rating: 92%**

COMMAND LINE

Filename: CLI.ACC. Oh no! It's the dreaded "C" prompt loved by those IBM types. Quite why anyone using a machine with GEM or a similar GUI would prefer to use a command line is beyond the ken of everyone at *ST FORMAT*. The CLI is claimed to be easier to use for file handling operations, but we reckon it has been designed especially to help PC users.

***STF* Rating: 22%**

CHRONOGRAPH

Filename: CHRONO.ACC. This is a corner clock Accessory with a built-in alarm function which only takes up about 20K of RAM. The clock numerals in the corner of the screen are double height and overwrite the program running – this can be a problem if you are using a graphics package. The clock uses the "digital" numerals of the ST character set which makes them rather difficult to read – it would have been better with normal type. Three alarms can be set for different times which ring the system bell for one minute.

***STF* Rating: 35%**

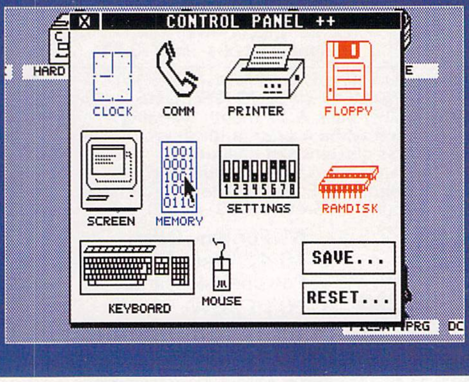
switcher. The disk menu offers a write-verify off-switch (dangerous!), a write-protect function to prevent data being written to any drive – including hard drive partitions – and a hard drive ship function. There is also a keyboard reset for pre-TOS 1.4 machines. The only drawback is that it is not in a GEM window, so you are unable to access anything else while the Accessory is open.

***STF* Rating: 75%**

CONTROL PANEL ++

Filename: CPANEL.ACC. Another excellent all-in-one replacement Control Panel, although not as good as *Butler James.* A host of functions include a clock setter, disk utilities including an IBM PC compatible formatter, a RAMdisk and a memory usage display. All the standard Control Panel functions are duplicated. At 53K in length, it takes up a large chunk of precious RAM, especially important if you have a 520 STE or STFM. *Control Panel ++* appears in a GEM window and can be left in the background.

***STF* Rating: 68%**

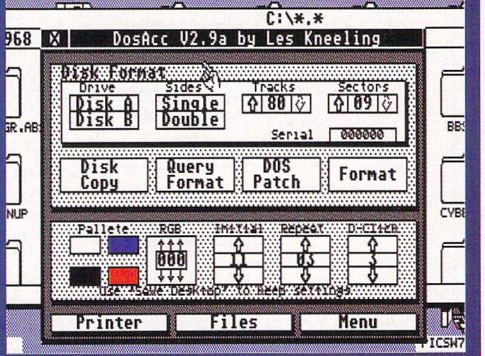


▮ Another complete replacement with extra functions such as a RAMdisk and PC compatible disk formatter built-in.

DOSACC 2.9A

Filename: DOSACC.ACC. *DosAcc* has a traditional GEM format with forms, buttons and alert boxes making up the controls. As usual, all standard functions are catered for by *DosAcc*, but where this program excels is with its comprehensive list of additional utilities. The normal printer functions are there, but there are eight extra buttons where printer control codes can be entered for customised functions. There is also an excellent file management utility. Files can be copied, moved, renamed, deleted and searched for. Everything about this program reeks of professionalism – if this was a commercial program it would sell for a tidy sum.

***STF* Rating: 86%**



▮ *DosAcc* has many useful functions hidden away in its sub-menus, including a comprehensive disk utility section.

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Atari Workstation /Expansion System

Monitor stand with shelf for drives etc. Strong metal construction made from 14SWG steel epoxy coated. No Cables or mouse are included.

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*24pin Colour**

Advanced 24pin printer, (Swift 24E replacement). Phone for a data sheet *optional colour. Price with cable & paper

240 Mono	£245
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Swift 200

*24pin Colour**

Enhanced 24pin printer, (Swift 224 replacement.) Phone for a data sheet *optional colour. Price with cable & paper

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Printer Packs

All printers are supplied with a printer pack consisting of printer paper and a connection cable.

Free of charge

A stand is £5.00 extra (with a printer)

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Special Offer

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0.5M Simm ram upgrade	12.90
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4M Xtra ram Deluxe	194.00

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HP 300dpi Inkjet printer. Laser quality at dot matrix price.
3 year warranty.
With cable & paper £325

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Colour laser quality at 1/10 of the cost.
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Colour laser quality, with colour and black cartridges resident.
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Canon BJ-10e/ex	£5
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Protar Progate

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20DC	20M Hard Disk	£215
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105DC	105M Hard Disk	£475

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1040STE 2M ram	£319
1040STE 4M ram	£379

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£69

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LOOK, I'M PLAYING WITH MY ACCESSORY!

You can even get games that are Desk Accessories! They are usually small puzzles contained in a GEM window. Flipflop, Puzzle Slide and Tic Tac Toe are all on this month's Cover Disk

BREAKOUT

Filename: BREAKOUT.ACC. Yes, even *Breakout* is available as a DA. The actual game isn't very big, but you can get quite engrossed in it. Doesn't bring the excitement of the arcade game into your home, though.

***STF* Rating: 63%**

FLIP FLOP

Filename: FLIPFLOP.ACC. Exactly the same as the *Reversi* DA, although it has a slightly different layout. These sort of games are always incredibly addictive.

***STF* Rating: 58%**

PUZZLE SLIDE

Filename: PUZSLIDE.ACC. You've seen those crappy little plastic puzzles where you slide tiles around to make a picture? Well, this is exactly the same except you have to arrange the letters to spell the magic word, San Fransisco! Actually, the truth is you have to slide the letters around until they are in alphabetical order.

***STF* Rating: 48%**

REVERSI

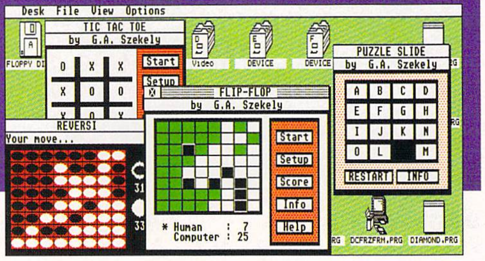
Filename: REVERSI.ACC. The classic *Reversi* game where you have to create lines of tiles in your colour. Simple but addictive.

***STF* Rating: 61%**

TIC TAC TOE

Filename: TIC_TAC.ACC. That's noughts and crosses to you, mate. Just place your cross and try to beat your ST. If you want to win, your best bet is to play against a friend.

***STF* Rating: 56%**



Your move...

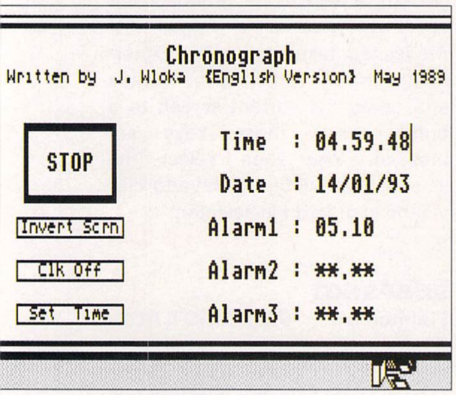
* Human : 7
Computer : 25

■ You will soon fill all those Desk Accessory slots, so why not stick some puzzles and games in there! Most DA games are puzzles but you can also get a version of the addictive *Breakout*.

CHARACTER SET

Filename: CHARSET.ACC. This little Desk Accessory is designed as an aid to programmers who cannot remember the decimal and hexadecimal values of the ST character set. This DA helps them by displaying the entire set in a GEM window – including the extended set. Clicking on any character in the window displays the character and its decimal and hexadecimal value in the top line of the box.

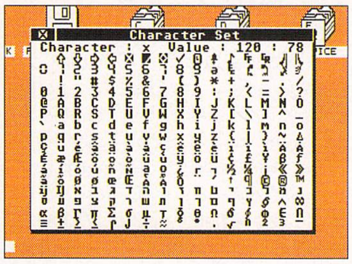
***STF* Rating: 58%**



Written by J. Wloka (English Version) May 1989

Time : 04.59.48
Date : 14/01/93
Alarm1 : 05.10
Alarm2 : **.**
Alarm3 : **.**

■ ***Chronograph*** **is set up from this alert box. All the functions are obvious apart from Stop, this should read Exit. Oh yes, the Invert Screen button should be avoided, it can make your screen unreadable.**



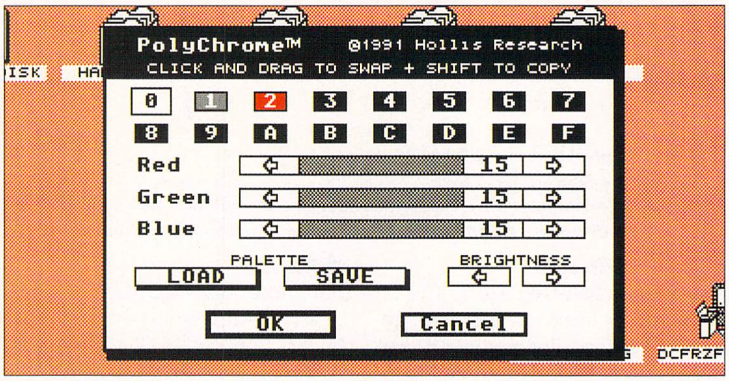
Character : x Value : 120 : 78

■ **The *Character Set* Accessory displays the complete ST character set in a GEM window. Useful-ish.**

POLYCHROME

Filename: COLOUR.ACC. The purpose of *PolyChrome* is to save and load different colour palettes to and from disk – this is because different applications look better with a different colour scheme. You can change the current palette from the Control Panel without needing a separate Accessory.

***STF* Rating: 61%**



CLICK AND DRAG TO SWAP + SHIFT TO COPY

Red 15
Green 15
Blue 15

■ ***PolyChrome*** **provides sliders to adjust the screen colours to suit your moods. If you like the colours, you can save them and load them again later.**

CALCULATOR ONE, WHAT'S YOUR FUNCTION AND WHY?

SCIENTIFIC CALCULATOR

Filename: CALC.ACC. There are many calculators available for your ST as Desk Accessories, but this one is definitely the heavyweight of the bunch. It is a fully featured scientific calculator, complete with all the functions that used to give you nightmares in maths lessons at school. You know the stuff – sine and cosine, tangents, exponents and the like. Brilliant if you need the extra functions, but completely useless if you don't. The only major drawback is that it is designed to run only in high resolution.

***STF* Rating: 54%**

CALCULATOR

Filename: CALC1.ACC. This is a basic no-frills calculator. A simple display with just the four basic mathematical functions; addition, multiplication, subtraction and division. All of these functions are mapped onto the keypad so you can use the calculator without having to use the mouse at all. Handy for working out your expenses and uses very little memory. This is probably the most useful calculator of them all.

***STF* Rating: 62%**

CALCULATOR

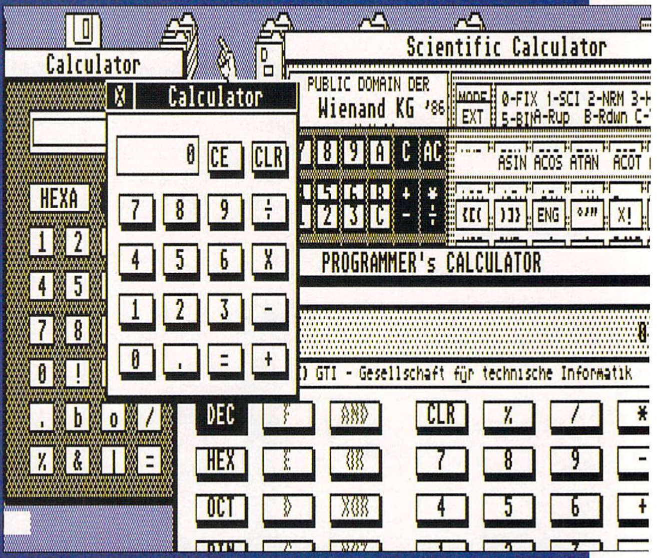
Filename: CALC2.ACC. Another pretty basic calculator, with a few more functions than the previous one. The main feature is the ability to calculate in decimal or hexadecimal notation (base 16). This is mainly of use to assembly language programmers who always work with hexadecimal figures.

***STF* Rating: 65%**

PROGRAMMERS' CALCULATOR

Filename: CALCPRO.ACC. This is another heavyweight calculator designed with programmers in mind rather than the common or garden mathematicians. The calculator can calculate and convert between decimal, hexadecimal, octal and binary notation, and includes all those logical operations we know and love. You can and, or, xor and not numbers to your heart's content. Essential for the serious programmers.

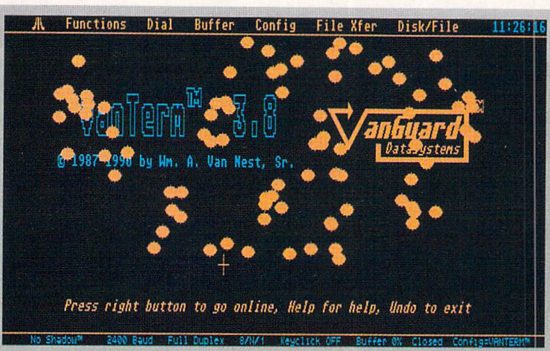
***STF* Rating: 87%**



■ **Just look at all those calculators dying to be used. There are calculators for all tastes available, Clive just about managed to work out how to use the simple one at the top of the pile.**

THE REALLY SILLY BIT

Now we're getting silly! Some of the Desk Accessories available, though are just silly as they have no useful functions at all



Press right button to go online, Help for help, Undo to exit

No Shadow™ 2400 Baud Full Duplex 8/N/1 Keyclick OFF Buffer 0% Closed Config=VANTERM™

■ If you can't get a connection to the *ST FORMAT* BBS using *Vanterm*, then get out your machine gun and blast that screen to smithereens! Blatta blatta blatta blatta blat!

MACHINE GUN

Filename: MGUN.ACC. If you should happen to get a little peeved with the way your creation is going whether in a word processor, art package or DTP program, then you need *Machine Gun*. Select the *Machine Gun* from the Desk menu, move the crosshairs over the screen and blast the screen with bullet holes by pressing the left mouse button.

***STF* Rating: Quite silly**

MELT

Filename: MELT.ACC. Activating this DA causes the program being displayed to gradually blur and slide to the bottom of the screen in a very effective way – this really is an absolutely pointless Accessory.

***STF* Rating: Sillier than the transcript of the Camillagate tape**

SIREN

Filename: SIREN.ACC. A very silly DA which is sort of like an alarm clock. Using a setup program you set the siren for a particular number of minutes, after that time has lapsed, a police car drives across the bottom of the screen making "woo woo woo" noises.

***STF* Rating: Absolutely silly**

UPSIDE DOWN

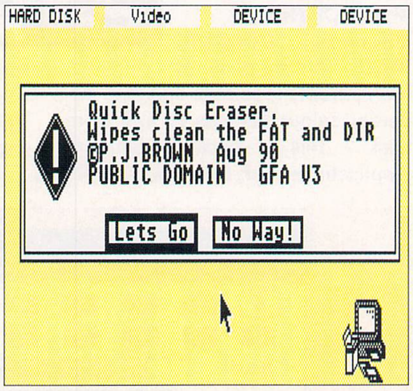
Filename: UD.ACC. Selecting the *Upside Down* option from the Desk menu turns your screen – yes, you guessed it – upside down! Very handy if you wish to balance your monitor on its head, or if you fancy working while hanging upside down from chains on the ceiling – otherwise, quite pointless.

STF* Rating: Even sillier than *Siren

DISK-WIPE

Filename: FASTWIPE.ACC. This is a very dangerous program if you use it incorrectly. *Disk-Wipe* deletes the directory and the FATs on any floppy disk in drive A. It's a good way to erase a disk in a single operation – it's also an easy way to accidentally destroy your files. So use with caution.

***STF* Rating: 68%**



Quick Disc Eraser,
Wipes clean the FAT and DIR
©P.J.BROWN Aug 90
PUBLIC DOMAIN GFA V3

■ Just an alert box away from erasing a disk forever, *Disk-Wipe* can extinguish days, weeks or months of work in a few seconds. The program is written in *GFA Basic* and the listing is provided for study.

DISK INITIALISE

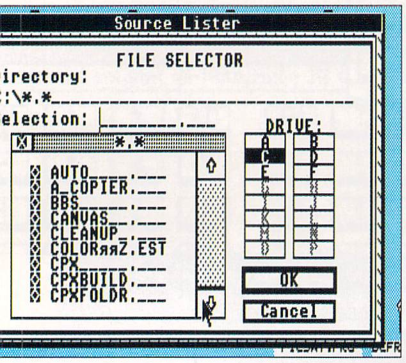
Filename: DISKINIT.ACC. This is a program used to initialise an external second floppy drive if you have booted your ST without turning the drive on. Just run this Accessory and your machine recognises drive B.

***STF* Rating: 66%**

DEGAS SCREEN VIEWER

Filename: DEGASHOW.ACC. This DA is handy to quickly scan through your collection of *Degas* files if you want to quickly find a picture. An alert box appears enabling you to select a file or quit. You can only load files in the current resolution and the program can be used as a DA or a program.

***STF* Rating: 58%**



GIZZMO

Filename: GIZZMO.ACC. A small utility which enables you to create folders from within GEM programs. A command line overwrites the GEM menus and you enter a folder name. The folder is created in the current path unless you specify a pathname in the command line. Handy but not brilliant.

***STF* Rating: 50%**

GOODIES

Filename: GOODIES.ACC. *Goodies* is a general purpose utility incorporating a RAMdisk, a directory printer, time and date set up utilities, a disk backup function, a file copy routine and an undelete function. While the collection of utilities into one Accessory is a good idea, the actual utilities themselves could have been implemented better.

***STF* Rating: 62%**

LISTER

Filename: LISTER.ACC. You can use this program to print a hardcopy of an ASCII file from within a GEM program. This can be useful if you are using PD software and find that you need to read the README file on the disk but can't actually leave the program.

***STF* Rating: 55%**

■ Calling the Source Lister from the Desk menu presents you with the standard file selector. Click on the file you want to read and you can print it out – if you have a printer, of course.

MDISK

Filename: MDISK.ACC. *MDisk* is a RAMdisk Accessory with a difference. Instead of setting up a standard RAMdisk for file copying, *MDisk* copies complete unprotected disks into the RAMdisk and then copies them back to another floppy. This makes disk duplication a dream and is much faster than using the Desktop disk copy function. *MDisk* can even format the destination disk if you don't have a ready formatted disk available. 1MByte of RAM is required to copy double-sided disks and you can find this little gem on this month's Cover Disk.

***STF* Rating 81%**

MONITOR MAGIC

Filename: MAGIC.ACC. If you are using your machine for word processing in medium resolution, then *Monitor Magic* is just what you need. This handy little utility adjusts the palette of your ST to emulate a green screen or amber screen monitor – using these colours for text are less of a strain on the eyes when word processing. Give it a go anyway – you can do it for free from this month's Cover Disk.

***STF* Rating: 72%**

MEGASNAP

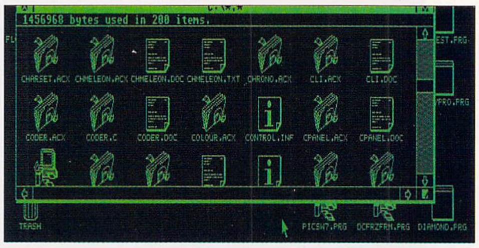
Filename: MEGASNAP.ACC. This DA is designed to enable the current screen to be grabbed and saved to disk as a *Degas* file. *Megasnap* takes over the <Alternate> <Help> screen print routine and saves the current screen to a buffer when those keys are pressed. You then select the screensaver utility and save to disk via the standard file selector.

***STF* Rating: 53%**

SNAPSHOT

Filename: SNAPSHOT.ACC. Another screen grabber but with the ability to grab blocks of the screen as well as the whole thing. You must select *Snapshot* from the Desk menu and follow the on-screen prompts. As a bonus, you can grab the screen in .IMG, *Degas*, *Neochrome* and *Doodle* formats. After grabbing, you simply save the screen to disk using the standard file selector.

***STF* Rating: 57%**



1456968 bytes used in 200 items.

■ *Monitor Magic* converts your screen into a green or amber screen monitor. Many VDU systems use such monitors as standard because they are easier on the eye than other monitors.

WHERE TO GET 'EM

All of the Desk Accessories featured here have been taken from ST FORMAT Cover Disks, Goodmans International disks GD1817, GD1818 and GD1819 and from the ST Club disks DES.01 to DES.06. These Accessories are available from all of the Public Domain libraries listed on page 102.

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37 Invision M1 Plus-1
38 GEM S2
39–44 READER DEMOS:
39–40 Interlect 3000
41 Indian Dream
42–44 Mesh

Full track listing in *FM4*, page 7

IF YOU CAN READ THIS, YOUR CD IS MISSING. PLEASE ASK YOUR NEWSAGENT FOR YOUR COPY

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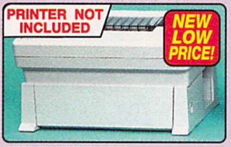

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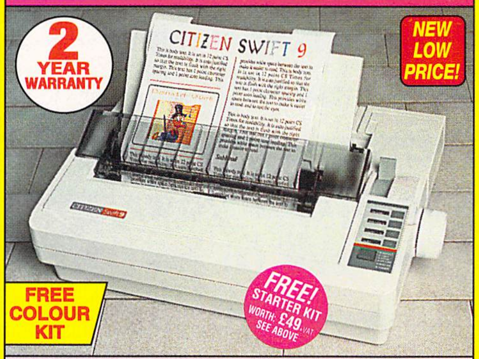
9 PIN 192 CPS 80 COLUMN



- *Citizen Swift 9 - 9 pin - 80 col*
- *192cps Draft, 48cps NLQ*
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192 CPS 136 COLUMN

- *Citizen Swift 24x - 24 pin - 136 col*
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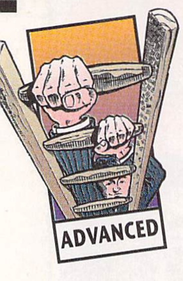
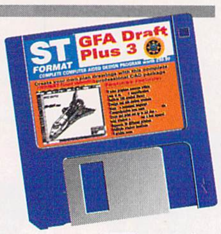
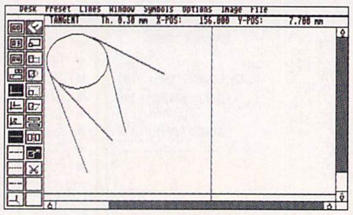




ADVANCED

So you want to get to grips with the functions of *GFA Draft?* This is not a problem if you... er... picked the program up with *STF* all those months ago - kicking yourself yet? Clive Parker reminds you where to go for your back issue if you missed it

And the answer is, yes, that's right, page 66 (the one you're looking for is *ST FORMAT 34*). At the time we gave you instructions on how you could get started in this complicated graphics program. By now you should, hopefully, have passed the teething stages and want to get into something a little more serious. On top of the normal graphic functions – lines, circles and so on – *GFA Draft* has additional functions such as segments of circles or ellipses, the ability to create segments from three points, angled lines and measuring lines.



TANGENT Th. 0.30 mm X-POS: 156.000 Y-POS: 7.700 mm

■ The Tangent function is used to draw lines at a tangent to a circle, Clive has come up with this rather good rendition of Sputnik 1, the first orbital artificial satellite. At least it makes a change from the shuttle.

The special graphic functions change the drawing mode, so all mouse activity has different effects. The current mode is shown in the mode display. You might not be able to access some menu functions while in a special active mode, so exit the current active mode by pressing the right mouse button once.

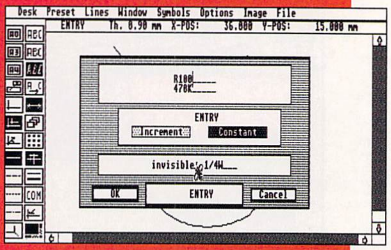
If you only need a section of a circle or ellipse then select Draw Circle Segment (or Draw Ellipse Segment) from the Options menu. Once selected, place your circle or ellipse as normal and click the left mouse button. Move the crosshairs to the start point of your segment then click and hold the left mouse button down; moving the mouse anti-clockwise defines the segment. When you've finished, release the mouse button and fix with a single click on the left button.

Select Arc 3 Points from the Options menu and then click three times to define the starting point, the middle point and the end point of your arc. The program draws the arc from the first point you define through the second point and ends on the third point.

If you want to round off the corner where two lines join, select

CREATING MULTIPLE LABELS

The Entries function is used for labelling drawings which need many identical or near identical labels. A label is defined from the Entries dialog box accessed from the Options menu. Two lines of text up to nine characters long can be entered one above the other, this is how they appear in the drawing. Entries can either be Increment or Constant; the increment option increases the value of the first number in the label by one every time it is used. The most obvious use for this is for electronic diagrams where many resistors may have the same value and can be labelled R1, R2, R3 and so on. The Constant option simply enables you to generate identical labels. After you have set up the Entries dialog click on OK, you can now enter as many labels as you wish by pressing the left mouse button. Exit by pressing the right button.



ENTRY Th. 0.90 mm X-POS: 36.000 Y-POS: 15.000 mm

R100
470K

ENTRY

invisible 1/4W

ENTRY

■ This dialog box enables you to enter an infinite number of identical, or near identical labels. The "invisible" option enables an additional line of text to be added to the label which is also saved with the drawing. This can be used for comments about the particular part being labelled.

SHADING THE DRAWING

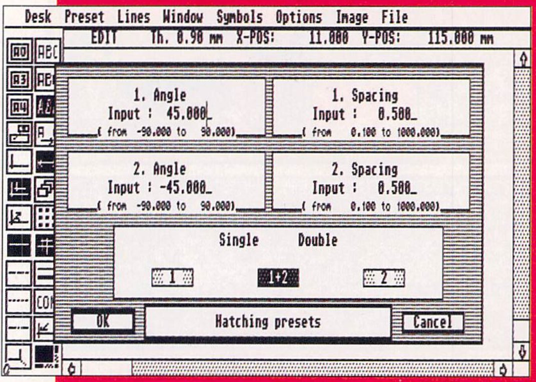
Hatching is the technical term for the various shading effects used in technical drawings to highlight certain areas. To use the hatching options certain conditions have to be fulfilled. First of all, the area to be shaded with hatching must be completely enclosed, all lines must be joined. Drawing lines while the Capture option is enabled ensures they are joined automatically; the capture icon is at the bottom left of the icon bar. Another way of ensuring that your area to hatch is completely enclosed is to create your areas using closed shapes such as circles and rectangles.

Different hatching patterns can be selected and set up from the Hatching option of the Preset menu, parameters such as angle and spacing between lines can be entered here. There is also the option to combine two different types of hatching so that one overlays the other to create a third style of hatching and avoids confusion.

Once you have decided on the style of the hatching you have to select the option to be shaded. Go to the Hatch function in the Options menu, once you've selected it, move to the edge of the object to be shaded and click once on the left mouse button. A group of lines is highlighted enclosing an area and an alert box appears with the message "Polygon?" in it. If the highlighted area is the area you wish to shade, then click on OK, if not then select Continue and another area is highlighted. If you select OK and you get the message "Construction of polygon not possible" this means that there is at least one gap in the lines somewhere – check the connection of lines at a higher magnification to remedy the problem.

Once you have clicked on OK to select a polygon for shading, you must double-click on it to start the hatching process. You can also select more than one polygon to hatch at once as long as they are next to each other. Pressing the right mouse button exits hatch mode. If you are unhappy with a hatch, pressing <Backspace> erases the most recent hatch performed. You must have exited hatch mode and the Delete Objects option from the Windows menu must be enabled.

It is possible to hatch areas without having a closed polygon, you do this from the Select option in the Lines menu. Go to the Lines menu and click on Select. Now move to the drawing and click on the two lines you wish to create, hatching between one after the other, both lines become selected. Now click your left mouse button once on the second line and move directly to the Hatch function of the Options menu and select it, the hatch function is then performed.



EDIT Th. 0.90 mm X-POS: 11.000 Y-POS: 115.000 mm

1. Angle
Input : 45.000
(from -90.000 to 90.000)

1. Spacing
Input : 0.500
(from 0.100 to 1000.000)

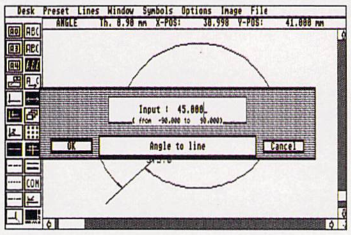
2. Angle
Input : -45.000
(from -90.000 to 90.000)

2. Spacing
Input : 0.500
(from 0.100 to 1000.000)

Hatching presets

■ The inspiring hatching presets dialog box. Angles can be defined between -90 degrees and +90 degrees for each of the two hatches. Values for spaces between hatching lines can be set between 0.1mm and 1,000mm. The three options in the Single/Double box enables the first, second or both hatches combined to be selected.

DRAFTIN'


Desk Preset Lines Window Symbols Options Image File
ANGLE Th. 0.90 mm X-POS: 30.998 Y-POS: 41.000 mm
OK
Angle to line
Cancel

Input : 45.000
(from -90.000 to 90.000)

■ This witty dialog box enables the angle required to be input for the Angle To A Line function, using the Angle function enables lines to be entered with extreme accuracy at any angle.

Round Corners from the Options menu. Input the radius of the corner into the dialog box which appears and click on OK – remember that the larger the number entered, the bigger the curve between the lines is going to be. Now click on the two lines one after the other, and, hey presto, the corner is rounded off. If lines are not joined, the program extends them so they can be rounded off.

If you wish to draw a line exactly at a 90 degree angle to your first line, you must ensure that your first line is perfectly vertical or horizontal. Guess what, *GFA Draft* can do this for you (loud cheer, explosion of light followed by rapturous applause). Select the Perpendicular function and left click on the base line, now click again and keep the mouse button pressed. You can draw a perpendicular line on either side of the base line, and you can also move along the base line to the exact position required. Release the mouse button and one more left click fixes the line.

Lines can also be created at any angle to the base line. Select the Angle To A Line function in the Options menu, enter the desired angle into the dialog box that appears and then place the line using the same sequence as used for creating a perpendicular line. Negative values for the angle diverge anti-clockwise from the base line, while positive values diverge clockwise.

More line functions - wow!

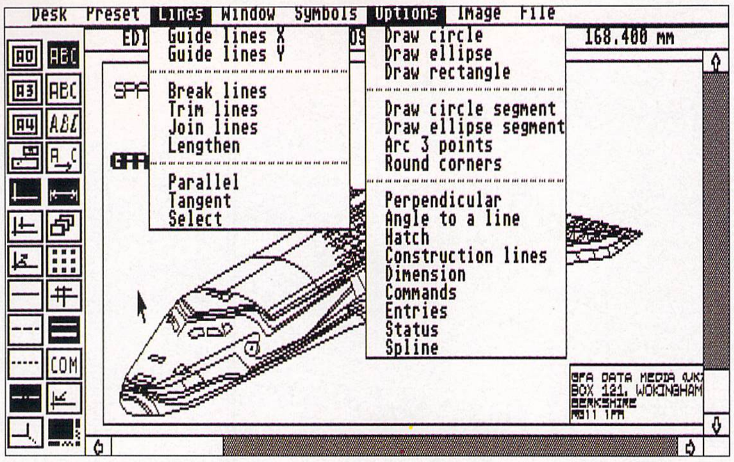
If you need to draw many identical parallel lines, you can use the Parallel function from the Lines menu. Draw the first line as normal, then select the Parallel function, click on the first line and keep the button down – a copy of the line is created attached to the mouse pointer. Move the line to where you need it, release the mouse button and click once to fix. You can repeat this as many times as you want.

To create a line at a tangent to a circle, go to the Lines menu and select the Tangent function. Move the crosshairs over the edge of your circle, click and hold the left mouse button. Now drag the mouse until the tangent line is in the required position, release the mouse and click once to fix the line in position.

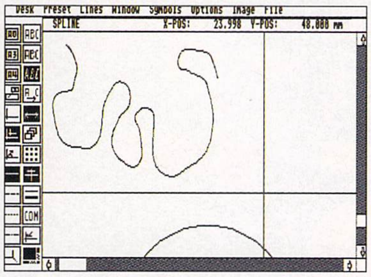
The dimensions of the object that you're designing are important. *GFA Draft* can automatically measure the various parts of the drawing for you; all you have to do is tell it which lines require measuring. The Construction Lines function from the Options menu draws lines perpendicular to the line to be measured and a dimension line is created between construction lines.

Select Construction Lines and move the pointer to the line to be measured and click on one end. Keeping the button pressed, drag out a construction line to the desired length, release and click. Now do the same at the other end of the line to be measured to produce a second construction line. The Dimension function measures the distance between the lines.

Splines are an extended version of the arc function with a possible maximum of 180 points entered to define the curve required. Select Spline from the Options menu and you can immediately start entering your points to define the spline. Enter as many points as you want until you have the curve defined and press <Return> to draw the spline. There are two different types of spline possible – open splines and closed splines. An open spline draws a curve from your first point to the last point defined. A closed spline does the same but also links the last point to the first making a closed loop. You can toggle between open and closed splines by clicking on the Spline Closed option in the Preset menu. ***stf***



■ All the advanced graphics functions of *GFA Draft Plus 3* are available from either the Options menu or the Lines menu. Some of the functions can be customised via the Preset menu to set up the parameters you require for your drawing. Oh look, it's that space shuttle again.


Desk Preset Lines Window Symbols Options Image File
SPLINE X-POS: 23.998 Y-POS: 48.000 mm

■ Splines are curved lines made up from many pre-defined points. This particular spline is called an open spline and consists of 50 individual points - one characteristic of splines is that they twist and turn a bit like a twisty-turny thing, really.

Manual labour

If you have GFA Draft Plus 3 from ST FORMAT Cover Disk 34 (and if you don't, turn to page 66 to order your copy) you may be interested to know that the manual is still available for £25 from GFA Data Media (UK) Ltd, Box 121, Wokingham, Berkshire RG11 1FA. Alternatively, phone ☎ 0734 794941 to order by credit card.

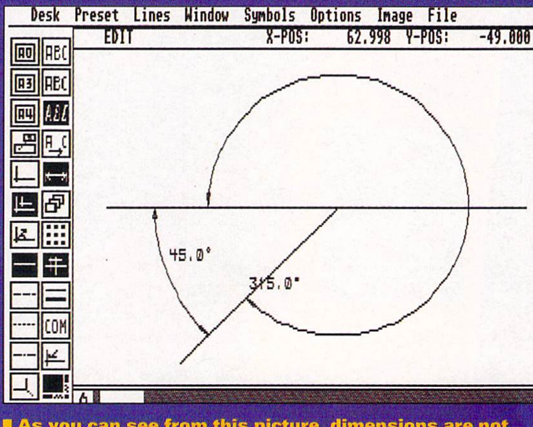
MEASURE IT UP!

Because technical drawings are used to make things, accurate measurements have to be entered onto the drawing to guide the craftsman using it to plan his work. In *GFA Draft* there is a built-in Dimension function which can calculate measurements for you.

Before you actually use the Dimension function you need to set it up from the Dimensions option of the Preset menu. Select Dimensions and a dialog box appears enabling you to several parameters on the dimension function to be defined. The ends of the dimension line can be an arrow, a cross or plain. Measurements can be set up to three decimal places and the Gridline-spacing option defines the size of the gap between the dimension arrow and the line being measured. Once you have defined the presets, click on OK.

Go to the Options menu and select Dimension. Move to the first construction line and click on it, it magically becomes a dashed line. Now click on the second construction line and a dimension line is drawn between the two construction lines. Clicking once on the dimension line calculates its length and displays the measurement on-screen, if you keep the mouse button pressed while calculating the length of the dimension line, the measurement figure can be placed in any position desired.

Dimension lines can be used with any lines on the drawing, they are not restricted for use with construction lines. You can also use the Dimension function to measure the angle between any two lines. Measurements are made in the clockwise direction – click on the first line so it becomes a dotted line, then click on the second line. A curved dimension line appears between the two lines, clicking on the dimension line displays the angle in degrees.


Desk Preset Lines Window Symbols Options Image File
EDIT X-POS: 62.998 Y-POS: -49.000 mm
45.0°
315.0°

■ As you can see from this picture, dimensions are not just limited to measuring distances; angles can be measured too.

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The second issue of GamesMaster is in the shops on Thursday January 21st, and it's incredible! Guiding you swiftly, gently and accurately through the storm of post-Christmas software releases for every major entertainment system, GamesMaster is *the* essential purchase for today's video gamer. Particularly excellent highlights this month include:

- **A FREE pair of 3D glasses, with which you can view the thrilling GamesMaster 3D TV Spectacular!**
- **A GIANT Chaos Engine poster with 3D bits on it from the TV Show.**
- **The chance for 10 winners to collect A YEAR'S WORTH OF FREE GAMES!**

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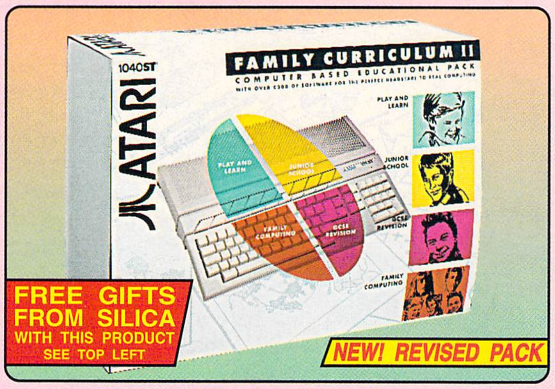

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ST ANSWERS

Come dive into the cool, clear waters of knowledge with Clive Parker, while trying not to stir up the muddy silt of ignorance. Send all your problems – well, not all of them – to ST Answers, *ST FORMAT*, 30 Monmouth Street, Bath BA1 2BW indicating the type of problem on the envelope

For all game tips, cheats and total brain-draining facts turn to Gamebusters from pages 68 to 71

THE ICONS

BEGINNERS
If you don't know one end of your ST from the other, then you might require this type of help – look out for this logo.

COMMS
More and more ST owners are fascinated by the world of modems and communications? Check it all out here.

DISKS
Your floppy and hard disks need to work properly. If you're having problems, we try our best to sort them all out.

GAMES
The best place to look for game cheats is Gamesbusters from pages 68 to 71. We do answer other game questions.

GRAPHICS
So much can be achieved in the world of ST art and graphics. If only you knew how... well, look no further

HARD DRIVES
If you have one, you want to use it, right? To get the most out of yours, look out for this icon here.

PRINTERS
Does your paper get all tangled up when faced with your ST? It needs counselling. Relax, and tell me about your childhood.

PROGRAMMING
All sorts of programming this month, listings and everything. Brilliant. That is, if you like that sort of thing.

SOUND
Many people can't live without music, so if you're one of them, make sure you keep your gear in order.

ST PROBLEMS
Miscellaneous bits and pieces live in here – so if your problems are vague and woolly, come here.

Sim City, Starblade and *Dungeon Master*

1. Where can I get a *Sim City* Terrain Editor and how much does it cost?
2. Is it still possible to buy *Starblade* and, if so, where on earth can I find it?
3. I was wondering if there is a cheat for *Dungeon Master*?

Cedric Kerr, Mitcham

stf: 1. The Terrain Editor costs £7.99 and is available from Infogrames *(☎ 071 738 8199); 2.* Starblade *is being re-released in March by* Daze Marketing *(☎ 071 490 2944), price £9.99; 3. Yes, there is a cheat for* Dungeon Master. *Read all about it in this month's Gamebusters section on page 68.*

Speed me up before I go go

I am looking for a software accelerator that will work with *GFA Draft Plus 3*. I have been thinking of getting either *Quick ST* or *NVDI*. Which one of these two programs would be best for my purposes? I am limited to £60.

Ian J Morton, Ellon, Scotland

stf: Both of the programs you mention would be suitable for your purposes, although Quick ST *has been superseded by* Warp 9. *NVDI is the more technically advanced of the two, being a complete replacement for the built-in VDI (Virtual Device Interface) routines, speeding up the entire GEM operating system. Other accelerators tend to concentrate on just speeding up the screen routines. NVDI can be obtained from the* Atari Workshop *for £39.95 and they can also supply* Warp 9 *for £29.95, call them on ☎ 0753 832212 for more info.*

Rubrik's cube

On the Cover Disk of ST FORMAT *40 (check out page 66 for info on how to get a copy) we gave you the excellent* Rubrik's *screen saver utility. The only problem with it was that it would only save its settings to hard drive partition C and not to floppy drive A, this is especially annoying if you have a floppy drive*

ST FORMAT
£25
WINNER

STOS STUFF

Billy Allan drops in to take a look at your STOS problems and queries

Flickery stars

1. I am writing a game which needs a 3D starfield on the left of the screen with a picture on the right with the score and lives. The problem is, my screen keeps flickering! How can I avoid this flickering? I am using `screen swap`.
2. How can I replay other sample formats using *STOS Maestro*?

J P Van der Hoek, Netherlands

stf: 1. If you are screen swapping then you must copy your picture to both `bak` *and* `physic` *first. When you flick between the two screens with* `screen swap` *and you have only copied your picture onto* `physic` *it constantly disappears and reappears every time you use the command. 2. You can replay other sample formats by using* Maestro's `samraw` *command. If you had loaded a 50K sample into bank ten of your program you could replay it like this:*

```
10 click off : sound init :↵
   samspeed 10
20 samraw start(10),50000
30 wait key
40 samstop
```

Key question

1. When I compile my *STOS* programs into PRGs using the Compiler, I keep getting the function key box appearing at the top of the screen for an instant, even though the first line of my program contains the `key off` command. How can I stop this happening?
2. When I registered for the *Misty* extension, I received, among other things, some scrolling text demo programs. When I compile these, the music no longer plays properly. Do you have any idea why?

R G Simmons, Studley

stf: 1. You can stop this happening by setting the function key on/off option in the Compiler to OFF.
2. The music that you are asking about only plays back once. If you want to compile it, then you should not run it before compilation.

Power corrupts

When using the ^ (power) operator to get the square of a number, it sometimes gives the wrong result. For instance `A=5 : print A^2` gives 24 rather than 25. Is this a bug, or am I doing something wrong? Using the `print A*A` command does give the correct answer.

David Wimbush, Crawley

stf: Yes, shocking though it may be, this does seem to be (yet another) bug in STOS. *It isn't a particularly annoying one though, so you can just ignore it.*

High speed collisions

How can you make the fastest collision routine possible? What are the variables/binary numbers involved?

Alec McEachran, Lichfield

stf: There are three ways of doing collision detection. The first is to use the *system. The only way around this was to set up the Accessory from scratch each time you boot-up.* **Simon Harvey** *from* **Halifax,** *however, has come up with a simple and elegant solution to the problem. There is a Public Domain program called* Divert *which makes your ST think that it is saving to one drive when in fact it is saving to another. Install the program and type in the following:*

```
Drive to divert from:     C
Drive to divert to:       A
```

You can now save your settings to floppy disk. Divert *is by the Hitchiker and is available from Goodman International on Disk GD1816 at £2.75. Call Goodmans on ☎ 0782 335650.*

PC monitor

I have been given an Amstrad mono PC monitor and I wondered if I could connect it to my ST. If I can, could you please tell me the connections and where I can get the parts to make the lead. I have listed the monitor 15-way D-socket connections for your information below.
Gordon Murray, Grangemouth

stf: You have failed to provide us with the model number of the Amstrad monitor so this is inspired guesswork on our part. From your list of connections it seems that the monitor uses composite video rather than separate RGB signals. This means that the monitor only works in low or medium resolutions – not in high resolution mono. The only connections required from the ST are video, ground, H sync and V sync, although the sync signals are not usually used with composite video monitors. Make the lead as detailed below.

Amstrad PC monitor connections	ST monitor socket connections
15-pin D plug	13-pin DIN plug
Pin 2 Video	Pin 2 Video out
Pin 5 Selftest	
Pin 10 Digital ground	Pin 13 Ground
Pin 13 H sync	Pin 9 H sync
Pin 14 V sync	Pin 12 V sync

Remember, these connections are only conjecture. Without the model number we cannot be more specific. Call Meedmore on ☎ 051 521 2202 and let them know the model number of the monitor and they will make you a lead to order.
ST FORMAT Warning: *Never open up a monitor unless you are 100% sure of what you are doing. The high voltages present inside a monitor can kill you even when it is switched off.*

Stalling dragons

I recently bought the game *Lure of the Temptress*, but it stalls after I have given the potion to the dragon and I'm talking to Goewinin in the first cave. I own a 1040STE. What can I do?
Johann Omarsson, Iceland

stf: Apparently there's a bug in the original version of the game. Simply send back the Boot Disk and Disk A with a brief note explaining the problem to Virgin Games, 338a Ladbroke Grove, London W10 5AH and they'll send you some replacement disks.

More professional please

I am very interested in DTP using my ST and I would like to purchase a program which is more professional than my current *Timeworks* software. Although this program is very good, I need more than it can offer me. I have seen from previous issues of *ST FORMAT* that you highly recommend *Calamus v1.09n*, but I do not have the issue with the review. What would be the minimum system requirements to use this software on a reasonable budget?
B Lock, London

stf: Right, you need at least 1MByte of RAM installed in your machine because Calamus *does not work with any less. You will be better off with 2MBytes or even 4Mbytes of RAM as this enables you to create multi-page documents in memory and store fonts as well. If you have an STE then 1MByte SIMMs can be obtained for about £15-£20 if you shop around. If you have an STFM, then an upgrade board which uses SIMMs is best.*

Calamus *is designed to run from a hard drive, but you can use it on a twin floppy drive setup. An external second drive costs around £50-£60 and 40MByte hard drives can now be obtained for under £300. You need a good quality printer. As cost is a factor in your case, you can disregard laser printers because they are so expensive to buy, maintain and run. Output quality is also a consideration, so your best bet would be an inkjet printer such as the Canon BJ-10ex or the Star SJ-48 (both can be obtained for around £200). You also need a high resolution mono monitor, a mono emulator is just not good enough for desk top publishing work – the Atari SM146 is available for around £120.*

Where to get all the gear:
Calamus v1.09n *from Halco (☎ 0734 441525), £140.*
Atari SM146 monitor from Evesham Micros (☎ 0386 765500), £119.95.
External floppy drive from Evesham Micros (☎ 0386 765500), £52.99.
Canon BJ-10ex from We Serve (☎ 0705 325354), £199.
Star SJ-48 from We Serve (☎ 0705 325354), £199.
Progate 40 hard drive from First Computer Centre (☎ 0532 319444), £289.99.
2MByte XtraRAM Deluxe for STFM from HCS (☎ 071 252 1551), £79.99.
2MByte of SIMMs for STE from HCS (☎ 071 252 1551), £44.99.

That's champion

I have recently bought Domark's 1MByte version of *Championship Manager* and about halfway through the first season, the game crashed out and would not let me go any further. I returned the game and got another copy, but the same thing hap-

➧

`collide(x)` *command, where* `x` *is the* STOS *sprite you wish to check.*

```
10 A=collide(1)
20 for T=0 to 15 :↵
   if btst(T,A)↵
   then print "Hit sprite";T
30 next T
```

The other ways are not specific to STOS *sprites. If you want to check for a collision between two equally sized objects then the following works, assuming both objects are 16x16 pixels.*

```
10 if abs(X1-X2)<16 and↵
   abs(Y1-Y2)<16↵
   then print "Collided!"
```

If you want to check for a collision between two objects of differing sizes, then this works, assuming a 32x20 and a 64x64 object.

```
10 if (X1<X2+64 or↵
   X1+32>X2)↵
   and (Y1<Y2+64 or↵
   Y1+20>Y2)↵
   then print "Collided!"
```

Jiggling balls

I am currently writing a game in *STOS* for which I need a routine which enables a ball to bounce around the screen and interact with other sprites and parts of the screen. I also need some music transferred from manuscript form into a form which *STOS* can understand and play.
S W Angell, Thornaby

stf: This little bouncing ball routine should work OK. We've used a STOS *sprite for readability, but you should change it to use the* `screen$` *method.*

```
10 X=100 : Y=0 : SX=4 : SY=0
20 repeat
30 sprite 1,X,Y,1
40 X=X+SX : if X>300 or X<4↵
   then SX=-SX
50 if SY<19 then inc SY
60 Y=Y+SY : if Y>184↵
   then Y=184 : SY=-SY
70 update : wait vbl
80 until inkey$=" "
```

There are no programs generally available which can do exactly what you want. We can only suggest that you get to grips with the STOS *music accessory, or try to get hold of a PD music definer like* Megatizer.

Open sesame

I have just written a password program, can I display asterisks when the user tries to enter a password?
Daniel Morris, Polden Meadows

stf: This program ought to do the job.

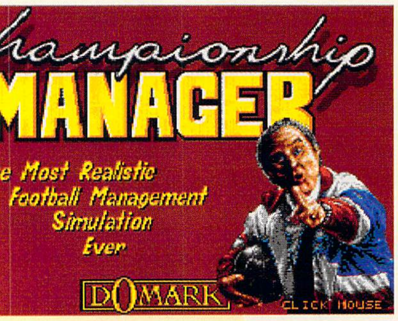
```
10 P$="ST Format" :↵
   L=len(P$) : H=1
20 print "Enter the password:";
30 repeat
40 repeat : G$=inkey$ :↵
   until G$<>""
50 print "*";
60 if G$<>mid$(P$,H,1) then end
70 inc H : until H>L
```

Back up problems

1. When I use the *STOSCopy* accessory I get an error message. Can you help?
2. I am having trouble getting the `menu` command to work. Please help.
Jammy Broon, Langley Moor

stf: 1. You are a little vague, but the easiest solution is to make your copy of STOS *from the Desktop rather than using* STOSCopy. *2. Try this out:*

```
10 menu$ (1)="STOS "
20 menu$ (1,1)="STOSCOPY"
30 menu$ (1,2)="MENUS"
32 menu$ (2)="HELLO "
33 menu$ (2,1)="MUM"
34 menu$ (2,2)="THERE"
40 menu on :
50 on menu goto 80,120
60 on menu on
70 goto 70
80 MS=mnselect
90 if MS=1↵
   then print "STOSCOPY"
100 if MS=2 then print "MENUS"
110 goto 50
120 MS=mnselect
130 if MS=1 then print↵
   "Hello mum!"
140 if MS=2 then print↵
   "Hello there!"
150 goto 50
```



■ Don't worry, the game is a lot more interesting than this intro screen. Rob spends hours agonising over sackings, selling and buying players, docking a week's pay from a bad boy and joining the rest of the lads in the shower.

pened. Have Domark made a big boob on the game and, if so, how could they let this game go on sale?
Robin Stead, Bearwood, W Mids

stf: Domark assure us that there have been no problems or bugs with Championship Manager *and suggest you phone their helpline ☎ 081 780 2224 for further assistance.*

Nighthawk delay

Is *F-117A Nighthawk* being released on the ST? Eagle Software have it listed in their adverts, but say it has not been released yet. Nobody else appears to even list it. Help!
Andy Cosgrove, Corsham, Wilts

stf: The latest news from Microprose (☎ 0666 504326) is that Nighthawk *is to be released in March. Keep those fingers crossed.*

RAM-bo

I have a 2MByte STFM which I use for *Timeworks 2*, but all the disk swapping on a double drive system slows everything down dramatically. I have thought of using a RAMdisk to run the program but I cannot find one that I can configure to 1.4MBytes, which is the size needed to store *Timeworks*. Where can I get a utility to enable me to create a RAMdisk of the size required?
Richard Young, Tisbury, Wilts

stf: The ST Club (☎ 0602 410241) disk magazine DMG.15 contains a RAMdisk utility called Rambaby, this enables you to create a RAMdisk of the size required. Once you have a RAMdisk of this size installed, however, you are not going to have enough memory available to run Timeworks *let alone create a document with it. Your only alternatives are to get a hard drive or expand your system RAM to 4MBytes. ST Club disks cost £1.45 each.*

Several small animals...

I have a few questions to ask regarding the ST and its games:
1. Is it possible to get a surface-mounted ST upgraded?
2. Which is the best to use on the Desktop, a mouse or a trackball?
3. Which is the best platform game available for the ST?
4. I have just purchased the brilliant Atari Lynx 2, and I would like to know what you think the best available Lynx game are?
5. Will *Archer Maclean's Pool* have any new features not found in *Jimmy White's Snooker*?
Andrew Leslie, Colton, Leeds

stf: 1. We presume you are refering to a surface mounted MMU and Shifter chips in an STFM with regard to a memory upgrade, and not about an ST mounted to the surface of the kitchen worktop (well, you never can tell these days). Contact Marpet Developments (☎ 0423 712600) and they will be able to advise you on the best Xtra-Ram board to install.
2. A mouse is much better than a trackball when using the GEM environment, it is just so much easier to point, click and drag using the mouse. A trackball is incredibly awkward to use for these types of operations, and takes quite a while to get used to.
3. Our games maestro, Rob Mead suggests Fire and Ice, *super cool Chris Lloyd suggests* Barbarian 2 *while tech-head Clive Parker is rather enamoured of* Lemmings *(being rather Lemming-like himself) which is a combination of a platform and a brain-teasing puzzle game.*
4. STF's very own official Lynx adviser, Matthew Heard, reckons that Batman Returns, Ninja Gaiden *and* Gauntlet the Third Encounter *are all excellent games on the Lynx.* Blue Lightning *is also, according to Matthew, a damn fine challenge, and well worth buying.*
5. The game is certainly a lot easier to control than Jimmy White's Snooker. *For more details of the game, get your hands on a copy of* ST FORMAT 42 *where you will find a full review of* Archer Maclean's Pool *(remember, if you missed it, turn to page 66 to find out how to get your copy, you might as well subscribe to avoid further embarrassment).*

TOS 2.06 blues

I have a problem loading most of my games on my Mega STE. I have about 32 that will not load at all or crash after a playing them for a while. I was wondering if I could install TOS 1.62 in my machine instead of 2.06 in order to play the games. Is this possible? I also thought that I could get TOS 2.06 for an STE and install it in the Mega STE, would this work?
B Sanchez, Luton, Beds

stf: You could install TOS 1.62 into the Mega STE but it is not recommended because you would be unable to access all of the extra features of the machine. In effect you would be crippling your Mega STE. TOS 2.06 for the STE is exactly the same as the version in your Mega STE, so there is no point in buying it.

Most of the games that you listed in your letter are quite old and not likely to be compatible with TOS 2.06 and do not have upgraded versions. Some of the newer games you mention such as Smash TV *and* Push Over *should be TOS 2.06 compatible. Contact the producers of the games to check if they are compatible or not.*

A last, and not incredibly helpful suggestion, why not buy a second hand STFM or STE to play games on, you should be able to pick one up for well under £150. Doing this would turn out to be not much more expensive than buying new versions of TOS.

ASSEMBLY POINTERS

Tony Wagstaff helps in sorting out your assembly programming queries

Drawing sprites

Ian Bailey from **Poole**, and **E M Fraser** from **Fife** would both like to know how to use assembly to place sprites on the screen.

stf: There are two points to understand about sprites. The first is the question of masking, and the second, the problem of moving the sprite onto the screen.

A sprite is usually square. What you want to see on screen, however, can be anything from a person to a five-legged blob – and five-legged blobs don't normally come square. You need to use a mask to get the right shape. If you draw a mask onto a coloured background, you see a white square with a silhouette of the sprite inside. By `and`*-ing the mask with the background, however, only the silhouette is drawn – no more white square. Having done this the sprite itself needs to be* `or`*-ed with the screen, the result is the creation of a sprite with no border.*

The second point is that each sprite can only be written directly to an even address. Consequently, you can only move it left or right 16 pixels at a time. You get around this by using the data registers to rotate the sprite and mask. If your sprite is 16 pixels wide, `a0` *points to screen memory – at a 16-byte boundary just below the sprite position,* `a1` *to the mask data and* `a2` *to the sprite data:-*

```
    move.w #x_coordinate,d7
    andi.w #$f,d7
    moveq #-1,d0
    move.w (a1)+,d0
    ror.1 d7,d0

shift_planes
    moveq #0,d1
    move.w (a2)+,d1
    ror.1 d7,d1
    move.w (a0),d2
    and.w d0,d2
    or.w d2,d1
    move.w d1,(a0)+
```

Repeat the shift planes section for all four planes, save the high word of `d1` *for each one, as this is used in the same way for the left side of the sprite.*

You should be able to figure out how to load them into memory using the LOADFRM2.LST file that accompanied Animaster on Cover Disk 37 (even though it is highly unlikely, if you missed ST FORMAT 37, *turn to page 66 to find out all the details on how to get your own personal copy – phew!).*

Long division

I am trying to divide a 32-bit number by another number of the same size. I can do it using long division but it takes much too long. There must be a quicker way of doing it – can you help me out?
Eric Robinson, Cheshire

stf: One of the problems with the `divu` *command is that it only comes in word size, so you can only divide a 32-bit number by a 16-bit number. For larger numbers you need to write a routine that does the division manually and, as Eric has found out, this eats up processor time. It is often quicker for both multiplication and division to use addition and bitwise shifts rather than the more direct commands. The downside of this is that it can be more difficult.*

```
    move.w d0,d1
    add.w d1,d1
    add.w d1,d1
    add.w d0,d1
    1s1.w #5,d1
```

Multiplies `d1` *by 160. Obviously, when a lot additions are needed, it becomes quicker to use* `mul`.

Division is a bit harder. The following routine will divide two unsigned 32-bit numbers. It can easily be adapted to divide numbers that are even larger.

Wibble wibble

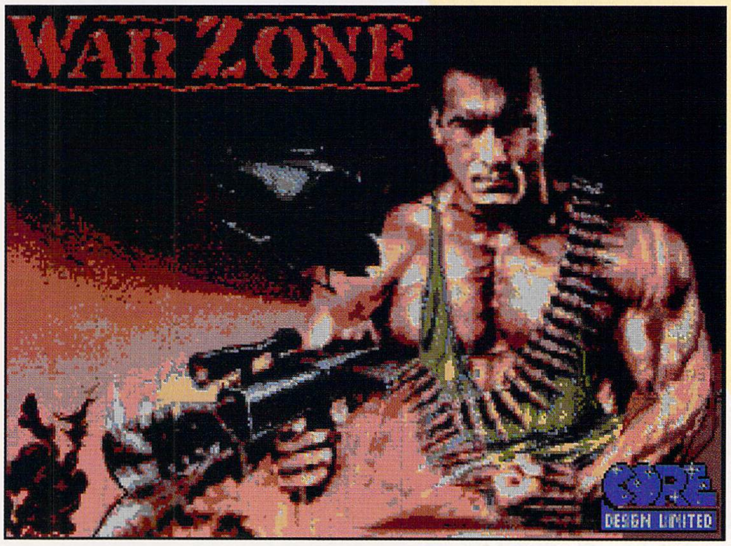
***Kevin Lavelle** of **Sale** in **Cheshire** has sent in a long, garbled and complex letter (too long to print here) describing how to connect an STE to a stereo system. Well, Kevin, there is no need to go into such convoluted detail. All you need to do is buy a twin phono to twin phono lead from a hi-fi shop and connect the audio out of the STE to the AUX or CD inputs on the stereo. A five metre lead typically costs £3.99.*

Warzone

I can't get past the first level of *Warzone*. Do you know of an infinite lives cheat?

Lee Tolkien, Wokingham, Berks

stf: Press <F1> and <F3> on the title screen and you get more lives than you ever wished for.



■ Press those function keys in the correct sequence and you can kill, maim, disfigure, destroy, lay waste and generally have a ripping time forever.

Colour me bad

I have just got a Citizen Swift 240C for use with my STE. Are there any ST art programs which support colour printing with the Swift 240C? Will *Neochrome, Degas Elite* and *Deluxe Paint* produce colour printouts, and if so, where can I get them?

Ashley Grumble, Cornwall

stf: The Citizen Swift 240C uses Epson LQ emulation so any program with Epson LQ drivers can produce output on your printer. Neochrome *is no longer available commercially but both the ST Club (☎ 0602 410241) and Goodman Enterprises (☎ 0782 335650) have a licence to distribute the full boxed version for £4.95 while stocks last.* Neochrome *does not provide printouts in either black and white or colour.*

Degas Elite *can print out in colour if you get the correct printer driver. Once again, the ST Club can help you out with this problem since they supply a full range of* Degas *drivers.* Degas Elite *is available from Cambridge Business Software (☎ 0763 263127) for £19.95.*

Deluxe Paint *is supplied with a range of printer drivers including Epson LQ. Selecting colour from the print menu of* Deluxe Paint *will ensure your pictures are printed in all their many hued glory.* Deluxe Paint ST *is available from First Computer Centre for £24.99 and includes a replacement mouse.*

Dark majick

I purchased *Magic Worlds* from *European Computer User* early in December last year. Out of the three games included I cannot use *Dragon's Breath* because of the very popular anti-piracy routine which uses the manual.

The problem is that the original manual of *Dragon's Breath* is not included and the one supplied with the compilation looks like a photocopy. There are no page numbers in the manual and even if I count the pages I still cannot get the correct word to enter into the routine. What can I do?

Ian J Morton, Ellon, Scotland

stf: There are two ways to tackle this. Contact the advertising department of the European Computer User *(we assume it's a magazine) and explain the problem to them with details of the software and the company you bought it from, they should be able to sort things out for you.*

Alternatively, contact the producers of the compilation, the contact address should be on the packaging or documentation supplied with the software. Explain the problem and they should be able to help you out. These procedures hold true for any mail order goods.

Joystick vandals

I have two children, aged 11 and nine, and so far they have managed to break two joysticks. Is there a more durable, playable and slightly more child-proof joystick in the market?

Mr S J Parmenter, Warminster

stf: The Competition Pro Extra (£10.99 from Special Reserve ☎ 0279 600204) or the Cheetah 125+ (£6.99 from Premier Mail Order ☎ 0268 590766) are a good bet, or try the Quickshot 3 Plus Turbo (£14.95 from Spectravideo) – all have proven to be extremely durable and are great waggling weapons. Other alternatives include the Cheetah Bug (£13.99 Cheetah ☎ 0222 867777) which has a small stick for finger-tip control and the Bollistick (£9.99 also from Cheetah), a stickless joypad. For additional information see the techie reviews starting on page 92 – you could even win a joypad in our competition.

On entry, `a0` *contains the address of the divisor,* `a1` *the address of the dividend.*

```
len_divisor equ 4
    add.w #len_divisor,a0
    add.w #len_divisor,a1
    lea buffer1+len_divisor,a2
    lea buffer2+len_divisor,a3
    move.w #len_divisor*8+1,d1
    clr.b d2
divide move.w #len_divisor-1,d3
    move.l a1,a4
    roxl.b #1,d2
movequt move.b -(a4),d2
    roxl.b #1,d2
    move.b d2,(a4)
    dbra d3,movequt
    move.w #len_divisor-1,d3
    move.l a2,a5
    lea remainder+len_divisor,a6
movediv move.b -(a5),d2
    move.b d2,-(a6)
    roxl.b #1,d2
    move.b d2,(a5)
    dbra d3,movediv
    subq.w #1,d1
    beq exit
    move.w #len_divisor-1,d3
    move.l a0,a4
    move.l a2,a5
    move.l a3,a6
subtr move.b -(a5),-1(a6)
    subx.b -(a4),-(a6)
    dbra d3,subtr
    scc d2
    bcs.s divide
    exg a2,a3
    bra divide
exit
    rts
    data
buffer1 ds.b 255
buffer2 ds.b 255
    bss
remainder ds.b len_divisor
```

On exit, `a0` *points to the answer,* `a1` *to the remainder.*

Cacheing in

Hopefully, you should know by now that the Falcon will use the 68030 microprocessor, some may even have the 68040 chip. One of the advances these have over the 68000 is their ability to cache data. Whenever data is accessed from memory, such as with a `move.l data,d1`*, these new processors load the data, and memory surrounding it, into a cache or buffer. Any subsequent reads will be from the cache, until it is overwritten. This speeds things up significantly, and aligning 4-byte values makes it even more efficient. So, how do you line-up your longs? Simply by declaring them all at the start of your storage:-*

```
    move.l sec_long,d1
    BSS
first_long ds.l 4
sec_long ds.l 1
first_word ds.w 2
```

Ensuring that the BSS begins on a long address will ensure all the longs are on long address. The following will run slower than the above example:

```
    move.l sec_long,d1
    BSS
first_long ds.l 4
first_word ds.w 2
sec_long ds.l 1
```

If you are using the `rs` *instruction to build structures, as detailed in STF 41 (turn to page 66 if you missed it), then it is worth forcing the total bytes in each structure to be divisible by four, even if it means adding a dummy variable that you never actually use. That way all long variables will be long-aligned.*

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GFA BASIC

Mac Marsden tackles your queries and sorts out your GFA Basic problems

Just'in time

Justin Hemphill from **Limavady** asks;

1. Is there a command to copy files from within *GFA Basic*, as I cannot find any such command in the manual ?
2. I would also appreciate it if you could tell me how to call existing .PRG programs, and then return to where it was called from afterwards. I have tried `call` and the `exec` commands without success ?
3. Is it possible to attribute things such as READ-ONLY to files within *GFA Basic* ?

stf: Well, Justin, here goes...

1. No command exists for copying files, but we have included a listing on this month's disk which will copy a full disk excluding the AUTO folder and any .AC? files to another disk (RAM disk or external), documentation included. If you run it and examine the listing it should help you in building your own customised routine.

2. The `exec` *command works perfectly well, but it is important to reserve enough memory for the program to run in. The following example will help;*

```
RESERVE xxxx
a%=EXEC(b,"a:\FILENAME.PRG","","")
RESERVE
```

Where `RESERVE xxxx` *is the amount of memory to be reserved (in bytes), "b" may be zero or three – zero being "oad the program only" and three being "load the program and start it".*

The command `call` *is used to call "C" or assembler subroutines, not for .PRG programs.*

3. To set the attributes of a file, use the following;

```
r%=GEMDOS(67,L:adr%,m%,a%)
```

Where;

`r%` *– returns -33 or -34 if an error occurs.*

`adr%` *– the address of the filename which must end in zero bytes.*

`m%` *0 = the file attribute read.*
1 = File attribute write.

`a%` *Bit 0 = Write protect.*
1 = Hidden.
2 = System file.
3 = Disk name.
4 = Directory.
5 = Archive bit.

Oops !

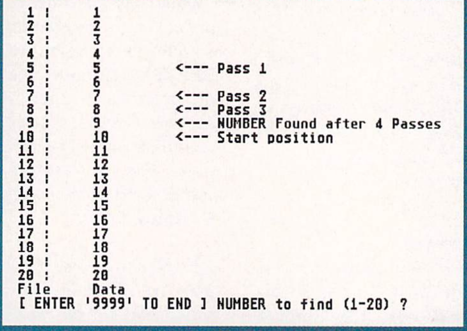
In last month's `INLINE` *feature we omitted to mention that when the file selector box is called, the program looks for the suffix .INL, this is the default.*

So, to get it right, just change this to suit the file you are wishing to load into `INLINE`.

Tip of the month

Is there a faster way of searching through data, whether numerical or alphabetical?

stf: Yes, and it's called a Binary Search. The "normal" search method of starting at file number one and ending up with the last file (a bit slow if you have thousands of files) is now redundant. The Binary Search routine begins the search halfway through your files and ignores the half in which the data you're searching for is not placed. It then starts again searching half way through the remaining half and, once again, concentrates on the half where your data is placed. To get a better idea of the program operation, we have included an example file on this month's Cover Disk.



```
 1 :      1
 2 :      2
 3 :      3
 4 :      4
 5 :      5           <--- Pass 1
 6 :      6
 7 :      7           <--- Pass 2
 8 :      8           <--- Pass 3
 9 :      9           <--- NUMBER Found after 4 Passes
10 :     10           <--- Start position
11 :     11
12 :     12
13 :     13
14 :     14
15 :     15
16 :     16
17 :     17
18 :     18
19 :     19
20 :     20
File     Data
[ ENTER '9999' TO END ] NUMBER to find (1-20) ?
```

Display showing the result of a Binary Search for the number nine.

Cover Disk example: number of files = 20
data searching for = 9

Program operation

The Binary routine begins the search for your data (the number nine) in the middle of your files – at number ten. Here the data held by file ten is compared with your search data (nine). As your data is less than file ten's contents, all files from the number ten upwards are disregarded.

The routine then takes the start pointer set at zero, and adds it to your end pointer, currently at ten. It then divides the result by two, giving you five. It then looks at the contents of file five and compares it with your search data (nine). Here your search data is greater than the data held in file five so all files one through to five are ignored.

Next the routine adds the start pointer at five and your end pointer at nine and divides the result again by two, giving you seven. Again it compares data held in file seven, and nine is greater than the data held in file seven. File number seven is then added to file number nine, giving you 16. Dividing this by two gives you eight. File data is compared again and no match is made so file eight is added to file number nine, giving you seventeen which, divided by two give you nine – remember, in this case, your ST is using integer (whole number) mathematics, so the decimal part of the sum is rounded up to the next whole number. Once more data is compared this time the file matches the search data.

The speed of this search comes into its own when there are a lot of files to search through. With one million files, for example, the Binary Search method would only need a maximum of 20 passes to find any file – this takes less than a second. This is undoubtedly a lot faster than asking your ST to search each and every one of your one million files to find the required data.

The only drawback with this type of search is that the data being searched must be sorted in either numerical or alphabetical order, otherwise, this type of search does not operate.

Please note: BINARY.LST file on the Cover Disk may be altered to use alphabetical data by changing `a` *into* `a$` *and* `b` *into* `b$` *and changing line four*

`( a(f)=f )` *in* `PROCEDURE getnum`
to read `a$(f)=chr$(f+64)`.

The Belgian question

1. I have bought a Mega STE with the French version of TOS 2.05. What is the difference between this version and the UK TOS 2.06?
2. What does it mean by "minimum number of slots" when using the Xcontrol Panel?
3. The GENERAL.CPX doesn't seem to work properly, the system bombs out for no reason when I open a window or when I start a program from the hard drive. My ST then becomes unusable until I reset it. If I delete the general setup CPX from the CPX folder everything seems to work alright. This means that I cannot alter the processor speed from 8MHz to 16MHz, is there any other way of switching it?
4. In your Mega STE review in *STF 38* (turn to page 66 to find out how to get your copy if you missed it) you stated that there is an RF socket for a TV, my machine doesn't have it! The salesman told me there was no RF socket because I have a high density floppy drive in my machine. Is this correct? Can I buy an external modulator for the Mega STE?
5. How can I get hold of *Future Music* in Belgium?

Olivier V Muysewinkle, Belgium

stf: 1. UK TOS 2.06 is an improved version of TOS 2.05, in which hard drive access and other DMA routines have been modified. The keyboard layout on the UK version is in the QWERTY format whereas the French version uses the AZERTY layout. Oh, and by the way, it's in English (the QWERTY version, that is, not the AZERTY version). You should be able to get a French version of TOS 2.06, though, from your dealer, it just plugs in. It's dead easy, you know.

2. This allocates available memory to load CPX modules, if you wish to have more than ten installed, then you must increase the minimum number of slots to a suitable figure.

3. It sounds as though you might have a corrupted version of the general setup CPX module. Contact your local dealers, they should be able to replace your language disk without too much hassle.

4. In the UK all Mega STEs have an RF socket and a modulator as standard, we cannot understand why your machine doesn't have one. I think you should tell your salesman that the reason he gave you for not having an RF socket (the high density floppy drive) is total rubbish. We have no details of the availability of modulators in Belgium.

5. Your best option is to subscribe to Future Music. *To do this, simply call ☎ +44 458 74011 with your credit card details, they will be able to organise a subscription for you. Alternatively, you could always get a friend in the United Kingdom who would be kind enough to post it to you every month.*

Helping the police with their enquiries

I'm stuck on *Police Quest 1*. I can't get into the casino in the hotel. Please help.

Mr K S Knowles, Macclesfield

stf: Press <Alternate> and <D> to get into the Sierra Mode. Then type in `tp` *when the version number is displayed – this enables you to get into any room you like. You could also try typing* `get all` *and an object number to collect items of your choice.*

Stargliding

Are there any hints or tips you can possibly give to help me complete the wonderful (but difficult) *Starglider 2*?

Jonathan Hern, Scotland

stf: Stop the ship by pulling the joystick back. Now press <F> and

<Delete>. Type in `were on a mission from god1`*. Your energy levels will drop to half, so press <K> to collect all the extra weapons.*

It's beastly

I cannot last more than 20 seconds on *Shadow of the Beast 2*. Please help me!

Ray Baker, Liverpool

stf: Walk right until you come to the first man and ask him about "ten pints" and he then rewards you with invincibility – quite handy, really.

Bloody STEs

I am having problems running *Bloodwych* on my Atari 520STE. The game loads perfectly and lets me play. If I save the game while playing it, and then reload my last position without turning my ST off, I can reload the saved game. If I turn my ST off, however, and reload the saved game at a later date it refuses to load.

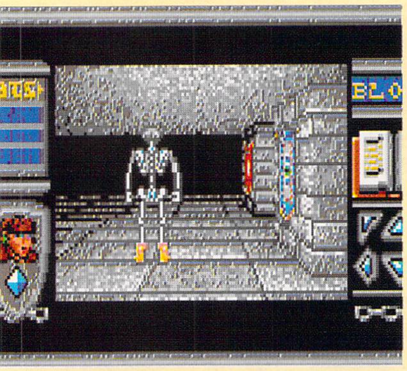
I have the *Bloodwych* Data Disk (part two of the game) and this works perfectly.

The game was part of a compilation called *Power Pack*, published by Beaujolly, although it was originally released in 1989 by the Mirrorsoft software group.

I was wondering if you could tell me whether (a) the game is at fault, (b) my ST is at fault and (c) whichever it is, is there any way to fix the problem?

Mr T Hayward, London

stf: Beaujolly (☎ 0737 222003) tell us there are two versions of Bloodwych *– one for STs and another for STEs – so it sounds like you have the wrong one. If you send back your disks to Beaujolly's offices at 29a Bell Street, Reigate, Surrey RH2 7AD, with a brief note explaining the problem, they'll be happy to replace them.*



■ If you buy *Bloodwych* then be 100% sure you buy the one suitable for your machine, if you don't then you will be reduced to a shadow of your former self.

MUSIC AND MIDI

Andy Curtis does the music business this month and answers the growing number of musical and MIDI queries and problems

FM Stereo

I have just acquired a set of ZY-FI stereo speakers. I know they work on an STE, but what about my STFM? Would there be any way at all of configuring them so that they could work on my ST?

Martin Lee, Surrey

stf: Well, Martin, it is possible to do a custom modification to the monitor port on the back of your ST, grab the audio output and feed it through your speakers. This, however, would be a job for someone with a fairly advanced knowledge of electronics. A much simpler way is to buy a package called Playback *(£30.95 from Microdeal ☎ 0726 68020). This cartridge feeds your ST's sound output through a pair of stereo phone sockets into which you can plug your speakers. The sound, of course, can not be pure stereophonic sound all the time but, at least, both speakers are driven and produce sound at all times.*

Sign language

How do I convert *Mastersound-2* samples to *TCB Tracker* format as S-Convert only works on the original *Mastersound*?

Chris Burkhill, Northants

stf: The Mastersound 2 *sampler uses a slightly different sample format from the original version.*

The samples produced by Mastersound 2 are "signed" and may contain other data apart from the raw sample. You can convert the sample to "unsigned" format within Mastersound 2 *by pressing <Control> and <S>, then saving the sample.*

You should then be able to import the sample directly into TCB Tracker *without further conversion, by altering the file extension from .SAM to .SPL and loading as normal.*

On the right track

I program the STE, and would like to find a soundtracker and playback routine which operates at 25kHz, as *TCB Tracker's* routines play from 8kHz to 12kHz and the quality can be poor with certain modules.

Daniel Spooner, Southampton

stf: The Audio Sculpture Soundtracker *package (ST Direct £5.99 ☎ 0908 379550) offers features far above those found in* TCB Tracker*, and comes with a disk of replay routines in assembly language, GFA Basic and STOS which can replay at rates up to 25kHz within your own programs with enhanced quality using the STE DMA chip. The soundtracker itself can also replay at 50kHz through the STE's hi-fi sockets, and will run in mono or colour.*

Sounds easy

I would like to know if there are any products on the market which would enable me to compose music on my 520STFM without the use of any other hardware such as a keyboard? As this would be new to me, I wouldn't want something too complex, just something to get me started and at a reasonable price.

G. Hines, Essex

stf: There are numerous packages available which utilise your ST's internal soundchip, but the results can be sometimes less than musical, especially when you're just starting. A good option would be to go for a soundtracker, which uses sampled sounds as instruments, and enables you to use four channels simultaneously. The programs can sometimes be a little difficult for the newcomer, but with a little perseverance some very good results can be obtained. There are numerous soundtrackers available in the Public Domain, such as Noisetracker ST *(Disk M30 £3.00 MT Software ☎ 0983 756056).*

If you fancy a package with classic music stave notation, then look no further than Quartet *from Microdeal. Turn to the Mail Order section on page 164 of this issue, where you will find a package including* Quartet *available at a very attractive price indeed!*

Multi timbrality

Is the Yamaha PSS 780 keyboard compatible with the STE and my *Notator Alpha*. If so, why can't I seem to record different tracks in different types of voices?

Simon Reeve, Birmingham

stf: Good news to start with, Simon! Your STE is compatible with all MIDI equipment, as is every Atari ST. This is one of the great advantages of the ST has over certain other home micros (no names, no pack drill). Notator Alpha*, being an excellent ST sequencer, is also completely compatible with both. The problem you have come up against is the strange way that the Yamaha PSS keyboards handle multi-timbrality (that is playing more than one sound at once). It is important that you turn off all the various MIDI filters in your software before even attempting to sequence with a PSS keyboard. For some reason they seem to confuse it. You may also find that you are limited as to which MIDI channels can be used for each sound. For example, the drum sounds nearly always have to be on MIDI channel ten. Your best bet is to read the manual very carefully, and then make sure you do everything in exactly the right order.*

Tricky clicky

I am having problems with *Pro 24 v3.0*. Whenever I try to increment and decrement values using the right mouse button, it acts very strangely. This makes setting values a much more difficult task than necessary.

Hannu Siukola, Helsinki, Finland

stf: There's a simple solution to this one Hannu, write to the ST Club in England and ask for Disk UTI.306. This contains a program called Buttonfix which will clear the problem completely. The cost is £1.45 in the UK but it may be more for overseas mailing. Write to; the ST Club , 2 Broadway, Nottingham, UK, NG1 1PS ☎ +44(0)602 410241.

Dangerous Liaisons

Please, please help me with *Rick Dangerous 1*. I've been playing the game for over a year now and still haven't managed to get past the first level. I tried one of your Gamebusting cheats, pressing <T> after loading in the hope of infinite lives, but nothing happens. When I try typing in `pooky`, all that happens is that neither the joystick, mouse or keyboard have any effect on the screen whatsoever until I retype `pooky`, only then does the game continue as normal.

I am more frustrated than you can possibly imagine. If you can't reply, please forward me the address of Core Design, so that I can ask them directly. If not, I will jump off a cliff, or failing that, make sure my boyfriend cancels his subscription to your bloody (*surely you mean "absolutely stupendous"? – Ed*) magazine.

Georgina Baker, London

stf: Steady on! We phoned Microprose, the game's publishers, and they told us that later versions of Rick Dangerous *had had all the cheats removed. Unfortunately, they didn't have any hints or tips either having now sold the game onto Kixx, the budget label. So we then tried the Kixx helpline (☎ 0902 640027), but they couldn't help without details of where exactly you're stuck. So, perhaps some of our readers would like to send in a complete solution and put Georgina out of her misery?*

We want Zool!

Will *Zool* ever be available for the ST?

Michael Walker, Doncaster, South Yorks

stf: At present, Gremlin only have plans to produce PC and Amiga versions. They haven't ruled out the possibility of an ST version, though.

If you have any questions, write to, ST Answers, *STF*, 30 Monmouth Street, Bath BA1 2BW, indicating the type of problem on the envelope.

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ISSUE 43

February 1993

Disk: *Noddy's Playtime; Fractal Landscape; Animation Tool; Centipede*
Inside: Start creating your own full screen animations; huge printer roundup; be the most megalomaniacal of them all; basic disk safety

ISSUE 42

January 1993

Disk: Four games; *Fractal Engine; Improvisor* demo; *KnifeST, Michtron BBS*
Inside: 50 best games; virtual reality; identify your TOS version; That was the year that was; Rant with Archer Maclean; inside the *STF* Bulletin Board.

ISSUE 41

December 1992

Disk: *Air Support, Hyperbase* – create your own multi-media applications. *Protext v4.3, Sound Lab.*
Inside: Multi-media on your ST, samples and monitors analysed, Falcon and Falcon games reviews, films tied into ST games.

ISSUE 40

November 1992

Disk: *Trip-A-Tron*, the powerful light synthesizer, *Cybernetix, Talespin*, the interactive adventure creator.
Inside: Battlemania, samples roundup, Lynx games roundup, interview with Archer Maclean, movers and shakers in the ST world.

ISSUE 39

October 1992

Disk: *Magic Story Book, Captain Dynamo*, multi format slideshow; *Pack Ice; Pro 12* sequencer;
Inside: Sequencer roundup; make some noise feature; hard drive roundup, DTP masterclass. We ask Are Games Too Hard?

ISSUE 38

September 1992

Two Disks: *Spectrum 512, Spec Code, Sensible Soccer* demo, *Mapper 2*
Inside: Get closer to your ST with Summer School, Falcon and Mega STEs investigated, *STOS* tutorial, getting professional with MIDI music

ISSUE 37

August 1992

Two Disks: *STOS Basic* language and *Animaster* sprite designer, *International Sports Challenge* demo, *3D Picture* modelling package
Inside: How to create great games, monitor roundup, *Calamus SL* reviewed and rated

ISSUE 36

July 1992

Two Disks: *K-Spread 2* spreadsheet package; *Fire and Ice* demo, *Super Boot 7.4*, The Financier money manager, and more
Inside: 50 ways to soup up your ST; what happened to the games heroes of yesterday? HP inkjet printer review

ISSUE 35

June 1992

Two Disks: *GFA Basic v3.5, GFA Assembler, GFA Raytrace complete; Pacific Islands* demo, complete database and astrology programs, and much more
Inside: upgrades step-by-step; ST astrology; program fractals

ISSUE 34

May 1992

Two Disks: *GFA Draft Plus 3* complete 2D vector drawing package; *Campaign* demo; *Intro Designer*; six more full programs
Inside: 21 pages of art guides; ST Book portable tested; weird games; 120 tips; Buyer's Guide

ISSUE 33

April 1992

Two Disks: *Write On* package; *Leander* preview; two raytracing programs; complete *Penguin* game; fractals and more!
Inside: Over 20 pages of all sorts of tips; complete guide to raytracing; get the best from *Sequencer One*

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March

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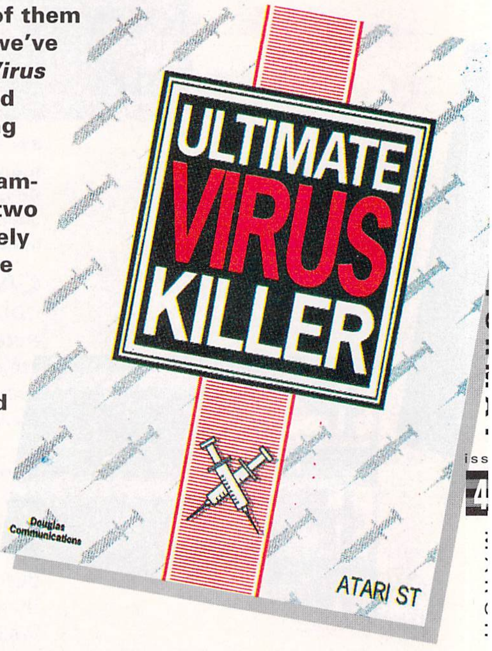

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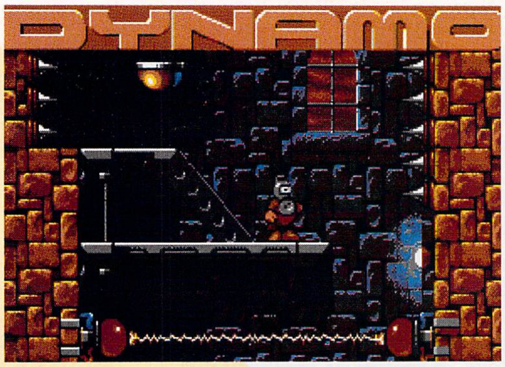
GAMEBUSTERS

It was no good, Gamebusters The Movie was sold out. Would Hint the hero manage to save Clarissa the Cheat before Titus the tyrannical Type-in dropped her in the city Tip? Rob Mead sneaked in the side entrance and bumped into Pete the terrible Pun



Is it a bird? Is it a plane? No, it's a funny looking cat-type thing with floppy ears that you attach to the back wheel of a bicycle to make the lights work.

CAPTAIN DYNAMO

CODEMASTERS

Peter Barlow of Corstorphine, Edinburgh has discovered a secret room on Level One. Here's how to get to it:

After you go across the rope slide – before the end-of-level transporter – you get to two spring bouncers. Bounce on the right one and keep pushing your joystick right. You then land on a platform of stone. Walk right to find the hidden room and a warp to Level Three.

BATMAN

OCEAN

When the title screen appears type in MAJJJJJJJ. Keep pressing <J> until the message "Cheat Mode" appears in the top left corner. Now when you're playing, pressing F10 enables you to skip levels and you have access to infinite levels.

CHASE HQ

OCEAN

Hold down left mouse button and <Fire> on joystick. Type GROWLER, followed by <Return>. Press <T> for reset time.

CHUCK ROCK

CORE DESIGN

Type in ESTRANO on the credit screen. Now when you play the game and press <Shift> Chuck turns into an angel and starts to fly.

NARCO POLICE

DINAMIC

While playing the game type BLAST for smart bombs or MUNICON for ammunition.

OUTRUN

US GOLD

While playing, try typing in STARION. You can now press <S> to skip levels, <B> for extended play and <Q> for program info. Press <T> if you fancy a little extra time.

RICK DANGEROUS 2

MICROPROSE

Type POOKY on the high score table – this enables you to shorten levels by moving a joystick left or right. This also works on the original game.

"This is the last time I play 'Find the Sixpence' in Cyril Smith's belly."

STRIDER

US GOLD

Press the Up arrow if you have any trouble getting up steep hills.

POWERMONGER: WW 1 EDITION - ELECTRONIC ARTS

"Do you reckon the village shop is still open, Carruthers?" "Probably." "Good, I'm fresh out of mustard gas."

Here are a couple of tips for the Powermonger data disks from Mark Pittam of Nuneaton, Warwickshire

Hint One

Are you sick and tired of waiting for your men to build planes so your army can cross the sea? Well, try building one plane for your captain and send him over to the other side of the water. Find a deer and attack it. Before you kill it, call off the attack. Tell your captain to go up a tree. If you notice your army is in the sea, then attack the deer again and, when you're about to kill it, call off the attack. Keep doing this until your men are on the same land as your captain. You can now carry on with your usual hobby of pillaging.

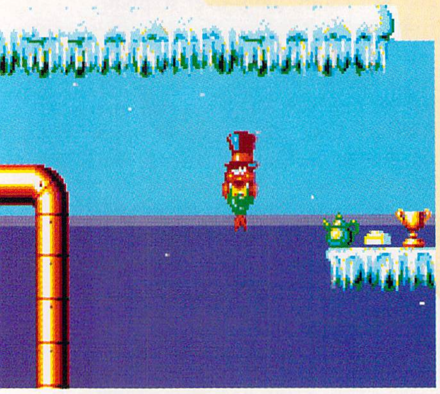
"War's a funny old game, but at the end of the day, when all's said and done, it's the taking part that counts... arrgh!" Jimmy Greaves was one of the many who fell victim to friendly fire during World War One.

Hint Two

If you come across a world that's too hard to finish, play the game as usual, then click on the disk icon and then the random map icon. When you go to the Main Menu you should find you've completed that level.

JAMES POND - MILLENNIUM

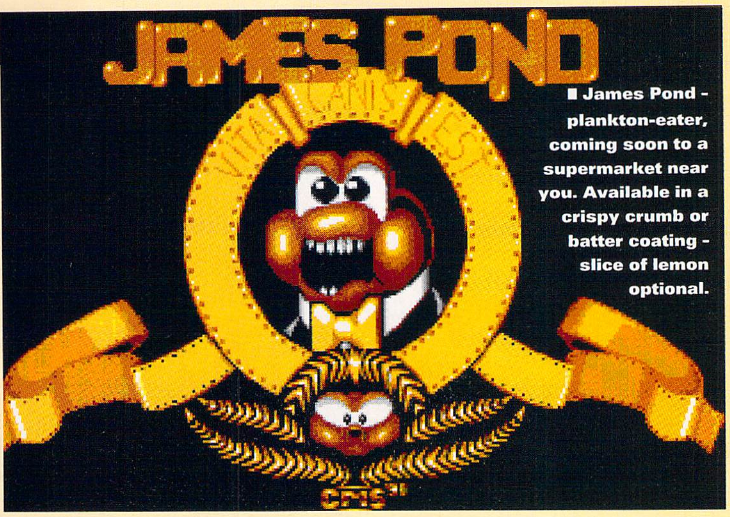
Oh no! It's that smelly fish again. Thanks to Michael Walker of Doncaster for this little lot



■ When was the last time you saw a fish in a top hat? Nope, seeing John Major at Ascot doesn't count.

On the title screen type MR2, start the game and press <D> to open the locks on the end-of-level tubes. Then press the following keys to get the objects:

<1> for a top hat.
<2> for a helmet so you can survive out of water.
<3> for a cockney cap
<4> for a cockney cap
<5> for dynamite
<6> for a key
<7> for a comb
<8> for a gun
<9> for a gun
<0> for a sponge
<-> for a rose
<=> for a gold bar
<Backspace> for a pot
<P> to get drunk
<S> to get stuck
<L> to make the screen flash



■ James Pond - plankton-eater, coming soon to a supermarket near you. Available in a crispy crumb or batter coating - slice of lemon optional.

<Spacebar> to crash the game (why?)
<Z> to return to Level One
<X> to jump to Level Two
<C> to jump to Level Three
<V> to jump to Level Four
<B> to jump to Level Five
<N> to jump to Level Six
<M> to jump to Level Seven
< to jump to Level Eight
> to jump to Level Nine
<?> to jump to Level Ten

INFINITE LIVES AND OTHER GOODIES

DUNGEON MASTER

PSYGNOSIS

Get your programming fingers at the ready, because this is the only way to beat this excellent RPG. Many thanks to Philip Spavins of Redruth, Cornwall

Make a backup of START.RPG file. Insert *Dungeon Master* disk and run the following program once the game has loaded to get infinite lives and strength.

```
10 REM****** CHEAT ROUTINE FOR DUNGEON↵
   MASTER ******
20 OPTION BASE 1: DIM A (512) :↵
   CHEAT=VARPTR (A(1))
30 DEF SEG=0: REM remove if new ST Basic↵
   is in use
40 BLOAD "A:START.PRG". CHEAT
50 FOR N=1TO5: READB: POKE CHEAT+B,↵
   &H4E71: POKE CHEAT+B+2, &H4E4E1 : NEXT N
60 FOR N=&H260 TO H26E STEP 2: READ B:↵
   POKE CHEAT+N B: NEXT N
70 BSAVE "A:START.PRG", CHEAT, 770
80 DATA & H93CO,& HOOD8,& HOOFC,& HO118,↵
   & HO154, H93CO
90 DATA & H337C,& H4E71, & H433B,& H337C,↵
   & HB06B,& H48D9,& H4E92
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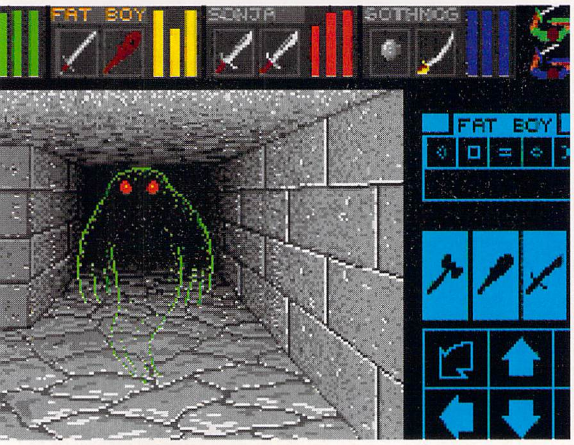
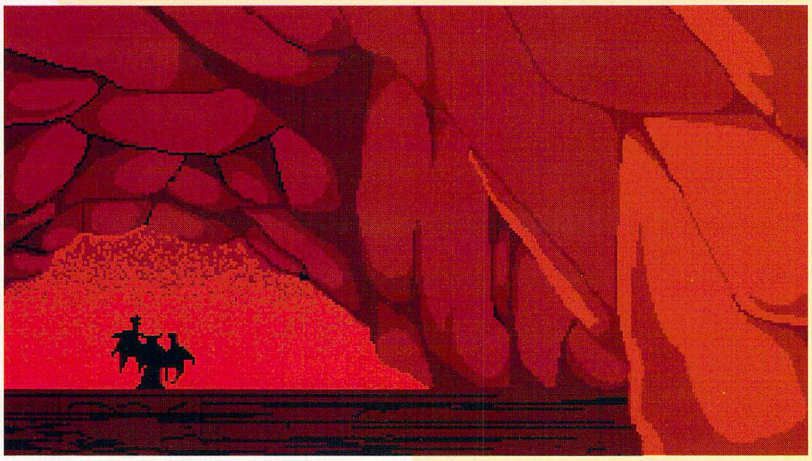


■ "'Ere, you've gone a really 'orrible shade of green." "I know. That's the last time I'm buying a shish kebab from an undertakers."



■ The next time your train is late, or you lose a pen down the back of the sofa, remember - Chaos is always with us.

CHAOS STRIKES BACK

PSYGNOSIS

Mr D R "Why-have-a-social-life-when-you-can-have-a-computer?" Gumble of Ware, Hertfordshire has sent in a map for the Death Row section of* Dungeon Master*'s tricky successor. There's £50 for the first person to send in a complete solution

Embark on the Demon-Director Level and get onto the Ros pathway. Wander around until you find a door requiring a gold key.

Unlock the door with the gold key and get the chest of food and treasures beyond. Then go back and pick the lock with the lockpicks – you get imprisoned for being a thief.

The stone golem guard must be seen to open the door, so stand in front of it. The guard eventually opens up – feel free to speed things up by casting spells at the door.

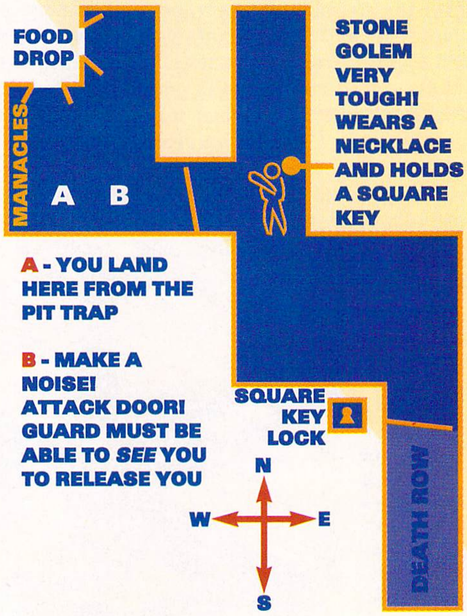
The guard is tough, so pick up a square key – there are lots on the path of Ku – to open the exit from Death Row. Now go outside and find somewhere to rest and recharge.

If you kill the extremely powerful stone golem, you get a square key and a magical necklace that boosts your mana level.

Finally, wait under the pit in the cell long enough to get the prison food.

DEATH ROW

The map for the Death Row section brings us one step closer to a complete solution



FOOD DROP
MANACLES
A
B
STONE GOLEM VERY TOUGH! WEARS A NECKLACE AND HOLDS A SQUARE KEY
A - YOU LAND HERE FROM THE PIT TRAP
B - MAKE A NOISE! ATTACK DOOR! GUARD MUST BE ABLE TO SEE YOU TO RELEASE YOU
SQUARE KEY LOCK
N
W
E
S
DEATH ROW

VOODOO NIGHTMARE - GBH

Is there no end to this torment? After last month's machete-hacking Eagle Temple here is the third part of Steve Rennie's complete solution – the Ape Temple.

■ Mickey the Monkey has had a long and illustrious showbiz career, including appearances in *Gorillas in the Mist* and *King Kong*. He's now pursuing a musical career as lead singer with Take That.

Ape Temple

Watch out, there are a few nasty jumps in this temple.

Exit south. Blast the round rocks with the TNT and exit south. Kill ape, collect gems and exit north. Blast rocks and exit east. Blast rocks and exit south. Kill ape and exit south.

Blast rock – or use teleport nearest north exit – kill apes. Blast rock by east door and collect gem. Collect other gem, exit east.

Blast rocks and collect gem, push the south-west moss-covered rock of the two moss-covered rocks separated by a stone to the north-east and exit south.

Push moss rock south-east. Use teleport – south-west of north door, walk south-west and push moss rock. Use teleport and collect gem. Use teleports to get back and then, exit north.

Blast rock and exit east. Exit south. Push moss rock south-east. Use teleport by north exit. Go to next teleport and use. Blast rock, push middle moss rock south-east. Collect gem, teleport back. Exit north. Exit east.

Blast rocks, collect gem. Push rock moss south-west, exit south. Kill ape, collect food, exit north. Blast rocks and exit north.

Kill ape. Blast rock next to moss rock near edge of the water. Push moss rock north-west. Carefully walk south-west and stand in front of the south-west rock. Take one step north-west onto almost hidden stepping stone. Step south-west to stepping stone. Jump south-west and step south-west onto stepping stone. Go to teleport and use. Kill lizard and collect gem. Walk south-east across four stepping stones and jump south-east. Blast rock and collect gem. Retrace your steps and exit south. Exit west, exit west, exit north.

Walk north on stepping stone and blast rock. Come back and take a running jump north-east to clear the gap between the stepping stones and exit east. Collect gem. Jump onto stepping stone. Collect two gems. Jump back. Exit west.

Take a running jump south-west to clear gap between stepping stones. Walk north-west – and north-east – on stepping stones. Collect gem. Blast rock by north exit and exit north.

Jump over stepping stone and exit east. Jump over stepping stone and exit south. Jump over stepping stone and exit east.

Walk over three stepping stones by north-west of rock. Turn south-east and jump. Walk to rock and blast it. Walk to next rock and blast it. Collect gem. Retrace your steps and exit west.

Jump over stepping stone and exit north. Jump over stepping stone and exit west. Jump over stepping stone and exit north.

Blast both rocks and push moss rock to the north-west. Take a running jump north-east. Walk on stepping stone to island. Kill ape and collect gem. Push moss rock by north-west wall to north-east. Carefully walk to, and stand in front of, the tree on the island. Jump north-east over stepping stone. Walk onto island and blast south-east rock. Jump over stepping stone to south-east island. Kill lizard and collect gem, then jump back. Walk north-west to rock and blast it, then take two steps back. Kill lizard when it moves and exit north. Jump over stepping stone and exit east.

Jump onto south-east stepping stone, jump north-east, then jump south-east three times. Walk on stepping stone. Jump onto island and push the moss rock to the north-east. Retrace your steps to the west exit – don't leave or you have to push the rock again – and blast rock. Use stepping stone and jump north-east, then south-east, then north-east, then south-east twice. Walk and jump onto central island. Jump and walk south-east. Blast rocks and exit east. Blast rocks and exit south.

Go south-west and blast the rock by the moss rock twice to reopen the north exit. Blast the rock by the moss rock near the north-east wall. Push that moss rock to the south-east. Blast the rock exposed by the other moss rock. Walk through and collect gem hidden by the south-east wall. Blast rock next to the gem. Walk back and go south-east over two stepping stones. Go south-west. Blast rocks. Collect gem.

Go to the north-east wall. Walk south-east and jump over stepping stone. Push the moss rock to the south-west. Go back round to the south-west wall and walk south-east. Blast the rocks by the moss rock near the south-west wall. Push the isolated moss rock near the south-west wall to the south-east and exit east.

Collect gems by blasting rocks near the north exit, then go round via the north-west and south-west walls to be able to jump onto the central island and collect the blue gem. Exit west.

Push moss rock by north-east wall until you have space to walk, then exit north. Blast rocks and exit west. Blast rock nearest the stepping stone, then take a running jump onto the stepping stone. Blast rock. Jump across stepping stone and exit south. Jump over stepping stone and exit south.

Go south-east over stepping stone to middle island. Stand by the bushes and diagonally kill ape with machete. Go south-east and kill lizard. Collect gem and exit east. Kill lizard and exit east.

Kill ape. Blast rocks by the moss near the centre of the north-east wall and collect gem. Push the moss rock by the south-west wall to the south-east. Use teleport near the north exit. Move onto and use next teleport. Blast rocks and use next teleport. Blast rock and kill ape. Exit south.

Kill ape and collect gem. Blast rock near the moss rock by the north exit. Push the moss rock to the south-west about four or five places. Collect the gem, kill the ape, blast rocks and exit west. Push moss rock north-east – to open west door – and exit east.

Blast rocks and exit north. Push right moss rock in centre of room to the north-west. Blast rock and exit west. Push moss rock south-east and exit west. Work your way through and over stepping stone. Exit north. Jump over stepping stone and exit north. Work your way along south-west wall via stepping stone and exit west. Jump over stepping stone and exit south.

Blast rock, walk south and use stepping stone to jump onto middle island area. Use stepping stone, then take a running jump south-west and exit south. Jump over stepping stone and exit south. Blast rock, walk round and use stepping stone. Exit south, exit east. Exit east, blast rocks and exit east. Go along the north-west wall, push the south-west moss rock of the group of three in line with the other two. Exit east.

Blast rocks and collect gem, blast south-east rocks. Push moss rock by south-west wall to the

■ Sign yourself up for a spot of voluntary service and you could end up visiting your own grandparents.

■ Don't you just hate going to the launderette? Half of the machines don't work and your clothes always come out a curious shade of dishcloth grey.

south-east. Go round via the east wall and push the moss rock by the north exit to the south-west and exit south. Collect loose gem, then use stepping stone to get other two gems and exit north. Exit west, exit south.

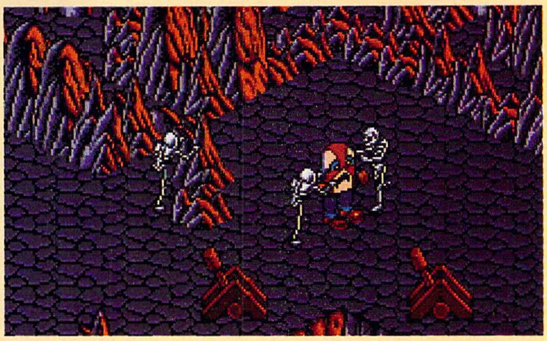
Push moss rock by north exit to the south-west, then collect gem. Jump over water, walk along north-west and jump back. Use teleport. Blast rocks and kill apes. Retrace steps and exit east.

Collect gem and push moss rock south-west – open south exit – exit west Exit west, exit west, exit west, exit west. Blast rocks and exit west. Exit south.

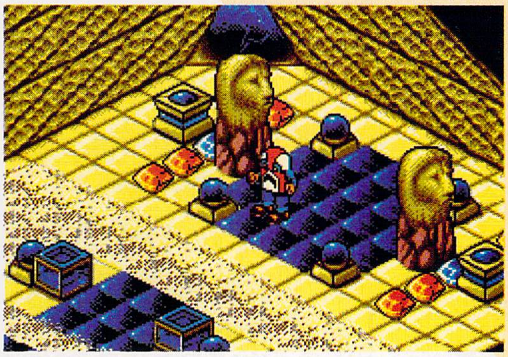
Blast rocks near the north-east wall and kill lizard. Go south-east and push middle moss rock to the south-east. Exit east. Exit south.

Go south-east and push the south-east moss rock of the group of three towards the wall. Go round and push the middle moss rock to the south-east. Kill lizard by throwing machete across water. Go south-east and blast rock by the moss rock against the north-east wall. Go back towards the north-exit, use stepping stone and push the moss rock south-west. Go back and exit south.

Exit east. Blast rock, jump and collect gems. Jump back and exit west. Exit north, exit west. Blast rock, jump and collect gems. Jump back and exit north. Kill lizard and ape, collect gems, use teleport near the east exit. Go south-west and blast rock, blast other rock and push the moss rock near the west exit to the north-west. Blast rock and collect gem, then exit west.



Although Cliff Richard has never lost his youthful good-looks, the same can't be said for his fans.



The only way to stop these lions from having you for their tea is to sing the Belgian version of *Jungle Fever* backwards while hopping on the one leg you have left.

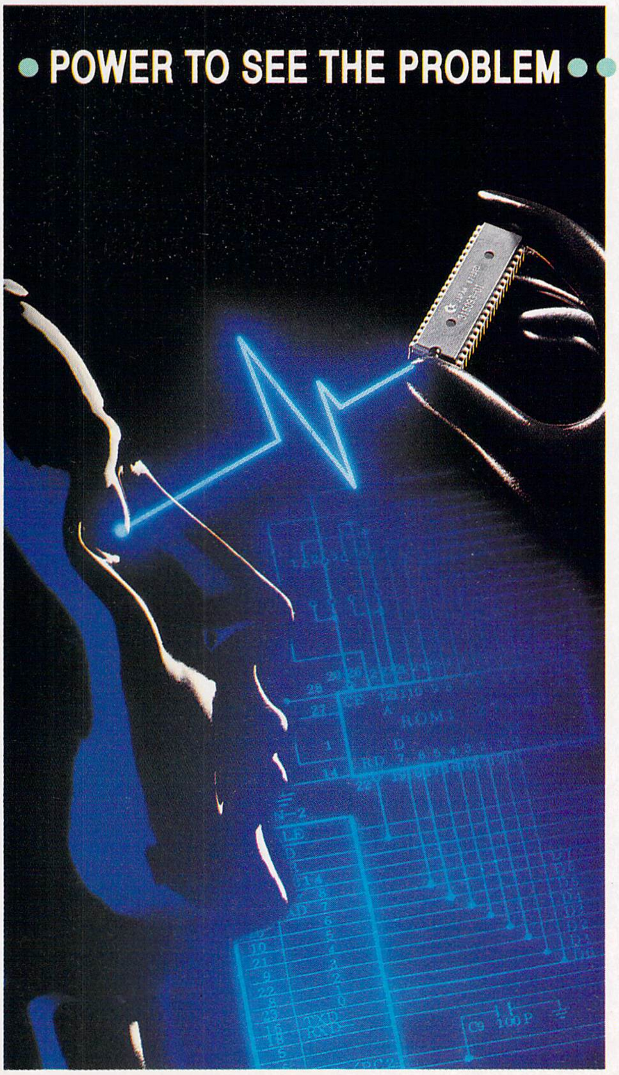
Kill lizard, collect gems and exit east. Push moss rock to the north-east. Blast rocks, use teleport and exit south. Exit east, exit north, exit east, exit south.

Collect loose gem. Blast rock by the south-west wall. Use teleport nearest south exit. Collect gem. Teleport back and use north-east teleport. Blast rock. Exit east. Blast rocks and exit north. Collect gem. Exit east, blast rocks, kill ape, collect gem and exit west. Exit north. Blast top left rocks and exit north. Collect gem and exit north. The Ape God wants 50 bananas and gives you a pin, the amulet of secret travel – the ability to use teleport squares in the jungle – and tops your heart up to 16.

Jungle

Work your way south-east back to the bridge. Just before the bridge, hack left into the small clearing. Step onto the teleport square and you are transported to a tiny island where the Lion Temple is. Go south-west and enter the temple.

Is the Lion Temple really a small pub just south of Slough? Don't miss the final, and most exciting episode of Steve Rennie's complete *Voodoo Nightmare* solution in next month's *ST FORMAT*.



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ST FORMAT

HINTS AND TIPS GALORE!

SPRECHEN SIE LA LANGUE DE PROGRAMMING SUR POR ST?

If programming on your ST makes as little sense to you as the above four lines, you need next month's *ST FORMAT!*

Starting to learn programming can be a daunting business but it needn't be - there are all sorts of hints and tricks you can use to make programming your ST easier. We're going to be looking at some of these next issue - read the feature and you could soon be creating classic games and demos on your ST along with the best of them. You'd be daft to miss it.

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REVIEWS

STF REVIEW POLICY

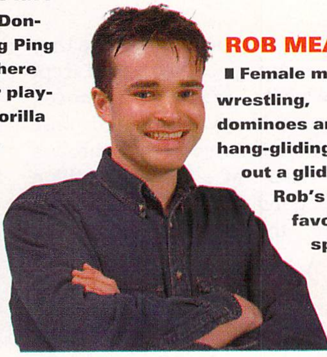
- It is *ST FORMAT* policy to only review completely finished games – that is, games you could actually buy in the shops, never incomplete or demo versions.
- We review all games released, but only when they're finished. We won't be rushed into reviewing unfinished games to beat our "competitors."

SCREENPLAY

UNDER SCRUTINY

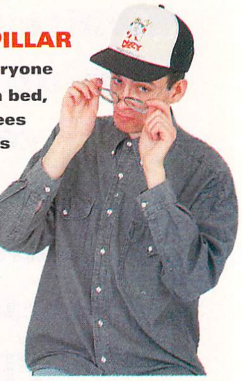
STUART CAMPBELL

- Stuart's fave sport is Donkey Kong Ping Pong, where up to four players hit a gorilla over a net.



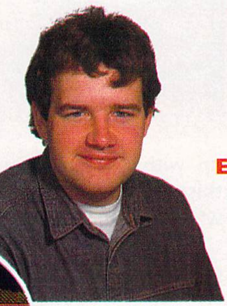
ROB MEAD

- Female mud-wrestling, dominoes and hang-gliding without a glider are Rob's favourite sports.



JON PILLAR

- When everyone else is still in bed, Jon referees teams in his local Sunday league. What an idiot, eh?



ED RICKETTS

- A motorsport nut, Ed regularly goes to Silverstone to meet the drivers and, erm, clean their cars.

MARK WINSTANLEY

- Mark's idea of a sporting activity is to watch young fillies parading round their handbags down his local.

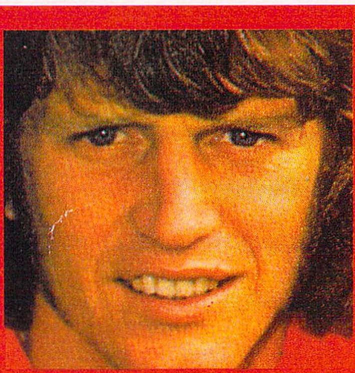
- "Nope, that kidney punch didn't hurt a bit - it's just a bit of gas from those onion bhajis. Call yourself a Streetfighter?" Page 76.

- "I was a young man when I started waiting for this train, now look at me." *Transarctica*, page 78.

DEAD SERIOUS

ANDY CURTIS

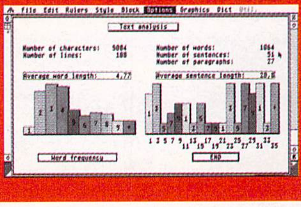
- Sport, sport, sport - don't mention it, Andy can't stand it - he doesn't even like gymnastics. Sad, sad, sad.



PETER CRUSH

- Pete "Crusher" Crush is an amateur arm-wrestling champion on Waloomawonga sheep station.

BUT SERIOUSLY...



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Text analysis

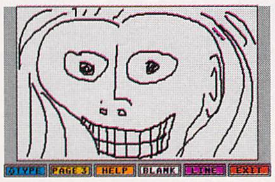
Number of characters:   5084     Number of words:          1064
Number of lines:         108     Number of sentences:        51
                                 Number of paragraphs:       27

Average word length:    4,77     Average sentence length:  20,6
```

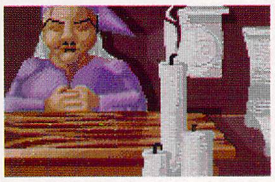
- The first version of *Redacteur*, the word processor from France, earned itself a gold back in issue 34, we find out how the cut-down version, *Redacteur Junior*, matches up on page 91.

Our definitive "serious" reviews start on page 91

IN PUBLIC!



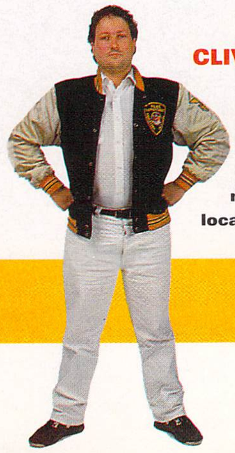
- Help your child to create disturbing images like this with *Kidpublisher*, page 100.



- Discover yourself through your dreams in this *STAC* adventure, page 98.

CHRIS LLOYD

- When he's not working at *STF* Chris is enjoys around the world racing in his 40 foot yacht.



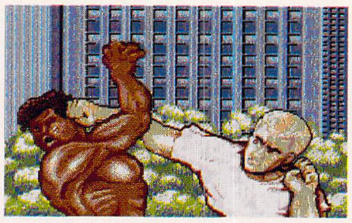
CLIVE PARKER

- Clive's favourite sport is playing nude Twister with members of the local clergy.

Turn to page 98 to check out the latest releases into the Public Domain

STREET FIGHTER 2

At last, the most eagerly awaited beat-'em-up of the year has arrived on the ST. But can it live up to the hype? Rob Mead gets out his throwing stars and tries to look inscrutable



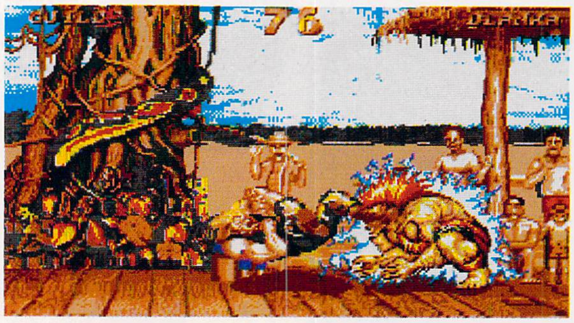
Pre-match tensions run high in *Street Fighter 2*. This pair have started scrapping before the opening credits have even started to roll.

ST FORMAT GOLD

Consoles, pah! What have they every given us, eh? Except wildly exaggerated prices, interminable advertising and more hyperbole than you could throw a stick at. Still, something good had to come out of them eventually, and you don't even have to pay £65 for the privilege. To our not-so-slight amazement, *Street Fighter 2* has managed to live up to the hype associated with it and it's great to finally see a decent beat-'em-up on the ST after those awful, apologetic excuses for games dragged in the wake of *WWF Wrestlemania*.

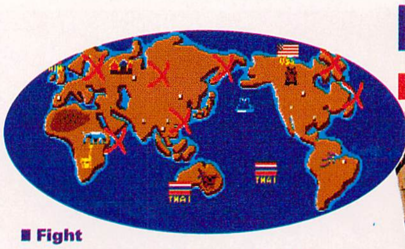
Still, enough about the hype, what about the plot? As usual, not a lot of effort has been expended by the game designers in coming up with a convincing plot for all this naked aggression, but, then, who cares about that?

All you need to know is that eight of the world's greatest fighters – Ryu, Edmond Honda, Blanka, Guile, Ken, Chun Li, Zangieff and Dhalsim – have gathered together in a contest of skill and strength to earn the title of World Warrior and you get the opportunity to play all of them. Each of the contestants has distinct strengths, skills and weaknesses and you soon discover which combinations of moves work best at defeating different opponents – for example, Dhalsim can easily defeat Blanka, but finds Guile a much harder proposition. The relative strengths and weaknesses of



Blanka is the bigger opponent, but Guile is the more agile - proof that skill is just as important in a scrap as sheer physical presence.

If this is China, then you deserve a Dragon Punch



Fight your way around the world - it's hardly in the spirit of international cooperation, but a darned sight more fun than Inter-railling.

BRAZIL

Brazil is going to drive you absolutely nuts.

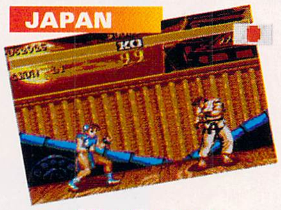
CHINA

Chairman Mao - the original streetfighter.

INDIA

What happened to the non-violent protest?

JAPAN



Kamikazes do everything to death.

STREET FIGHTIN' MEN... ERM, AND WOMEN

There are eight different characters for you to choose from in Street Fighter 2. Here's a quick rundown of who they are and what they can do

Just when you though it was safe to retire to the changing room you have to take on this motley collection of baddies - Balrog, Bison and Segat - among others.

Blanka

You've got the decimation of the rainforests to thank for this one. Blanka is a mean looking brute with red hair and bad breath. His special moves include Electricity – where he can shoot 1,000 volts through an opponent – and the Rolling Attack, the Brazilian equivalent of a cruise missile.

Chun Li

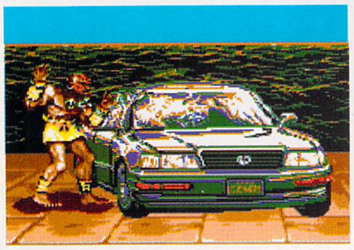
She's a bit of a sex goddess, our Chun Li, and the token female of the bunch. Extremely agile, Chun Li spends most of her time performing somersaults through the air and unleashing Whirlwind and Lightning Kicks upon her opponents. She's taking part in the championship to avenge the death of her father.

Dhalism

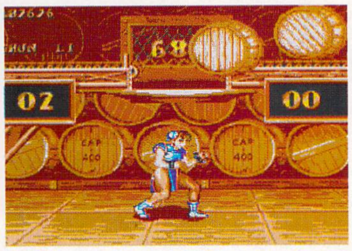
Yoga and the search for unity of the soul are Dhalism's twin obsessions. However, he doesn't let this stop him from donating the business end of his boot to weedy half-wit's sore head fund. Dhalism uses his spiritual influences to deliver some wicked moves in the shape of the Yoga Fire and the Yoga Flame.

Guile

Ex-member of the US special forces, Guile is consumed with hatred for all humanity since his pal Charlie kicked the bucket. He gets his revenge by putting the boot into everyone else and his Flash Kick is a force to be reckoned with. He can also create energy bolts called Sonic Booms to flatten his adversaries.



■ "Look, officer, I was walking along, minding my own business, when the alarm went off, honest." "Bad luck. That's the wife's Merc... I think you'd better come with me."

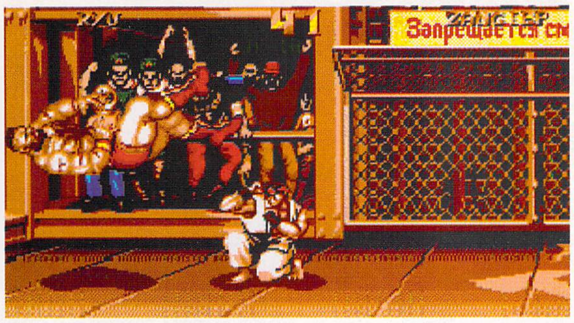


■ Working in a brewery's not all fun and games, y'know. Still, you can always get one of your apprentices to put the barrels away. Haven't you finished yet, Chun Li?

'Ere, do you wanna fight?

ST FORMAT are offering you the chance to get your hands on a copy of *Street Fighter 2* free, gratis and for nothing. Simply tell us who wrote Saturday Night's Alright for Fighting and the first one out of the hat wins. Send your answer on a postcard to:
Street Fighter Compo, *ST FORMAT*, 30 Monmouth Street, Bath BA1 2BW. Hurry now, the closing date is Friday 26 February 1993.

RULES: 1. Employees of Future Publishing and US Gold, their relatives and friends are not eligible to enter. 2. Duplicate entries will be dragged down a dark alley and given a good kicking. 3. Entries received after the closing date will be used as hamster bedding. 4. The editor's decision is final.



■ Ryu may be a cool cookie in a fight, but Zangieff 's completely ice cold. He couldn't care less if he mashed you to dust on a Moscow sidewalk - he only wants to win.

the characters means that they're all pretty evenly matched, although once you've discovered your opponent's Achille's heel, they're relatively easy to defeat. The attributes of each character are also enhanced by the inclusion of the special moves – the ability to cast fireballs, lightning kicks and so on – which makes gameplay far more interesting and it takes a considerable amount of practice to master each contestant's speciality.

To ensure you don't finish the game in the first afternoon, *Street Fighter 2* also has eight difficulty levels and the odd rogue opponent – M Bison, for example – thrown in. There are also a couple of bonus screens – one where you get involved in a bit of gratuitous car bashing and another where you have to deflect a horde of rapidly descending barrels. But, best of all is the two-player option where you can take on your mates and show them up to be the weeds they are.

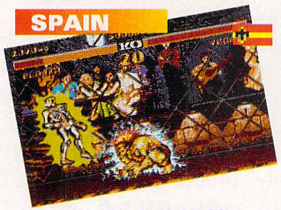
Thwok... urgh!

Gameplay is controlled by a combination of joystick, keyboard or both. There are a variety of eight different positions your character can assume from defensive crouches to flying lunges as well as a wide variety and combinations of kick and punch. Control of the special moves is different for each character and involves a combination of joystick movements – for Ryu to do a Dragon Punch you have to move the joystick back, then back and right, then just to the right in one motion while pressing the <Fire> button. The sprites are large, sharply defined and very well animated, while the background graphics are superb. Even the chip music is catchy and there are some great sound effects and samples. However, there are a couple of glitches – Thailand's flag appears both in Australia and in the middle of the ocean on the world map and some of the on-screen text tends to get lost in the background.

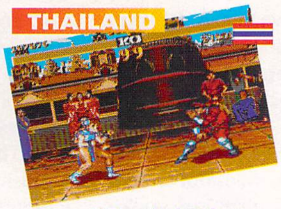
■ *Street Fighter 2* - more famous than Take That, sexier than Cindy Crawford, uglier than Jeremy Beadle and nary a console in sight.

Verdict

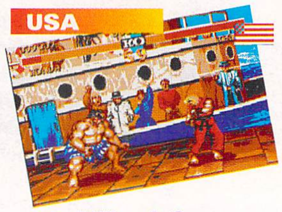
Street Fighter 2 is one heck of a game. It craps on Ocean's *WWF* licence from a great height. If this is to set the standards for beat-'em-ups of the future, then Hulk Hogan and his cronies couldn't even get a look in. The huge, well-animated sprites and excellent gameplay make this a game to be reckoned with. Go and discover what all the fuss was about.



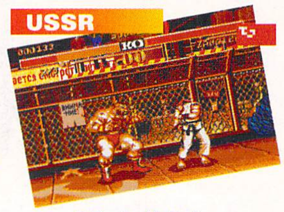
■ Typical 18-30 club Costa Brava style.



■ Bangkok takes on a whole new meaning.



■ Where's Superman when you need him?



■ Boris Yeltsin holds a cabinet meeting.

BY **ROB MEAD**

Honda

Inventor of the low-cost motorcycle and world champion Sumo wrestler, Edmond Honda likes to give his opponents the Hundred Hand Slap and the Sumo Head Butt.

For the record, Edmond Honda is no relation to Noel Edmonds despite a similar taste in pullovers.

Ken

Poor old Ken got dumped by Barbie and couldn't take the rejection – he signed himself up with Master Sheng Long and quickly developed a great talent for being a loud, arrogant and generally unpleasant git, though with that perm it's a bit on the difficult side to see why. Like Ryu he's partial to Dragon Punches and Hurricane Kicks.

Ryu

A pupil of Master Shen Long, Ryu has lost all his friends and family, so he spends his days leaping into the air shouting "Tatsu-maki-sen-pu-kyaku." No-one knows what it means, but it scares the hell out of his opponents, especially when he delivers a Hurricane Kick at the same time. He also likes Dragon Punch, apparently.

Zangieff

Mr T lookalike Zangieff is built like a brick privvy and smells like one. This could be because of the large amounts of boiled cabbage in his diet, as a result of all those Russian food shortages. Zangieff's favourite fighting moves are the Spinning Clothesline – also known as the Tumble Dryer – and the Spinning Pile Driver.

Street Fighter 2

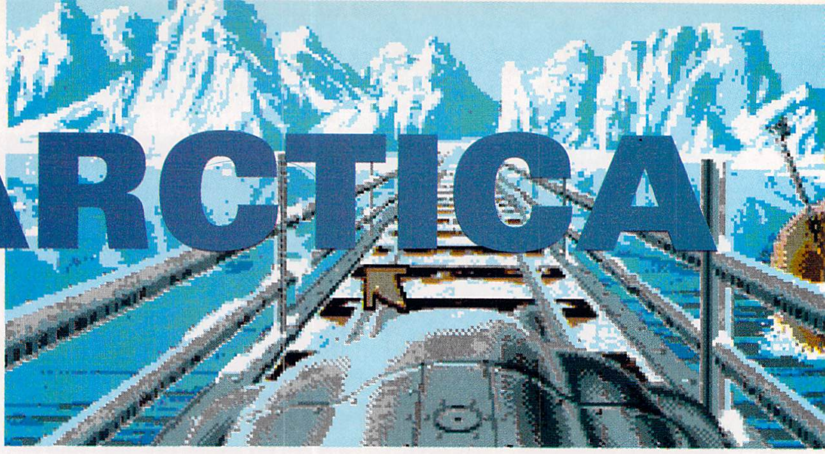
£27.99 US Gold
☎ 021 625 3366
Needs 1MByte RAM and TOS 1.04 or later

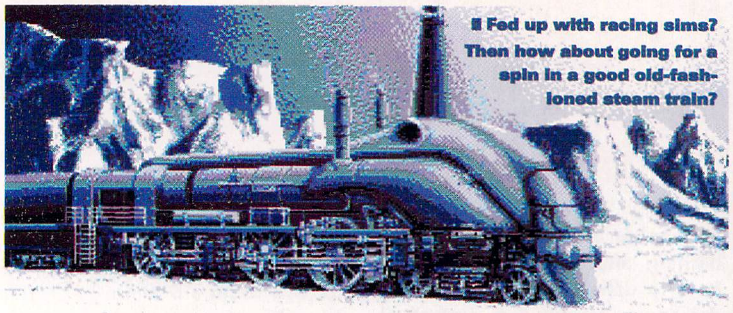
Highs
One of the best beat-'em-ups ever. This time you can believe the hype.

Lows
Your arms are likely to drop off with the sheer frenzy of it all. Invest in a very stout joystick.

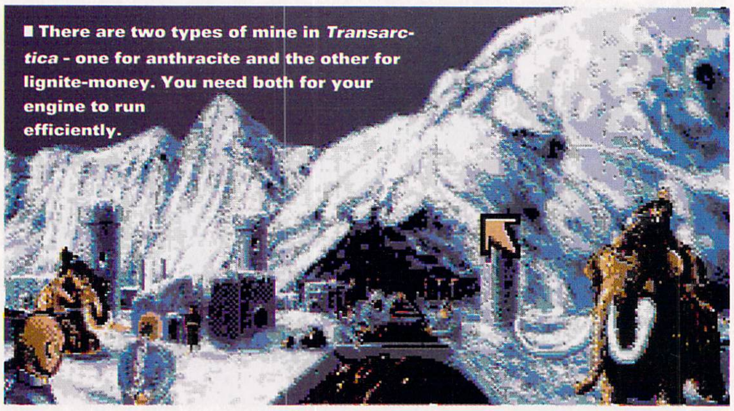
STF RATING 91%

TRANSARCTICA





Fed up with racing sims? Then how about going for a spin in a good old-fashioned steam train?

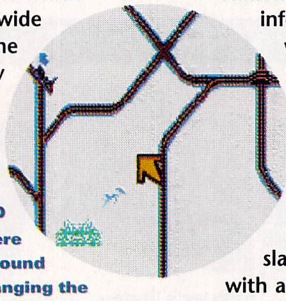


There are two types of mine in *Transarctica* - one for anthracite and the other for lignite-money. You need both for your engine to run efficiently.

Everyone complains about the railways, but can you imagine what it would be like if your survival depended on them? That's the premise of *Transarctica*, as Rob Mead found out

By 2022 global warming is posing a serious threat to the survival of the planet. In a bid to reverse the process, the United Nations commissions a group of scientists to try and find a sensible solution to the problem – Operation Blind involves the detonation of several thermo-nuclear devices above the earth's atmosphere. Unfortunately, it all goes terribly wrong – the earth is plunged into a nuclear winter and the sun is permanently obscured from the few human survivors by dense black clouds.

Hundreds of years later, the planet is dominated by the Viking Union, an organisation which controls the worldwide rail network and the only source of money – coal. Huge populated steam trains shuttle back and forth between a few station towns and this is where you come in. You play the idealistic captain of one of these trains – the *Transarctica* – whose quest is to free the planet from perpetual winter and the economic slavery of the Viking Union.



Transarctica's 3D map view. This is where you guide your train around the rail network, changing the points as you go.

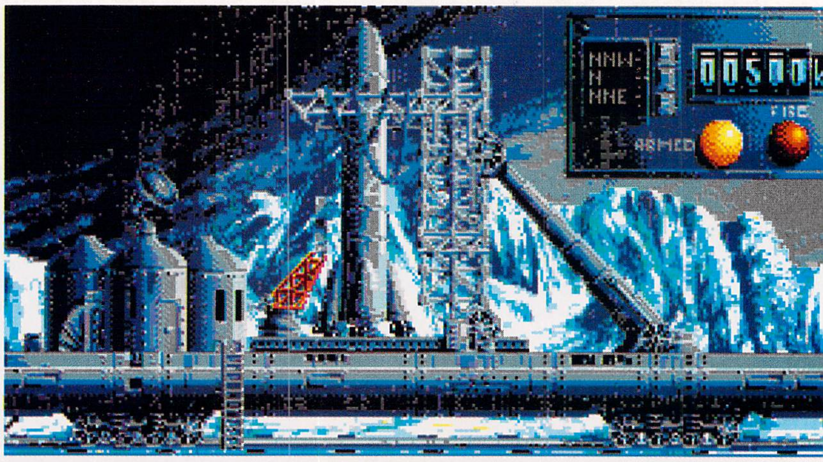
You have to guide your train around the rail network, using the station towns to trade, gather information and resources while avoiding various hazards – mole men, crevasses and Viking Union trains, for example. Each town specialises in a certain commodity whether it's industry, slaves or mammoths and, with a bit of planning, you're soon able to build up your train into a well-defended city on wheels. You also begin to piece together the various pieces of information you're given which can help you solve your quest. And, when you get fed up with all this trading and information gathering, you can always indulge in a bit of mindless violence by attacking Viking Union trains.

Transarctica is extremely reminiscent of *Ishar*, Silmarils' previous adventure game. The graphics and text fonts have a similar feel to them, while the mechanics of the plot – charging around various locations in search of information and resources – are virtually identical. The control system is also exclusively mouse-driven with a variety of icons and sub menus. Negotiating your way around the

Mammoths on the line

500 years after they were privatised, BR were still making excuses for their own incompetence. Shivering commuters had to just grin and bear it

1. There's a mammoth on the line.
2. It's the wrong kind of snow.
3. No train's are going anywhere until I've consulted my Viking Union rep.
4. There's a go slow at Leeds station.
5. There's been a derailment in Katmandu.
6. If you buy a Blue Saver return on a weekday, after the hours of 9pm and return before 6.30am on a Sunday avoiding Clapham Central... oh sorry, have you missed your train?
7. The driver's been decapitated by a gang of mole men. Honest.
8. I speak no Eengleesh, effendi... Oi John! You coming for a pint?
9. Madonna's just been seen down at a strip joint in Bangkok.
10. What with the present recession and a lack of investment *(snip!)*

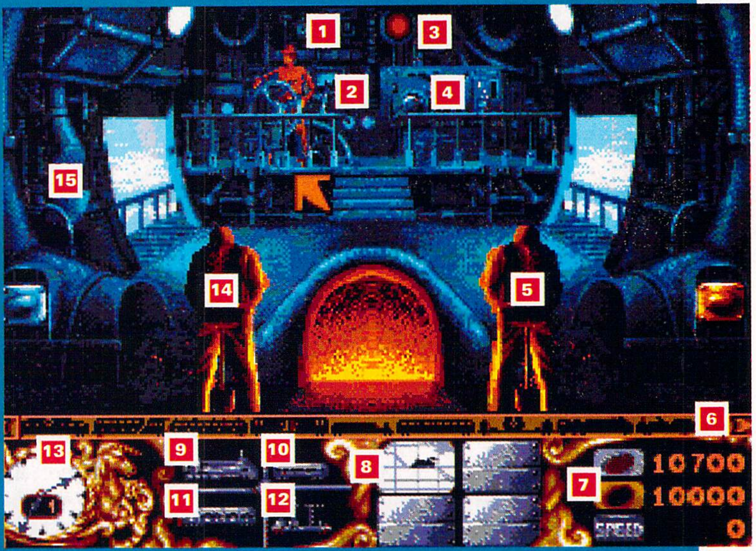


Get yourself a missile launcher and then you're in a perfect position to prevent all those awkward confrontations with the Viking Union - spot one of their trains approaching and you can blow them away with ease.

Since BR was privatised, Virgin Railways has preyed on unsuspecting 125s and given them a broadside of sad sandwiches and cold tea.

THREE WHEELS ON MY WAGON

Transarctica's engine room forms the hub of your activities. From here you can access most of the options you need to keep your quest on the rails



1 WHISTLE
Makes a great train sound. Scares the living daylights out of mammoths.

2 BRAKE
Click here to stop the train. Click again to restart.

3 ALARM/WARNING LIGHT
When an observation car spots another train, stampeding mammoths or mole men, an alarm sounds in the engine room and the warning light flashes red.

4 ENGINE CONTROLS
Click here to alter the regulator, check on boiler pressure and your speed.

5 LIGNITE-MONEY FIREMAN
Click once to get fireman to shovel lignite-money into the firebox. Double-click to go faster. Click again to stop.

6 TRAIN BAR
This shows you the current status of your train. Use the arrow keys to scroll backwards and forwards. Click on individual wagons to see what they are.

7 STATUS BARS
These tell you how much lignite-money (gold) and anthracite (silver) you have. It also tells you how fast the train is going.

8 3D MAP VIEW
Click here to get to the close-up version of the rail network map.

9 ENGINE ROOM ICON
Erm, you're in the engine room.

10 PRIVATE QUARTERS
Click here to see your inventory, save the game and use the Suicide option.

11 GENERAL QUARTERS
Click here to send out spies, dispatch inspection cars and see the world view map.

12 MISSILE LAUNCHER
Click just about here to attack Viking Union trains.

13 CLOCK
Click here to accelerate the rate at which various events in the game occur. You can see the number of elapsed days appear in the black box.

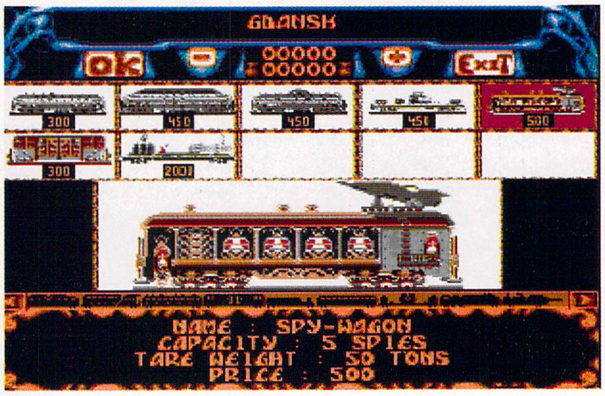
14 ANTHRACITE FIREMAN
See lignite-money fireman

15 STOUP
The archaic message system. Sends you info from your spies and tells you about the discovery of lignite and anthracite mines.

3D train map can be a bit tiresome, although the world view map is extremely useful for plotting your progress. The sound effects are good and the music even has a train's clickety-clack backing. However, too many static screens and too little face to face contact – especially in the information towns – makes the game curiously uninvolving at times.

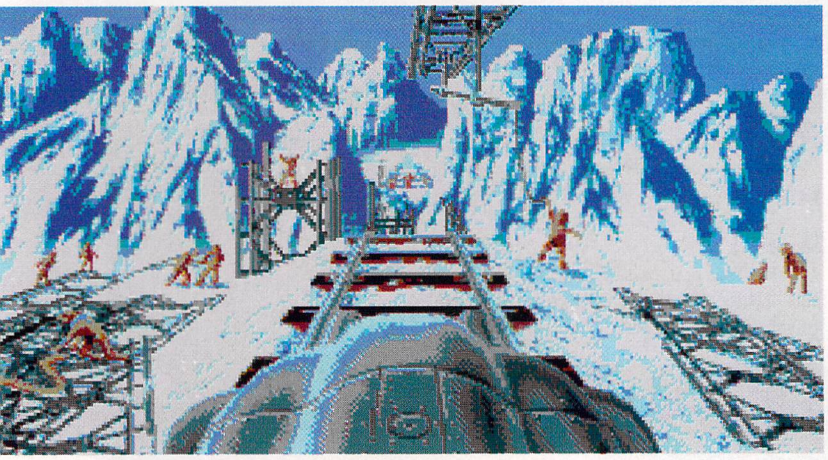
Verdict

A massive, sprawling adventure featuring trains and mammoths instead of the usual dungeons and dragons. However, an original idea is sadly let down by some unimaginative gameplay and an occasionally tedious control system. Despite this, the game is still addictive enough to keep you tucked up with your ST for weeks on end. ***stf***



NAME : SPY-WAGON
CAPACITY : 5 SPIES
TARE WEIGHT : 50 TONS
PRICE : 500

■ Gdansk is an excellent place to get extra wagons for your train. Make sure you buy plenty of merchandise, livestock and cannon trucks.



■ From time to time it's necessary for you to build bridges over dangerous-looking crevasses and fast flowing, deep and freezing cold rivers. To do this you need a plentiful supply of slaves, mammoths and cranes.

■ Now Leeds is a shunting yard and workshop for old rolling stock - yes, the Wedding Present are still going.

Transarctica

£29.99 Daze/Simarils
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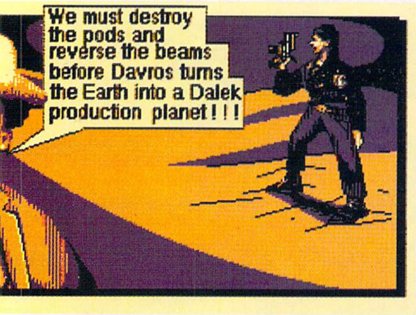
Highs
A massive original game from the makers of *Ishar*. Could take you months to complete.

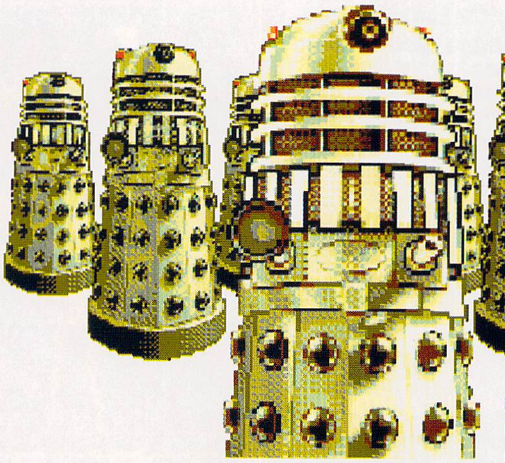
Lows
Guiding the train around the 3D gets a bit tedious. Too many static screens spoil the gameplay.

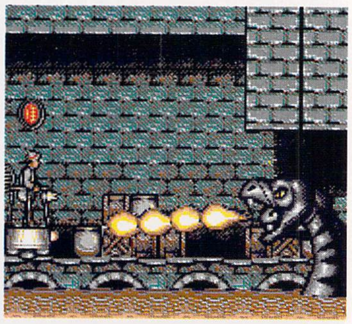
STF RATING 79%

DALEK ATTACK


We must destroy the pods and reverse the beams before Davros turns the Earth into a Dalek production planet!!!

The Doctor conveniently runs through the plot for you in a glorious sort of monochrome tacky framed affair. He doesn't seem too worried about all this, but then, hey! He's just wild and wacky.


"Exterminate! Exterminate that silly man in the scarf."


Now this is the really scary bit. These are the end of tunnel aliens. Wait until you see their animation. Actually, don't, because that means you'd have to buy the game, and that would be a really bad move.

Look, sorry about this but the Daleks were never frightening. The Cybermen were quite scary, those blokes with the pasty-shaped heads (the Sea Devils or whatever) were pretty terrifying, but the Daleks? Nah. Davros was a bit odd, though, until they changed the bloke who did his voice. After that you could see right through his little game.

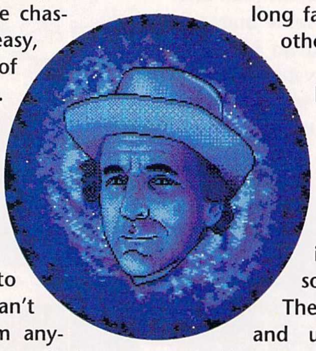
Yep, *Dr Who* was a real trouser-filler during its heyday. Of course, the fact that you were only about eight or nine when you watched it and Sylvester McCoy was still doing "alternative" acts in clubs might have helped. According to Admiral, *Dalek Attack* is the first home computer game to feature both the Doctor and the Daleks together, which is surprising when you think about it. Let's hope it's the last. (Oh, what a giveaway.)

Apparently, the Daleks, having invaded Universe Sector Zeep 3 (no, honest, that's what it says in the manual), have decided Earth is next on their shopping list. But of course they're not counting on the Doctor, who, with the full might of his – er, sonic screwdriver, is out to stop them.

The Daleks have already captured four of the earth's cities and planted pods which are destroying the ozone layer, ready for their invasion. Quite what they have against the ozone layer isn't made clear. Anyway, Doctor Who (and a young pert friend if desired) has to stop them. So, our hearts pounding with excitement, let's enter the magical world of *Dr Who.*

Blimey, that first sequence was pretty crap, wasn't it? Was that wailing drone supposed to the *Doctor Who* music, do you think? Never mind, we'll just wait for it to load. *(Some minutes later.)* Nearly there now. *(Another three minutes later.)* Ah. Right. We're there. OK, first city to stop at, London.

Hmm. We seem to be whizzing through a sort of tunnel on Zimmer frames shooting at globby things on the ceiling. Oh, I see, they're humans captured by the Daleks – who are chasing us. It's a bit too easy, this. There's the end of level alien thingies. Look at that animation! Well, sort of animation... Right, now they're dead, up the ladder and into the city.



Great! Things to shoot! A pity you can't protect yourself from anything. Run along here... climb up the window... collect a few power-ups. And there are the Daleks, a mastery of graphic design. Oh sorry, it's not the Daleks, it's a bus.

Into the house, rescue those couple of humans... oh, seem to have died. Back to the beginning then. Let's try jumping over these bricks. No, jumping, not falling flat on your face. The problem is the controls are so unresponsive. Into the sewers... run along a bit... out of the sewers. Hmm. Let's see if there's anything on the TV. Fancy a cup of tea? (and so on).

Yes, the horrible truth has dawned: *Dalek Attack* is desperately dull. You run a bit, you get hit by everything shooting at you (because even if you crouch down you can't avoid them), and you hope you have enough energy to complete the level. The Doctor's fiddly to control, mainly because he feels so wooden, which leads to long falls off buildings and other disasters.

To be fair, the background graphics aren't at all bad – they've got a sort of polished look. The character graphics aren't as impressive and the sound is just dismal. The game's awkward and unfulfilling to play, lacking good design and any decent rewards for your efforts.

Verdict

Dalek Attack is quite unbelivably sad. Admiral had the licence to one of the most kitsch and popular series ever shown, and they've squandered it on this pathetic platform nonsense. You can imagine the conversation at Admiral: "Hey, people, what shall we do with this licence, then?" "How about a 3D polygon shoot-'em-up with the Daleks?" "No – an RPG along the lines of *Captive.*" "No, wait, I've got it – a bog standard platformer with absolutely no relevance to the series whatsoever! All the *Who* fans will flock to buy it even though it's sad, because they're so desperate for anything new they'll buy anything!" "That's absolutely brilliant, Thompkins, have a promotion." "Wait till you hear my plans for the *Silence of the Lambs* licence..."

Honestly, there isn't anything here that you won't have played and yawned at millions of times before. It's not as if the game's a good example of the platform genre either. *Who* fans have been used to being fobbed off with cheap and nasty material, but this is going just a bit too far.

Dalek Attack

£16.99 Admiral Software
☎ 0977 797777

Highs

Reasonable sort of price, two player option and an odd smattering of attractive background graphics.

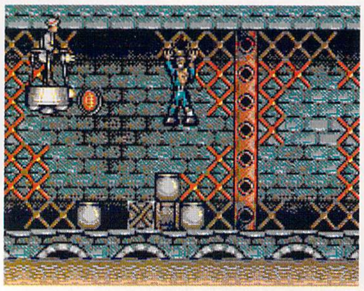
Lows

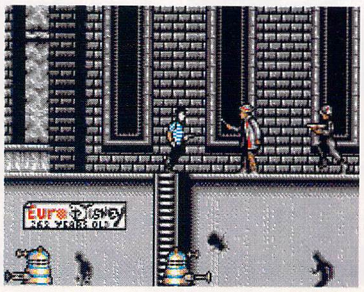
Dull as a dull thing only duller. Not in any way original and a complete waste of a licence with potential. And the music's awful.

STF RATING 43%

BY ED RICKETTS

The challenging first part of the game has you wanging through a tunnel shooting at the occasional slimy thing hanging from the ceiling. Almost a bit scary, this.





After London, Paris. You can tell it's Paris because there's a bloke with a beret and a striped jumper hanging around, casually shooting at you. Whose side is he on anyway?

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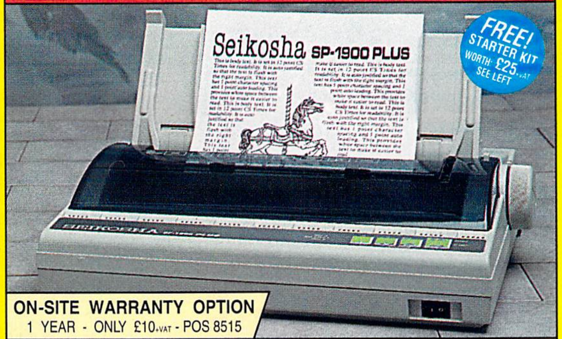

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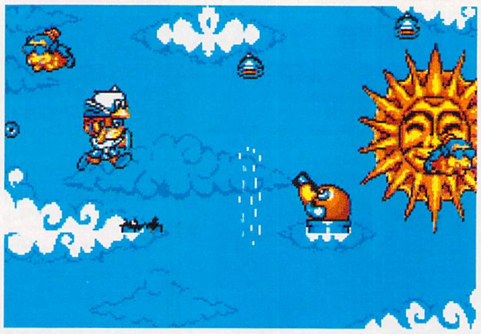
RAVING MAD

Raving mad? Raving nice, more like. What we have here is a collection of three games that are so fluffy, so lovable, so inherently flossy, twee and cuddly, that you could very easily imagin Enid Blyton nipping down the road to visit Beatrice Potter for an afternoon of inoffensive fun. If your favourite video game involves dispatching enemies by cutting their throats and pulling their tongues out of the gap – an act known, in the right circles, as a "Colombian neck tie" – then you're going to be extremely disappointed by this compilation. If, however, you're a card-carrying member of the real, subscribing world of peaceable, well adjusted types, then read on...

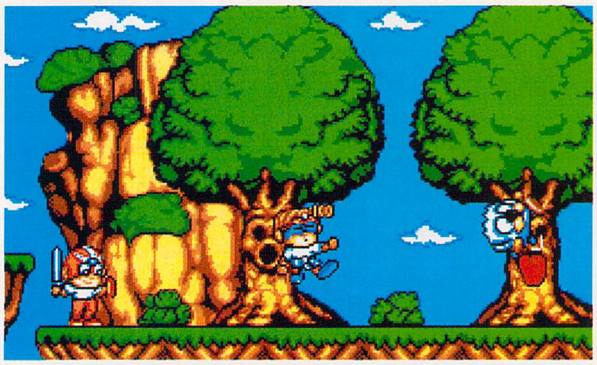


A sundialesque sun, fluffy animal cannons and shower nozzles. Do you really believe that the programmers were sober at the time?

Rodland

In the scrabble for best game in the pack, this one comes out tops. As with all these Japanese inspired cartoon games, the heroes' mom gets kidnapped, and Tam and Rit go to her rescue with the Rods of Sheesamo and some rainbow shoes. Putting the unconvincing story-line aside, *Rodland* is great fun in both one and two player modes, with 40 levels of nasty bashing and not a sign of blood or pain anywhere.

Each level consists of platforms connected by ladders and patrolled by bunnies, crying sharks in boots, and even confused-looking sacks of potatoes. The rainbow shoes enable either of the achingly lovable main characters to create a magic ladder. The Rods of Sheesamo, on the other hand, can be used to either zap the baddies or capture them before smashing them from side to side until they're dead – well, that's extremely fluffy, isn't it? Upon their demise, they drop bonuses or bombs, and clearing the screen, you move up to the next level in a fairly predictable, but fun kind of way.



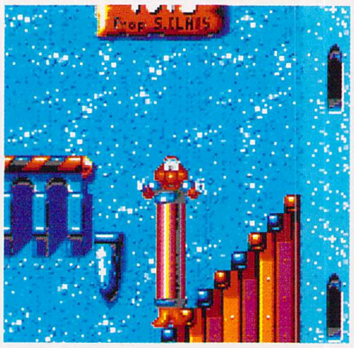
The sheer lack of imagination that's gone into *Mega Twins* is really quite frightening.

Mega Twins

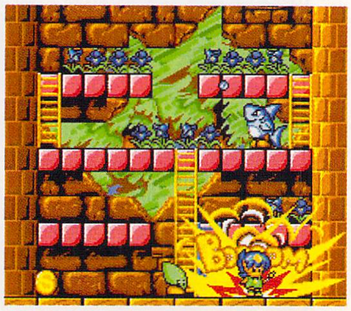
Next up in the race for the most unbelievable plot sees the king's twin sons battling to recover their domain of Alurea, which was devastated by the forces of evil. Again this is a two player game, and a fairly unremarkable horizontally-scrolling one at that. There's a good option at the beginning where you can either start on the ground, the air or the sea – so there's no need to plough through the same starter level every time. Brandishing a sword, you flip the baddies off the screen, work your way over platforms, across wires, over clouds and the like to the inevitable end of level boss. There's quite a variety of gameplay – in the air level you can fly – and clever visuals like shower nozzles protruding from rain clouds certainly raise a smile or two.

And finally... Robocod

Bottom of the list is *Robocod*, which you would think should be the best. It starts with a playfully ripped off version of the *Robocop* tune and James Pond in front of a large castle. Each door lets you into a different level, based on board games, sweets, toys and so on. You can leap around these wonderfully presented levels, climb in and use the plane, and even expand telescopically to get "to the parts other fish can't reach." The thing is, you won't be able to register the funny graphics, the boppy tune or *Robocod's* little dance, because you'll be looking at the horrendous screen scrolling. It's a bit ragged on either up and downs or left and rights, but it enters a new level of awfullness as soon as you're on a diagonal. Lurching screens were a thing of the '80s, so what on earth is it doing on *Robocod*?



Oh, yeah, *Robocod* can extend at the waist. Big, fat, fishy deal.



Is it right to teach our children that violence is without consequence? Here, watch as an explosion merely creates a pretty picture.

And finally, again...

Packed into the box as a final sweetener, is a budget game from Kixx. They're thrown in at random, so it's not worth taking time to comment on the one from the review copy – but another game has got to be worthwhile, hasn't it?

Verdict

The general rule seems to be that compilations are a good way of getting rid of the good with the bad, and this is, yet again, very much the case. Each game has a grating, yet cheerful tune and pretty graphics, but of the three, only *Rodland* has the gameplay to grab you. *Mega Twins* is probably good for a few days and you might as well just forget *Robocod*. All in all, a thoroughly average package.

BY **MARK WINSTANLEY**

Raving Mad

£27.99
US Gold
☎ 021 6253366

Highs
Three violence-free games for the price of one with free violence – can't be all that bad.

Lows
Robocod's awful scrolling spoils it, and there's no long term appeal.

STF RATING 64%

Have you really gone potty?

Charles Manson
Charlie boy was the cult guru leader of a bunch of crazed dropouts in the mid '70s. He ordered his followers to kill numerous innocents, most famously Roman Polanski's wife, Sharon Tate. Quite literally a case for the rubber room.

Jimmy Saville
No man in his twilight years who insists on wearing silver track suits and crawling along marathon routes should be considered entirely compos mentis, don't you think?

Rasputin
As in "Rah, rah, etc, Russia's greatest love machine", but also known as the Mad Monk because of his wild hair, wilder eyes and incredibly, unbelievably wild behaviour. He was ultimately poisoned, stabbed, kicked about a bit and drowned by a bunch of jealous Russian noblemen. Raving dead, matey!

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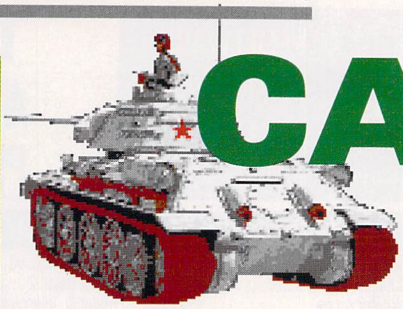
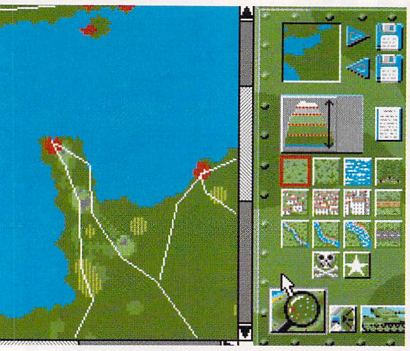
CAMPAIGN





Campaign's Map Editing Screen. From here you could stick an oasis in the middle of the desert and build a swimming pool in your back garden. Wonderful.

During the heat of battle, the air is filled with the stench of cordite, burning metal and scorched flesh – the smell is awful, and so is the pong coming off this latest offering from Empire.

On the face of it *Campaign* could have been a great war sim – after all there haven't been many more dramatic events than World War Two. What was a great idea, however, has made for an awful game in practice.

The first thing you realise is that *Campaign* crashes extremely regularly – when you try to access different parts of the game's menu system, for example. We pointed out this fault when we included a demo of *Campaign* on *STF* 34's Cover Disk, but, unfortunately, nothing seems to have been done to resolve the problem.

The game itself is a war/strategy sim with maps, 3D tank battles and lots of groovy pictures of war-mongering hardware. At first you're presented with a default map view of a battlefield with various battle groups at your command. You can then take control of Allied or Axis forces in one of the 20 complex scenarios, including D-Day and the battle of the Sahara.

The basic idea is for you to manoeuvre your forces to a desired objective by placing a series of waypoints. With the help of air support, you're soon able to pinpoint the enemy's positions and engage them in 3D combat.

Your success is determined by how well you plan your campaign strategy and minimise your losses at maximum cost to the enemy. Sounds good? Well, it's not. *Campaign* is extremely boring to play. Placing waypoints and manoeuvring your forces is engaging for the first few minutes, but you soon reach your boredom threshold even on the more complicated scenarios. When it comes to do battle you can either let your ST work out the outcome for you, or engage in a bit of pointless charging about in the 3D view. Because all the 3D battle options – driving and shooting – can be left on automatic, you end up feeling more like a spectator than a participant. If you do fancy taking charge of a T-34,

The Longest Day

When you get one of the scenarios to load, you're presented with this map screen. Here's the STF guide to those icons, waypoints and round-tipped scissors

1 Map
This is the main view of the battleground. Your forces are marked in yellow and enemy forces in red. Left click to highlight a battle group. Hold down the left mouse button to see battle group status. Use the right mouse button to relocate a battle group.

2 Scroll Bars
Moves you around the battleground.

3 Mini Map
Overall view of the battleground.

4 Save Map
Click here to save the game. Do this frequently.

5 Load Map
Loads one of the 20 predefined maps, or one of your own versions.

6 Tanks
Click here and on the text icon to find out information about your battle groups.

7 Aircraft Icon
Click here, then on the text icon for details of friendly aircraft in the battle zone.

8 Text Icon
Use this with the weaponry icons to get information on your own forces.

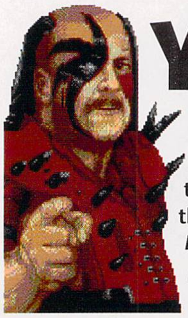
9 Status Icon
Tells you whether you're one of the good guys or one of the bad guys.

10 Ship Icon
Click here and on the text icon to get information about friendly battleships.

11 Truck Icon
Click here and on the text icon to get information on any convoys coming from armaments factories.

12 Factory Icon
Click here and on the text

WWF EUROPEAN



You can really get off to a flying start with this one. Despite claiming on the box that it supports the 520 ST, *WWF European Rampage Tour* is, in fact, a 1MByte-only game. Some people would argue that this is not necessarily a bad thing. Why? Well, probably because ST owners who haven't upgraded won't run the risk of being tempted to buy this lump of unmitigated trash.

Start at the beginning

With a game like this, it's difficult to know where to start. You can always take it apart on its merits as a game – not a difficult one, this. *WWF European Rampage* plays like it was written – with a beat-'em-up construction kit. The gameplay consists of walking up to your opponent and hitting the fire button to punch him a few times until he falls down. You then stomp on him a bit, and then a bit more, and you keep on going until his energy level is sufficiently low for you to flop down on top of him, and pin him down for three seconds – winning you the match.

The tag-team aspect of the game serves only to drag out each bout for twice as long – if your opponent escapes to his corner, he can tag his partner who then comes in with a full energy bar. This forces you to start the tedious process all over again.

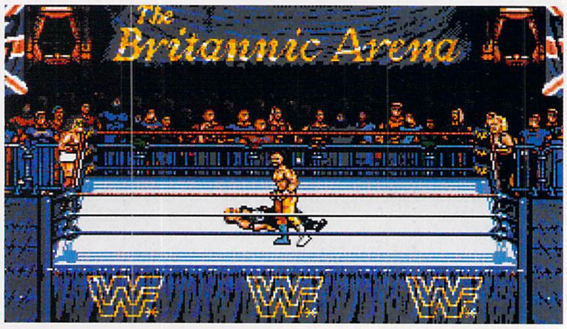
You might wonder about brightening up the game by using the more complicated moves. To be honest, they are quite difficult to perform properly, and are totally unnecessary since the very easy "punch and stomp" sequence is much more effective.

Graphics and sound

Well, alright, so the gameplay is pathetic. Surely this means that the programmer has been concentrating on the soundtrack and graphics? Nope. Your little sister could do better than this with a set of crayons and a Bontempi organ. So, zero gameplay and crap graphics. As the first WWF game proved, however, that's not necessarily enough to prevent the game from becoming a huge success – we live in a very sad world, you know!

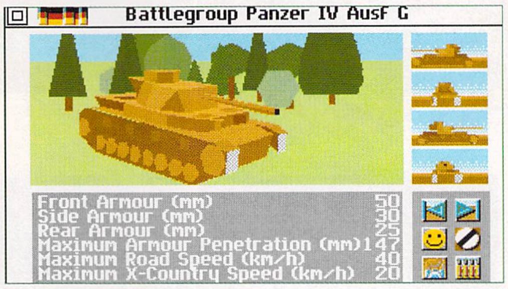
WWF? Are you sure?

Fanatics of these games usually lap up anything that carries the official WWF logo on it – so let's take a look at how *European Rampage*



The Britannic Arena. Well, apart from the dead give away name, you can tell which European venue you are fighting in by the flags in both top corners.

The Panzer 4 was designed for skirmishes on the beaches of the Costa Brava. It could fire beach towels from quite long distances and ran on unleaded sangria.



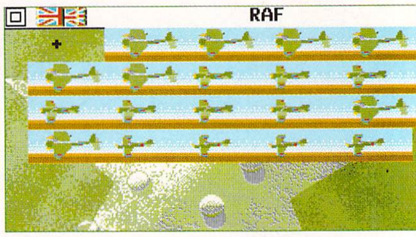
Front Armour (mm) 50
Side Armour (mm) 30
Rear Armour (mm) 25
Maximum Armour Penetration (mm) 147
Maximum Road Speed (km/h) 40
Maximum X-Country Speed (km/h) 20

you're given a choice of control options – keyboard, keyboard and joystick or two joysticks.

The keyboard option is user-definable and this is by far the easiest way of controlling your tank – using two joysticks is laughable, unless you have four arms or two human drivers – oh, and, of course, you have to unplug the mouse to use it. The icon menu system is also pointlessly complicated. You can't click on the tank or aircraft option to see the information about your battle groups, you have to click on it once, then go to the information icon and click on that as well. If you want to choose aircraft to launch an attack, you can't select them by clicking on them once – that just shows you the 3D view – you have to hold the mouse button down and move the aircraft pointer over to a different box! The graphics are average for this sort of thing – although there are over 3,000 different vehicles for you to gawp at – and the sound effects are crap – your tanks sound like someone rapping their fingers on a table instead of lumbering behemoths.

Verdict

This has to be one of the most disappointing games ever to have reached the ST. It's extremely temperamental when you try to load different maps and it crashes so often you feel like just chucking your ST out of the window. Buying *Campaign* is a waste of £35.



"Roger Winco, tell Bubbles the Hun have bowled a googlie." - " Come along Carruthers, the doctor can see you now."

icon to check weapons production at your factories.

13 Speed Icon
Click on this to change the game's speed.

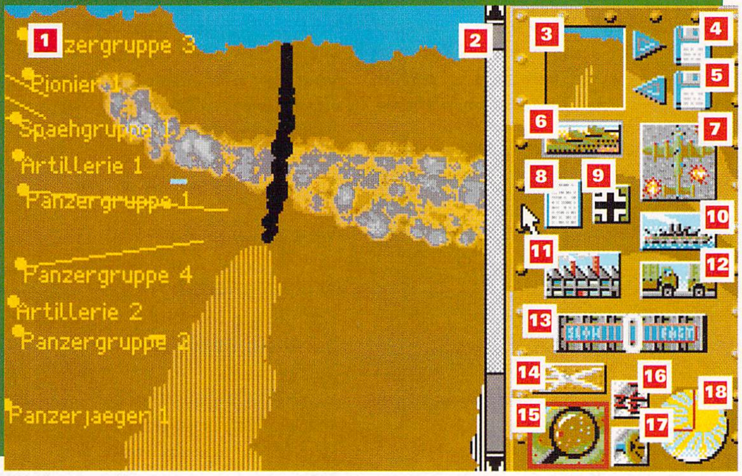
14 Scissors
Enables you to access the map editing screen.

15 Magnifying Glass Icon
Click here then left click on the main map to zoom in on your battlefield, or right-click to zoom out. Click on the icon again when you want to switch the magnification off.

16 Sleep Icon
Click here to start action on the battlefield. Click again to stop the action.

17 Loudspeaker Icon
Click here to toggle the sound on and off.

18 Clock
Enables you to tell whether it's day or night.



Campaign

£34.99
Empire
☎ 0268 541126
Machines: All STs.
Hard drive installable

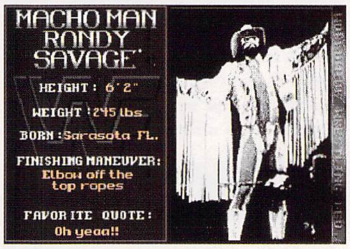
Highs
You get lots of lovely WW2 posters and postcards to look at instead of the game.

Lows
***Campaign* has an alarming tendency to crash... and it's boring.**

STF RATING 20%

BY **ROB MEAD**

RAMPAGE



MACHO MAN RANDY SAVAGE
HEIGHT : 6'2"
WEIGHT : 245 lbs
BORN : Sarasota FL.
FINISHING MANEUVER: Elbow off the top ropes
FAVORITE QUOTE: Oh yeaa!!

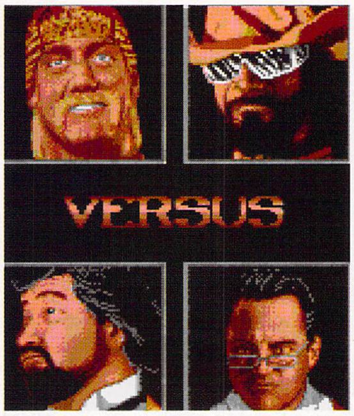
Macho man, Randy Savage would not look out of place in a modern rendition of *Swan Lake*.

fares as a WWF licence? Not very highly, that's for sure. You get a strictly limited selection of WWF wrestlers to choose your characters from, many of whom are hopelessly out of date. None of the characters boast any of their real-life trademark moves or characteristics. The atmosphere-building insult-trading section of the first game has gone, and there's none of the showbiz razzamatazz that's the real secret of WWF's success as a spectator event. The "tour" aspect of the game consists of repeating the same three bouts – you always have to fight the Nasty Boys, the Natural Disasters and the Legion of Doom in different European venues. These are all exactly the same crude arena, with different flags and banners – this is unlikely to make you want to play on.

Verdict

So the gameplay's useless, it's unbelievably repetitive, and it's got next to nothing to do with the WWF. What's left? How about the success of *WWF European Rampage Tour* as a quick-buck, lazy, cash-in rip-off aimed at separating ST users from outrageous amounts of money? Well, that one's up to you to decide, folks!

Last year, Ocean released a game only slightly less appalling than this one. A lot of people ended up with burned fingers, however, and a strong disinclination to fall for it again. This year they've upped the price – £30 for a two-disk travesty like this, cut their costs – no "free" video this time round, and produced a game that's quite tangibly and unarguably dreadful.



Meet your opponents - they're just the type of boys who play bowls on a Sunday morning and go to pottery classes in the evening.

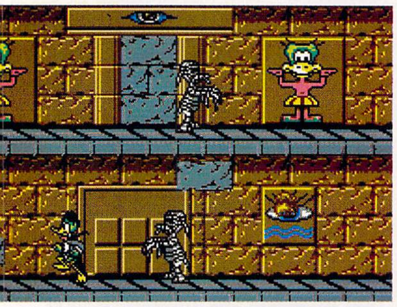
European Rampage

£29.99
Ocean ☎ 061 8326633
1MByte minimum
Highs
None whatsoever.
Lows
No gameplay, looks and sounds awful, no WWF feel, ridiculous price tag... need I go on?

STF RATING 18%

BY **STUART CAMPBELL**

KIDS PACK

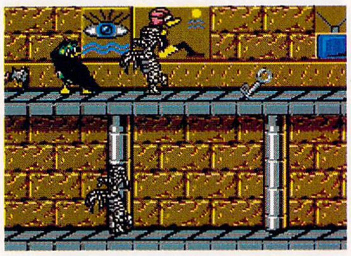


As Professor Gruber's grandiose plans collapsed along with his missile silo, Captain Flash paused at the doorway and with a final, mocking bow, he leaped into what is known as the unknown.

Honestly, have these people never heard of apostrophes? This compilation from Alternative must surely stretch the definition of kids' programs to the limit by including *Duckula* and *The Munsters*. Come to think of it, isn't *Postman Pat* aimed at the 30 something generation seeking to recapture the idyllic simplicity of a country life that never was – all on the pretext of watching the show with their children? Maybe not.

Count Duckula

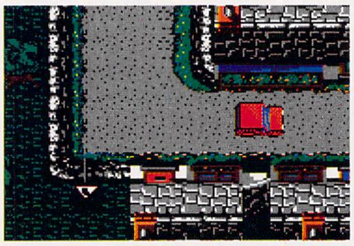
"There's no one zannier in Transylvania!" Well, that's what the instructions say. Subtitled "No sax please, we're Transylvanian", *Duckula* is a merry platform-cum-maze game set inside a pyramid, with lots of Egyptian villains to avoid. The initial attraction of the game evaporates after a while because, although it's commendably speedy, you can't really do that much beyond run a lot and open the occasional door. Randomly set rooms don't help either – you can straddle two flip screens and watch your poor old ST smoke as it tries to keep up. Definitely good for a few plays, though.



Reginald was a man of principle. He would go through life shunning everyone he met, simply to make a point.

Postman Pat

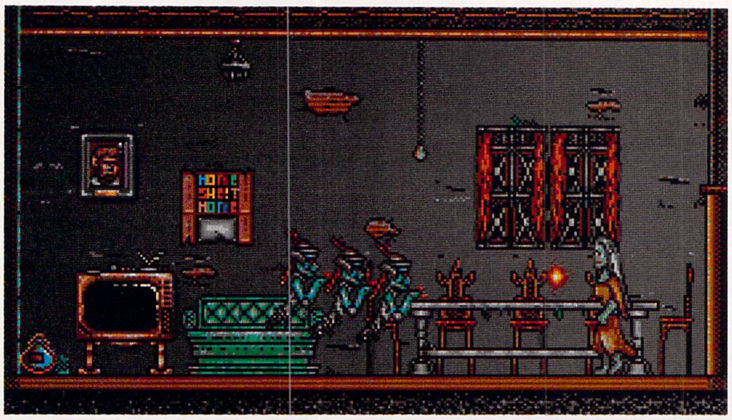
Featuring the return of the crap *Snap* game, as well as the slightly less crap *Ludo* and *Snakes and Ladders* games – er, hurrah – *Postman Pat* is the everyday tale of a carrier of paper. Pat has to drive his little red van all around town, pulling up outside people's houses, delivering their post and then probably banging the gate upsettingly and driving away with expressive exhaust noises. Map-making is the order of the day – the town is fairly big, and you're given no clue as to who lives where. Here comes the rotten part, though – there's a bunch of insane cyclists drifting around the place and if you crash into any of them (by accident, of course) they survive, but you run into a ditch. Bah, and doubly so, because you quickly realise that fine manoeuvres with your van are infinitely improbable. Apart from that – and it's a big apart from that – you should really enjoy *Postman Pat*, though not at all in a naughty kind of way.



Little did Harry realise that within number 14 lurked the dreaded Marshmallow killer, already nicknamed "Susan" by the gutter press.

The Munsters

Which came first, *The Munsters* or *The Addams Family?* This question has plagued theologians for years, but then, they have nothing much better to do. In the game-of-the-show-of-the-quite-possibly-other-show-which-appeared-first, Marilyn (the dull, normal one) has been kidnapped, and the other Munsters have to rescue her. The instructions actually tell you how to complete Level One, and it's pretty obvious why – the game is damn near impossible to play. You have one life represented by a bottle of blood, and one hit from a nasty digests about half the liquid contents of the flask. Ridiculous. The game itself is just a race through the house and its environs, shooting baddies as you go. Or, in other words, it's just plain bo-o-oring.



Mere moments after entering the office, Jane was severely beaten by a rogue beat combo; the fifth such incident in that week alone.

The MUNSTERS
TIGER developments
(Entertainment Ltd)
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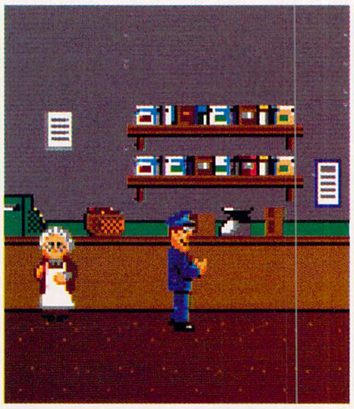
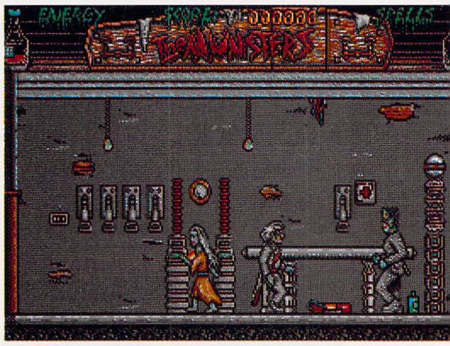


Taking swift advantage of Mrs Lumber's short-sightedness, Samuel helped himself to an extraordinary quantity of bull's eyes.

Verdict

Il buono, il bruto, il cattivo as Sergio Leone once stated, but then he was Italian and clever like that. Being a cheapy doesn't necessarily mean being a good buy, but in this case, *Kids Pack* is worth looking at.



The disco was not a resounding success. Lobelia had no sense of rhythm, and Dirk and Chris, it later transpired, had been dead for some considerable amount of time.

BY JON PILLAR

Kids Pack
£9.99
Alternative Software
☎ 0977 790243

Highs
Good variety of game styles. Both *Postman Pat* and *Duckula* are good for an hour or two.

Lows
The Munsters is horrible, and the others may be a little tricky for the age group they're aimed at.

STF RATING 60%

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Official RRP (excl. VAT)	£945	£1,179	£1,099	£1,099	£1,195
Maximum resolution in dots per inch	300 x 300	300 x 300	300 x 300	300 x 300	400 x 400
Windows 3 Driver @ 400 dpi	-	-	-	-	YES
Print Speed	6ppm	4ppm	4ppm	5ppm	6ppm
Straight Paper Path	YES	-	-	-	YES
PCL 5 Printer Command Language	-	YES	YES	-	YES
HP-GL/2 Vector Graphics included	-	YES	YES	YES	YES
Resolution Improvement/Enhancement	YES	YES	YES	YES	YES
Standard RAM	0.5Mb	1Mb	1Mb	1Mb	2Mb
Full A4/300 dpi graphics with standard RAM	-	-	-	-	YES
Warm Up Time	<45 secs	<60 secs	60 secs	33 secs	45 secs
First Page of Text Output	<20 secs	<40 secs	34 secs	20 secs	<15 secs
Document Description Language included	-	-	-	-	YES
Flash ROM	-	-	-	-	YES
Upgradable Firmware	-	-	-	-	YES
IC Card Slot	YES	-	-	YES	YES
Scalable Resident Fonts - in HP LJ III Emulation	-	8	8	0	8
Resident Bit-Mapped Fonts	11	14	14	16	14
AGFA Intellifont Scalable Font Technology	-	YES	-	-	YES
HP LaserJet III Emulation Included	-	YES	YES	-	YES
EPSON FX Emulation Included	YES	-	YES	-	YES
IBM ProPrinter Emulation Included	-	-	YES	-	YES
Standard Tray Capacity	100	70	100	200	100
Protective cover on standard tray	YES	-	YES	YES	YES
Cost per copy**	1.65p	2.00p	1.71p	1.64p	1.65p
Min-Max Paper Weight in gsm	60-157	60-105	60-120	60-131	60-157
Able to print on OHP Film	YES	YES	YES	YES	YES
Able to print on card (157gsm - Manual Feed)	YES	-	-	-	YES
Standby -Noise Level	<40dB	31.7dB	<35dB	38 dB	<38dB
Printing -Noise Level	<50dB	43.3dB	<46dB	50 dB	<48dB

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LAA 5262	2Mb RAM Module	£149.00
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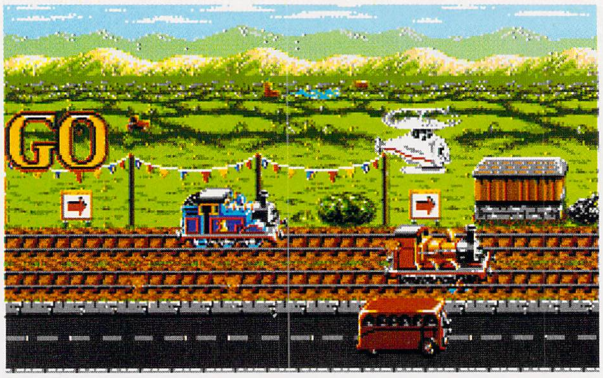
Budget games have a reputation of being pretty poor programming efforts – is there any truth in this? Jon Pillar checks out if budget is synonymous of *really* cheap

REDUCED

THOMAS THE TANK ENGINE

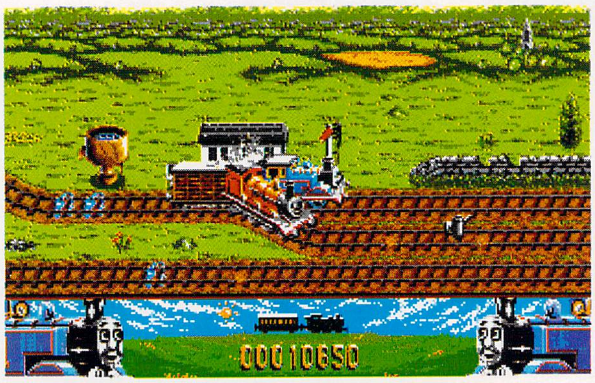
Not even the absence of the god-like Ringo Starr can deter our Thomas. You have to drive him along a twisty railway track, performing such tasks as delivering a tractor to a farm, taking some orphans to the beach, or ignoring the orphans and taking some toxic waste to the beach, and so on. The trouble is, this railway has at least five other trains running on it, so you have to keep nipping into sidings, or taking roundabout routes to get there safely.



■ Great moments in history, part four: God appears to a number of public service vehicles in Cheam, but gets it all terribly wrong.

Verdict
Watch carefully as the words "set patterns" sidle towards the review, because *Thomas the Tank Engine* is, at heart, a test of memory. Sit on a siding and watch the trains go by until you've deduced the set patterns, then weave around the other locomotives to reach the end. There are seven levels in all, plus a couple of hidden race games.

The graphics are cheery, the music is stunningly off-key, and there are plenty of hair-raising moments as engines roar out of nowhere to knock you for six. *Thomas* also has a bonus *Pelmanism* game chucked in for free – it's absolute rubbish, but there you go, what do you expect? All in all, quite a fun little game.



■ "British Rail regrets to announce the late arrival of the 3.15 from Lewisham. This is due to four other trains crashing into it." "Tch, any old excuse."

Thomas the Tank Engine

£7.99
Alternative Software
☎ 0977 790243

Highs
It's all very jolly and surprisingly playable. Instant appeal across the board.

Lows
One task is very much like another. Tinies will get frustrated by the constant train wrecks. And where's the mighty Ringo?

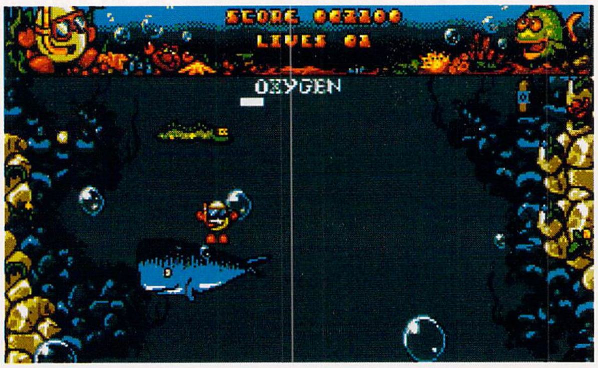
STF RATING 65%

BUBBLE DIZZY

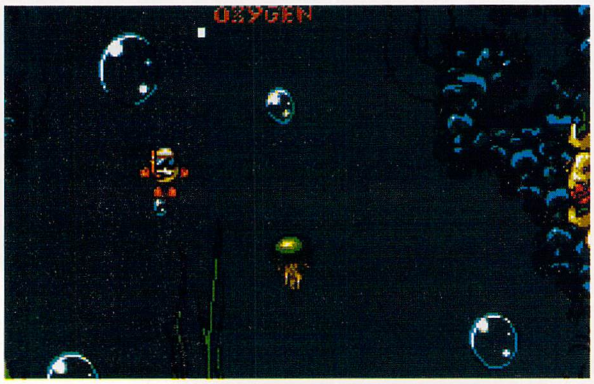
Dizzy, the bouncing egg, has been bunged overboard by the unkemptly-bearded Captain Blackheart for reasons of dramatic narrative thrust. Fortunately equipped with a scuba kit, Dizzy has to ride various bubbles back to the surface while avoiding the unsociable monsters of the deep. The egg has to pick up pearls and extra bottles of oxygen while it is egged on (sorry, unavoidable really) by an aggravating electronic tune.

Verdict
Bubble Dizzy is a prime example of a super idea that sadly falls flat as a game. Your basic vertical-scroller, the twist in this game is that the bubbles pop after a random amount of time, tumbling you all the way back to the ocean floor. So, you have to guess when they're going to go, and just before they do, you have to hop onto another one. Unhelpfully, the bubbles appear randomly as well, so – yes – advancing through the level is more a matter of luck than judgment. There are ledges and friendly creatures you can jump onto for a breather, but acute frustration is likely to set in after you've fallen all the way back about twice.

If you're into this sort of thing, though, there's a host of other games involving Dizzy the bouncing egg. Codemasters released the *Dizzy Collection* (reviewed in *STF* 34 – *STF* Rating: 71%) and *Dizzy's Excellent Adventures* (see full review in *STF* 35 – *STF* Rating: 82%) a while back – *Bubble Dizzy* is not the best of the series.



■ "I'm having a whale of a time!" grinned Quentin. Fortunately, he was later killed by an inadequately disciplined frog.



■ Meanwhile, way in the distance and slightly more to the left than the frame of the picture reveals, Jimmy Cricket breaks new ground in rocket research.

Bubble Dizzy

£7.99
Codemasters
☎ 0926 814132

Highs
The presentation is very smart. The idea is extremely good.

Lows
You'll need the patience of Job on a particularly unhurried day to get anywhere with this number.

STF RATING 58%

TO CLEAR

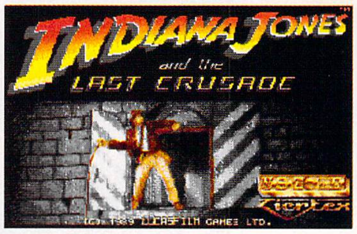
INDIANA JONES AND THE LAST CRUSADE

This would be an ideal opportunity to warn you all of the insidious practice of panning-and-scanning widescreen films for television and video, but *STF* is a computer magazine, so that's the end of that. *Last Crusade* is the game-of-the-film-with-Sean-Connery-bringing-down-a-Nazi-aeroplane-using-only-an-umbrella-in-it and is, to dispense with impact-softening prose, preliminary dithering and pointless, flowery wibble. In fact, to put it bluntly, it's a platform game.

The action takes place over four levels as you pursue various Indiana Jones type prizes – priceless japes, lost morals, hidden meanings, that sort of thing. Unforgivably, Indy's famous whip is reduced to a cameo role, with his less well-known fists playing a much larger part in fighting the villains.

Verdict

Aside from the novelty of seeing Indy squeezed into a scout's uniform and watching the screen get darker as your torch burns out, *Last Crusade* has little to commend it. The game speed is just the wrong side of nut-the-keyboard slow, and you'll pop your clogs with alarming regularity as the enthusiastic Nazis refuse to line up nicely to be punched out – instead they shoot at you from across the screen. Things do not improve after this somewhat rocky start.



The Last Crusade

£7.99
Kixx
☎ 0902 640027

Highs
Boy-scout Indy is quite funny. Er, there are no sentient eggs in the game.

Lows
Boring old platform nonsense with all the lastability of the word "lastability" in an English essay.

STF RATING 38%

■ "Look Indy, what have I told you before about hanging out of windows - this isn't Hamburg's red light district, you know."

CRAZY CARS 2

Do you suffer from a gang of corrupt American traffic policeman running a stolen car fencing racket? Then send for Thad Shapely and his flash red motor – he'll sort out those unsporting johnnies in no time at all. The good news is, you're Thad. It's a dash across the states of America, keeping one eye on the radar and the other four on the road. Run down those corrupt coppers and still have time to admire the good old American countryside. Isn't life a gas?

■ "Pull over." "No, it's a rather nice donkey jacket, actually."

Verdict

The biggest problem with *Crazy Cars 2* is the ridiculously sensitive control method. It's sort of like *Hard Drivin'* with power steering – you just have to wink suggestively at the mouse to get your car swerving all over the place. *Crazy Cars 2* is one of those games that firmly believes in blowing you up when you crash. It's almost tolerable for a couple of minutes. If you struggle past that little problem, though, you've still got to master the tiny but vital dashboard readouts that tell you which road to take and pretty crucial information like that. Oh, and if you do come across a police car and manage to disable it, we'd love to know how.

■ Adjusting her goggles and throwing all her weight behind the turbo thrust lever, Lucy was naturally surprised when her plastic Garfield suddenly exploded.

Crazy Cars 2

£10.99
Titus ☎ 071 7002119

Highs
Nice graphics, and you'll never have to complain about sluggish controls.

Lows
Unplayable, unfathomable rubbish. Hard to believe this game is related to *Crazy Cars 3*.

STF RATING 20%

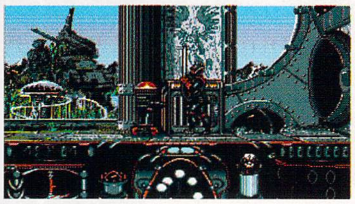
KNIGHT FORCE

Another day and another mission to save the world. This time, Red Sabbath, the demonic sorceror, has kidnapped a princess for no plausible reason. Cloning himself on the hop, he's left the copies in various time zones, and you, as a brave and slightly stupid knight, have to clomp along and destroy each and every one of them. Or something along those lines anyway.

The sorceror's left loads of guardians behind, but after only a few minutes' thought you've worked out that you can hit them with your sword and they fall over. Do it rather a lot, kill all the clones, find a way to get back to the sort of TARDIS tree-stump you arrived in and all will be well with the world, as far as we can tell.

Verdict

Single words cannot do justice to the poetic crapness of *Knight Force*.



■ Suddenly, in the heat of battle, Bamford's eye was caught by the markings on his sword. As he suspected, the Jovial Brothers had slipped him a cheap reproduction.

It's more pathetic than a small, destitute marmoset who's been beaten up by a smaller and slightly ill marmoset. After a tremendous opening, with lots of crashing medieval music, a gloomy glade and a sparking-globe time machine, *Knight Force* settles down into utter and incredible tedium.

When you get hit, there's a pause while you get to your feet, giving your enemies plenty of time to, er, hit you again. After plodding right for a bit and clouting a few opponents, you find a sorceror, thump him a few times until he disappears then wander round for a bit more until you find out how to return to the mystic glade.

Knight Force

£10.99
Titus ☎ 071 7002119

Highs
Large, detailed graphics and some funny animation. Lots of difference between the levels.

Lows
Dampen an ordinary household tissue. Lay it across your upturned face and sing Rod Stewart's *Do you think I'm sexy* – this is more fun than playing *Knight Force.*

STF RATING 12%

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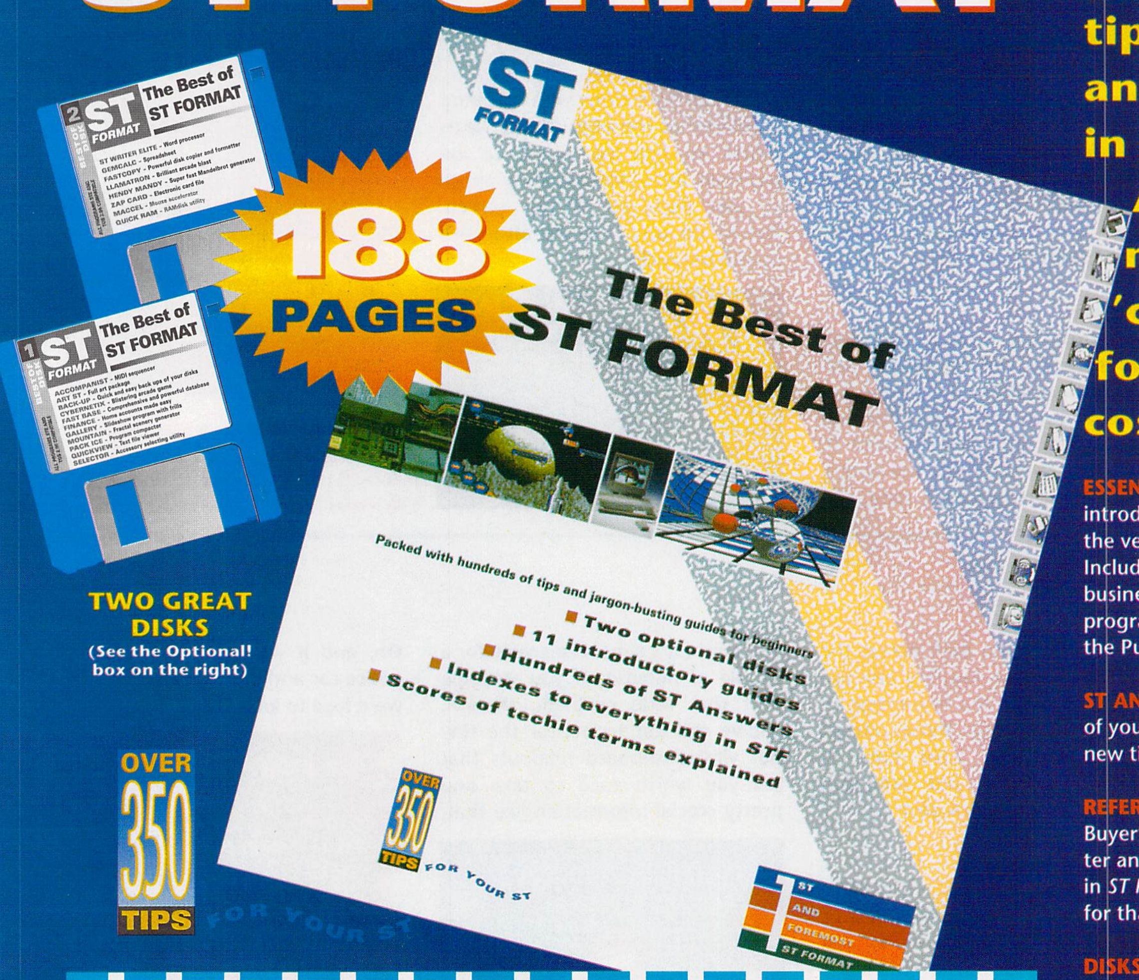
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FRENCH LETTERS

REDACTEUR JUNIOR

MACHINE: 1MBYTE STs, HIGH AND MEDIUM RES
PRICE: £39
FROM: THE ST CLUB
CONTACT: ☎ 0602 410241

There is no shortage of word processors for the ST, from budget-priced Public Domain offerings like *First Word* or *ST Writer*, to more powerful professional packages like *Calligrapher*, *That's Write* or *Protext*. Written by a group of French journalists and designed to suit their specific needs, *Redacteur*, however, claims to be *the* word processor in France. With a user base of 7,000 in France and a strong cult following in Britain, it needs to be looked at closely.

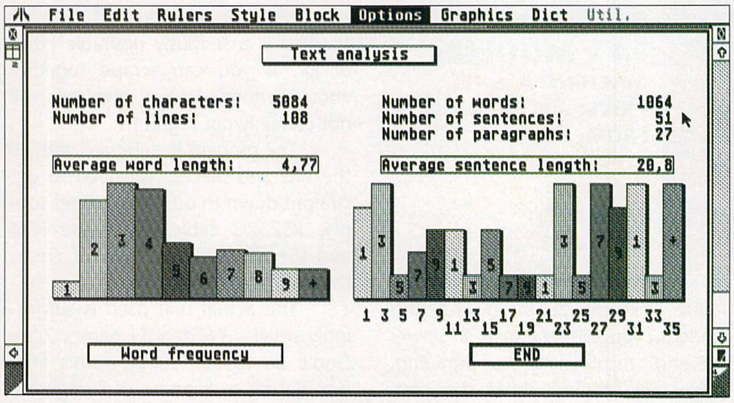
The presentation and packaging is impressive, with a 650 page manual and three program disks. *Redacteur Junior* is a big program, and you need at least 1MByte of RAM and a double sided disk drive to run it. *Redacteur* runs on the TT, and supports the usual high and medium resolution monitors as well as large screen mono monitors. A second floppy drive is recommended, but a hard drive makes life really easy. The first task (after backing up the program disks) is to configure the software to suit your system, setting up what disk drives, monitor and printer you are using. This is accomplished using the supplied easy to use installation program. It also enables you to specify what dictionaries and other optional utilities you want to have direct access from within *Redacteur*.

Redacteur also presents you with an alternative file selector of its own design which is a better variant of the normal ST selector. Being the clever program it is, *Redacteur* enables you to load text from almost any source, without having to go through any lengthy external text conversion procedure. This is extremely handy if you have text files produced from various software packages because you don't even have to know what they are, just load 'em in! Documents from *1st Word, WordPlus, Redacteur1, Protext, Word Perfect, Microsoft Word*, and ASCII files are imported with ease, and retain virtually all of their attributes in the conversion process. Text is saved in the native REDACTEUR.LIB format by default, but you can also save it in most of the formats mentioned above. On top of this, *Redacteur* enables you to set up a different style for each paragraph extremely easily as well as enabling you to set up multiple rulers.

The general feel of *Redacteur Junior* is a cross between *1st Word/WordPlus* with their friendly GEM interface and *Write on/That's Write* with their more powerful paragraph and graphics features. *Redacteur* uses standard GEM, with the familiar resizable multiple windows and drop-down menus, making it a doddle to use straight away. The speed of the program has to be experienced to be believed – it's fast! Scrolling through text is even faster than *Protext*, so be careful when deleting. Although *Redacteur* uses mono-spaced screen fonts to achieve its speed, it supports the use of proportional GEM fonts when you're printing out in the optional graphics mode, and doesn't use GDOS. Because the program incorporates so many features, some of the menu options have cascading sub-menus of their own, and most parameters can be configured and changed to your liking from within the program. Unlike *Protext*, *Redacteur* can handle graphics. You can import your bit-mapped or vector pictures in 16 file formats.

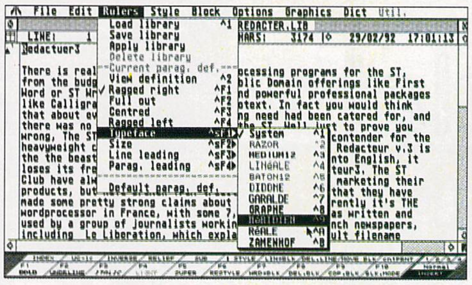
Despite its name, *Redacteur Junior* is feature packed, combining many of the best bits of other word processor programs into the one package. Sadly, however, it lacks a dictionary, a thesaurus and an outliner. Speed is very impressive, all reformatting of text is virtually instantaneous. For such a powerful program, it's remarkably simple to work with, all operations are logical and the manual is very well written and laid out. The results are good enough for most writing tasks, and at £39, you are getting a good deal.

STF RATING 88%

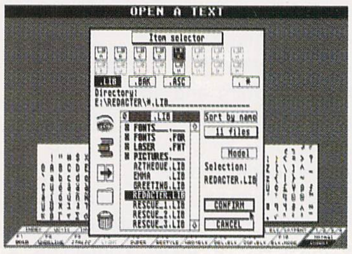


Number of characters: 5084
Number of lines: 108
Number of words: 1064
Number of sentences: 51
Number of paragraphs: 27
Average word length: 4,77
Average sentence length: 20,8

■ **Fast graphical analysis of your text enables you to check out how long your work is, the average length of sentences and words to improve your style.**



■ **An example of the cascading sub-menus in *Redacteur Junior*, you move the mouse pointer over to the right hand side of some dropdown menu items and a further sub-menu appears. Magic.**



■ ***Redacteur* has its own file selector, all those funny looking icons actually perform useful functions, and it's much better than the standard Atari selector.**

What else is available?

Word processing packages are difficult to compare as it often boils down to personal preference and what your needs are. For fast bulk text entry, *Protext* (*STF* Rating: 93% – £152.75, Arnor ☎ 0733 68909) is your best bet. For fancy and good WYSIWYG layout try *Wordflair* (*STF* Rating: 87% – £59.95, HiSoft ☎ 0525 718181) or *Redacteur 3* (*STF* Rating: 90%– £119, ST Club ☎ 0602 410241).

BY **PETER CRUSH**

WHAT'S SO JUNIOR ABOUT IT?

So what's the difference between the Junior and senior versions of *Redacteur*? Well, the main word processing program and the 650 page manual are identical; the full version, however, has a dictionary as well as a number of extra modules – see below. You can purchase the dictionary as an add-on for the Junior version (which includes a mail merge utility) for just £8. Some of the other modular programs not included with *Redacteur Junior* but also available as extras are:

1. *Graph Print* – this enables the graphical printing mode. Use this instead of printing with the inbuilt fonts of your printer if you are outputting pictures or GEM fonts.

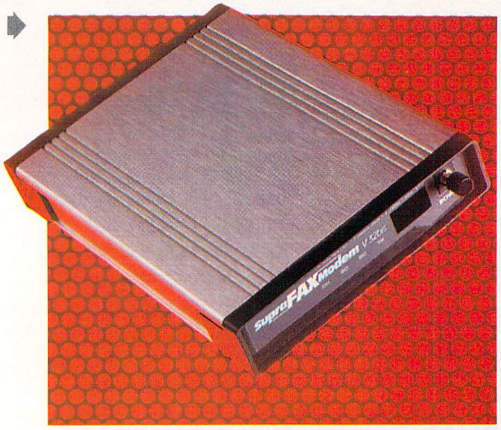
Control is very fine; you can even define the degree of thickening of bold characters, and the angle of slant of italics.

2. *Sigma* is a powerful editor/creator of mathematical formulaè, and with its sets of symbols and fonts, ranks as an important standalone application in its own right. If you use scientific notation and complex formulae in documents you probably know it's almost impossible to do this with just a word processor. You can save your work as .IMG files for inclusion into *Redacteur* or any other program.

3. *AZtheque* – a database program which, even though designed primarily for the storage of address lists, is flexible enough to be used for any type of data. Records can contain 14 fields, 13 of which can be sub-divided into 13 other fields. Indexing and sorting is possible, and the whole thing is designed to enable mail merging with *Redacteur*.

Probably the most cost effective way of getting all the other extra modules and other utility programs for *Redacteur* is to upgrade from *Redacteur Junior* to *Redacteur Lite* for an extra £40 if you find you need the whole outfit.

FAX OF LIFE



Definitely an object of desire. Blistering communication speeds combined with rugged good looks enable you to call the rest of the world without costing the earth.

SUPRA V.32BIS FAX MODEM

MACHINE: ALL STs
PRICE: £259.99
FROM: FIRST COMPUTER CENTRE
CONTACT: ☎ 0532 319444

The chances are that, if you're thinking about buying this modem, you already own a slower one and are planning on upgrading. If you are worried about the cost, however, the Supra V.32bis fax modem is a seriously desirable piece of kit. If you can scrape together enough money to buy one, you will not certainly not regret it.

The modem is delivered with all the bits and pieces you need to get straight down to business: power supply, RS232C cable, telephone lead and the Shareware version of *Freeze Dried Terminal Software v2.2.*

The actual unit itself is surprisingly small – 16cm x 11.5cm x 2cm. Don't be fooled, though, this little box houses a machine of some considerable power. The front of the modem maintains the usual neat presentation that you get from Supra products. As well as four red LED status indicators and a push button on/off switch, there is a green LED display which flashes up a constant stream of useful information. At rest it simply displays the message "OK."

The unit gets quite warm in use so it's best if you keep it somewhere with adequate ventilation. The rear panel has the expected RS232C socket, plus a power socket, telephone line socket and an extra socket

HIGH SPEED JARGON BUSTING

Line Noise: This is just spurious clicks, crackles and pops (Rice Crispies? I don't think so) on the BT line which may cause junk characters to be received by the modem. Error correction exists to combat this.

MNP4: If you connect with MNP4 you should get a stable log-on with no problems. It is a simple Error Correction system.

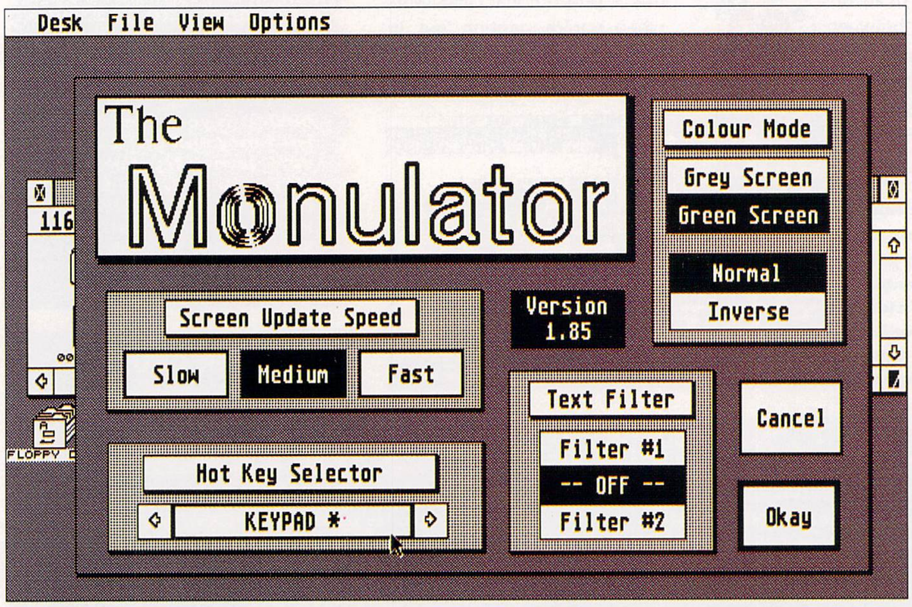
MNP5: This protocol attempts to compress all the data it receives thus making file transfers faster.

V.32: This describes a connect rate of 9,600 baud. Expect to download files at between 800 to 1,100 characters per second, depending on what sort of file type and compression protocols you happen to be using.

V.32bis: This is the really good one! A connect rate of 14,400 baud. Expect to download files at up to 1,700 characters per second depending on compression and file type. This means that you may be able to download 100K in about a minute compared with 100K in eight minutes on a standard 2,400 baud modem. Now, that's pretty fast!

V.42bis: This one is much better than the MNP protocols since it is more intelligent in its handling of error correction and compression. If a file is compressed (for example using Lharc.TTP or similar) then it does not attempt to compress the file any further. MNP5 tries to compress everything which has the effect of making compressed files actually slower to download.

MONO



The hot key used by *The Monulator* to change between different displays is by default the asterisk key on the ST's numeric keypad, you can toggle the display between different mono variations.

THE MONULATOR

MACHINE: ALL STs
PRICE: £14.95
FROM: GOODMAN INTERNATIONAL
CONTACT: ☎ 0782 335650

If you use your ST mainly for running games or leisure software, the chances are that you own either a colour monitor or a TV. Both of these can display the ST's low and medium resolution screen modes with no trouble. You do have a problem, however, when you want to start running a program that requires a high resolution display, because only the Atari mono monitors can do this.

The high resolution 640 x 400 pixel display is mostly popular among serious applications and utilities such as desktop publishing, word processing and graphic packages, all of which require greater on-screen detail to get the most out of them.

There is a software solution to this hardware problem, however, and it comes in the form of *The Monulator*, a high definition monochrome monitor emulator from Goodman International. It enables any colour screen to display all the 640 x 400 pixels of the ST's high res mode, without fuss and with not one hardware modification necessary.

You may remember earlier versions of the program when sold by the programmer under the name, Moriarty Software. Now, *The Monulator* is distributed solely by Mike Goodman, and has been improved considerably since we last tested it (*ST FORMAT* issue 34, *STF* Rating: 82% – if you missed it, turn to page 66 to find out how to get hold of a copy). The latest version is v1.85, and comes supplied on a single sided disk complete with a short manual. The disk is not copy protected, which is just as well since you have to copy *The Monulator* program and an optional Desk Accessory onto your ST's boot-up disk.

The Monulator program is run from your AUTO folder (you can find your AUTO folder on your boot disk; it automatically runs any programs placed inside it) and then becomes memory-resident.

The Monulator program then performs the clever software trick of fooling your colour monitor or TV screen into believing that it's really a monochrome monitor, providing a black and white high resolution display. All high res only software can now happily run on your ST, even though you are using your TV or a colour monitor!

The Monulator disk contains the main program and additional items: an AUTO folder containing MONUAUTO.PRG and MACCEL3.PRG (a pretty good mouse accelerator), a Public Domain folder containing some PD high res software to try out, CUBASE.FIX, a folder containing a small program fix for use with *Cubase*, MONULTOR.ACC, *The Monulator* Desk Accessory, an optional control to *The Monulator*, and a

Modem laws

Three laws governing modem communication

1. Parker's Law: Comms experience varies directly with the size of telephone bills received.

2. Van Nest's Theorem: The probability that you reset you ST without saving the capture buffer is directly proportional to the importance of the data held within it.

3. Charlton's first Law of Autodialing: A BBS number is never engaged till ten seconds before it is called.

in case you wish to route your telephone through the modem.

Modem operation

This modem performed well on test, especially when ringing bulletin boards which had high speed capabilities. The built-in factory settings enable you to connect to most boards at the highest speed and protocol level possible. We logged on to several BBS systems at 14,400 baud with the V.42bis protocol and downloaded and uploaded a number of files with no difficulty whatsoever.

Using the supplied *FZD Software* it is simplicity itself. To get the highest speed connection it is necessary to set the baud rate in the software to 19,200 baud and enable the RTS/CTS hardware handshaking system. This enables the modem to negotiate the highest possible connection rate with most modems.

If the modem is connected at 14,400 baud and there is a deterioration in the quality of the telephone connection, then the modem automatically steps down in baud rate. This is very useful as otherwise the connection would be lost.

Line noise, it has to be said, is the modem user's worst enemy. It can be very annoying on a voice call but on a modem connection it can wreck things completely. The Supra Fax modem coped admirably with all the line noise problems that were encountered. It even has a facility built-in to enable it to re-establish a faster rate of transfer of data when the line improves, a blessing if you are downloading a large file.

The modem covers all speeds from 300 baud to 14,400 baud, with the exception of the V23 1200/75 baud speed. This is because the unit is made in the United States where V23 never really took off. This lack simply prevents you connecting with some online data services.

If your are a BBS Sysop and considering purchasing a faster modem, then look no further than this one. We tested it with several BBS programs and had no problem configuring it to work well with them all.

Fax operation

To use the modem as a fax machine you need a software package such as *Straight Fax* (First Choice £39.95), which is 100 per cent compatible with the Supra Fax modem. We sent and received faxes with no problems at all. The connection and transmission was quicker than using a standard fax machine. It seems that the fastest transmission rate for faxes is 9,600 baud. This means a page of A4 can be transmitted in less than a minute.

STF RATING 85%

Overall...

Overall the Supra V.32bis fax modem represents really excellent value for money. Even if you have little or no experience of working with the big wide world of comms, the chances are you can soon be using this unit with ease.

At £259.99 it is certainly one of the cheapest V.32bis modems available with many more expensive models offering far fewer features. Buy with confidence and be the envy of all your friends – send them faxes every minute to remind them that you have a wonderful piece of kit.

What else is there, then?

There are two comparable fax modems, the first is from the Atari Workshop (*STF* Rating: 78% – £299, ☎ 0753 832212), and the second, a cheaper piece of kit, is the Best Smart One Fax Modem (*STF* Rating: 82% – £139.99, HCS ☎ 081 7770751). Supra (☎ 081 5666677 also have two other non-fax modems, the 2400 modem (*STF* Rating: 90% – £149.99) and the 9600 Plus (*STF* Rating: 84% – £351.33).

BY **ANDY CURTIS**

COLOUR

README.DOC with details of the latest amendments.

Run the program first from the AUTO folder according to the documentation. When we tested it worked with everything that was thrown at it, including large and complex programs like the desktop publishing program *PageStream* and the *Protext* word processor.

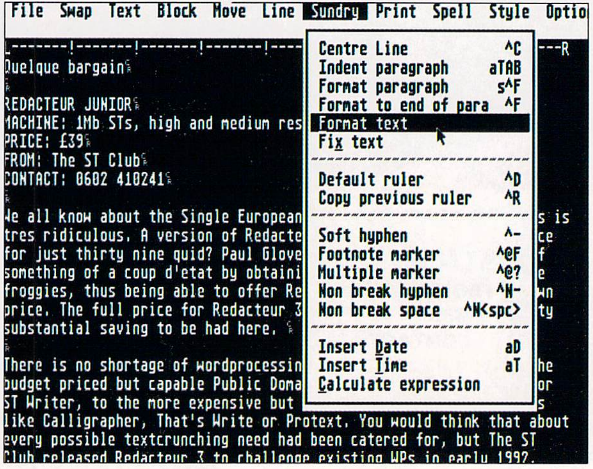
Although *The Monulator* is designed to run from your AUTO folder, it is possible to run it by double-clicking on MONUAUTO.PRG from the Desktop. If you try this, you can see that the screen looks a bit odd because GEM does not realise that a resolution change has occurred. To get around this, just select the Set Preferences option from the Desktop menu and change the resolution setting to "High," and click on OK. This forces GEM to change its setting to high resolution.

STF RATING 78%

The advantage of using *The Monulator* as a non-AUTO folder (standalone) program is that you can boot up in a colour environment (low or medium resolution), use any colour programs you wish, then switch to high resolution at any time – still on the colour screen – without necessarily having to reset your ST.

Using *The Monulator* from the AUTO folder is easier, however, since you can disable it by holding down the <Alternate> key during boot-up if you want to run low or medium res programs. You do have to reset your ST, however, when you want to run a high res program.

Although you're never going to get anything to beat the steady, high quality picture of a "real" Atari mono monitor, *The Monulator* provides an excellent rendition of it on a colour screen, and at £14.95 it is a very cost-effective way of getting more value out of a colour-only ST system.



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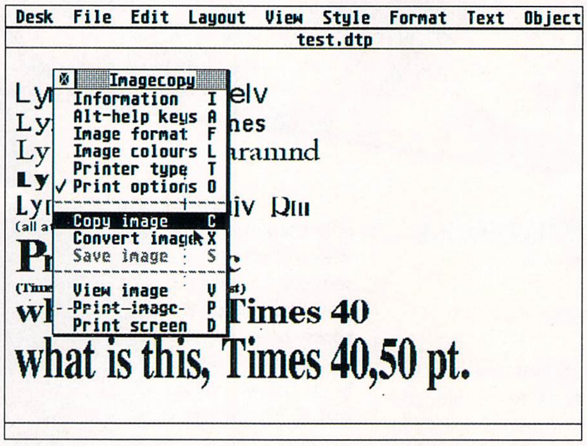
L-------!-------!-------!-------!----                         ---R
Quelque bargain

REDACTEUR JUNIOR
MACHINE: 1Mb STs, high and medium res
PRICE: £39
FROM: The ST Club
CONTACT: 0602 410241

We all know about the Single European                          s is
tres ridiculous. A version of Redacte                          ce
for just thirty nine quid? Paul Glove                          f
something of a coup d'etat by obtaini                          e
froggies, thus being able to offer Re                          wn
price. The full price for Redacteur 3                          ty
substantial saving to be had here.

There is no shortage of wordprocessin                          he
budget priced but capable Public Doma                          or
ST Writer, to the more expensive but                           s
like Calligrapher, That's Write or Protext. You would think that about
every possible textcrunching need had been catered for, but The ST
Club released Redacteur 3 to challenge existing WPs in early 1992.
```

■ *The Monulator's Text Filter has two different settings. Depending on what you are doing, one or the other gives a clearer text display, as this screen-grab from Protext shows.*



■ *PageStream 2* is only one of the many tested programs. There are only a couple of non *Monulator*-compatible programs, including the PD programs *SuperBreak-out* and *Bigscreen MonSTERs*.

Is anybody else like you?

Take a nostalgic look back at what was included on Cover Disk 40 (turn to page 66 if you were unlucky enough to have missed it) and you come across a high res mono emulator called *Sebra*. Just as good as *The Monulator*, it works in exactly the same way. You need to run it from your AUTO folder, and there are also a number of keyboard shortcuts which make your new high res life very easy indeed.

BY **PETER CRUSH**

■ From animals to birds ('cos they ain't animals), cheesecakes to Black Forest gateau and tulips to whatever that flower is in the bottom pic. These are just some of the *Kuma Klip Art* .IMG pics supplied on the sample disk that comes with the £5 catalogue.

CLIP MY

Before the days of computers, clip art came in the form of printed artwork usually on sheets of paper or little booklets, and you actually cut out or clipped the pictures you wanted and pasted them onto your paste-board. They were sold expressly for people to freely copy and use within their own publications. As long as the images are not sold on, then there is no copyright protection. The recent equivalent is computer clip art, with the pictures in the more modern form of various image formats on floppy disk.

If you are into desktop publishing or use one of the more modern word processors that can import pictures, clip art adds a whole new dimension to your work. Art or drawing programs can produce original images of your own design, but you do need some basic artistic ability and lots of patience if you're going to make your own pics.

There are plenty of examples of clip art to be had from Public Domain libraries, most PD services have a large section of these. However, these PD pictures tend to be rather well known, if not a trifle over-used, and rather American in flavour. If you want something a bit different, two new commercial collections have recently come onto the market and could well be of interest. Both offer black and white only .IMG images. What is needed next though are some decent colour clip art collections, with the advent of affordable colour printing (as provided by the DeskJet 500C and 550C) and colour DTP programs like *PageStream* for the ST, you may soon find monochrome artwork rather grey.

KUMA KLIP ART

MACHINE: ALL STs
PRICE: £15 PER DISK
FROM: KUMA COMPUTERS LTD
CONTACT: ☎ 0734 844335

The *Kuma Klip Art* libraries for the ST consist of monochrome British clip art at full page size bit-mapped graphics in .IMG format. Although the copyright of the images remains with Kuma and SoftAge, purchasers are permitted to use them on paper for their own commercial needs so you can't sell the images to your neighbour. Each library is a set of related images supplied on one disk, and there are over 40 such disks available. The subjects range from animals and birds (aren't they animals?), borders,

BUNDLES

CHARACTERISTICKS

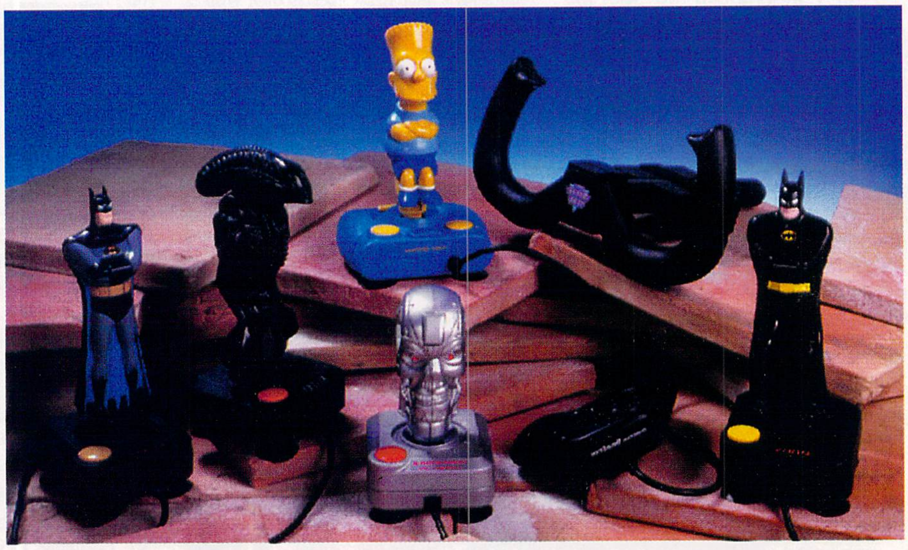
FROM: CHEETAH
PRICE £12.99
CONTACT: ☎ 0222 867777

Cheetah have taken the concept of licensed products to its ultimate conclusion with this motley collection of joysticks. Your favourite movie characters – Bart Simpson, the Alien, Batman and the Terminator – have been transformed into knobbly lumps of plastic with <Fire> buttons in odd places (is your mind boggling yet?).

Cheetah have a deservedly good reputation for producing high quality sticks, but something has gone seriously wrong here – all of the Characteristicks look cheap and tacky and they're none too comfortable to play with either. The Alien and Terminator sticks are the worst offenders – the first feels incredibly cumbersome and can actually cause your fingers to go numb, while the Terminator's large bulbous head gives you little in the way of responsiveness. Bart Simpson and the two Batman (the Batmen?) sticks are a little better – they're reasonably shaped and the <Fire> buttons are sensibly placed. However, all of the sticks have incredibly thick building brick bases which makes them tricky to hold. None of them feels very robust either, and you can't imagine them taking a great deal of punishment although they do all come with a year's warranty.

These sticks are probably a great idea for your kid brother and his Amoeba, but serious game players should avoid these like the plague. The inclusion of two Batman sticks is a real con – they're virtually identical – and only a serious Gotham City addict would buy them. Mind you, a couple in the shape of Kim Basinger might be a good idea... *(Rob, stop it!).*

ST FORMAT RATING 43%



■ Oh joy! Playing games on your ST is never going to be the same again.

BOLLISTICK

ST FORMAT GOLD

FROM: CHEETAH
PRICE: £9.99
CONTACT: ☎ 0222 867777

Cheetah's Bollistick is an altogether different proposition. It's a high quality joypad in the console style with two <Fire> buttons, an autofire switch and a multi-directional pad. It plugs into your ST's standard joystick ports and plays like a dream. Its kidney shape means it's very comfortable to hold and all the controls are extremely

EAR

business, cartoons, Christmas, food, fruit (so, fruit isn't food, hey?), medical, miscellaneous, music, people, religion, sports – all this right the way through to trees.

The number of images on each disk is usually between ten and 15, but if the pictures are particularly big, as few as six or seven are on a handful of disks. The price of £15 per disk may seem high if you are used to PD prices, but in commercial terms, this is cheap, and it would cost a small fortune to commission suitable comparable original artwork.

The best way to evaluate the *Kuma Klip Art* library is to send for the printed catalogue. This 76 page A5 book reproduces the entire collection of images, and you can see exactly what is on each disk – the problem is that the pictures you want are usually in five different collections, and that would cost a bomb. The catalogue costs £5, and a free disk of sample images is included.

STF RATING 70%

The biggest criticism of these pictures is their sheer size, some are physically too big for convenient use. Of course, you can always use just a portion of an image, or re-scale it using a suitable art program that can work on .IMG pictures.

TYPE WRITE CLIP ART

MACHINE: ALL STs
PRICE: £8.95 PER SET
FROM: THE ST CLUB
CONTACT: ☎ 0602 410241

The *Type Write Clip Art* collection comprises a series of 300 dpi images produced by the *Type Write DTP Bureau* and marketed by The ST Club. Each set contains 100 .IMG files, provided on four double-sided disks, and there are three such sets available. Like the Kuma pictures, these are also monochrome images. Most of them are rather smaller in size, making them perhaps more immediately useable for illustrating a typical newsletter or similar desktop published document compared to Kuma's.

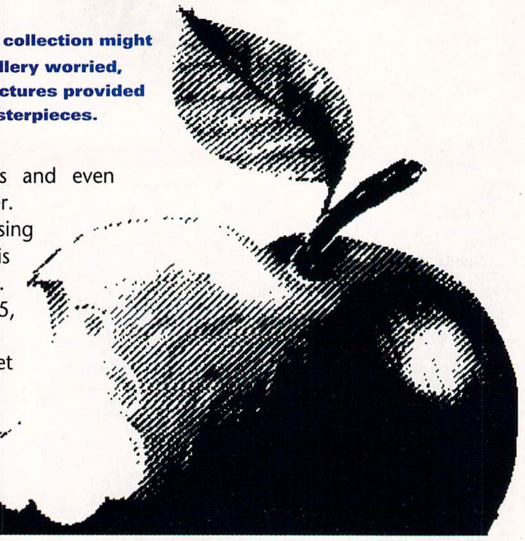
You get more images for your money with this collection, but they are more of a mixed bunch, and not arranged into strict subject matter like the *Kuma Klip art*. The quality is generally just as good, however, and out of 100 images you stand a pretty good chance of finding something that can suit your school project, personalised birthday cards and even your office staff newsletter.

To assist in choosing which sets to get, there is a 45 page A5 catalogue. The catalogue costs £2.95, and contains all 300 images. Looking at just Set One it was obvious that some good pictures were provided – everything from Access and Visa card symbols to human figures, trains, planes and automobiles, birds and other animals, computers and cartoons.

There were a handful of complete turkeys too, but then no clip art collection is complete without them. All in all, this is a very good value collection. Alternatives to using clip art libraries include using hand drawn or printed pictures and digitising them via a scanner. By a happy coincidence we're rounding up all the hand scanners for the ST on page 38, so have a look at that. Alternatively you can produce the images yourself using art packages – see page 14.

STF RATING 75%

■ The Type Write Clip Art collection might not have the National Gallery worried, but there are plenty of pictures provided to enhance your DTP masterpieces.



Are there any other libraries?

Clip art collections are easily available in a number of Public Domain libraries. The prices vary from 85p to £3 per disk (depending on the amount and quality of the images), but you're never quite sure what quality the images will actually be. Many libraries provide a full printed catalogue – see page 102.

BY **PETER CRUSH**

OF JOY

responsive. Although the absence of a stick may create problems for waggling enthusiasts, you get used to it very quickly and the Bollistick should prove robust enough for the vast majority of ST games.

STF RATING 90%

THE MOUSE YOKE

FROM: RC SIMULATIONS
PRICE: £31.90 inc p and p
CONTACT: ☎ 0272 550900

Using a mouse to control your aircraft in simulations has always proved to a be a bit of a hit-and-miss affair – you can't always get the accuracy you need and there is nothing more *unlike* flying than whizzing a mouse over a table-top *(how about not flying at all? That must be quite unlike flying).*

A US company, Colorado Spectrum, has come up with a solution to this problem. The Mouse Yoke is an aircraft style control column which uses your mouse to give a more realistic flight sim effect. It can also be used on any other sims which can be controlled by mouse. The Yoke comes in three parts – a desk clamp, shaft and yoke grip. You simply attach the clamp, place your mouse in the elastic grip and slide the shaft and yoke grip into the base. The controls work by the action of the yoke shaft on the mouse ball – pull the stick back to climb, forward to descend, left and right to bank.

The whole assembly is made from recycled – or recyclable – products and is sturdy enough to withstand the most enthusiastic dogfight. What seems like a good idea in theory, however, is fiendishly difficult in practice – the yoke has a tendency to lose track of the mouse ball and you have to keep pausing the game to recentre the stick. Options for adjusting the sensitivity of the mouse on your ST are limited, so you either end up spinning wildly out of control or sitting on the horizon like a partially solidified bucket of cement. It takes a lot of practise to get the hang of it and you're better off sticking with your trusty joystick.

STF RATING 53%

What other joy can you have?

Check out the expensive programmable joystick, Gravis Mousestick (*STF* Rating: 90% – £70.50, RC Simulations ☎ 0272 550900); the robust Gravis Switch Joystick (*STF* Rating: 85% – £39.99, RC Simulations ☎ 0272 550900); better value comes in the shape of the Sting-Ray joystick (*STF* Rating: 81% – £13.95, Spectravideo ☎ 081 9000024).

BY **ROB MEAD**

WIN A CHEETAH JOYPAD

You read the review, marvelled at the piccy and now it's your chance to get your hands on one of those fabby Bollistick joypads. We've got five of the blighters to give away and all you have to do is write a limerick using the word "bollisticks," stick it on a postcard and send it to Jolly Bollisticks, *ST FORMAT*, 30 Monmouth Street, Bath, Avon BA1 2BW. The five best entries will get the goods. Closing date for the competition is Friday 5 March 1993.

Rules: 1. Employees of Future Publishing and Cheetah International, their friends, relations and cousins in far away lands are forbidden to enter. 2. People called Elvis Presley can take part providing they send in a sweaty pink silk scarf as proof of their authenticity. 3. Duplicate entries will be shredded and made into hamster bedding. 4. While we gratefully accept contributions to our "Tea? You must be joking." fund, it will not influence our decision one jot – no, no, well, maybe.. is that all?. 5. Paula's decision is final, binding and hurts.

AMAZING PRICES FOR ATARI USERS

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3D Construction Kit 2	33.95
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Bubble Dizzy	6.96
Bunny Bricks	17.95
Cabal	6.96
Cadaver - The Payoff	11.95
Caesar	20.95
Captain Dynamo	6.96
Captain Planet	17.95
Captive	12.95
Carl Lewis Challenge	17.95
Carrier Command	7.95
Cartoon Collection	17.95
Castles	20.95
Cave Maze	10.95
Celtic Legends	20.95
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Chaos Engine	17.95
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Chase HQ I	6.96
Chips Challenge	17.95
Chuck Yeager 2	8.95
Cisco Heat	15.96
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Cool World	17.95
Count Duckula	6.96
Crazy Cars 3	17.95
Creatures	17.95
Cruise for a Corpse	19.95
Crystal Kingdom Dizzy	13.95
Cybercon III	17.95
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Demon Blue	6.96
Devpac ST V2.25	31.95
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Dizzy Panic	6.96
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Elvira II	23.95
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Jupiter's Masterdrive	6.96
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Kid Gloves II	17.95
Knightmare	20.95
Knights of the Sky (1Mb)	23.95
Kult	6.96
Kwik Snax	6.96
Last Ninja II	6.96
Last Ninja III	7.95
Leander	17.95
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E & OE

DOCTOR DOCTOR

DR T's KCS OMEGA
MACHINE: ALL STs WITH 1MBYTE. MED OR HIGH RES
PRICE: £299
FROM: ZONE DISTRIBUTION

V4.0 of the *KCS* (*Keyboard Controlled Sequencer*) has been around for over two years now. It is one of a bevy of sequencers all barking round the heels of the market leaders, *Cubase* and *Notator*. The price tag of £299 puts it in the top league, so comparisons with the *Steinberg* and *C-Lab* packages are unavoidable. If you spend this kind of money, you are entitled to expect a top flight program. So, let's see what you get for just under £300.

The program is supplied in a cased A5 ring binder. The four program disks are held within a plastic insert at the front, the rest of the binder is absolutely stuffed full with three manuals (one main and two additional manuals). These extra manuals describe the Graphic Song Editor program and also the Programmable Variations Generator as well as the Master Editor.

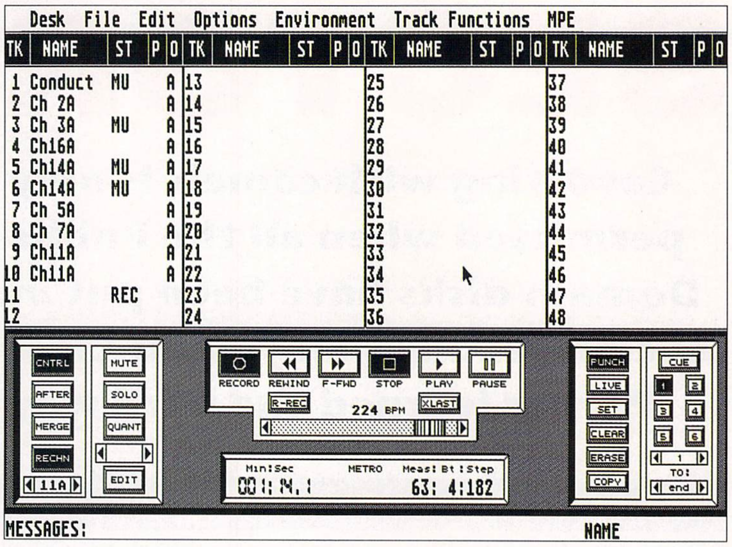
Because of the *KCS*'s Multi Program Environment system (MPE) it is possible to easily load in other programs at will and pass data to them. The upshot of this is that the KCS relies heavily on you, the user, building up your sequences using several different programs (MPE Modules).

No doubt this is seen by Dr T as an easy route to expanding the system without too many re-writes of the main program. It can, however, be quite a fiddle learning how to access the different sections and pass sequence data to them. This also why there is no single, unified manual. On the main program disk which is not-copy protected, you find not one but two programs that appear to be exactly the same (KCS40.PRG and LEVEL2.PRG). The difference is that the LEVEL2.PRG uses more memory and enables you to access the more sophisticated editing functions. KCS40.PRG is only really included for you if you have limited memory on your machine. You really need at least 2MBytes of RAM available to be able to comfortably run LEVEL2.PRG and still have the ability to access the MPE modules.

The program operates in two basic modes, Track mode and Open mode – it automatically drops you into Track mode when it boots. If you are familiar with sequencers then you are likely to recognise the Tape transport controls towards the bottom of the screen. The tempo slider is located just below the transport controls. One unusual feature of the *KCS* is that it enables tempo values of up to 999 beats per minute (bpm), instead of the usual 240 bpm. The upper half of the screen has the main track display. There are 48 separate tracks available, this is usually more than adequate. Track one is a type of Conductor track. It shows the length of the sequence in bars and contains tempo change information (like *Cubase's* Mastertrack).

Click on the record button to commence, er... recording. The sequencer automatically starts when MIDI input reaches it. Your sequence cycles continuously, beginning on a new track each time it reaches the end of the specified range defined in track one.

You can re-direct output to different MIDI channels by clicking on a small box at the right hand corner of the screen. If you then hit the record button again you can add a whole range of different instruments.



```
TK NAME    ST  P O TK NAME  ST P O TK NAME  ST P O TK NAME  ST P O
 1 Conduct MU    A 13              25              37
 2 Ch 2A         A 14              26              38
 3 Ch 3A   MU    A 15              27              39
 4 Ch16A         A 16              28              40
 5 Ch14A   MU    A 17              29              41
 6 Ch14A   MU    A 18              30              42
 7 Ch 5A         A 19              31              43
 8 Ch 7A         A 20              32              44
 9 Ch11A         A 21              33              45
10 Ch11A         A 22              34              46
11         REC     23              35              47
12                 24              36              48

224 BPM
Min:Sec       METRO   Meas: Bt :Step
00:14.1                63: 4:182
MESSAGES:                                  NAME
```

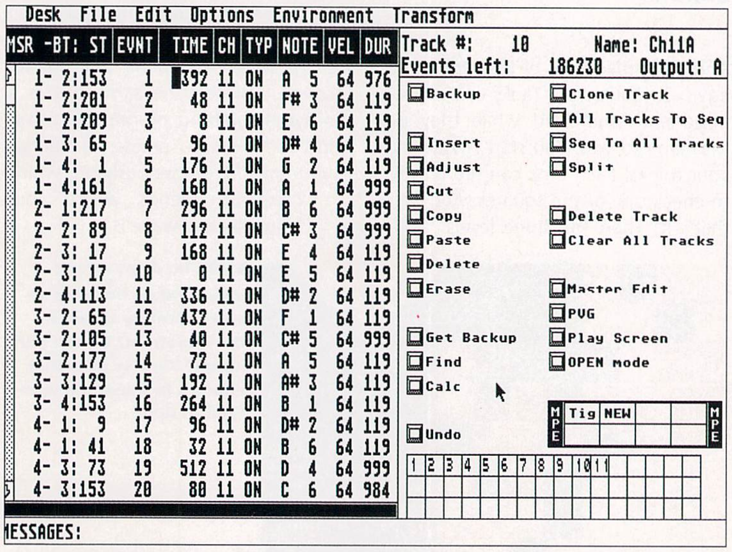
■ The main Track Mode screen gives you no indication of MIDI input received, nor can you highlight the track you wish to work on.

By composing several of the sequences and saving them, you produce a set of files to load into the Graphic Song Editor. This MPE module, very reminiscent of the *Cubase* Arrange screen (see *STF* 39 for full review – turn to page 66 if you missed it), enables you to assemble your sequences into complete songs.

Also included is the TIGER editor. This is very similar to the editing screen found in *Tigercub*, the *KCS*'s little brother. In fact you can compose whole songs using only the TIGER editor if you wish. The list of features and editing possibilities is formidable and the whole thing is completely SMPTE sync compatible – via the Phantom external hardware (also available from Zone Distribution at £189).

In the Open mode you can process sequences built up in the other sections or even create music from scratch. Gone are the constraints of fixed cycle length, and almost anything is possible. You can even trigger ready built sequences from here. Every parameter you can think of is variable in Open mode. It is, however, very complex and certainly not for the faint hearted.

If you decide to buy the program then make sure you fully understand how to use this mode since it is as easy to wreck a piece of music with this program as it is to enhance it!

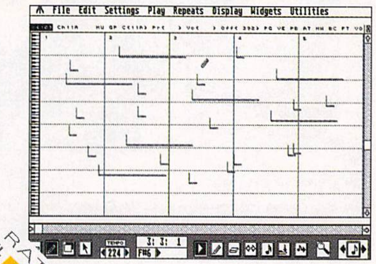


```
MSR -BT: ST EVNT  TIME CH TYP NOTE VEL DUR   Track #:    10       Name: Ch11A
  1- 2:153    1    392 11 ON  A  5  64 976   Events left:  186230  Output: A
  1- 2:201    2     48 11 ON  F# 3  64 119
  1- 2:209    3      8 11 ON  E  6  64 119
  1- 3: 65    4     96 11 ON  D# 4  64 119
  1- 4:  1    5    176 11 ON  G  2  64 119
  1- 4:161    6    160 11 ON  A  1  64 999
  2- 1:217    7    296 11 ON  B  6  64 999
  2- 2: 89    8    112 11 ON  C# 3  64 999
  2- 3: 17    9    168 11 ON  E  4  64 119
  2- 3: 17   10      0 11 ON  E  5  64 119
  2- 4:113   11    336 11 ON  D# 2  64 119
  3- 2: 65   12    432 11 ON  F  1  64 119
  3- 2:105   13     40 11 ON  C# 5  64 999
  3- 2:177   14     72 11 ON  A  5  64 119
  3- 3:129   15    192 11 ON  A# 3  64 119
  3- 4:153   16    264 11 ON  B  1  64 119
  4- 1:  9   17     96 11 ON  D# 2  64 119
  4- 1: 41   18     32 11 ON  B  6  64 119
  4- 3: 73   19    512 11 ON  D  4  64 999
  4- 3:153   20     80 11 ON  C  6  64 984
MESSAGES:
```

■ This is the Open Mode editing screen. Now *you* try working it out.

In conclusion...

Compared to other similar packages, the *KCS* has proved to be one of the least accessible and intuitive. There is very little on the screen at any one time that you understand without recourse to the manual. Many of the functions are couched within jargon specific only to the *KCS* itself. While the list of functions is impressive, we find it hard to believe that this program was written by a real musician. When compared to the creative flow achievable in both *Cubase* and *Notator*, the *KCS* leaves a very great deal to be desired.



■ The large and friendly TIGER edit screen. Wonderful. But why spend £300 to get it when the *Tigercub* program provides it for £99 !

STF RATING 58%

Any other sequencers?

A good challenge to the expensive sequencers is *MIDIstudio Master* (*STF* Rating: 91% – £99.99, Ladbroke Computing ☎ 0772 203166). There's also the cut down version of the £550 *Notator SL*, *Notator Alpha* (*STF* Rating: 85% – £225, Sound Technology ☎ 0462 480000). The musician's best sequencing companion is still *Cubase* (*STF* Rating: 91% – £575, Harman Audio ☎ 0753 576911).

BY **ANDY CURTIS**

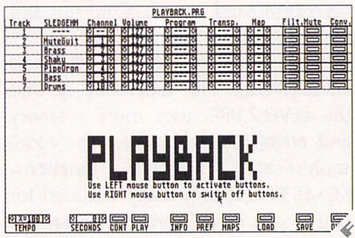
PUBLIC SECTOR

Cavorting with camels is only permitted when all the Public Domain disks have been put in the drive. Chris Lloyd and Clive Parker learned the hard way

ART AND MUSIC

PLAYBACK

PAGE 6 – DISK ST769



PLAYBACK.PRG

Track	SLEDGEHM	Channel	Volume	Program	Transp.	Map	Filt.	Mute	Conv.
1	----	--	127	---	---	-			
2	MuteGuit	1	127	---	---	-			
3	Brass	2	127	---	---	-			
4	Shaky	3	127	---	---	-			
5	PipeOrgn	4	127	---	---	-			
6	Bass	5	127	---	---	-			
7	Drums	10	127	---	---	-			

```
PLAYBACK
Use LEFT mouse button to activate buttons.
Use RIGHT mouse button to switch off buttons.
```

■ *Playback* with the Sledgehammer MIDI file loaded. Not the best looking application in the world, but it gives you great control over MIDI files and is a cheap alternative to a sequencer for playing .MID files.

STF RATING 80%

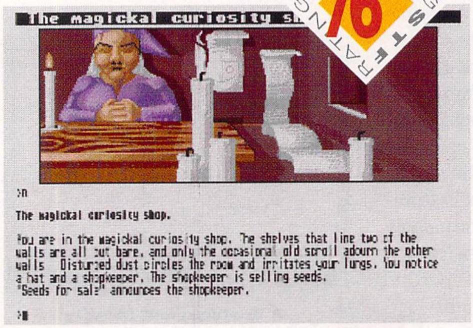
Playback enables you to play standard MIDI (in both format 0 and 1) files using up to 99 tracks on your MIDI setup without using an expensive sequencer. The program enables many parameters to be adjusted to match your setup and it can also convert MIDI files between formats. Modifications which can be made to tracks include the MIDI channel, volume, tempo and event filters. On the whole, *Playback* is clearly laid out and simple to use. The program runs on any machine although 1MByte of RAM and a monochrome screen is recommended, and you need to register to get the manual.

GAMES

DREAMS

STATE 808 PDL – DISK GAME 03

You have had an argument with a moving bus and now lie in a coma. Doesn't sound too exciting, does it? You can't talk, move or do anything much. In your dreams, however, you are very much alive and kicking. You need to escape the three levels of consciousness to get back to the real world or never awaken. *Dreams* is a *STAC* adventure, there are some pleasing graphics and touches of humour. The parser isn't the most sophisticated, but it is solid and up to the job. The subject is refreshing and well presented; if you fancy wrestling with a text adventure and are still bored with orcs and dragons, look no further.



```
>n

The magickal curiosity shop.

You are in the magickal curiosity shop. The shelves that line two of the
walls are all but bare, and only the occasional old scroll adourn the other
walls. Disturbed dust circles the room and irritates your lungs. You notice
a hat and a shopkeeper. The shopkeeper is selling seeds.
"Seeds for sale" announces the shopkeeper.

>
```

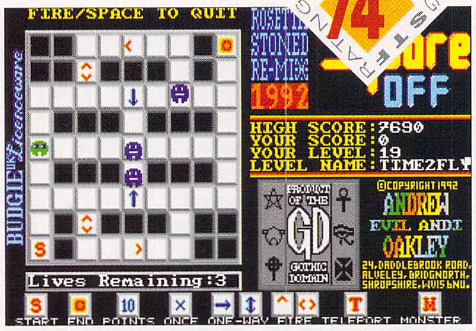
■ No self respecting adventure is complete without a magical curiosity shop selling useful items and this is no exception. *Dreams* is a competent text adventure with distinctive graphics and some style.

STF RATING 76%

SQUARE OFF

BUDGIE – DISK BU 108

A simple arcade puzzler; you guide your little chap around a grid avoiding monsters, collecting points and sussing the route to the finish point. There are 50 levels and the first dozen are deceptively easy, then it starts to get a little trickier. You need fast reactions as well as more than a smidgen of brain power to figure the best way to pick up points and continue to live. There are sampled sound effects galore and synthesized speech to liven things up a bit – there's even a level editor so you can design your own devilish levels. Not the most devious or addictive of games, but playable enough and well presented; better than most.



FIRE/SPACE TO QUIT
BUDGIE UK Licenceware
ROSETTA STONED RE-MIX 1992
OFF
HIGH SCORE:7690
YOUR SCORE:0
YOUR LEVEL:19
LEVEL NAME:TIME2FLY
PRODUCT OF THE GD GOTHIC DOMAIN
©COPYRIGHT 1992
ANDREW
EVIL ANDI
OAKLEY
24,DADDLEBROOK ROAD, ALVELEY, BRIDGNORTH, SHROPSHIRE, WV15 6NU.
Lives Remaining:3
S
10
T
M
START END POINTS ONCE ONE-WAY FIRE TELEPORT MONSTER

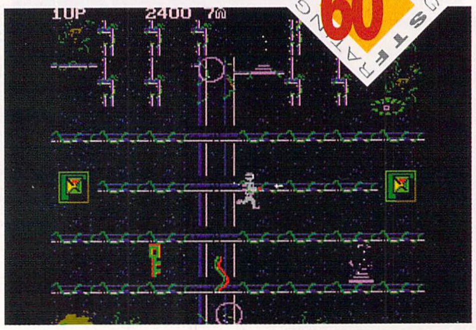
■ *Square Off* - it's all extremely simple really - you're the little green character and you guide yourself from the start point to the end point, except of course we aren't green - mostly, anyway.

STF RATING 74%

ATLANTIS

MERLIN PD – DISK MPD 1121

As soon as it starts you know this is a game written with *SEUCK*. You have the joys of controlling a little diver bloke as he swims around collecting keys and shooting underwater life not to mention killing the strangely fatal bubbles. The screen is a push and scroll affair and you can fire to the four points of the compass. The graphics aren't anything special to write home about – not even just a quick scribbled note. You journey up the screen shooting and dodging, trying to last as long as you can. It's not a good example of what is possible with *SEUCK*, which isn't that impressive in the first place. Glug glug.



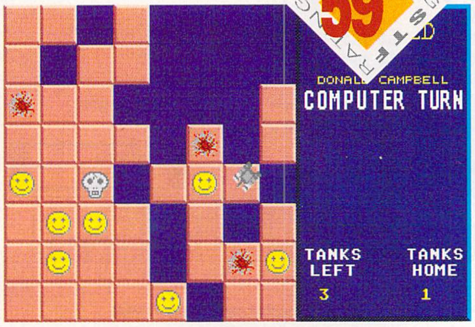
■ On a mission to - er, do something heroic or other our hero has - most regrettably, to shoot lots of things that get in his way. Joysticks out for the lads with *Atlantis*, should keep you happy for five minutes.

STF RATING 60%

TANX

BUDGIE – DISK BU 110

A very simple game of luck and strategy; you guide your tanks across your opponent's minefield while they do the same to you. You start by placing your mines. Each tank can fire twice to check one of the squares. And that's it. There are three levels of your ST-controlled enemy from thick to reasonably smart. You can only use each square once, so each tank has to take a different route. It's well presented but a bit dull. Rather incongruously on the same disk is a biorhythm plotting program which is good for a laugh, unless, of course, you take it all seriously in which case it depends where your intellectual wave is.

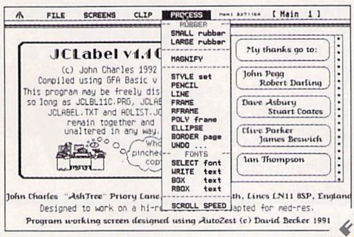


■ Will he drive over a mine and go belly up or will he safely traverse the minefield? Do we care much? *Tanx* is amusing enough in a quick game-type of way.

STF RATING 59%

JC VIEW

PAGE 6 – DISK ST 780



JCLabel v1.1C

(c) John Charles 1992
Compiled using GFA Basic v
This program may be freely dis
so long as JCLBL11C.PRG, JCLAB
JCLABEL.TXT and ADLIST.JC
remain together and
unaltered in any way.

My thanks go to:
John Pegg
Robert Darling
Dave Asbury
Stuart Coates
Clive Parker
James Beswick
Ian Thompson

John Charles "AshTree" Priory Lane, th, Lincs LN11 8SP, England
Designed to work on a hi-r apted for med-res.
Program working screen designed using AutoZest (c) David Becker 1991

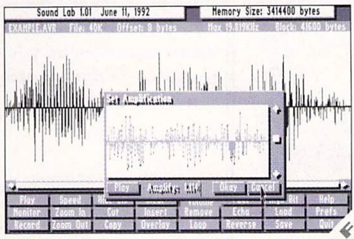
▮ *JC View* is an excellent high resolution art package with a wide choice of options. Written entirely in *GFA Basic 3.5* it just goes to show what can be done with a good BASIC interpreter and compiler.

STF RATING 78%

JC View is a high resolution only application designed to be a comprehensive art viewer as well as clip art manipulation program. Many varied picture file formats are supported including Stad .PAC, Macpaint .MAC, Printmaster .SHP and Sticker 3 .ADD along with all the normal *Degas,* Tiny and *Public Painter* formats. All the normal art package options are available along with the facility to create pictures larger than the screen which can fill an A4 sheet when printed. GEM fonts can be loaded and used and printing can be controlled through a customised printer driver setup. A must for serious clip art users.

SOUNDLAB

FLOPPYSHOP ST – DISK MUS 3355



▮ *Soundlab* has many splendid functions to enable you to adjust, alter, modify and generally bugger about with your digitised sound samples. Always work on a backup copy of the file you want to edit.

STF RATING 75%

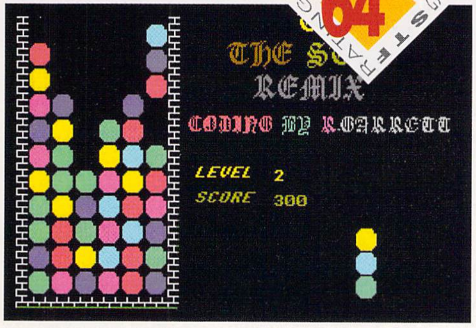
This disk has several programs dedicated to the audio side of the ST, consisting of a TCB Tracker .MOD file player, a program to play random sound samples at boot up called *Randplay,* the full version of *Soundlab* (Cover Disk 41, available from page 66) and a packer designed to compress samples and *Soundtracker* .MOD files. The TCB player is a bit fiddly to use and is very unfriendly, although it does produce rather good output if the correct frequency is selected. The best of the bunch is the *Soundlab* program with its host of functions, although *Randplay* has a useful .SPL to .AVR conversion utility.

COLOTRIS 2

PAGE 6 – DISK ST 761

On this disk are two versions of the classic *Tetris* spin-off that has rows of coloured blocks falling from the top of the screen. You can steer them left and right and change the order of colours. Get a row of three or more colours, they disappear and you score points. When the pile hits the top of the screen that's the end. *Collapse* is more graphically and sonically simple, but is more playable with simple keyboard controls. *Colotris 2* has fiddly joystick control and lots of jazzy samples and special pieces. The *Bill and Ted* sample soon grates on the nerves, though. Two competent games, although *Blat* remains the best version.

STF RATING 64%



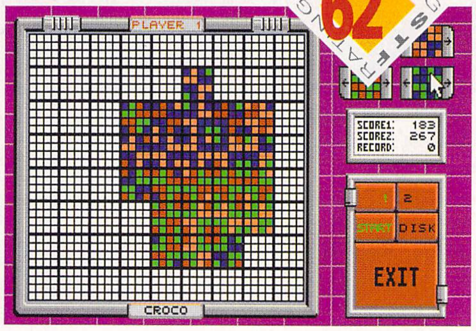
▮ Coloured dots falling before your eyes and frantic synapse activity ending in frustration. It can only be another *Tetris*-style game.

CROCODILE'S PASTIME

PAGE 6 – DISK ST 773

A puzzle game which has you matching colours to score vital point things that make – er, numbers. You can battle against a friend or your ST. You take turns placing four by four tiles on the board. The more colours that match the adjacent titles, the more points you get. There is the choice of four titles which can be rotated. It's a thought-provoking game and takes some cleverness to master. If you like games that give you all the time in the world to think of your next move and are running short of new stuff, take a look at this. A long way short of chess or games like that, though.

STF RATING 62%



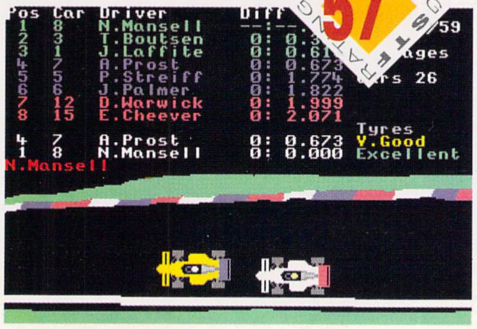
▮ *Crocodile's Pastime* is a strangely-named puzzle game of placing blocks on a grid and matching colours. Sums it up rather neatly really. If you're still interested then you're probably going to like it, a bit.

GRAND PRIX MANAGER

LAPD – DISK L 22

A behind-the-scenes management game controlling the twists and turns in the fortunes of a formula one racing team. First you choose your team, then employ a handy bunch of expert engineering and driving chappies and start the season. There are a few incidental graphics but it's basically a silent text game with lots of tables and statistics. Nothing is too complicated or involved, and it's playable enough if simple management sims are your thing. Needs a lot more depth and realism, however, to make it shine. As it stands it's too easy to just bumble through.

STF RATING 57%



```
Pos Car Driver        Diff
 1   8  N.Mansell     --:--.          /59
 2   3  T.Boutsen      0: 0.3
 3   1  J.Laffite      0: 0.61         ages
 4   7  A.Prost        0: 0.673
 5   5  P.Streiff      0: 1.774        rs 26
 6   6  J.Palmer       0: 1.822
 7  12  D.Warwick      0: 1.999
 8  15  E.Cheever      0: 2.071
                                  Tyres
 4   7  A.Prost        0: 0.673   V.Good
 1   8  N.Mansell      0: 0.000   Excellent
N.Mansell
```

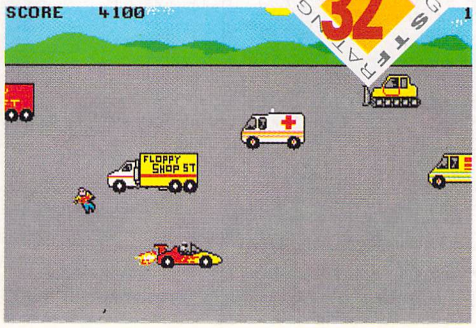
▮ The race is on and Murray Walker is terribly excited about it. This is all you get to see of the actual racing in *Grand Prix Manager* - all you need to watch out for is when to hit the pits.

MOTORWAY DEATH

FLOPPYSHOP ST – DISK GAM 100

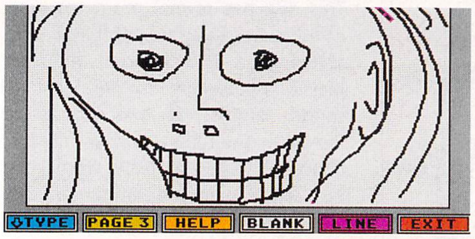
Another game by an outfit called Ollysoft who seem to specialise in games of dubious taste. *Motorway Death* is no exception. Your task is to run down pedestrians and avoid the oncoming traffic. The action is incredibly repetitive, the same wave of vehicles and targets appear again after a few screens. The scrolling is ropey and it has all the long term appeal of a match. To save this disk from being immediately broken in half is a text adventure called, rather imaginatively *Tomb of Death.* It's a *STAC* affair and follows the standard dungeon and monsters path. Unsophisticated but just about passable, even if it is a bit dull.

STF RATING 32%



▮ *Motorway Death* has graphics and sound to match the taste of the game - incredibly awful. The only vague satisfaction comes from backing into the pedestrians having already sent them spinning.

EDUCATION



Kidpublisher is an ideal program to enable your children to express themselves and create something to boot. Design your own colour-in books, stories or whatever.

KIDPUBLISHER

ST CLUB –
DISK EDU 07

Not strictly speaking educational, *Kidpublisher* enables even the youngest of writers to knock out five page documents of their scribblings. The top half of each page holds a drawing while the bottom half holds text. It uses the standard printer dump for final output. You just draw in the pictures and type in the text and hit Print. It's all simple enough for everybody to use. Budding newspaper barons could be getting their first big break here.

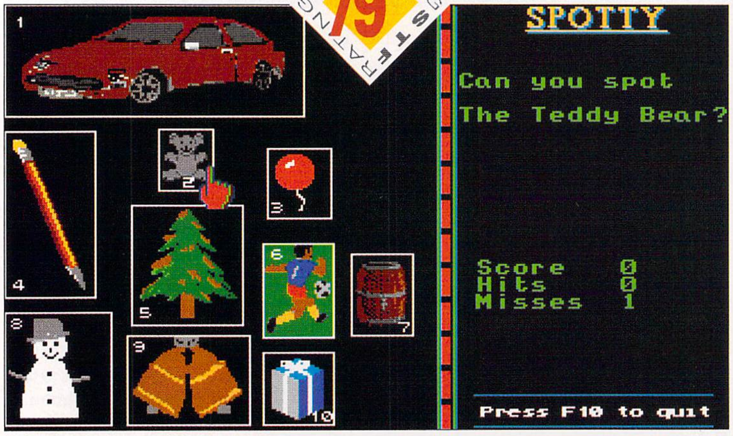
STF RATING 83%

SUPER SPELL

LAPD –
DISK L 20

After a quick round of object recognition, it's into the spelling game. You are presented with words with missing letters and you have to fill in the blanks. After that, it's time to draw a picture, then onto another game and so on, through a dozen or so sections. Everything is well-presented and fun. Success is greeted by a round of applause and there are plenty of other samples to spice things up. The words are all very simple and once you've learnt them and worked your way through it a couple of times that's it, but it's good fun while it lasts.

STF RATING 79%



SPOTTY

Can you spot
The Teddy Bear?

Score 0
Hits 0
Misses 1

Press F10 to quit

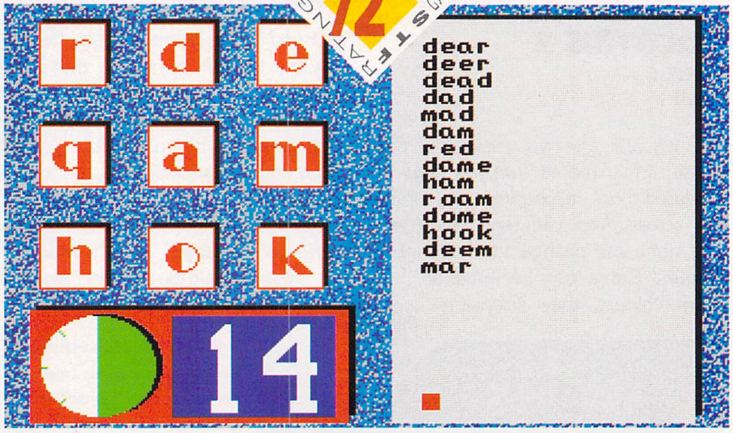
The first section of *Super Spell* is an easy-peasy game of *Spotty*. Each section is short and they are all varied so your attention doesn't wander off if you can't handle the questions.

MINI JUMBLE

PUBLIC DOMINATOR –
DISK SS10

A version of the make-words-out-of-letters thing you get in puzzle magazines. You can pick the difficulty level and the amount of time you get. Then it's brain-crunch time as you stare at nine letters having forgotten how to spell every word except cat – and you're not even sure about that. At the end it goes through your words checking them. It accepts a wide range of words and is rather generous, including combinations of letters that aren't words at all. It is a good game to learn spelling with, it's also a red rag to adults who rate themselves as a bit brainy.

STF RATING 72%



dear
deer
dead
dad
mad
dam
red
dame
ham
roam
dome
hook
deem
mar

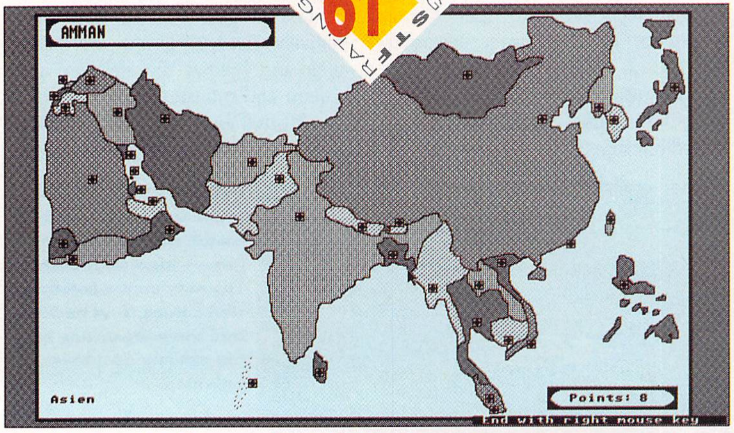
Quick! Think faster! If anything is going to get your brain racked, *Mini Jumble* is it. Just when you thought there were definitely no more words you could make with those letters, you see three more.

WORLD

ST CLUB –
DISK EDU 05

World has you trying to match a country or capital to the map. You choose which area to work with and what you are looking for and away you go – your ST keeps track of your score. It was originally German and some of the translation is a little dodgy. Any program like this also suffers from the occasional border change. There's not much to it but it's well constructed and throws up a few surprises as you put countries thousands of miles out of place. It runs in high resolution and there is an emulator for those without the appropriate monitor.

STF RATING 61%



Points: 8

End with right mouse key

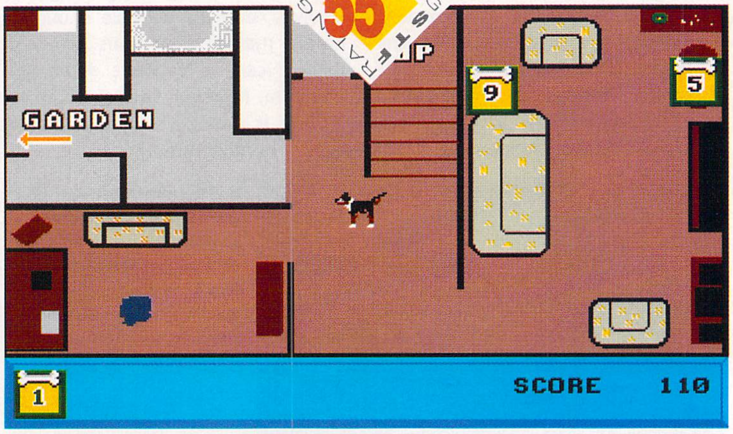
We live in a global community, right? But do you know where everybody lives? *World* is a country and capital spotting quiz and is surprisingly difficult.

PLAYTIME

RIVERDENE PDL –
DISK 1035

Six separate sections, a simple art program, a painting with shapes screen, a very simple maths quiz and two games. The graphics are generally simple and bold and there is a smattering of samples and tunes to accompany all the bits. There's nothing unique about this – it's not particularly educational or entertaining. The games are crude and the target age range for the sections are quite different, making it difficult to see who would be interested enough to buy it. It's a familiar format for children's programs and this one comes off worst.

STF RATING 55%



SCORE 110

One of the games from *Playtime* is *Ben's Bones* where you guide a small and extraordinarily hairy-looking child as he crawls around looking for bones.

Software

Multiprint £9.95

Intelligent printer buffer with option to save output to file for rapid multiple copies. ST Format Gold Award utility.

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More than a mouse accelerator, Mouse Tricks offers a massive choice of settings for maximising the productivity of your rodent.

Fontkit Plus 4 £24.95

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WARP 9

Formerly Quick ST, this is the latest and greatest software screen accelerator for the ST/TT: graphics and text look the same, but appear with astonishing speed. Includes a host of utilities from CodeHead Software: mouse accelerator, desktop pictures, new system fonts, keyboard control over dialogs, and and excellent After-Dark-alike modular screen saver. Price: £24.95, upgrades from other screen accelerators (return manual cover): £12.95.

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ART AND GRAPHICS

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ART109 - Total Recal Spectrum 512 Slideshow - Exclusive to New Age PDL! **£1.50**
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GAMES

GAME 16 - Empire Builder, MAD (boulderdash). Ship Combat, Football Manager, Motorsim, Pulse Rider, Key to Atlantis
GAME 81 - Blox, a great Tetris variation (ST Review 'Essential buy'), Battlescape - A Dungeon Master type game.
GAME 83 - Grandad and the Quest for the Holey Vest - A superb illustrated adventure. 1 Meg.
GAME 107-108 - Tower Power - Great Strategy Game - **£3.00**

CI 01 - Genocide - A 1 or 2 player strategy game with hints of Populous and Sim City. Brilliant graphics! **£3.95**
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DEMONSTRATIONS

POV 124 - Flytech, Maths Blaster, JMP 2, 6, 8
POV 121 - Fusion Bound, KGB,DNT, Pleasure Dome 1, 2
POV 120 - Audio, Lost K, Syndicate, Radiation
POV 119 - My Socks are Weapons Mega Demo + 6 more
POV 118 - Dentro, galtan 6, Factory, Coding for Fun
POV 116 - Isen, Animation (1 Meg) Digi Synth
DEMO 155-156 - Snork Demo £3.00
DEMO 165 - Cozmic Jam - STE only
DEMO 168 - Swiss Mega Demo
DEMO 147-148 - N.T.M. Mega Demo (£3.00)
DEMO 139-142 - The Phaleon Gigademo by Next - 4 disks full of great screens! Only **£5.00**

APPLICATIONS AND UTILITIES

UTIL 13 - German to English. MiNT, DC Utils 'A'
PRO 20 - Video Master - superb video Titler £3.95
MUSI 21 - Digi Composer Stracker program + TCB mods.
UTIL 33 - Gemini Replacement Desktop, Mortgage calc A'
PRO 23 - Video Master Extra Fonts disk £3.95
UTIL 42 - Intro Maker
UTIL 45 - STOS Shoot 'em up builder kit
MUSI 23 - Sound Merlin, Mozart Dice Waltz 'H"

BUSI 1- Invoice & Statement generator demo, Namenet (1 Meg), Sales Controller 'H'
UTIL 39 - ST to PC, Calendar 4.7. Desk Switch, Form, Autofix, System 2, D Format, GDOS select + many more 'A'
LANG 5-9 - GNU C Development System: 5 disks, Hard disks and 2 Meg needed **£6.50** 'A'

SOUNDTRACKER MODULES

These disks contain brilliant quality tunes at great value for money. All disks come with the ESION stracker which is a complete module editor, creator and player. There are versions of both the ST and the STE on every disk.

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TRAC 90 - Apology, Classic, Egypt, King Tut, Lazy, Loose, Mahoney, Timeslip, Titan
TRAC 91 - Gas Light, Legacy, Opus, Retro, Sorcery, Sunrunner, X Barock
TRAC 92 - Die Hard, Equality, Fusion, Instinct, Legion, Mandate, Turbo

As well as these disks listed we also cover clipart, education, fonts, programming, on-disk magazines etc. We are official distributors of Budgie UK, Shoestring Software (education), Organised Chaos (adventure/strategy) and we are the ONLY distributor of Creative Influence (see Genocide and Dark Carpathian above)

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Games - Colour
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Music & Midi - Kawai
Music & Midi - Quartet
Music & Midi - Roland
Music & Midi - Sequencers
Music & Midi - Sound Trackers
Music & Midi - Various
Music & Midi - Yamaha
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Programming - Assembler
Programming - C
Programming - Gem
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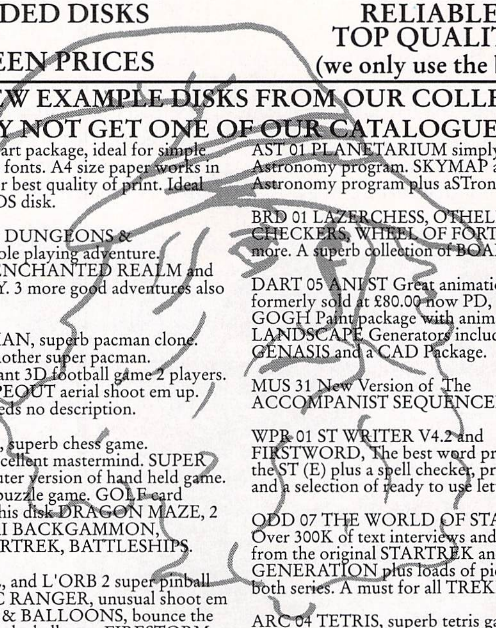

ART 07 Superb art package, ideal for simple DTP. 23 built in fonts. A4 size paper works in monochrome for best quality of print. Ideal for leaflets etc. DS disk.

ADV 01 DDST, DUNGEONS & DRAGONS, Role playing adventure. PARANOIA, ENCHANTED REALM and ELBOZO CITY. 3 more good adventures also on this disk.

ARC50 HACMAN, superb pacman clone. MR PACKY, another super pacman. SOCCER brilliant 3D football game 2 players. MUTANT WIPEOUT aerial shoot em up. INVADERS needs no description.

BRD04 CHESS, superb chess game. DECODER, excellent mastermind. SUPER SIMON, computer version of hand held game. DOMINOES, puzzle game. GOLF card game. Also on this disk DRAGON MAZE, 2 game, SENSORI BACKGAMMON, BRIDGIT, STARTREK, BATTLESHIPS.

ARC14 HOME, and L'ORB 2 super pinball games. GALTIC RANGER, unusual shoot em up. MONKIES & BALLOONS, bounce the clown and burst the balloons. FIRESTORM, another good arcade game rescue the humans. LAZERBAL, super game and interesting version on the pinball theme. Also on this disk LOST TREASURE, WIDOW MAKER, SLALOM & BREAK OUT.

AST 01 PLANETARIUM simply the best PD Astronomy program. SKYMAP another great Astronomy program plus aSTronomer.

BRD 01 LAZERCHESS, OTHELLO, CHECKERS, WHEEL OF FORTUNE, and more. A superb collection of BOARD GAMES.

DART 05 ANI ST Great animation package formerly sold at £80.00 now PD, VAN GOGH Paint package with animated sprites. 4 LANDSCAPE Generators including GENASIS and a CAD Package.

MUS 31 New Version of The ACCOMPANIST SEQUENCER (V2.5)

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ARC 04 TETRIS, superb tetris game (see review in issue 1 of this mag). KLAX TRIX, WELTRIS & TETSIDE, 3 more good games on the tetris theme. MR DICE, COLLAPSE & BURGER, 3 more good games to fill this super value disk.

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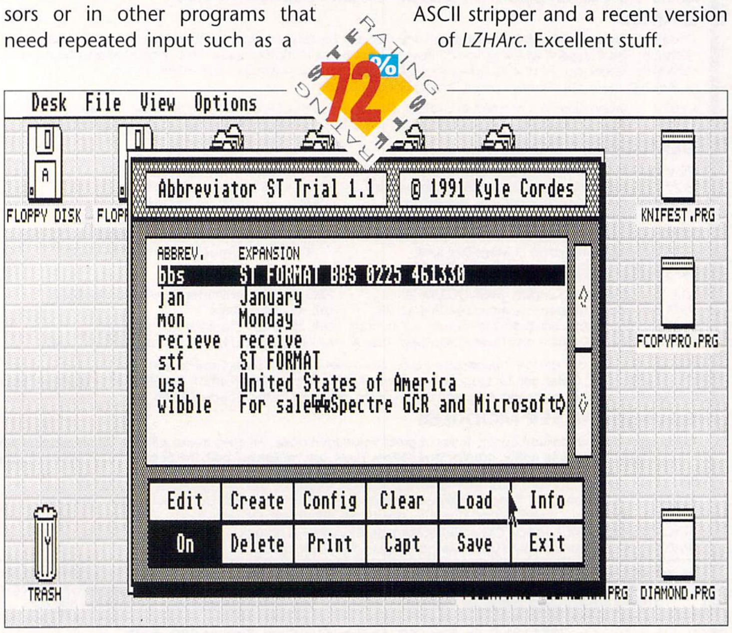
UTILITIES

ABBREVIATOR

CALEDONIA PDL – DISK AU 178

Abbreviator 1.1 is one of a dozen utilities and demos on this rather nicely packed disk, and works as a kind of macro editor for use in word processors or in other programs that need repeated input such as a comms package. This demo only gives you a choice of nine abbreviations but it is worth registering to get hold of the full version. Other goodies on this disk include a *MultiDesk* demo, *Lister v2* lists a directory to file or a printer, a utility to disable GDOS when booting, TOS 1.4 fixers, an *XBoot* demo, an ASCII stripper and a recent version of *LZHArc*. Excellent stuff.



```
ABBREV.   EXPANSION
bbs       ST FORMAT BBS 0225 461330
jan       January
mon       Monday
recieve   receive
stf       ST FORMAT
usa       United States of America
wibble    For sale¶¶Spectre GCR and Microsoft◊
```

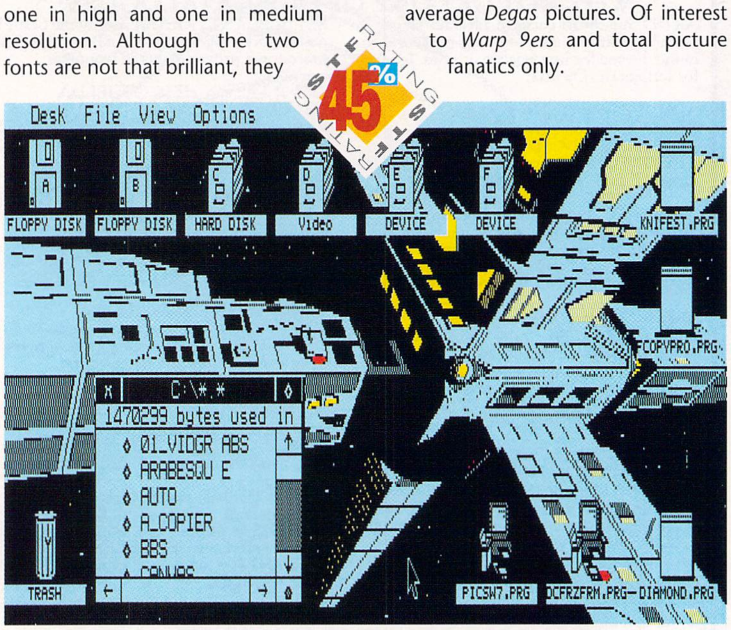
■ Enter the required abbreviation into a word processor and you'll find the full expanded text is printed to the screen, for example, entering "address" could be set up to print your full name and address.

WARP 9 EXTRAS

PAGE 6 – DISK ST 770

WARP 9 PICS AND FONTS – PAGE 6 DISK ST 770

If you use the *Warp 9* accelerator program you need this disk to access, if nothing else, the two additional fonts, one in high and one in medium resolution. Although the two fonts are not that brilliant, they do make a change from the standard system font. The rest of the disk is full of *Degas Elite* pictures in all three resolutions that you can use as background pictures on your Desktop. It remains to be seen if people are willing to pay for a PD disk comprising just two fonts and some slightly above average *Degas* pictures. Of interest to *Warp 9ers* and total picture fanatics only.



■ Your ST (or Falcon050, ho ho) controlled space shuttle approaches the space habitat positioned at Lagrange Point 5, or L5. This is one of the Desktop pictures that's supplied with the *Warp 9* PD disk.

THE *FORMAT* PD DIRECTORY

■ Where to go for Public Domain software – demos, games and utilities for around £3 a disk! If you write to any of these libraries for a catalogue, enclose an SAE. ■ Budgie games are available from all PD libraries indicated by a (B). Simply mention the disk number (above the review) when you order the disk.

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16/32 PDL, 35 Northcote Road, Strood, Kent, ME2 2DH ☎ 0634 710788

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ARROW PD, 6 Kents Orchard, Perry Street, South Chard, Somerset TA20 2QB

ATARI ADVANTAGE, 56 Bath Road, Cheltenham, GL53 7HJ ☎ 0242 224340

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DRAKE PD, 12C How Street, The Barbican, Plymouth, Devon PL4 0DA

EVPD, 15 Cleeve Road, Gotherington, Cheltenham, Glos GL52 4EW

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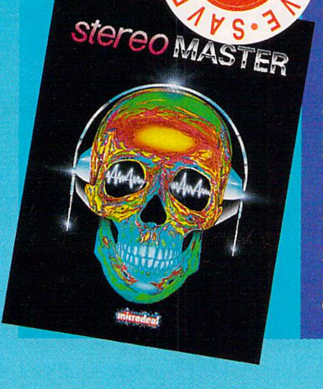

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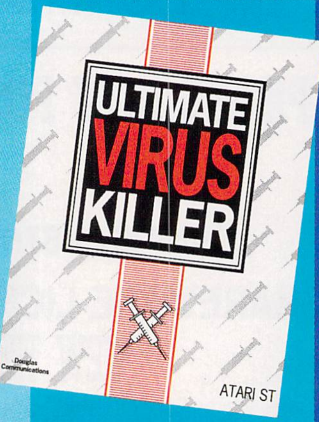

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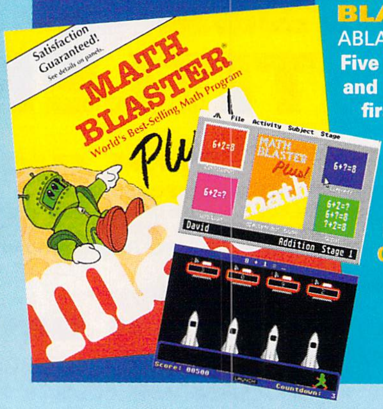

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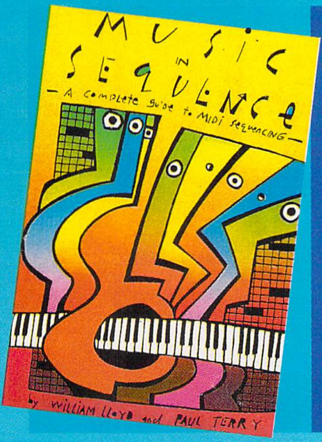
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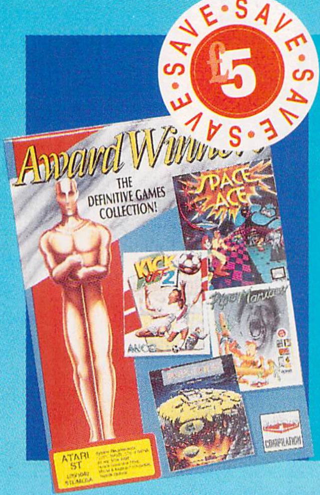

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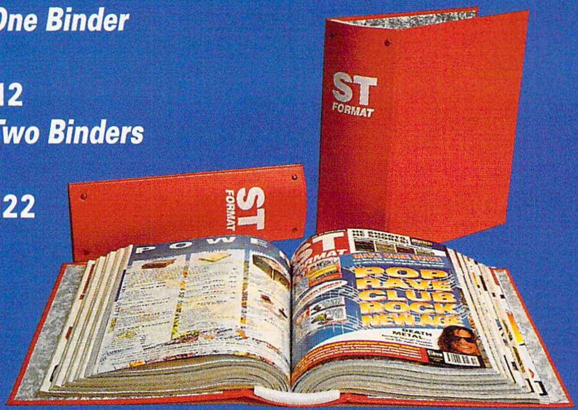

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G026: Haunted House
G027: Megaroids
G028: Invaders
G031: Bolo 1 Meg
G065: Grav 2
G036: Football Manager
G039: Adventure Games
G041: International Cricket
G044: Violence
G045: Larn V12 Adventure
G048: Mono Games
G050: Match It
G051: Thinking Games
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U045: Disk Copiers
U077: GFA Expert
W003: 1st Word

M001: Accompianist 2.4
M002: Ani ST
M004: Noisetracker
M005: Composer
M011: Alchymy Junior 1 Meg
M026: Calamus Fonts
M030: Kosmic 2 1 Meg
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M033: Various Trackers
M035: Picture Concept
M036: Deluxe Font Master
M038: Noisetracker Modules
T001: The Planets Slideshow
T003: Circuit Designer
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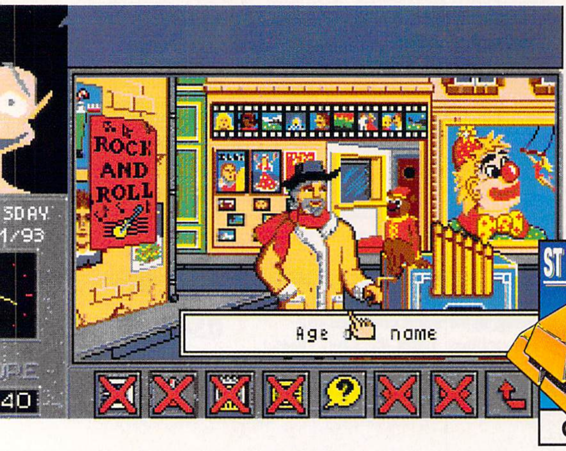
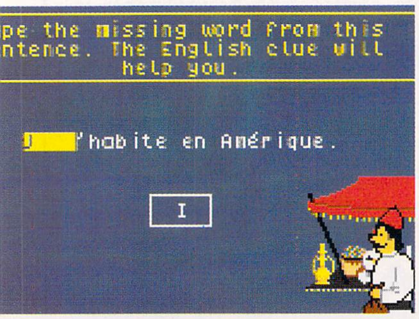


■ The introductory screens are bright and cheerful even if they are inhabited by men who might like to lure you away.

GOING

If you wake up one morning and realise that your life is going nowhere, you need to get yourself an education, and what better place to start than with a foreign language? Paula Richards investigates where you should start



pe the missing word from this
ntence. The English clue will
help you.

'habite en Amérique.

I

■ Open-ended questions stretch the brain cells a little more than true or false exercises where you always have a 50 per cent chance of getting it right.

ADI FRENCH 11/12 AND 12/13

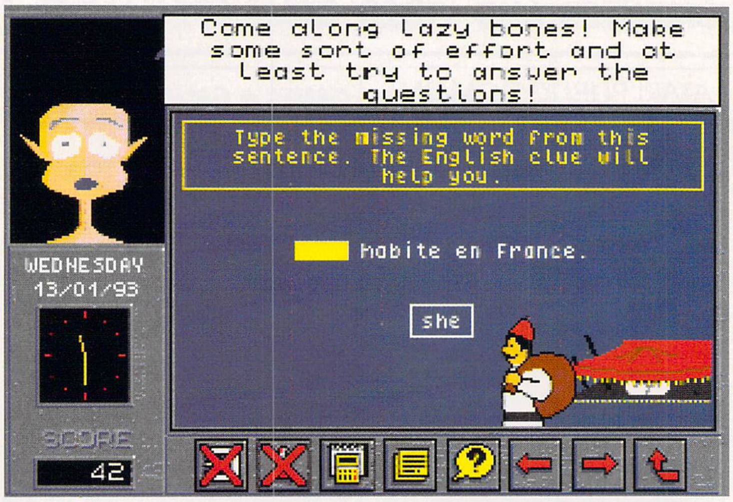
ST FORMAT GOLD

Adi is an **alien** who comes from a distant planet, is three million years old and helps you along in your studies (always particularly helpful, isn't it?). He comes in his pupil age-specific environment, which enables you to write notes, write stuff in your diary and play games, that is if you've worked well enough to be allowed access to them. From this environment you can really start learning any of the subjects Europress have included – you can buy them separately, but at £25.99 each it's an expensive business to persuade Adi to teach you every aspect of the National Curriculum.

French, for example, also includes other areas within the French langauge context, such as geography and general knowledge about France. In both of the age groups covered here, the methods of teaching are similar in terms of the types of questions asked, although the older age group touches on a wider and more complex vocab, more tenses and different subject areas.

In the 11/12 age group, once you've gone through the environment and are into the French section, you can choose from personal information, hobbies, towns and directions, animals and the café to concentrate on. In the hobbies menu, for instance, you find pastimes, preferences and sports sub-menus. In the 12/13 age group, you have a choice of house and home, shops and quantity, weather expressions ("it's raining again" is always very useful), time and the school timetable, travel and clothes. You access each of these menus by clicking on either the <F5> key or clicking on an icon – perhaps not so intuitive as drop-down menus.

The questions you are asked vary – there are true or false type statements, comprehension sections where you have to answer questions based on a piece of French text – in this instance, you tend to be asked the question first and are then directed to look at the piece which obscures your view, making it a more difficult task than it was originally intended to be. In other cases you also have to fill in missing letters to create phrases and also choose from a selection of options the words you need to make up a specific phrase. All in all, there's a huge variety of different methods of teaching which keeps up interest.



Come along lazy bones! Make some sort of effort and at least try to answer the questions!

Type the missing word from this sentence. The English clue will help you.

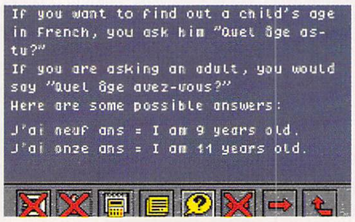
habite en France.

she

■ Adi is there to encourage you - though he sometimes does it a little more forceably than you might like.

If you get a question right, you are rewarded with an animated cartoon portraying something successful and a slightly over-enthusiastic comment from Adi. If you do something wrong, however, the fire-eater turns an alarming shade of green. If you've just made one mistake at the end of a reasonably successful run, it's likely to be overlooked, otherwise you are encouraged to try again and reminded that help is always at hand, which indeed it is – just hit <F5> and the concept which you are struggling with is clearly explained.

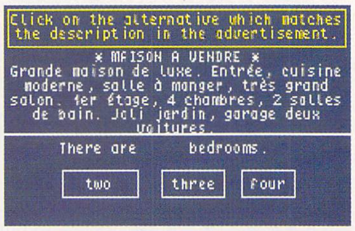
One of the best things about the program is that it also gives you an insight into France – the questions relate to what the weather is like there (a lot better than here, that's for sure!), what drink you are given if you ask for something – if you ask for tea, for example, you get it without milk and it is extremely weak, not what you'd expect in a good old British road-side café. The school timetable also relates to the French timetable. Did you know the kids go to school on Saturday mornings – how do they survive without Sarah Green and Philip Schofield's Saturday norning antics? It's a mystery.



If you want to find out a child's age in French, you ask him "Quel âge as-tu?"
If you are asking an adult, you would say "Quel âge avez-vous?"
Here are some possible answers:
J'ai neuf ans = I am 9 years old.
J'ai onze ans = I am 11 years old.

■ If you have a problem, press <F5> and everything is explained clearly and simply.

Once you've scored a certain number of points, you are given access to more and more games found within the environment. This acts as an incentive if you really can't be bothered to do as much as you should. This adds an important motivating aspect to the program, particularly if a child is working without supervision. As with the other *Adi* programs, these are written to a pretty high standard and have obviously had a lot of thought put into them. Highly recommended.



Click on the alternative which matches the description in the advertisement.

* MAISON A VENDRE *
Grande maison de luxe. Entrée, cuisine moderne, salle à manger, très grand salon. 1er étage, 4 chambres, 2 salles de bain. Joli jardin, garage deux voitures.

There are bedrooms.

two three four

■ Understand a language and you're more than half way there - these comprehension exercises help you on your way to understanding French.

ST FORMAT RATING 92%

ADI French

£ 25.99
Europress Software
☎ 0625 859333

Anything else?

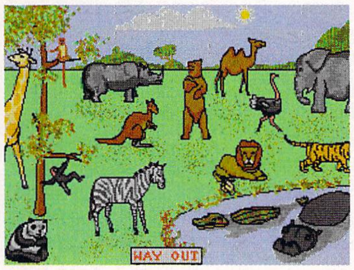
As far as we know, these programs are unique, in terms of the scope and depth of the subject covered, although the *Let's Spell First 500 Words* (see review opposite) is especially good for the vocabulary aspect.

CONTINENTAL

ST FORMAT GOLD

LET'S SPELL FIRST 500 WORDS

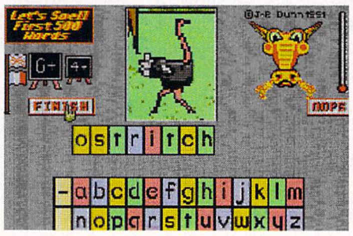
If you want to help your children with their spelling and aren't interested in fancy packaging or enticing gimmicks, this is the package for you. If you want to assist their spelling and vocabulary development in French – or even feel inclined to try your hand at adapting the program for any other language, so much the better. *Let's Spell First 500 Words* is a spelling package in which the child chooses a screen from a selection which accesses a familiar scene – for example the body, the kitchen or a rather tiny, overcrowded zoo – that's filled with recognisable objects. You have to choose one of the objects which appears on the next screen and pick out the letters needed to spell it, in the order in which they should appear. If you get it right, you are congratulated and rewarded with a little tune, but if you get it wrong, your letters are shot down, the dragon breathes fire at you and you get the chance to try again after you have been shown how to spell the word correctly. You can work in English or French – the French table includes all the accented letters and when they're being spelt, you even hear a digitised French accent.



■ Click on any creature on this rather over-crowded bit of greenery - if you dare to spell its name.

The main problem with this program is not knowing what it calls a particular object – it's very frustrating to spell something right and have all your letters shot down just because it's not what the programmers thought it should be called. There are also some problems with recognititon – in the pet shop, for example, you might think you are looking at a fish tank but, you're not really, because according to the program, you are merely looking at fish. To overcome these difficulties, the programmers, Jayne and Richard Dunn, have incorporated an editing option for parents. You access it via a customisable password and then have the option to alter words that you think your child would be more likely to recognise – for example, depending on where you live may mean that you call sauce "ketchup" or vice versa.

There are seven detailed tutorials included in the manual explaining everything you can customise in the Editor. This includes setting the options, creating your own pictures to suit your own spelling requirements, altering the program for other European languages and even making new sound banks and memory requirements. This is a pretty good exercise as long as you don't mind being without the frills that come with many educational programs; when the individual items are picked out for you to spell, they tend to be pixellated although still easily recognisable; there is a learning aspect if you make mistakes, as well as praise if you do well. The ability to edit *Let's Spell First 500 Words* for your own requirements makes this a very powerful program.



■ Learning to spell could be as fun as trying to recognise the creatures - all you really need to know, however, is that you've done it wrong - look at how the dragon's breathing at you.

STF RATING 91%

Let's spell

From 4 to 9 years
£10 (UK) £12 (Europe)
£15 (rest of world)
Squirrel Soft
26 Bennett Drive,
Warwick CV34 6QJ

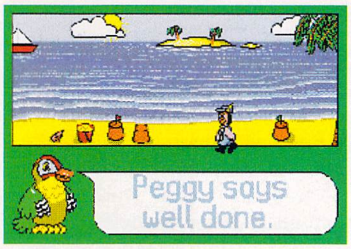
What else is there?

The original *Let's Spell* (Squirrel Soft) with no customisable options – *STF* Rating: 91%.
***Henrietta's Book of Spells* (£24.99, Scetlander, ☎ 041 3571659) includes a variety of puzzles, three difficulty levels but is only in English – *STF* Rating: 92%.**

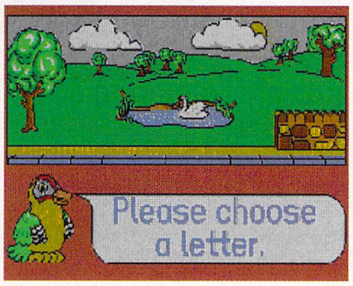
PLAYDAYS

Children's BBC television has got really exciting over the last few years – and that excitement has now been transported onto your ST. *Playdays*, the education program, is based on the morning TV show and features the creatures, like the Why Bird, that your children are likely to be familiar with if they watch the television early in the day.

Playdays consists of ten traditional learning games as well as three other more relaxing games like *Noughts and Crosses* and *Find The Treasure*. There are four levels of difficulty and 25 letters to choose from, effectively, this means your child can work his or her way through 100 selections of games. You remain with the chosen letter – and, therefore, the chosen words – throughout all the games so you really do get very familiar with them. Considering that there are usually only five or six words, this can get rather tedious, but at least the child eventually has a thorough comprehension of what each noun represents. Each of the games aims to encourage a different area, like co-ordination, word recognition, counting, reasoning, spelling and observation. In *Matching*, for example, you have to match the word to the picture. *Snap* is pretty much like *Snap*, really, although at more difficult levels you have to match pictures with words. In *Counting*, you have to count the number of identical pictures that appear. In *Moving Window* there's a large picture which is covered apart from a small window that moves – and your child has to guess what the picture is and then attempt to spell the word.



■ Encouragement is probably the most effective learning aid.



■ Exercises are set against bold bright backgrounds - and the Why Bird is always very polite. Creep.

There is quite a lot of variety in the types of games but they don't really vary enough between the difficulty levels. If you wanted to encourage your child to stick with this single program for five years (from four to nine), you are likely to find them losing interest very rapidly.

It can take some time to work your way through all the games related to one letter, but by the time you do get there, there's a performance table which shows the level achieved at the end of each game and a percentage score – handy for parents who want to keep an eye on how the children are doing, a necessity for this age range.

The graphics are bold and bright, you get a free *Playdays* magazine in the box and you're always encouraged along by the enthusiastic and friendly Why Bird. Fun and educational for a while.

■ "If I catch the burk who sprayed my van, I'll..."

STF RATING 73%

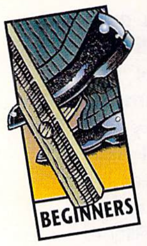
Playdays

From 3 to 8 years
£24.99
Alternative Software
☎ 0977 797777

The competition

The Fun School range (£24.99 Europress Software 051 357 2961) is better simply because it presents you with a more varied range of tasks to complete and there are two separate programs covering this age range so they are better tailored to their needs. *STF* Rating: 91%.

THE BYTECRUNCHER'S



Want to delve into the deep and dark secret art of assembly? In the first of a series, Tony Wagstaff shows that you don't have to be a Tefal-headed maths genius to learn it. All you need is a good tool - something just like *Devpac 3*

Assembly language is difficult, right? Only someone who plays three-dimensional chess and recites logarithm tables at the same time would attempt to learn it, right?

Wrong!

Assembly is in fact relatively easy provided you have the right tools. With a quality assembly package, such as *Devpac 3* (see review below), it actually becomes quite painless.

This series is aimed both at old-hand programmers with knowledge of another language and at beginners wanting to learn more about ST programming. If you're dead serious about programming, however, you should eventually aim to learn one of the more powerful and "higher level" languages, such as BASIC, C or Pascal.

Open up wide

Before we come to assembly itself we need to take a little tour around your ST's insides. So you know that your machine has a certain amount of memory, but do you know what's inside it? Take a *Degas* picture for instance, it may seem like a picture, but at the core of it, it's all created using numbers. No decimals, no negatives. Just lovely whole numbers.

Your ST's memory is divided into little packets, known as bytes. To distinguish between bytes of memory, each one is referred to by a unique number known as its address. The size of a byte depends on how many numbers are stored in a memory packet. This value must be between zero and 255. This is because it is often easier on a computer to use a hexadecimal counting system. Unlike in the decimal system, where each digit of a number can be one of ten possibilities from nought to nine, each digit can be one of 16 possibilities, nought to nine and A to F. Just as 99 is the largest number you can have using only two decimal digits, 255 is the largest number you can have using two hexadecimal digits. In "hex" it is written as FF, while 256 is written as 100. To distinguish between a hex and a decimal number, a $ is placed in front it.

Larger numbers can be stored at neighbouring addresses. Two bytes, known as a word, can store numbers up to $FFFF, or 65,535 decimal, and four bytes, called a longword or a long, up to $FFFFFFFF or 4,294,967,295.

Besides the memory, two other important components of

Hex vs decimal

Examples of some hex numbers and their decimal equivalents:

HEX	DEC	HEX	DEC
1	1	1A	26
2	2	1B	27
9	9	20	32
A	10	50	80
B	11	9F	159
C	12	A0	160
D	13	A1	161
E	14	FF	255
F	15	100	256
10	16	3E8	1000
11	17	10000	65536

DEVPAC 3

MACHINE: ALL STs
PRICE: £79.95
FROM: HISOFT
CONTACT: ☎ 0525 718181

Building on the success of *Devpac 2*, HiSoft's latest development kit for assembly language programmers is, quite simply, excellent. If there ever was a package that simplifies assembly programming... *Devpac 3* is it.

The heart of *Devpac 3* consists of the Editor – the programmer's word processor, GEN, the assembler which translates the assembly listing into machine code, and MON (previously called MONST), an easy to use debugger. The last two can be made resident within the Editor so that you can switch between the three without ever quitting back to the Desktop.

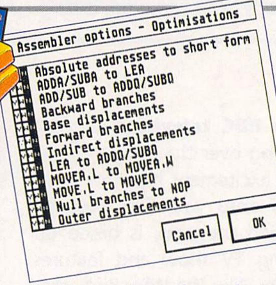
The Editor has up to seven windows at its disposal, making pasting between files a lot easier. One window is reserved for compilation errors, enabling you to check on them without having to re-assemble. Various cosmetic improvements have been made, so at long last you can define blocks with the mouse; there is an option to auto-indent, giving your <Tab> button a rest; and even the shape of the cursor can be altered. The addition of up to nine bookmarks makes jumping to different sections of the listing a lot quicker.

One really helpful addition is the Tools menu. This enables you to install any program and run it without quitting the Editor. Hey, you're almost multi-tasking... well, not quite, but you can access these programs at the touch of a key or mouse button.

Unfortunately, you can't actually make *HiSoft Basic* resident without crashing your ST. Running it as a tool from a RAMdisk, however, is fast enough.

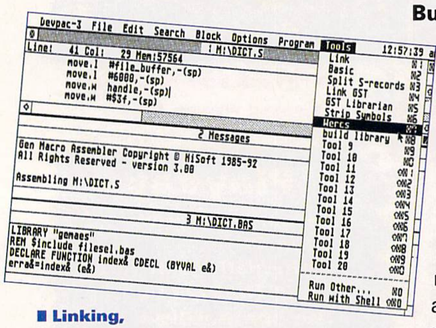
The assembler is controlled from... the Control panel (no?) and is just one of the pop-up menus within dialogs that you can use in the Editor. Using the assembler you can produce normal executable programs, DRI and GST linkable code, Lattice code for linking with *Lattice C* and *HiSoft Basic*, as well as S-records. If this doesn't tickle your fancy, you can simply compile straight to memory. You can instruct the assembler where to look for Include files and pre-assembled files. Assembled macros, for instance, can be included, considerably speeding up your assembly time.

MON.PRG, the debugger, has had a face-lift and a name-change since its last appearance in *Devpac 2*. When you first enter MON, you are faced with three non-GEM windows – to avoid using up windows the program you're working on might need. These windows can be expanded to full screen size, and the bottom two can be split giving you a total of five windows on-



☑ Absolute addresses to short form
☑ ADDA/SUBA to LEA
☑ ADD/SUB to ADDQ/SUBQ
☑ Backward branches
☑ Base displacements
☑ Forward branches
☑ Indirect displacements
☑ LEA to ADDQ/SUBQ
☑ MOVEA.L to MOVEA.W
☑ MOVE.L to MOVEQ
☑ Null branches to NOP
☑ Outer displacements

Can't remember when an ADDQ should be a LEA? *Devpac 3* will remember for you.



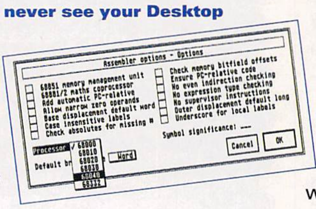
```
Line:  41 Col:  29 Mem:57564          1 M:\DICT.S
        move.l  #file_buffer,-(sp)
        move.l  #6000,-(sp)
        move.w  handle,-(sp)
        move.w  #$3f,-(sp)

                                      2 Messages
Gen Macro Assembler Copyright © HiSoft 1985-92
All Rights Reserved - version 3.00

Assembling M:\DICT.S

                                      3 M:\DICT.BAS
LIBRARY "gemaes"
REM $include filesel.bas
DECLARE FUNCTION index& CDECL (BYVAL e&)
erra&=index& (e&)
```

Linking, compiling, debugging, resourcing, all from within the same program. You may never see your Desktop again.



☐ 68851 memory management unit
☐ 68881/2 maths coprocessor
☐ Add automatic PC-relative
☐ Allow narrow zero operands
☐ Base displacement default word
☐ Case insensitive labels
☐ Check absolutes for missing #
☐ Check memory bitfield offsets
☐ Ensure PC-relative code
☐ No even indirection checking
☐ No expression type checking
☐ No supervisor instructions
☐ Outer displacement default long
☐ Underscore for local labels

Processor: ✓ 68000

Devpac is so up to date, it can compile programs for machines which Atari haven't even started building yet!

GUIDE TO ASSEMBLY

your ST are the data registers and address registers. There are eight data and eight address registers, numbered from nought to seven. One of the peculiarities of computers is that they start counting at zero. The first house in your street, for example, is number one. A computer, however, would think of it as number zero. It is one of those oddities that you eventually get used to – well, nearly.

Data register number zero is called d0, number four, d4, and the address registers are similarly labelled, a0, a1 and so on. Like memory addresses, these hold numbers. Each can hold up to four bytes and are more versatile than memory addresses. Generally, data registers are used to store actual values and address registers to store memory addresses.

Labels, commands and parameters

One big difference between assembly and BASIC or C is that each assembly instruction has the same format (see "What goes where" boxout above) by being divided into fields. So that the compiler can tell when one field ends and another starts, you need to insert "white space" between them; most people press <Tab> after each field. For this reason, all the letters must join up and you should have no spaces or tabs inside a field. If you do you will confuse your compiler, and that's something you really should avoid doing.

The first field is a label, and it must be up against the left margin (see in boxout above "mylabel" and "routine"). When your program is running, a label is used to refer to the memory address where that instruction is stored. You don't always have to have a label, you'd soon run out of ideas for names if you did. If you don't use a label on any line, press <Tab> instead.

The next field is the command. This is the one field that *must* be present. There are around 90 of these, so don't try learning them all as you will only be needing a handful and a lot of them are variations of one type. Some compilers even choose the correct variation for you to use. Smart, hey?

By far the most common command you use is the `move` family. This simply moves one number from one place to another. No big deal you might think, but the one thing your ST likes more than anything is moving numbers. Some instructions, including `move`, can have a size added to them by typing a period <.> followed by <b>, <w> or <l>, for byte, word and long respectively. See the ASM_EGS.S file in the assembly folder on this month's Cover Disk for examples.

So what numbers does the `move` instruction actually move, and where are they moved to? This is when the third field comes into play, the parameters.

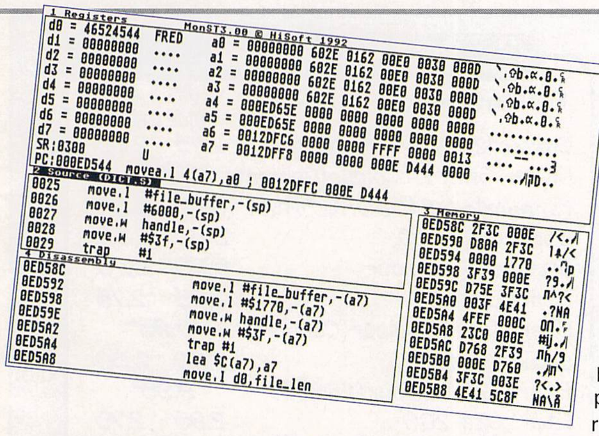
Some commands, such as `rts`, roughly equivalent to a BASIC return, don't need parameters. `move` needs two parameters, the number, or source, and the destination. They are typed in that order and are separated by a comma. Actually, the source doesn't have to be a number, it can be a place where a number is stored – such as a memory address or a register. In fact the compiler assumes you are referring to storage space unless you tell it otherwise. This you do by putting a # before the source.

The ASM_EGS.S file on this month's Cover Disk contains examples of some of the many different ways of moving numbers, so there's plenty for you to play around with until next month. Experiment with all the different `move` combinations, and try out some of the other instructions in the table. Above all, don't panic if you crash your ST, it happens a lot when starting to program. ***stf***

What goes where

Here are examples of assembly instructions. Note the order of the three fields.

Label	Command	Parameters
mylabel	add.w	#1,d0
	bsr	routine
	divu	d2,d7
	swap	d7
routine	move.l	#500,d7
	move.w	#3,d2
	rts	



```
1 Registers              MonST3.00 © HiSoft 1992
d0 = 46524544  FRED     a0 = 00000000 602E 0162 00E0 0030 000D
d1 = 00000000  ....     a1 = 00000000 602E 0162 00E0 0030 000D  `,ⓑb.α.0.ʀ
d2 = 00000000  ....     a2 = 00000000 602E 0162 00E0 0030 000D  `,ⓑb.α.0.ʀ
d3 = 00000000  ....     a3 = 00000000 602E 0162 00E0 0030 000D  `,ⓑb.α.0.ʀ
d4 = 00000000  ....     a4 = 000ED65E 0000 0000 0000 0000 0000  `,ⓑb.α.0.ʀ
d5 = 00000000  ....     a5 = 000ED65E 0000 0000 0000 0000 0000  ..........
d6 = 00000000  ....     a6 = 0012DFC6 0000 0000 FFFF 0000 0013  ..........
d7 = 00000000  ....     a7 = 0012DFF8 0000 0000 000E D444 0000  ....   ...3
SR:0300        U                                                .....⁄ΠD..
PC:000ED544  movea.l 4(a7),a0 ; 0012DFFC 000E D444
2 Source (DICT.S)
0025     move.l  #file_buffer,-(sp)
0026     move.l  #6000,-(sp)
0027     move.w  handle,-(sp)
0028     move.w  #$3f,-(sp)
0029     trap    #1
                                          3 Memory
4 Disassembly                             0ED58C 2F3C 000E  /<.⁄
0ED58C                                    0ED590 D80A 2F3C  ⌶/<
0ED592          move.l #file_buffer,-(a7) 0ED594 0000 1770  ..ᵖp
0ED598          move.l #$1770,-(a7)       0ED598 3F39 000E  ?9.⁄
0ED59E          move.w handle,-(a7)       0ED59C D75E 3F3C  Π^?<
0ED5A2          move.w #$3F,-(a7)         0ED5A0 003F 4E41  .?NA
0ED5A4          trap #1                   0ED5A4 4FEF 000C  OΠ.ᶠ
0ED5A8          lea $C(a7),a7             0ED5A8 23C0 000E  #ij.⁄
                move.l d0,file_len        0ED5AC D768 2F39  Πh/9
                                          0ED5B0 000E D760  .⁄Π`
                                          0ED5B4 3F3C 003E  ?<.>
                                          0ED5B8 4E41 5C8F  NA\Å
```

The new look MON. Just how much information can you get on one screen?

screen. You can also widen the windows, making your own comments visible and easier to read. You can configure the windows to show the various 68K registers; a disassembly of memory, a hexadecimal and ASCII display of memory, or a text file such as the source code.

The best part is that you can stack up to 26 new windows on top of each exisiting window. These can be toggled using the <.> or <,> keys. This very versatile feature enables you to have various source codes to hand, or to have windows locked on each address register.

Once you've played with the windows and set up the screen to your liking, you can set about your code. This can be run with various types of set breakpoints. A breakpoint stops the program when it reaches the instruction it is set on, enabling you to check what your program is doing to your ST. It is possible to step through the program one instruction at a time, or until a condition is met. If you use a language that adds line number information, such as *HiSoft Basic*, or *Lattice C*, you can easily set breakpoints at those line numbers. Debugging a high level language couldn't be easier. An auto-resident version of MON is available for debugging AUTO programs and Desk Accessories.

Other tools include CLINK, giving you the ability to link with *HiSoft Basic* and *Lattice C*. This tool, along with the power of MON, is finally going to bring linking into the home of the more casual programmer. *LinkST* provides support for GST linking, and a collection of VDI and AES libraries are supplied.

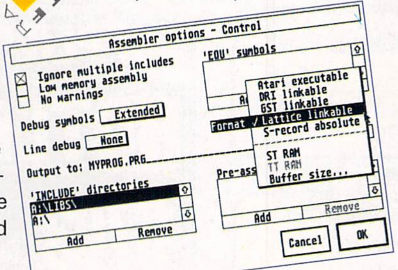
The manual, rewritten for *Devpac 3*, is easy to read and interspersed with odd snippets of trivia, it needs to be stressed, however, that it doesn't contain any tutorial. Beginners, therefore, need to buy a tutor on top of the package to make the most of it. If you really get stuck, HiSoft offer 30 days free technical support. After that, you pay for it. It is, however, very reasonably priced and the service provided is excellent.

STF RATING 91%

Devpac 3 is an excellent package that is essential for any assembly language programmer worthy of such a title. If you are thinking of upgrading from an earlier version, the new features make programming much easier, even though the end result is much the same.

The assembler works for all 68K processors up to the 68040, the 68332, the maths co-processor and the MMU chip.

If you like using *HiSoft Basic*, or *Lattice C*, then get this package for the linking facilities alone – they are excellent. If you're new to assembly programming, however, *Devpac 3* can give you the easiest start in what can otherwise be quite an intimidating venture. ***stf***



The Control panel. From here, you can predefine your input and output. No more hunting for Include files.

What else is there?

Two other Assembler packages currently available:

***An Introduction to Atari ST Machine Code*, £21.00 (inc P and P), zz Soft ☎ 0254 672965.**

***GFA Assembler*, *ST FORMAT* Cover Disk 35 (if you haven't got *STF* 35, turn to page 66 to find out how you can get your hands on a copy), £50.00 (£25.00 for the manual alone), GFA ☎ 0734 794941.**

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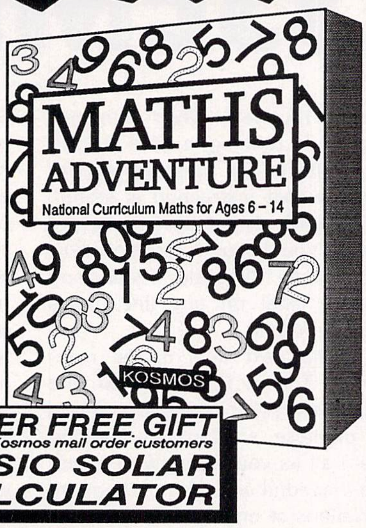

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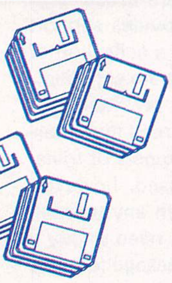

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There is still more...

As if this month wasn't enough to keep you going, you can be assured that we're going to be doing it all again next month *(well, perhaps not exactly the same, that would just be silly)*. We'll be getting into programming – showing you how easy it is to create games and demos on your ST – you too could be joining the top games programmers. Following this month's graphics feature we're going to be investigating the add-ons you can buy to make your art even better; then we're going to be looking at multi-player games. As well as the usual wide range of hints and tips, we've also got some brilliant packages lined up to review – all in all, you'll miss out if you miss us, so order your copy now using the coupon overleaf.

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More Atari News & Views from HiSoft

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Devpac 3 is supplied with a professional 350-page, wire-bound manual, all the necessary include files for your system (ST/STe/TT/Falcon030), GST and Lattice linkers, various utilities, example programs and a complete 68000 Pocket Programmer's Reference Guide. Call or write for more details.

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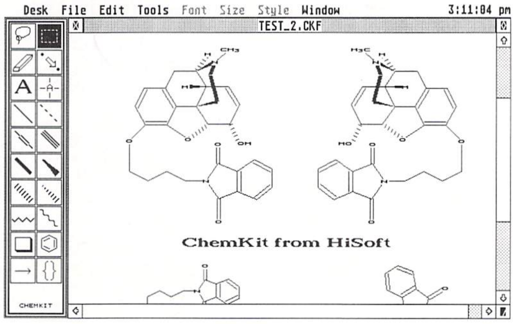

Using a wide variety of flexible drawing primitives together with GDOS text, this package is a boon for anybody involved in producing chemical drawings. ChemKit runs on any ST/TT/Falcon030 and needs 1Mb of memory.

Books from HiSoft

We have a number of excellent books for the ST in stock at the moment. These include *C-manship* by *Clayton Walnum*, ideal for the C enthusiast or the beginner; *Program Design Techniques* by *Paul Overaa*, an informative book on how to write well-structured programs in most languages; *Real-Time 3D Graphics* by *Andrew Tyler*, shows you how to create vivid solid 3D colour graphics while the *Motorola 680x0 Programmer's Reference* is the bible for 680x0 assembler programmers. Please call us or write to us for pricing details on these titles.

The Serious Page

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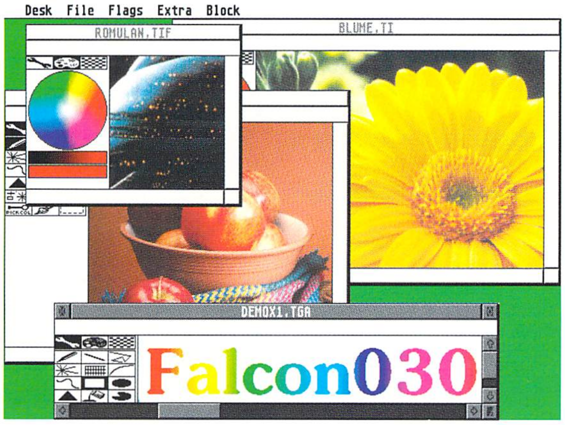

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We have re-scheduled the release of TruePaint to coincide with the general availability of the Falcon030 computers - the package will now be available on 18 February 1993. Please contact us to be sent a TruePaint brochure when this is available.

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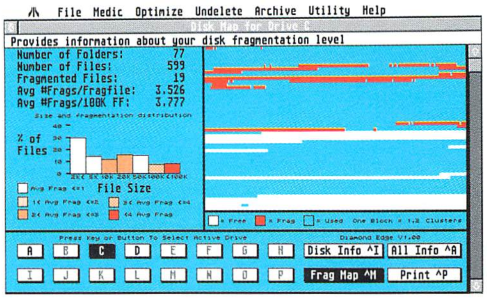

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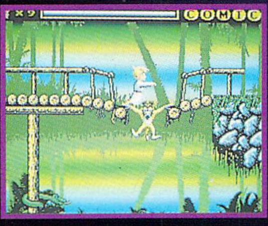

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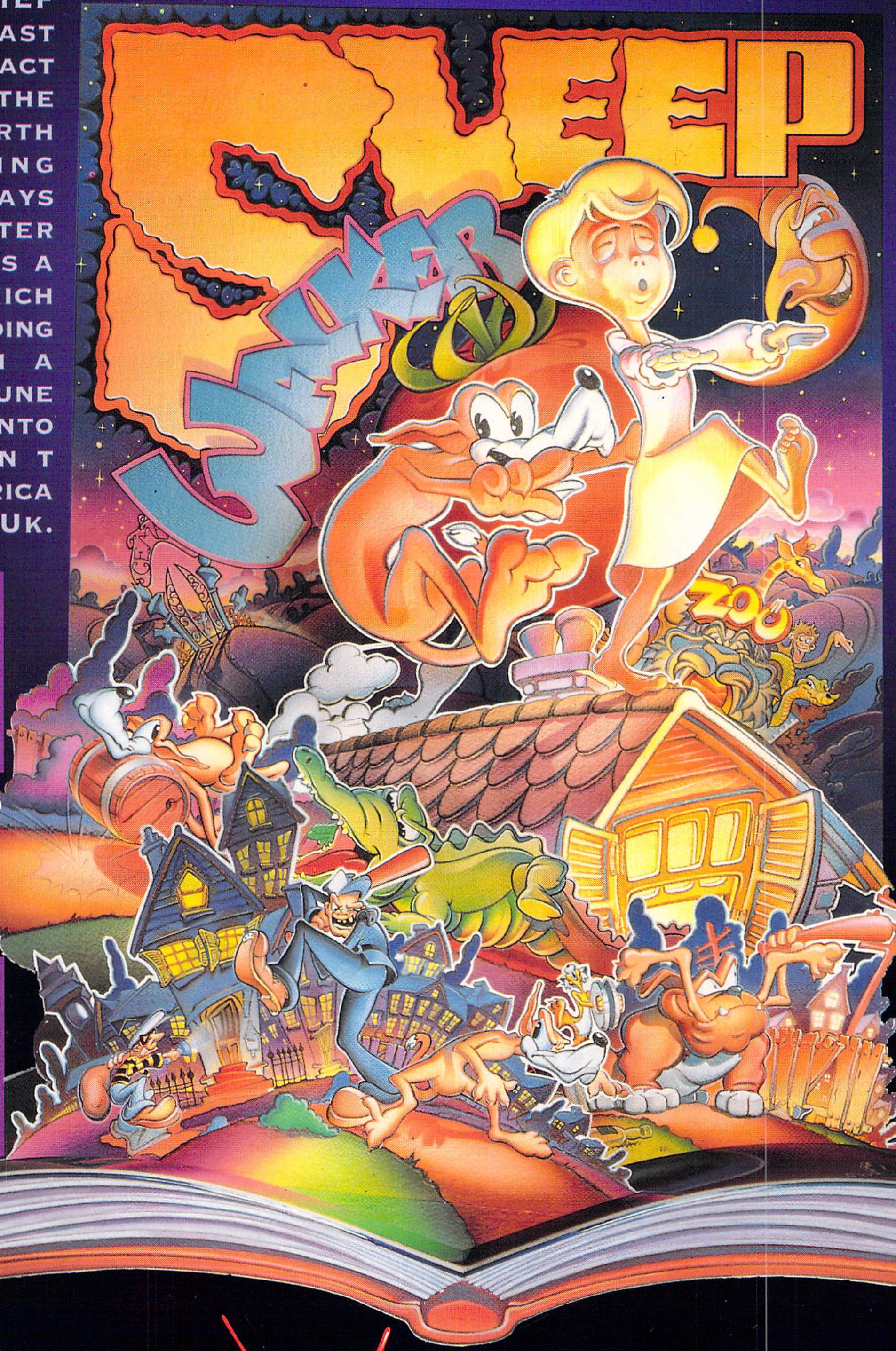

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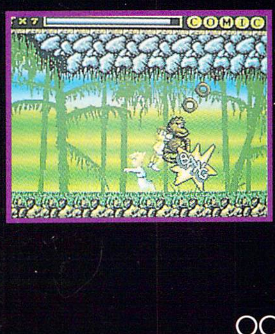

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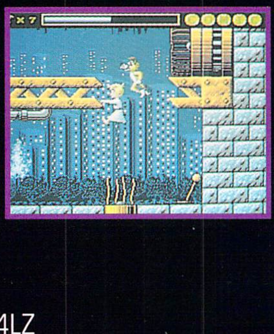

OCEAN SOFTWARE LIMITED · 2 CASTLE STREET · CASTLEFIELD · MANCHESTER · M3 4LZ
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