STILL ONLY £2.99
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ATARI ST USER

December 1992 • Issue 82

europress ENTERPRISE

FALCON – Join our experts for a hands-on tes

2 FULL PRICE programs on ONE disk

Perfect Painter

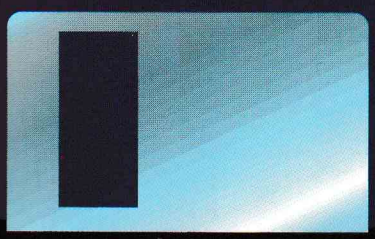
How this disk can turn you into an artist

ATARI ST USER December 1992

QUANTUM PAINT 2

Home Accounts 2

PLUS 5 more great programs



Software worth £85 – all on this disk!

* Try Home Accounts 2 until 31 Jan 1993, then save over 50% on the RRP

TOP of the SHOP

20 best buys for Christmas

9 770952 300039 12

GAMER – 26 pages of games news, tips and reviews

Award winning innovative products fron

Power Scanner

- Up to 400 DPI
- Real-time greyscale scanning
- Auto scan rate detect
- Monochrome text or 16 greyscale levels
- Full image and clipboard editing features
- Scan join feature for taking wide scans
- Cut, paste, magnify, flip, rotate, invert, crop, edit and many more editing features
- Works in all three resolutions
- Save a variety of picture file formats
- High resolution printer driver with more drivers forthcoming
- GEM menu and fast icon driven controls
- Keyboard shortcuts
- OCR text recognition coming soon
- M105-Plus scanning head

Watch out for our regular software updates with many exciting new features, available only to registered users

Power Scanner £99

Ram Expansion

- No soldering required
- Expand to 2MB or 4MB
- Plugs directly inside the ST
- Full fitting instructions
- Uses latest capacity RAM chips

2MB RAM Expansion £99
4MB RAM Expansion £169
1MB SIMM for STE £25
512K RAM STFM £45

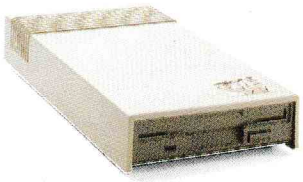
New Blitz Turbo

- Back-up your disks at lightning speed
- Copies from the internal to the external drive
- Cleverly by-passes your ST's disk controller chip
- Back-up an ST disk in around 40 seconds
- Now you can switch between your disk drive and Blitz Turbo without disconnecting your Blitz interface

New Blitz Turbo £25
Original Blitz Turbo £15

Floppy Drives

PC720B



- Award winning drive manufactured by Power Computing
- Super slim design
- Virus blocker (prevents viruses)
- Built-in Blitz Turbo
- Boots from drive B
- High quality
- 12 month warranty

PC720B £65

PC720I

- Atari internal disk drive £39.95

PC720OI

- Official Atari internal disk drive £45

(No case cutting but must be small button version)

PC720P

- Disk drive inc. power supply unit £50

Drive Accessories

Maxell Multi-Colour disks (10) £9.95
Floppy disks bulk supplied .....£POA

Boot from Drive B

If you have an internal drive that is not compatible with "Boot from drive B" this cable will solve your problem £9.95

Hard Drives

Series 900 HD

- Super slim design
- Low profile mechanism
- No need for a cooling fan
- Buffered thru'port
- Optional battery backed clock
- High speed 20ms seek rate
- Write protect switch, protect your valuable data
- Power supply
- ICD interface and utility disk

Series 900 40MB £329
Series 900 100MB £479

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

ICD

The Link™

- External SCSI host adaptor
- Connect Atari ST to external SCSI devices e.g. External HD, floppy drives Optical drives, CD ROM drives which were originally designed for the Apple Mac, IBM PC, Commodore Amiga, Ne Atari TT, Falcon
- Atari ST must have a DMA port
- Plug-in and go
- Software included
- Compact interface
- 63 x 76 x 19mm in size
- No power supply needed

The Link™ £69.9

Optical Hard Drive

- Manufactured by Power Computing
- 128MB on one optical disk
- Read and write optical disk
- 40ms running speed
- Built-in power supply
- High power cooling fan
- 25-way and 50-way SCSI ports
- SCSI ID switch

(The link™ must be used to connect drive to Atari computa

128MB External optical drive £9
128MB Optical drive & The Link™ £10
128MB 3.5" Optical disk .....£39.95 ea

Software

Lattice C v5.0 .....£
Devpac v2.0 .....£
HiSoft C .....£
Proflight .....£
Harlekin .....£
Wercs .....£
Knife ST .....£
PC Ditto .....£
Neo Disk v3.0 .....£
Devpac v3.0 .....£69

Miscellaneous

Power Mouse .....£
Optical Mouse £29
Replacement Optical Mouse mat £9
10 Maxell disks, Optical mouse, Zipstick .....£

Distributor for Power Computing in Italy, D.R.R. SRL 00142, Roma. Via Duccio Di Buoninsegna Tel (06) 5153481 / 482 Fax
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Printers

All printers include cables and next day delivery

Star Printers

00 colour £199
-200 mono £239
-200 colour £289

Citizen Printer

t 24e £279
udes colour kit and AMI)

Epson Printers

Laser

EPL 4000

al first time laser printer
nt speed of 6ppm
nt superb quality text and graphics
al upgrade from dot-matrix

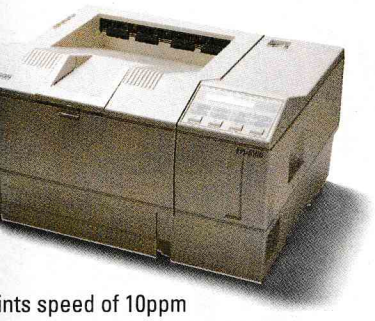
4000 ..... £639

EPL 4300

gh quality laser printer
nt speed of 6ppm
IB memory
band to 6MB
obe postscript option
0 sheet tray

4300 ..... £799

EPL 8100

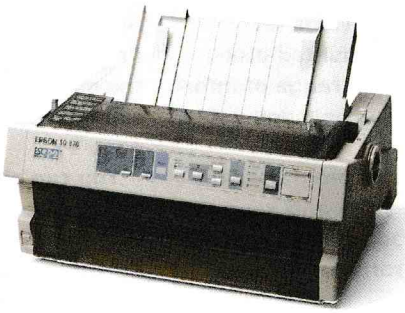


ints speed of 10ppm
MB memory expandable to 6MB
crosoft printing
tech
font
0 sheet papertray
obe postscript option
lligent/remote emulation switching
allel/serial interface
working capabilities
serve 2-3 users
ared printing

..... £1349

Inkjet

SQ870



- New generation inkjet
- Advanced paper handling
- Print scalable fonts
- 660cps print speed
- 360 x 360 DPI print quality
- 128k printer buffer
- Handles four paper types

SQ870 ..... £509
SQ1170 ..... £629
(132 Column printer)

Dot Matrix

LQ570

- Four feed paths
- Flexible paper management
- 225cps print speed
- Easy access control panel
- Memory stores around 4 full pages of text
- Print text and graphics
- Optional sheet feeders
- Optional tractor feeder

LQ570 ..... £289
LQ1070 ..... £449
(132 column printer)

LQ100

- 24-pin
- 250 cps printspeed
- Space saving
- Scalable fonts
- Enhanced graphics
- 50 sheet A4 paper tray
- Dual position design
- Optional tractor feed
- LQ100 fits in anywhere!

LQ100 ..... £209

Dot Matrix Cont.

LX100

- 9 pin
- Tractor feed
- Cut sheet feeder
- Cables
- Some of the LQ100 features

LX100 ..... £189

Monitor

Philips CM8833 MK2

- With cable
- On-site maintenance

CM8833 MK2 ..... £199

The Ultimate Cartridge

The Ultimate Cartridge will break into any Atari ST program. Whether you're a programmer, hacker, games player, or just curious about your Atari ST, The Ultimate Cartridge gives you the power that you need. Updates available with new software.

Features:

- Break into any program
- Read memory
- Search memory
- Print memory
- Disassemble
- Disassemble to disk
- Edit memory
- Search for graphics
- Search for sprites
- Edit screen configurations
- Set up colour palettes
- Alter plane configurations
- Load and save screen displays
- Run external TOS programs
- Load TOS programs
- Load and save graphic screens
- Low level disk editor
- Disk analyser
- Examine formats
- Format analyser
- File editor
- Directory editor
- Formatter
- Break and restart function
- Search for infinite lives
- Look for music
- Play music
- Load and save music
- Search for soundtracker music
- Search for sound samples

The cartridge the ST has been waiting for

The Ultimate Cartridge £25

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Contents

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EDITOR John Butters
ART EDITORS Terry Thiele
Liz Maddox
Tym Lecky
TECHNICAL EDITOR Darren Evans
PRODUCTION EDITOR Phil Morse
GAMER EDITOR Paul Roundell
STAFF WRITERS Ben Styles
Jonathan Maddock

AD MANAGER Lisa Bracewell
AD PRODUCTION Barbara Newell

PRODUCTION/ADMIN MNGR Sandra Childs
CUSTOMER SERVICES Jayne Mottershead
SYSTEMS MANAGER David Stewart

CIRCULATION DIRECTOR David Wren
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Tel: 0625 878888 (All departments) Fax: 0625 879966

CHAIRMAN Derek Meakin
MANAGING DIRECTOR Ian Bloomfield
AD DIRECTOR Jane Conway

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EUROPRESS ENTERPRISE

For over six years *Atari ST User* has been the leading magazine for ST enthusiasts. As a key member of the Europress magazine group, *Atari ST User* promises to inform, educate and entertain its readers each month with the most dedicated coverage of the ST available.

Atari ST User • Amiga Computing • PC Today
Acorn Computing • Amiga Action • ST Action
N-Force • Zzap!64 • Sega Force • GB Action
Super Action • PC Home

This month Atari ST User is real value for money – it has the best cover mounted disk you'll find anywhere plus a wide range of informative features and tutorials to help you get the most from your ST.

We've crammed two full price programs and five useful utilities on to one disk and kept our price down at £2.99, while some magazines charge an extra £1 for less software on two disks.

Quantum Paint 2 is the ultimate paint package for ST users. We are offering the manual at a bargain price – but to get started turn to our tutorial on page 26.

We've also got a special feature showing you how to draw with paint packages such as Quantum – follow our advice and your work will be picking up prizes in our occassional Gallery pages in no time.

But for anyone really interested in graphics, Falcon will be a must. We went to Atari's office for our first hands-on test of the machine and you can read our verdict on page 49.

You can also find articles on the top 20 products to buy your ST this Christmas, fonts that should find a place in your DTP work and what the industry plans to do for the ST and Falcon next year.

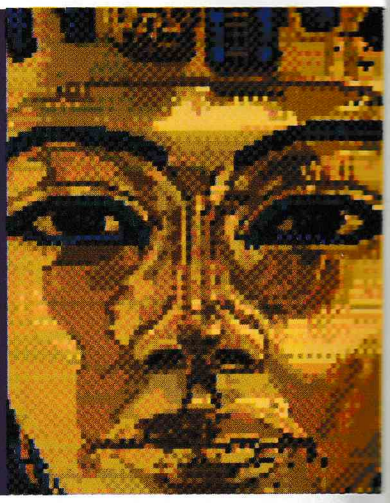
I'm sure you'll agree that it will be hard to beat this issue, but we'll be giving it a try next month when we give away STOS 3D, an extension to the ultimate programming language that will give make your games three dimensional. See you then.

John Butters
Editor

COVER FEATURE

Tips on getting the best results from Quantum Paint and other great drawing programs

Perfect Painter 20



midi and music ❖ emulation ❖ communication ❖ dtp ❖ business

Aspects of the ST

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Emulation 111
The column that exploits the ST's chameleon-like tendencies to the full!

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DTP 115
Producing top-quality newsletters and posters is easy with your ST and this column

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– sandy adventures with Cocktail Vision

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Complete and unrivalled ST games coverage

Don't miss our GREAT offers for subscribers on page 102

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29 Ahead with Atari
Key players from the industry give their opinions of 1992 and say what they've got in store for the ST and Falcon next year

40 Top of the shops
We look back over the year and recommend the top 20 products for your ST this Christmas

61 Midistudio tutorial
The final part of our guide to this sequencer, exploring some of the advanced features of the package

69 Choosing a font
A DTP expert explains which fonts should be used in your work and how you can design your own

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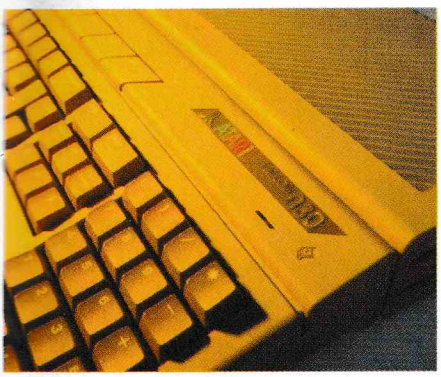

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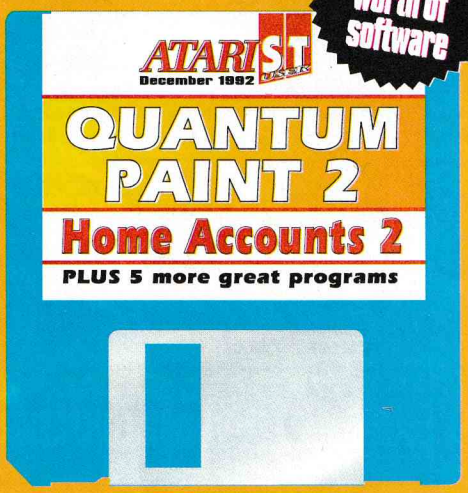
The CoverDisk

£85 worth of software



Become an artist with the superb paint package Quantum Paint 2 plus a chance to get your own economy in order with Home Accounts 2

PLUS:

- Some Midi tunes for the festive season
- top menus dropping down accidentally with Rodents
- Sumaria - run a country's economy, where the only thing missing is the ERM
- Autorais - automates Desktop window selection
- Try the shareware version of the improved SuperCard database

The DISK starts on page 12

Over 120,000 people have joined Special Reserve - the Games Club with no obligation to buy.

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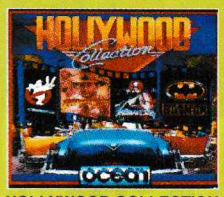

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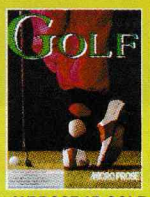

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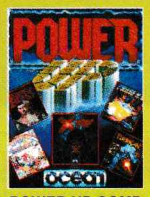

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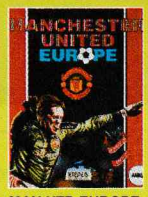

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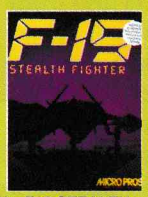

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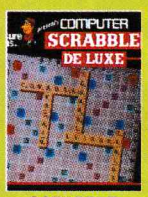

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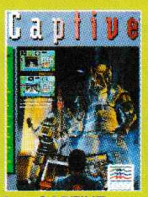

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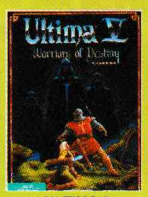

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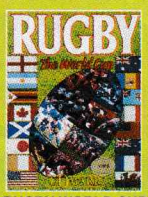

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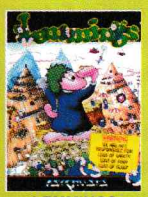

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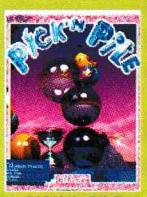

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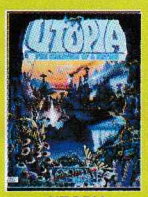

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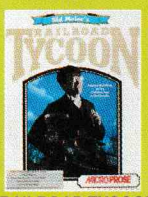

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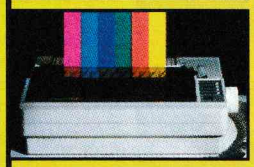

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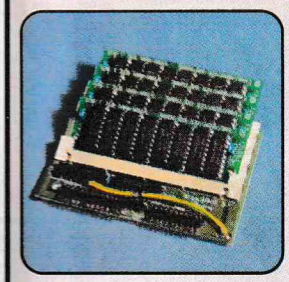

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ATARI ST USER

NEWS

By John Butters

Falcon to attack consoles

Price drop and console-beating bundle for Falcon?

FALCON will almost certainly have its price cut to £399 and arrive on the High Street in a new case and a console-beating bundle next spring.

Atari are keeping tight-lipped on the plan, but Commodore's recent launch of a £399 Amiga with much improved graphics has made a price drop for Falcon inevitable.

Atari bosses, however, stress that the current £499 for the one megabyte version is a "launch price".

Industry pundits say Atari will target the Falcon at games players, using one or two 16-bit console beating games to tempt them to the machine.

And the firm's strategy of highlighting the advantages computers have over games consoles will continue, with a selection of home productivity packages also being included.

Head of Atari UK Bob Gleadow expects leading software houses to have released several hundred Falcon titles by the end of 1993, at least 50 of them games.

Some developers already have machines, while other firms will be supplied with computers when the first shipment arrives in the next few weeks.

And Gleadow has said that an Atari-badged CD-ROM drive compatible with the dominant CD format will appear towards the end of next year.

He expects the CD standard to emerge with the introduction of full motion video.

Waiting for MultiTOS

THE first 10,000 Falcons due for sale to British ST enthusiasts in the next few months will not be supplied with MultiTOS, the disk-based multi-tasking operating system.

An Atari spokesman says the firm have not finished working on MultiTOS, although it is believed that it will be offered to people who have bought the computer as soon as it is ready.

Atari boss Bob Gleadow has said he expected 10 non-game titles to be released for Falcon before Christmas.

Gleadow expects 10 Falcon titles before Christmas

Pulse increases at Ladbroke

NEW models, improvements and price cuts are the order of the day for Preston-based Ladbroke Computing's (0772 203166) Data-Pulse Plus range of hard drives.

The 52 megabyte version now costs £319.99, while two models added to the range are a 40Mb version costing £289.99 and an 80Mb model for £379.99. Both are based on Quantum mechanisms.

Among the improvements are the addition of a SCSI expansion port, enabling daisychaining of SCSI devices and compatibility with Falcon.

Other products to have their prices slashed are the Aries memory upgrades and the Data-Net networking and multi-tasking equipment.

Stacy owners can now buy a rechargable battery pack for £49.99. With an optional fast charger the pack gives up to two hours operation after a four-hour charge. It weighs 2.2 lb

Jumping in with Noddy

NODDY'S Playtime is the first program from education software house the Jumping Bean Company (0602 792838), expected for release next spring.

Featuring the popular children's cartoon character Noddy, the software will be covered in a joint promotion with the BBC's animation series due to be screened this year end.

Youngsters aged between three and seven years old can drive with Noddy through Toytown, exploring the local area and visiting friends.

Jumping Bean start with Noddy

There are eight locations to visit, each with three levels of ability and its own game including recognition, memory, observation and counting. A junior art package is also available. Among other things the package aims to let children discover movement, teamwork and map reading. The ST version will cost £24.99.

News flashes

ZONE Distribution (071-738 5444) have extended their catalogue of ST music software with the recent take over of Music Pro Imports UK. They will no longer be selling directly to end users.

Former MPI boss Stephan Israel has joined Zone as sales director and will be responsible for the presence of Zone's catalogue throughout the dealer network.

HISOFT (0525 718181) have been given exclusive rights to XBoot, the AUTO folder management package. The program enables ST users to control the loading of auto programs, desk accessories and CPXs.

AN INTEGRATED software package containing a wordprocessor, spreadsheet and database is due for the ST and Falcon soon from Atari.

ST-Sutre contains Speedo GDOS, a replacement for FSM GDOS which is faster, smaller and uses bit-stream fonts. Price yet to be fixed.

REALIGNMENT of the pound and price increases by NVDI's German manufacturer have forced System Solutions to rise the accelerator's price to £49.95.

The software – now selling as NVDI 3 – has been revised and improved. Its new features include compatibility with MultiTOS and FSM GDOS.

LEADING software house HiSoft (0525 718181) have announced the immediate availability of document processor Wordflair 2.

It supports FSM GDOS and has an updated user interface, English spelling checker and thesaurus and improved graphic handling.

ATARI Germany have moved to: Am Kronberger Hang 2, 6231 Schwalbach/Taunus, Germany. There new telephone number is 010 49 61 96 8010.

D-SUG, the user group for Roland D-series instruments have moved. Contact Garry Mason at 14 Poplar Road, Chestnut Avenue, Corby, NN17 2UY. Telephone 0536 203198.

KNOW SOMETHING WE DON'T?

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

More cuts at Atari

ATARI research and development centres in Dallas and Chicago are to close and their work and many staff will be transferred to the firm's headquarters in Sunnyvale, California.

The move is believed to be part of Atari's cost-cutting strategy that has led to cut-backs throughout Europe, which have so far included the closure of the firm's office in Sweden.

And it is disagreements over these economies which are rumoured to be behind the sudden departure recently of Atari's boss in Germany, Alwin Stumpf.

Stumpf was a major player within Atari, and had recently been employed in the United States as Vice President for International Sales.

24-pins for under £200

PRINTER giant Seikosha (0753 685873) have signalled the start of a new price war by slashing the cost of their SL-90 dot matrix printer to make it Britain's first sub-£200 24-pin machine.

The firm aim the £199 price tag as spearhead of a Christmas drive to make 24-pin printing affordable within the home and small businesses.

Seikosha's Gareth Cornish said: "By dropping the price of the SL-90 we have significantly boosted the price/performance level of the printer."

At the time of going to press other manufacturers had not adjusted the cost of their machines, although industry experts considered the move imminent.

Always on Sundays...

MODEM users are among those that will benefit from cheaper telephone calls o Sundays during November and December. Running between 3pm and midnigh the offer enables telephone callers to be connected to and from anywhere in th UK for 84 pence an hour.

Said BT's Group Managing Director Michael Hepher "We have taken this initiative as part of our commitment to give customers even better value for money.

"No matter where you call to in the UK – even if it's from Land's End to John o' Groats – it will only cost the price of a cheap rate local call."

ISDN lines, mobile phones and pay phones are excluded from the offer.

Modem costs cut on Sundays

Arnor in Amstrad link

OWNERS of the new Amstrad NC100 can swap data between their ST and the notepad computer using a file transfer system just developed by Arnor (0733 68909).

Lapcat can also be used for PC to PC transfer or PC to ST, and is a combined software and hardware package that communicates files through the parallel port.

A Ymodem feature enables users to back up an entire directory to a second computer in a single operation. Price, £40 plus £10 for each additional computer.

NC100 owners will also soon be ab to increase their notepad's memory with RAM cards being developed by t Peterborough-based developer.

NC 100 gets an ST link

Power in the modem

A BULLETIN board just set up by Power Computing (0234 843388) wi enable modem users to access free s ware, technical help and discounts.

There is unlimited technical advice anything linked to the ST, and the lat public domain and shareware softwar will be available for downloading.

Discounts of between five and ten p cent will be given on selected Power Computing products and anyone taki a yearly subscription costing around £ will be given extra discounts.

The firm's customers will be able to obtain software updates and order pro ucts for same day dispatch.

It operates at all board rates up to 16,800. Power BBS can be contacted o 0234 841503.

The young take control

JOYPAD is the name of a new device for very young children and people who cannot cope with keyboards or conventional mice and joysticks.

Four large red arrow keys and an "action" key are grouped on a bright yellow pad. It plugs into the ST's joystick port and can be used in the hand, on a tabletop or floor.

"The Joypad is suitable for many special needs users with minor disability," claimed a spokesperson for manufacturer Holdfast Computing.

"With its steel chassis, no need for a flat worksurface and no exposed removable ball, the Joypad promises to be a robust mouse replacement."

Cost, £25 from Holdfast Computing (0454 411126).

Joypad helps young children and the disabled

Citibank go on line

INFORMATION from financial market around the world is now available to modem users from Citibank through t CompuServe Information Service (027 255111).

Global Report provides real-time fo eign exchange and fixed income rates from major worldwide markets and po ical and financial news.

Also available are in-depth compan profiles, country profiles and informa tion on stocks, bonds, commodities an other markets.

The service carries a connect surcharge of $35 an hour, in addition to CompuServe's standard connect cost $12.80 per hour.

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- 144cps Draft, 30cps NLQ
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- Epson and IBM Emulation
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SILICA STARTER KIT £25
TOTAL VALUE: £224
SAVING: £109
SILICA PRICE: £115

The Citizen 120D printer comes supplied with a parallel interface as standard. If you require a serial interface instead, please state ref: PRI 2125 when placing your order with Silica.

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- Citizen Prodot 9 - 9 pin - 80 column
- 300cps Draft, 60cps NLQ
- 8K Printer Buffer + 3 Fonts
- Parallel Interface
- Graphics Resolution: 240 x 240dpi
- Epson and IBM Emulation
- FREE Colour Kit
- FREE Silica Printer Starter Kit

RRP £189
COLOUR KIT £41
STARTER KIT £25
TOTAL VALUE: £255
SAVING: £76
SILICA PRICE: £179

£179 +VAT= £210.33 ref: PRI 2319

192 CPS 80 COLUMN

- Citizen Swift 9 - 9 pin - 80 column
- 192cps Draft, 48cps NLQ
- 8K Printer Buffer + 3 Fonts
- Parallel Interface
- Graphics Resolution: 240 x 240dpi
- Epson and IBM Emulation
- FREE Colour Kit
- FREE Silica Printer Starter Kit

RRP £239
COLOUR KIT £38
STARTER KIT £25
TOTAL VALUE: £302
SAVING: £133
SILICA PRICE: £169

£169 +VAT= £198.58 ref: PRI 2209

192 CPS 136 COLUMN

- Citizen Swift 9x - 9 pin - 136 column
- 192cps Draft, 48cps NLQ
- 8K Printer Buffer + 3 Fonts
- Parallel Interface
- Graphics Resolution: 240 x 240dpi
- Epson and IBM Emulation
- Colour Option Available
- FREE Silica Printer Starter Kit

RRP £329
STARTER KIT £25
TOTAL VALUE: £354
SAVING: £155
SILICA PRICE: £199

£199 +VAT= £233.83 ref: PRI 2309

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STARTER KIT £25
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STARTER KIT £25
TOTAL VALUE: £394
SAVING: £135
SILICA PRICE: £259

£259 +VAT= £304.33 ref: PRI 2571

24 PIN PRINTERS

270 CPS 80 COLUMN

- Citizen Swift 200 - 24 pin - 80 column
- 270cps SD (15cpi), 216 cps Draft, 72cps LQ
- 8K Printer Buffer - 40K maximum
- Parallel Interface • 6 LQ Fonts
- Graphics Resolution: 360 x 360 dpi
- Epson, IBM, & NEC P20 Emulations
- Quarter Printing and Auto Set Facility
- Ultra Quiet Mode - 44.5 dB(A)
- Colour Option Available
- FREE Silica Printer Starter Kit

RRP £269
SILICA STARTER KIT £25
TOTAL VALUE: £294
SAVING: £115
SILICA PRICE: £179

£179 +VAT= £210.33 ref: PRI 2490

192 CPS 136 COLUMN

- Citizen Swift 24x - 24 pin - 136 column
- 192cps Draft, 64cps NLQ
- 8K Printer Buffer + 4 Fonts
- Parallel Interface
- Graphics Resolution: 360 x 360dpi
- Epson, IBM and NEC P6 Emulation
- Colour Option Available
- FREE Silica Printer Starter Kit

RRP £489
SILICA STARTER KIT £25
TOTAL VALUE: £514
SAVING: £215
SILICA PRICE: £299

£299 +VAT= £351.33 ref: PRI 2574

INKJET PRINTER

360 CPS 80 COLUMN

- Citizen Projet - inkjet - 80 column
- 360cps Draft, 120cps NLQ
- 50 Nozzle Head - Whisper Quiet 47dB(A)
- 8K Printer Buffer + 3 Fonts
- Optional HP Compatible Font cards
- Parallel Interface
- Graphics Resolution: 300x300dpi
- HP Deskjet plus emulation

RRP £496
TOTAL VALUE: £496
SAVING: £151
SILICA PRICE: £345

£345 +VAT= £405.38 ref: PRI 2090

NOTEBOOK PRINTER

64 CPS 80 COLUMN

- Citizen PN48 Notebook Printer
- Non-impact Printing on Plain Paper
- 53cps LQ - 4K Buffer + 2 Fonts
- Rear and Bottom Paper Loading
- Parallel Interface
- Graphics Resolution: 360 x 360dpi
- Epson, IBM, NEC P6 & Citizen Emulation
- Powered From Mains, Battery or Car Adaptor

RRP £325
TOTAL VALUE: £325
SAVING: £126
SILICA PRICE: £199

£199 +VAT= £233.83 ref: PRI 2100

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PRA 1209 Swift 9/9x/124D/224 ..... £32.25
PRA 1709 Swift 24/24x/24e £26.38

32K MEMORY EXPN

PRA 1753 124D/224/Swift 24 ..... £13.10

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COVERDISK

There are two EXCLUSIVE full price programs on this month's Cov

Quantum

Programmed by: D. Jones

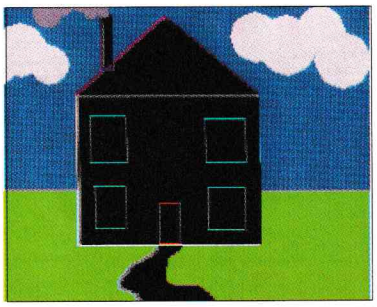
Configuration: all STs – low or medium resolution – 1Mb recommended for animation facility

Filenames: X_QPAINT.TOS – self extracting archive

In conjunction with Power Computing, we bring you Quantum Paint 2, a complete and fully working art and animation package which allows you to produce animated sequences using the DeltaFrame method.

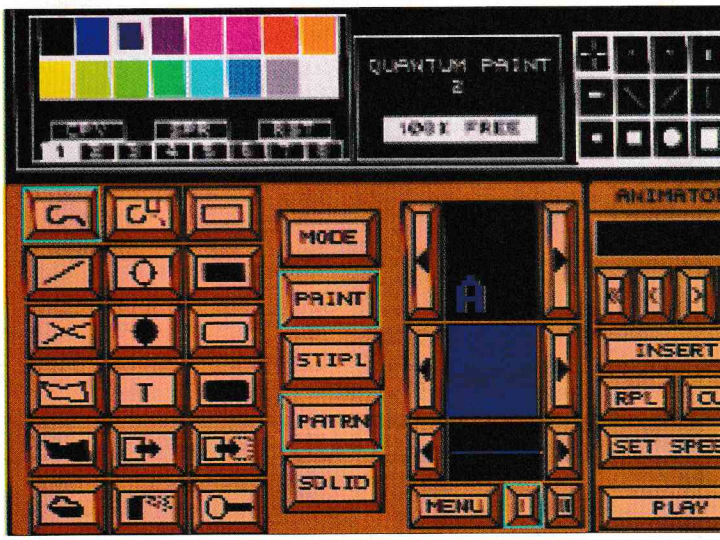
This only saves the differences between frames, so enabling you to produce lengthy animations. However, Quantum Paint's most powerful fea is the ability to produce pictures in of four screen modes – check out th screen mode information box to se what it can do.

It can use GDOS-compatible fon without the need to have the GDO extension installed ,and output is p



A prime example of our editor's artistic talent. He's a legend in his own mind

Right: Now that you have Quantum Paint let's see some of your multi-coloured masterpeices in our ST Gallery pages



Autorais

A utility for automating window selection

This appeared on a previous *ST User* coverdisk, but we have had a number of calls from people who missed that issue and would like to obtain it. So here it is.

The program automatically makes the window currently under the mouse pointer the active one without the need to click a mouse button. Don't you just love programs that make life easier?

Programmed by: Annius Groenink

Configuration: all STs – all resolutions

Filenames: X_AUTO.TOS – self extracting archive

The Christmas MIDI Song Collection

A selection of festive songs in MIDI file forma ready to be played on your favourite MIDI instrument

It's nearly Christmas, and it won't be long before the *Atari ST User* offices are adorned with merry decorations. So what better way to celebrate Christmas than to set up your ST and MIDI instrument and impress friends with festive tunes emanating from your ST?

Once extracted, you will find three folders and a TXT file containing the documentation on how to use the MIDI files.

There is also a PD program called MIDITREE which is a simple MIDI file player (see accompanying documentation MIDITREE.DOC for instructions).

From: Words & Music

Configuration: all STs – all resolutions

Filenames: X_MIDI.TOS

There are 20 MIDI files which should provide hours of entertainment. If yo not a particularly good musician you could set up MIDITREE with your favou MIDI keyboard, invite a few friends around and impress them with your new-found musical talent. Dishonest I know, but great fun.

antum Paint 2 art package and Digita's Home Accounts 2, plus other useful utilities.

Paint 2

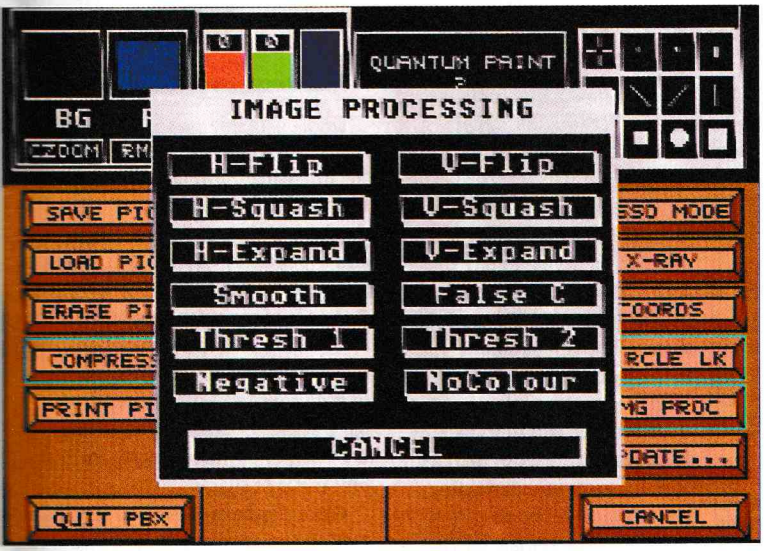
ble to a range of printers. Although Quantum Paint will run in 512K of memory, 1Mb is strongly recommended to fully appreciate the animation facilities.

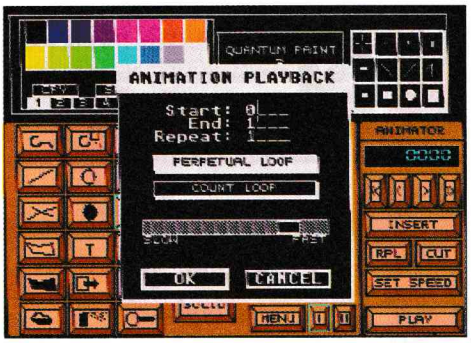
Check out the Disk Tutorial pages for a more detailed explanation of Quantum Paint.

We would be interested in any pictures done with Quantum paint. So once you've completed a masterpeice why not send it into us for inclusion in the magazine's ST Gallery.

Our address is ST Gallery, Atari STUser, Europa House, Adlington Park, Macclesfield SK10 4NP.

Below: The image processing menu allows you to apply numerous special effects to your picture





Left: Quantum Paint also has a built-in animation facility and allows you to run animation sequences that are loaded

Quantum Paint drawing modes

Mode 1: Gives 32 colours in medium resolution, providing a higher resolution with four times the colours of the standard medium resolution mode.

Mode 2: Quantum Paint's default mode in low resolution offering 128 colours on screen.

Mode 3: One of two Super-Palette modes giving a massive 512 colours in low resolution.

Mode 4: This boasts a staggering 4096 colours all on a standard ST. Amazing huh?

Super Card 2.05

An excellent, well written and very easy-to-use database which rivals commercial packages but at a fraction of the cost

Programmed by: Mark Butler

Configuration: all STs – medium or high resolution

Filenames: XSC2 05.TOS – self extracting archive

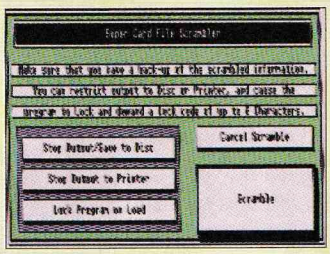
The world of shareware products is home to some excellent quality applications at bargain prices, and Super Card 2 is one such example

Available from B.Ware Software, Super Card 2 is one of the best database programs I have come across.

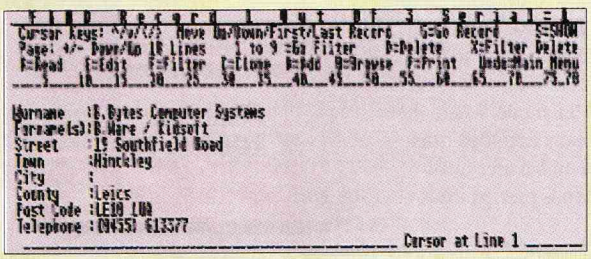
It is very easy to use and is crammed with features and functions, making it a perfect tool for cataloguing such things as your music or *ST User* CoverDisk collection.

In this version, you are restricted to 100 record cards and also have to endure the SULK mode which constantly displays a message during use.

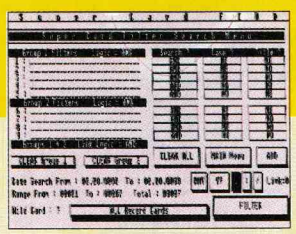
If you register the program you will receive six code numbers which, when entered into the installation program, transforms Super Card 2 into a fully working non-restricted program. See accompanying READ_ME.NOW text file for more information.



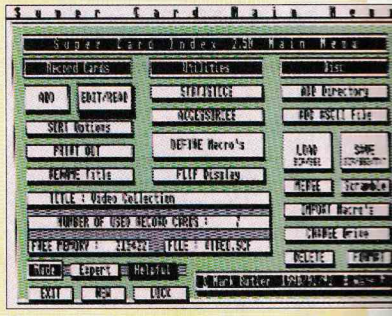
Super Card also has a built in security feature to keep all your data private



Left: Each card record in Super Card can contain any type of data from a name and address file to your complete video collection



An extremely powerful search facility allows quick interrogation of your database file



Masses of features and an easy to use interface combined with fast program routines are just a few of Super Card's strengths

COVERDISK

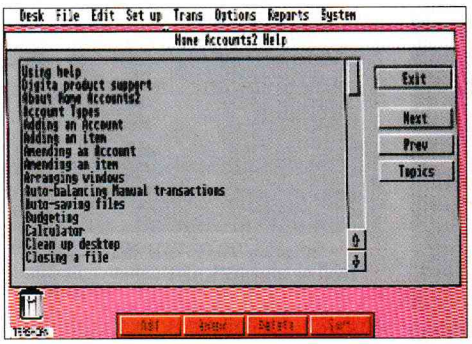
Home Accounts 2

Now you can keep track of your spending with this extremely flexible and easy-to-use accounting program from Digita International.

Home Accounts 2 operating notes

Double-click the HOMEACC2 icon to start Home Accounts 2. Some sample files for different scenarios can be found in the samples folder on the disk and may be accessed by choosing the Open file command from the File menu.

The program is designed to be as easy to use as possible, however should you experience any difficulties Home Accounts 2 includes on-line help which may be accessed by pressing the Help key.



The online help system is extremely beneficial to the first time user and facilitates quick learning of the package

Opportunity

All Home Accounts 2 functions are available in this version, but the program is only designed to operate up to January 31, 1993. This will give you an opportunity to try the program out, and should you decide to buy the full version the information you have set up with this version will be compatible.

The next section is designed to guide you through setting up your own file and to show how Home Accounts 2 can help with specific areas of maintaining your finances.

Starting Your Financial Year

Programmed by:
D. J. Merrifield

Configuration: all STs – medium or high resolution

Filenames:
X_ACCNTS.TOS – Self extracting file

Before setting up your file you will need the following information:

- The start month and year.
- A list of headings for your income and expenditure (Types). For example, salary, food, car expenses.
- Details of your standing orders and direct debits (Regular transactions).
- Details of all the accounts you want to monitor (Accounts). For example, bank accounts, credit cards, savings.
- Details of any investments, such as unit trusts or shares.

Once you have assembled this information you are ready to set up your file.

Rat Trap

A useful accessory which prevents the mouse from accidentally selecting menu items on the Desktop

Have you ever been carefully arranging windows on the ST's Desktop, only to find yourself inadvertantly moving too close to the menu bar at the top of the screen and having the menu items' selections drop down on you?

Wouldn't it be better if you actually had to click on the menu items in the menu bar before the selections dropped down? Well now this is possible with the aid of this brilliant accessory from Mr Thomas.

It provides two modes of operation, both of which make life with the mouse much easier.

The first is HALF mode, where the mouse pointer is allowed to move up to the menu bar, but you have to click on one of the menu items in order to access its selections.

The second is FULL mode, where the mouse pointer is totally excluded from moving into the menu bar area until the left mouse button is pressed. Nice one, Mr T.

Programmed by:
A. Thomas

Configuration: all STs – all resolutions

Filenames:
X_RODENT. TOS

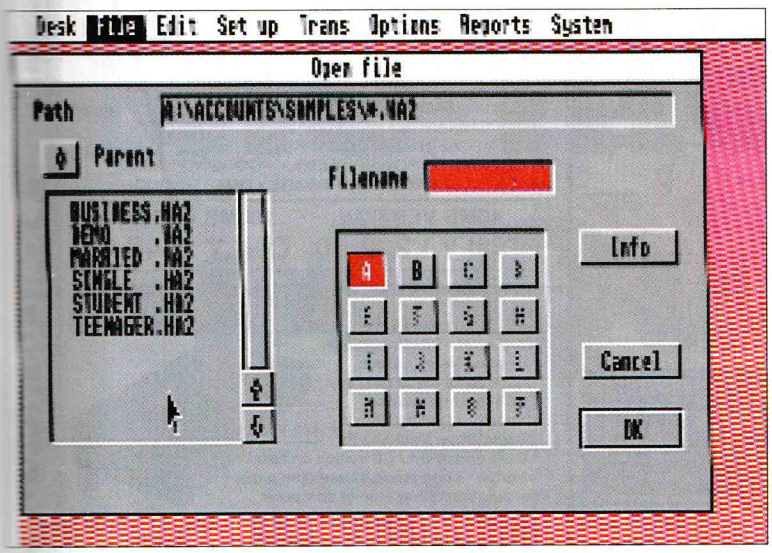
Sumaria

A remake of the classic economy game where you try to maintain a thriving community by arranging food crops to feed the populace

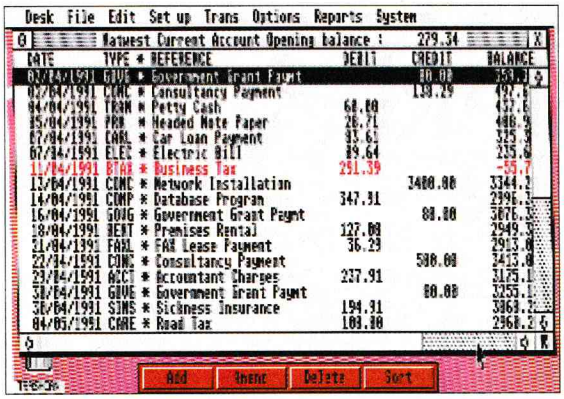
My first introduction to a computer game was about (mumble, whisper) years ago when my school started a computer studies class. After school, our teacher used to let us stay a while and play a game called Kingdom.

In it you control the economy of a small kingdom, your duties being to buy land, grow crops and generally keep kingdom and inhabitants in good health.

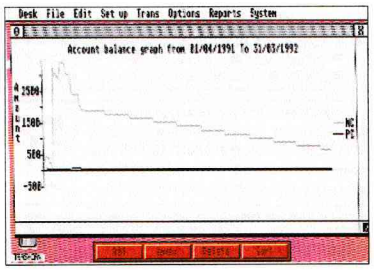
Now you can play the game on the ST with a few added features, including some simple graphics. So test your skill at governing – a perfect opportunity to gauge your suitability for a place on John Major's cabinet.



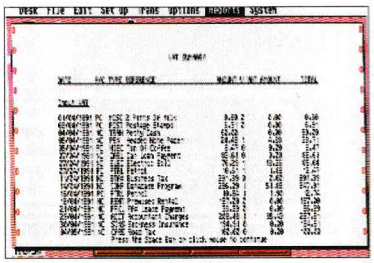
As you can see, Home Accounts' interface is somewhat customised. A big improvement on the drab GEM graphics



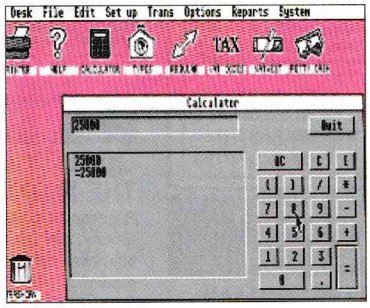
Full details of your account's current status is available at the click of a mouse button



A versatile reporting system allows various reports to be displayed as either a list, scatter graph or line graph.



A full VAT (boo, hiss) summary function lies at your beck and call



Home Accounts' desktop screen is very slick Here, I'm trying to persuade the editor just what my salary should be considering my many talents and abilities

Important: Whenever you load Home Accounts 2, be sure to set the current date correctly.

Before using Home Accounts2, you will need to have prepared a blank formatted disk. Give the file a meaningful name, and try to include the year in the filename so it can be easily located in the future. For example, MYFILE93.

Guidelines

If you are VAT registered, use the Preferences command (Option menu), and from General Preferences select the VAT registered check box. Then set up code and rates for tax (VAT).

There is also a list of guidelines and a step-by-step guide to setting up Home Accounts in the accompanying text file, which you should refer to for information on using the package.

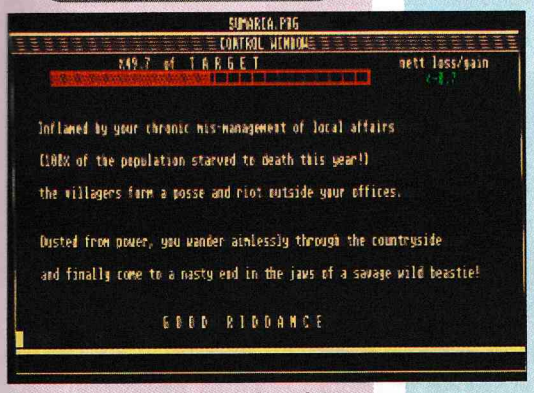
And here's a very special offer for Atari ST User readers

Digita International and Atari ST User are offering the unrestricted version of Home Accounts2 exclusively for ST User readers. Turn to Page 106 or more information and the order form.

Programmed by:
S. Collins

Configuration: all STs – Medium resolutions

Filenames:X_SUMARI.TOS – self extracting archive



Sumaria is a updated version of the classic economy game that appeared on computers many years ago. Added features include simple graphics

MiNT mistakes

There was a major invasion of gremlins on November's CoverDisk and as a result two problems crept in. Those of you trying to extract MiNT will have noticed the "Write error" message during the extraction process.

The problem is that the two folders comprising the MiNT package were to have been archived seperately but somehow managed to be archived together. This meant that the resulting file was too large to allow the file to be extracted on to onefloppy disk.

If you have a hard disk or 2Mb of memory and a RAM disk utility, it should have been possible to bypass the error, but those of you with a floppy drive system will not have all the files required after the extraction.

However, all is not lost. Although some files are missing due to the error, they can be found on this month's CoverDisk in the X_MINTFL.TOS file.

Just extract them as normal to a blank disk (mark the disk "Missing MiNT Files" or something similar) then go through the normal procedure for extracting the files on November's issue using a separate blank disk. Mark this one "Original MiNT" or similar).

When you receive the Write error message, the Original MiNT disk will have files missing, so just copy the files in the folders on the Missing MiNT Files disk into the respective folders on the Original MiNT disk and all will be well.

The other error involved the multi-computer game Cold Revenge. Unfortunately the coverdisk pages described it as working on all STs. This was an error and we're afraid the game is for 1Mb or more machines only.

Interestingly though, the error did provide insight into the kind of STs people own out there. It seems most of you have 1Mb or more machines as very few people phoned the CoverDisk hotline about the problem.

However, sincere apologies to all you ST'rs with only 512k and we promise it will never happen again. Honest! (Too true, you can't afford to lose any more fingernails can you?–Ed).

● If you missed last mont's issue and would like to have a look at the multi – tasking system behind Multi Tos, you can order it through our back issues department. see page 121.

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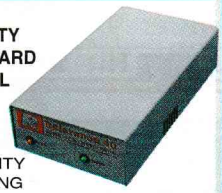

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N.B. Due to the large variance in design of the Atari ST, there is a small minority of boards in existence which may require a little soldering.

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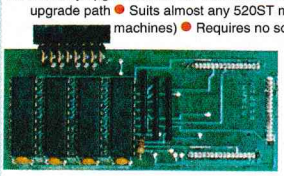

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N.B. Due to the large variance in design of the Atari ST, there is a small minority of boards in existence which may require a little soldering.

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The mechanics of Quantum

Get your artist's head on and step this way for a basic guide to get you started with this month's CoverDisk giveaway, Quantum Paint 2

Have you successfully extracted all the files from the X_QPAINT.TOS file? You have, then we'll begin.

The first thing you should know is that the more memory you have, the better. All graphics packages today can only be used to their best with 1Mb or more. Quantum Paint does run in 512k but to get the utmost out of such features as the animation facility, a memory upgrade is strongly recommended.

Also, due to the sophistication of Quantum Paint, this guide serves only to describe a few of the features contained within it. The manual is highly recommended if you wish to take advantage of some of Quantum Paint's advanced features and at a mere £5 you get a quality printed 50-page booklet with detailed explanations of all functions available. See the order form on page 18 for details on obtaining the manual.

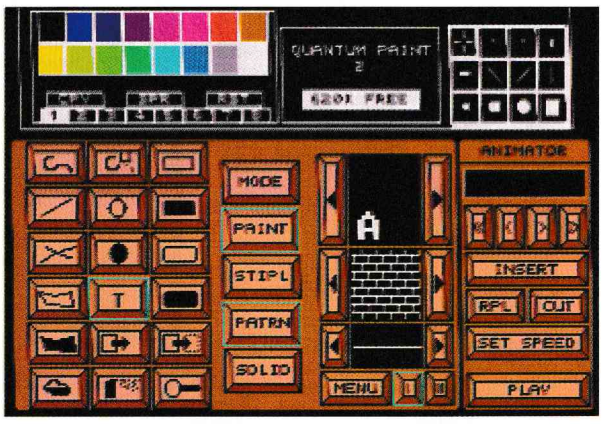
When you run Quantum Paint (double click on QPAINT2.PRG), you will be placed in the 128-colour mode if you are in lo-res, or the 32-colour mode if you are in med-res. This guide assumes you are in lo-res.

Access

The first thing you will be presented with is the main menu. Here you can access features such as the drawing and video modes, the drawing tools, the palette selector and animation facility, among others.

Selections are made simply by using the mouse to click on your choice. Some selections will have an immediate effect while others will bring up secondary screens.

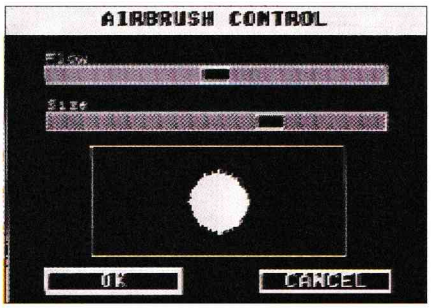
Drawing in the default 128-colour mode is just like using any other art package such as Deluxe Paint – with one exception. It is possible to split the work screen into as many as eight different "palette areas".



Quantum Paint's main menu

Each specific area can have its own particular palette of 16 colours which gives 8 x 16,or 128 colours maximum on-screen at once.

Consider for example a common picture such as a landscape scene. You could split it into three areas. The top portion of the screen would contain a palette of whites and blues for the sky, the bottom portion of the screen would have a mixture of greens and browns for the grass and terrain, while the centre portion would contain a mixture of the colours from the other palettes in order to blend the two together.



Adjust spray from the airbrush menu

It is therefore necessary to first decide the colour distribution needed, then plan the colour palettes to achieve the required effects. This may seem overly cumbersome, but the results can be stunning.

These new and powerful graphics modes are made possible by some clever programming techniques, collectively referred to as Wideband Colour. With these powerful new graphics modes being implemented in software, there are some penalties imposed.

They are paid by the ST's 68000 processor which is constantly being called upon to maintain the extended graphics. In 32 and 128-colour mode, there is not much demand made on the 68000 (about 5 per cent extra processor time is taken up).

However, in the Super-Palette Modes of 512 and 4,096 colours, there is a massive consumption of 90 per cent of the 68000's time devoured in keeping those colours on-screen.

This isn't a problem for the general user who just wishes to produce and display his graphical efforts but programmers who wish to use such extended graphics in their programs will have limited processor time for other routines.

All is not doom and gloom though. For example, it is possible for a programmer to have a 4,096-colour title screen being displayed on-screen with computer-generated music being played independently in the background.

When it comes to actually drawing on the screen, there are 18 tools and 12 brushes, which can be re-defined by you, to help create your masterpiece. Each tool can be selected simply by clicking on its icon from the main screen.

Each tool specifies the method of drawing that occurs when using the chosen brush to draw on the screen. The easiest and most effective way to learn how to use these tools is to experiment. Just pick a brush, select a tool and see what effects are produced when you use that brush to draw.

Some of the tools provide such facilities as Circle, Box and Frame for some of the more basic shapes, while others provide functions for more exotic shapes such as Polygons, Rays and Poly-Lines.

There is also a Airbrush function which works much like a traditional spray-can. It takes the current brush and sprays it around a specified, circular area at a defined rate.

The size of the circle and the rate at which the flow of "paint" emerges can be changed using the AIR778896 option from the secondary menu.

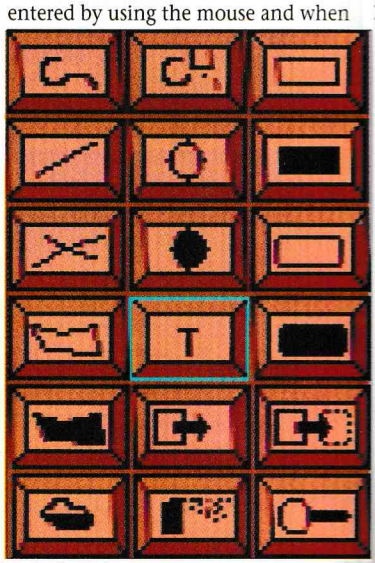
When drawing, if you wish to view your picture in the current, extended colour mode, leave the mouse stationary for approximately six seconds, at which point the built-in display routines will display your picture in the current extended mode. Moving the mouse will revert to the normal ST display.

Text

Quantum Paint also has a very good Text function which allows for any text to be incorporated into your picture. You can use the built-in fonts or use any GDOS-compatible font which can be loaded into Quantum Paint without the need to have GDOS installed.

Simply click on the Text tool and when you go into the drawing mode, the mouse cursor will be a vertical bar. If you now type anything on the keyboard, the letters will appear at the cursor position.

You may then position the text entered by using the mouse and when



Quantum Paints drawing tools

you are at the required position, clicking the left mouse button pastes the text on to the picture. Clicking the right mouse button cancels the operation.

Text can also be placed onto the picture using either x-ray mode, whereby the letters are merged with the background, or if x-ray is not selected, the letters will overwrite the picture with a solid background.

It is also possible to define how the text looks. You can adjust the font size and also decide whether the text is to be Skewed, Lightened, Thickened, Underlined or Outlined.

To facilitate easy manipulation of parts of the picture, there are also tools that make life a little easier. The Zoom icon is used when you require pixel-by-pixel accuracy when drawing on the screen.

Magnify

When selected, you may choose which part of the picture is to be magnified and with the click of the right mouse button, the selected zoom area is displayed rather than the entire picture.

It is then possible to edit each pixel using the Erase and Draw tools from within the zoom box.

Two useful tools, which allow manipulation of whole blocks of the picture, are Copy Area and Move Area. These two tools allow you to copy rectangular blocks of your picture and to move or copy it to another part.

When selected, a crosshair appears and you must select a area to be copied. To do this, move the crosshair to the top-left of the area to be copied and then, while holding down the left mouse button, move the crosshair to the bottom-right of the area.

You will see a "rubber box" outline appear which grows and shrinks as you move the crosshair. This shows the area which will be copied.

The difference between Copy Area and Move Area is that Copy Area leaves the selected area un-altered, whereas Move Area erases the selected area.

Once selected, the area chosen essentially becomes a large multicoloured brush and can be used to draw with.

Quantum Paint also features some powerful image processing functions which allow you to alter the entire picture.

You can do such things as flip the picture horizontally or vertically, squash the screen horizontally or vertically and clean up rough edges on the picture by using a process called anti-aliasing which smooths out jagged areas in the image.

Choosing which colours you wish to draw with is achieved by double clicking on the required colour in the palette menu.

Changing the colour is achieved by moving the slider bars until the required colour is found. Alternatively, clicking on the Pick box displays the entire palette on-screen enabling you to choose from the display.

One of the simplest and yet most effective effects is achieved via "colour cycling". This involves endlessly rotating a specified range of colours at a spec speed to produce some stunning effe

This feature is only available in 1 colour mode and is accessed by doul clicking on any of the numbered bo (1 to 8) in the palette menu.

This will bring up a menu allowin you to specify the speed and directio cycling, as well as the range of colou which are to be cycled.

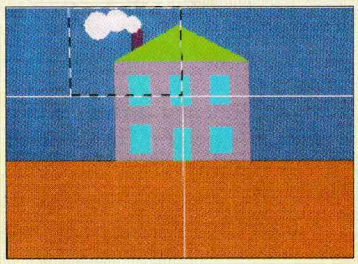
Example text and the way they affect the picture

Text styles available

Full-screen effects

The following effects allow you to alter the entire picture. The Smooth function especially useful for removing the jagged edges that are sometimes evident in lo-res pictures.

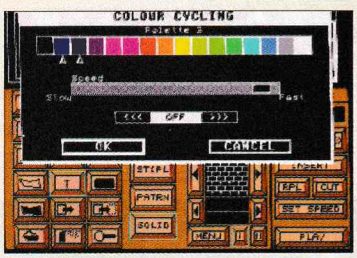
1.	H-Flip	Horizontal mirror image
2.	V-Flip	Vertical mirror image
3.	H-Squash	Reduce horizontal size x2
4.	V-Squash	Reduce vertical size x2
5.	H-Expand	Horizontal magnify x2
6.	V-Expand	Vertical magnify x2
7.	Smooth	Anti-alias image
8.	Thresh1	50 per cent threshold transfo
9.	Thresh2	75 per cent threshold transfo
10.	No Colour	Colour->Greyscale
11.	False C	False colour image
12.	Invert	Colour invert transform



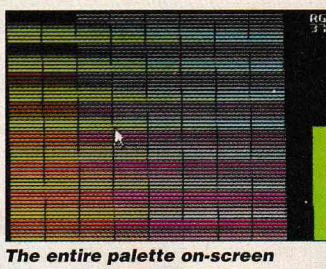
The Move Areas command allows you to cut out various parts of the picture an paste it elsewhere. This sequence of pictures shows the area to be cut outlined with the crosshairs.

Once the area has been defined, the image is removed from its original posi-tion and is then treated as a brush ready to be painted with or simply placed in another part of the overall picture.

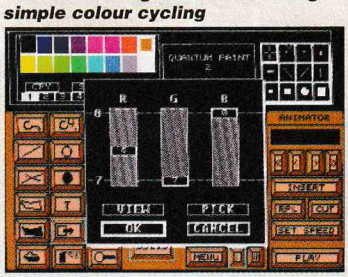
If Copy Area were used, the area specified is not erased, rather it is merely duplicated.



Create amazing animations using simple colour cycling



The entire palette on-screen



Changing the colours is achieved using the common RGB slider bars

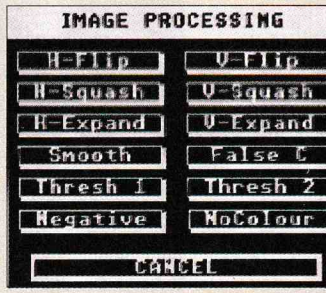


Image processing functions

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A palette full of pixels

Andrew Wright put on his artist's bere and tries his hand a painting with the S

It's quite easy to get enthusiastic about painting. Most of us have felt the urge at one time or another, whether we're walking around an art gallery or just looking at a particularly beautiful view.

Unfortunately, it takes years at art school to master the traditional techniques of oil painting and watercolour, but – in theory at least – it's a lot easier with an ST.

The problem is that most ST paint packages give you a mind-boggling array of tools to work with, from simple brushes to spray cans and multiple radiating lines, all of which can leave the amateur utterly confused.

To get the most out of a paint package requires a little more than just splashing colour on the screen. Each of the tools is there for a reason, and knowing how to use them will dramatically improve the results of your labours as well as providing a touch of creativity and inspiration.

Stunning

The number of special effects is almost unlimited once the basics are under your belt. With a really top quality package like Quantum Paint – given away free on this month's CoverDisk – you can produce some quite stunning pictures and effects.

Don't worry if you're the art world's equivalent of a lobotomised zombie – you're not alone, as you'll appreciate from my own efforts. Paint packages are designed for people like you and me. Use them properly and you'll soon be up there on the Gallery pages.

Instead of a piece of canvas and an easel, computer paint packages provide you with a blank screen onto which you can splash, pour, sprinkle or spray almost any colours you like. It helps if you have a monitor screen, but a TV will do nicely. The temptation, of course, is to start off with a pure white screen although some packages such as Neochrome provide a black background by default. However, plain black or white can be totally unsuitable for the picture, so plenty of thought has to go into choosing the right background colour before you start.

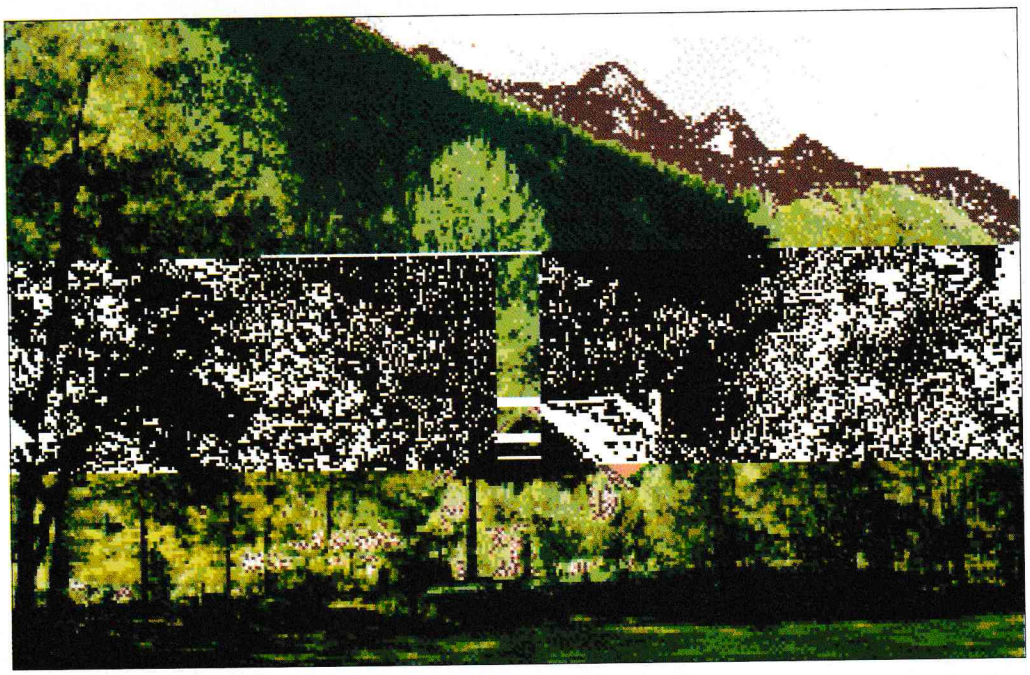
Black or a similarly dark colour such as blue or green is a good choice for a fantasy or space picture, but for landscapes the best choice is actually a base colour such as grass green or sky blue, while faces are easier with a flesh coloured background.

Fill the gaps

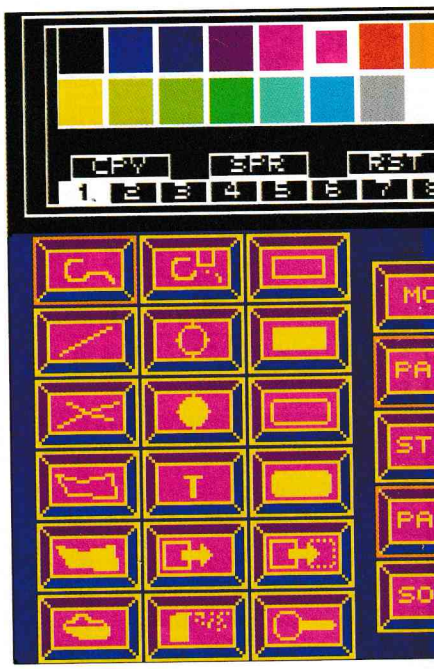
In this way, the background always shows through unintentional gaps in your painting. Don't forget that you can always use the airbrush, flood fill and even pattern tools to change it onc foreground is complete, zooming i close-up mode if required.

Colour also presents a second hu – the ST's palette can only display colours in low resolution from a to 512 on the ST or 4096 on the STE (though not all programs will mak of the extra colours).

Some paint packages like Spectr 512 and Quantum Paint get round 16 colour restriction by clever prog



A clever choice of colours is needed for landscapes



Quantum Paint -- "A mind-boggling array of tools..."

ming methods known as palette switching, but such pictures aren't normally usable outside these specific applications.

The number of colours you can use also affects the size of the "canvas" you can paint on. Painting in high resolution, with only two colours, you can have a screen 640 by 400 (256,000) pixels in size.

In medium resolution (with only four colours to choose from) you get 640 by 200 (128,000) while in low resolution, with the widest colour palette, you get only 320 by 200 (64,000) pixels. Another factor against using medium resolution is the fact that the pixels are rectangular, rather than square, which can cause odd looking drawings.

Techniques

As paint packages work in bitmap mode – they fill individual screen pixels with the chosen colour – the resolution is relatively low.

This is one reason why few DTP programs will make use of colour picture created on the ST, but there are a number of techniques for improving the overall feel of low resolution images which we will look at later.

If you are working with a limited palette, you'll have to start off by optimising it for the picture you intend to produce.

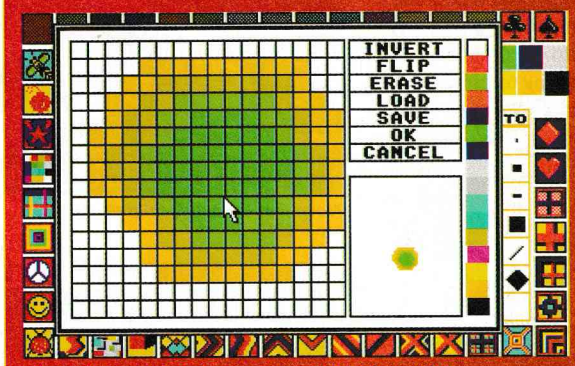
Default palettes are no use for serious graphics – if you are doing a landscape for example, you will need several different greens and browns plus a sky blue, a yellow and, of course, black and white. The more green shades you have, at the expense of reds and purples, the better the landscape will look.

This is the reason why fantasy and ➤

Tools of the trade

The most important part of a paint package is the toolbox. Learn to handle the many different tools and you'll be amazed at the effects possible.

Oddly enough, the main tool is the paintbrush and just as traditional artists have a wide variety of brushes available, the computer artist has



User-defined brushes are particularly useful

phenomenal control over size and shape. Most paint programs offer round and square brushes of varying sizes as well as oblique lines. They also offer user definable brushes, a feature which can give you some real power.

If any part of a paint package is worth spending time experimenting with, it's the brush editing dialogue. With

Synthy Art, a shareware package still under development, lets you control the airbrush parameters and even mix different colours

a little practice you can create (and usually save) brush shapes that look similar to a real artist's strokes. Try several dots or small crosses, for example.

When brushed on the screen, it looks far more aesthetically pleasing than a uniform line of colour and resembles a true paintbrush more closely.

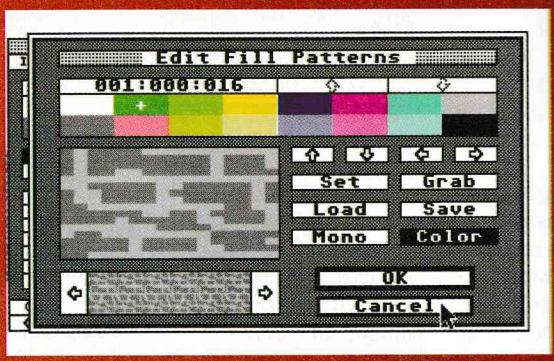
Brushes can also be used to "stamp" patterns over an area, especially if multi-coloured brushes can be used.

This isn't what a spray can is for...

When filling in a landscape, for example, a brush can be made of several shades of green or brown.

The airbrush or spray can is another important tool. Many packages do not offer enough flexibility – a true airbrush is an extremely delicate instrument capable of spraying very fine particles over a tiny area. Some airbrushes are about as subtle as an aerosol paint can – no use for anything except spraying the name of your favourite football team on a brickwork background.

The real value of an airbrush type tool is to shade 2D objects to create a 3D effect or to smudge existing objects

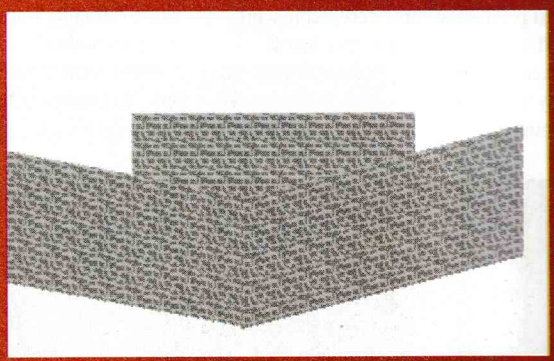


Creating a stone wall fill

to blend them in with the background. Some package even have a special smudge tool – this is similar to an airbrush but it tends to reverse solid colours and make a more gradual blend between two hues.

The airbrush/spray tool can often be combined with a different brush shape, as in Degas Elite, which is handy for special effects.

Most paint programs also have a number of predefined shapes. While certainly useful, the K-line function seems to be a lot more useful – this is a series of



The angled walls are copies of the original filled box, skewed and resized as necessary

interconnecting lines which can be used to draw quite complex shapes such as buildings and other solid objects. Alternatively it can be used to quickly draw a base model for the picture which can be gradually fine tuned.

Flood fill and pattern techniques can also help you paint better pictures. Flood fill is used for backgrounds and enclosed areas but patterns seem to of limited use until you start to create your own. If you can tailor a pattern to match, say brick, stonework or grass, it will save a lot of time spent airbrushing and filling.

Don't forget that many paint packages will let you shear and stretch filled shapes so you can add perspective to a stone or brick wall in this way.

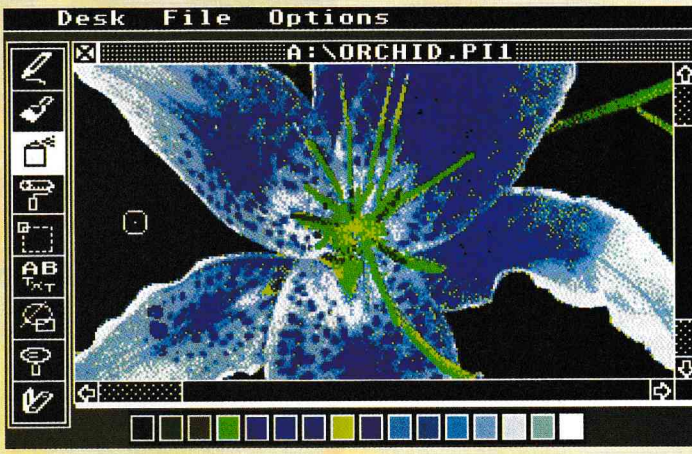
Smoothing it over

The low resolution mode used by most paint packages requires taking careful steps to ensure smooth pictures, especially where straight lines are being used.

Unless lines are exactly horizontal or vertical, a phenomenon known as aliasing will occur. Draw a few quick lines on your screen and then zoom in – each line has a stepped effect that looks distinctly ragged. If you draw a line at 45 degrees to the horizontal or vertical, however, you will notice much less distortion.

Now clearly any artistic creation that tries to restrict lines to 45 degrees is bound to look odd, but you should bear it in mind if you have a long line running through your work – for example a road or a building running into the distance.

Another method of minimising the distortion is to use anti-aliasing techniques. Packages such as Deluxe Paint feature automatic anti-aliasing, but for the most part it has to be done manually. So what is it? Anti-aliasing attempts to smooth the jagged edges of lines and solid shapes by adding intermediate colours to soften the contrast between the jagged edge and the background.



Note the customised palette

space are popular subjects for ST artists, whereas landscapes and real-life images are notorously difficult to recreate.

Most professionals agree that a palette of 16.7 million colours is what is known as "true colour" – the eye can't really determine any more than that. The absolute minimum is 256 colours, which still looks fairly presentable but 16 colours just won't work unless the range of colours is reduced and the palette is carefully chosen. Roll on the Falcon – or a graphics card like Crazy Dots.

Sketch first

Van Gogh had more talent in his little toe than I'll ever have, but it hasn't stopped me enjoying paint packages and even producing some acceptable work.

It's no use starting with a blank screen – no real artist would do this, so why should you? If you can draw, make a rough sketch first so that you have something to go on. If you can't draw, look at an alternative method.

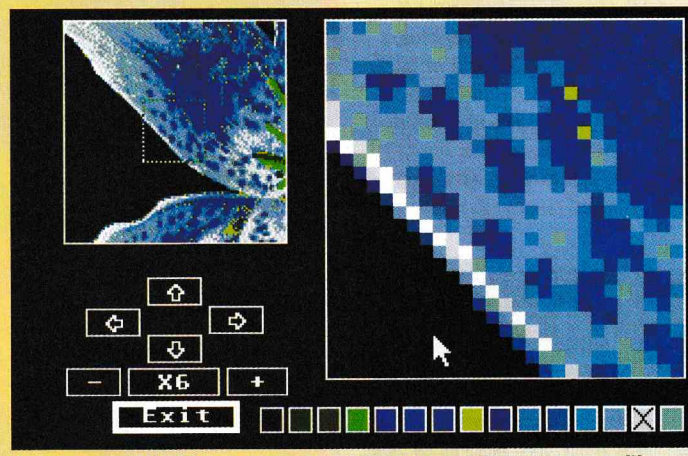
Don't be afraid to look at other people's work for inspiration. There's no harm in it at all. If you're only painting for pleasure there's no harm in copying someone else's picture, provided you don't then pass it off as your own or use it in any way.

Have you seen the Volvo advert where the car turns smoothly into a horse? The inspiration for that quite clearly came from the film Terminator 2. Everyone copies everyone else to some extent – just make sure it's different enough to be original!

The obvious way of getting some base artwork into the ST is to scan it in. Many people can draw passably well using a pencil but find drawing with a mouse quite difficult. Scanning hand-drawn artwork makes it easy to get started.

Another method is to use an overlay grid and carefully reconstruct a picture a

A straight line between two colours looks much better with anti-aliasing



The spots on the leaves were created with the airbrush/spray utility

Useful tips

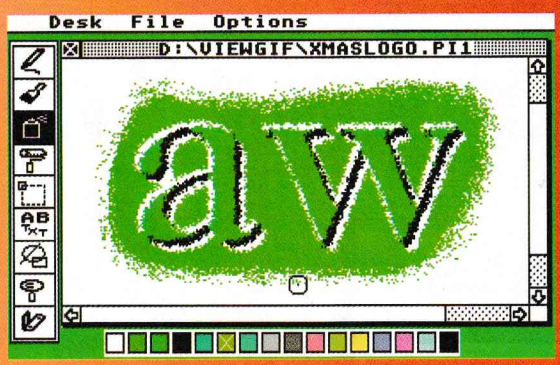
Look around – observation is the key to success in art. More importantly, be realistic. For example, don't paint a yellow circle for the sun. If the sun was a big yellow blob in a clear blue sky you wouldn't be able to see anything at all, let alone paint it!

Take precautions – it is vital to save your work regularly. Get into the habit of saving when you're happy with what you see but make use of the undo buffers too. Most programs let you operate on several work screens at once, so use them to cut and paste objects and keep backups of your work. Remember to save your customised fills, palettes and brushes.

Read the manual – whichever package you use, I guarantee there are half a dozen useful features hidden away somewhere. If you don't read the manual you'll probably never find them.

Use a ruler – especially useful for drawing figures. The human body can be divided into five equal sized parts – head, chest, middle, thighs and calfs. Use grid or guide lines if necessary – you can always rub them out later.

Text effects – experiment with text effects for your DTP work.



This effect would be difficult if not impossible in a vector graphics package

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a new easy-to-use transfer solution for sending files between different types of computer.

Lapcat was designed for the NC100, Amstrad's new Notepad Computer. To make file transfer easy something new was needed; the difficulties in sending files via the serial port are well known – the problems of different connectors, different types of leads, baud rates and the software at the other end. **Lapcat** is a combined software/hardware package that transfers files quickly via the parallel port.

The **Lapcat** software is built into the Amstrad NC100. The standard package consists of the **Lapcat** lead plus software on disk for the computer of your choice. This will enable you to transfer files between an NC100 and your chosen computer. **Lapcat** is not just for NC100 owners because you can buy software to transfer between any two of the supported computers. No technical knowledge is needed.

Lapcat prices: (Please state clearly the type of computer you are using – PC, Atari, Amiga).

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square at a time. It works particularly well with complicated pictures and photographs but some forethought is required.

At low and high resolution the ST's screen is 1.6 times as wide as it is tall so if you can divide your original up into small squares in this precise ratio so much the better.

Draw a grid on some clear plastic or acetate – lines about 1cm apart are about right, but it will depend entirely on the level of detail.

Accuracy

Now draw a similar grid on your screen. Some packages have built-in grid features. Others such Hyperpaint require you to draw the grid in, erasing it afterwards. You can now reconstruct the original on screen using the matching grid lines – you'll be surprised how accurately you can reproduce the original.

If you don't have an original or you simply want to be creative, try the method frequently taught in art classes. Quite effective objects can be created from simple shapes such as triangles and circles. Everyone will remember the cat – a small circle on top of a bigger one, then add ears, eyes, whiskers and tail. The same principle can be applied to almost anything.

If you prefer freehand construction, don't worry too much about the composition lines – these are the lines you draw to put the main elements of the picture in place. They can always be erased at the end or even flood-filled with an appropriate colour.

Know the buzzwords

Aliasing – *jagged edges caused by lines having to be represented by a series of pixels.*

Animation – *a series of images or screens displayed in sequence to provide the illusion of movement.*

B-Splines – *curves defined by two anchor points at each end and two control points representing the shape of the curve itself.*

Dither – *a process to create the illusion of being a continuous tone image by placing dots very close together in various patterns each representing particular colours or shades. You carry out a process similar to dithering when you attempt to blend two or more colours with an airbrush or smudge tool.*

Frame – *a single image or screen in an animation sequence.*

Gradient fill – *a gradual fade in colour intensity or a gradual change from one colour to another. Gradients are typically linear or radial but can be user defined or even logarithmic.*

Frame – *a single image or screen in an animation sequence.*

Highlight – *the brightest area of an object, a metal sword, for example, will usually have one highlighted edge.*

K-Line – *a tool for drawing a set of continuous, interconnected lines.*

Mask – *a facility for protecting a particular area from the current drawing or painting function – not present on all packages but useful.*

Mode – *The normal drawing mode is replace – everything underneath is completely hidden by a new object placed over it. The opposite, transparent mode, lets you see what is behind the new object provided it is darker in tone. Reverse transparent mode reverses the tones of the new object and areas which are not fully black are made transparent. XOR, or inverse, the tones of the two objects are subtracted from each other so that similar tones become white and different ones are averaged.*

Palette – *a discrete set of colours.*

Rays – *a set of radiating lines with a common starting point.*

Shading – *the process of using variations in colour to create the illusion of light and shadows. to break up boundaries.*

Smudge or smear – *blends together two or more colours or greyscales. Often used when one image, say a face, has been superimposed on another such as a landscape. The edges can be softened using the smudge facility. It has similar uses in line art drawing.*

Snap – *objects can be made to snap to guidelines or a pre-defined grid which is very useful for accurate positioning.*

Picture formats

You will come across several different file formats on the ST, virtually all of which will support up to 16 colours.

DEGAS
Extender: *.PI1 (low resolution), *.PI2 (medium) or *.PI3 (high)
The Degas paint format was one of the first standards on the ST and virtually all ST paint packages support the format.

DEGAS Elite
Extender: *.PC1, *.PC2 or *.PC3
A compressed version of the Degas format.

GEM image
Extender: *.IMG
A monochrome only (on the ST) bitmap image format that can handle high resolution scans and artwork at 300 dpi or more.

Neochrome
Extender: *.NEO
Low resolution format from the original Neochrome paint package

Quantum Paint
Extender: PBX
For extended colour modes

Tiny
Extender: *.TNY, *.TN1, *.TN2 or *.TN3
Resolution dependent, compressed format designed to save space.

Paintworks
Extender: *.SC0, *.SC1 or *.SC2
These are large format colour or monochrome files from NVision's once state-of-the-art Paintworks package.

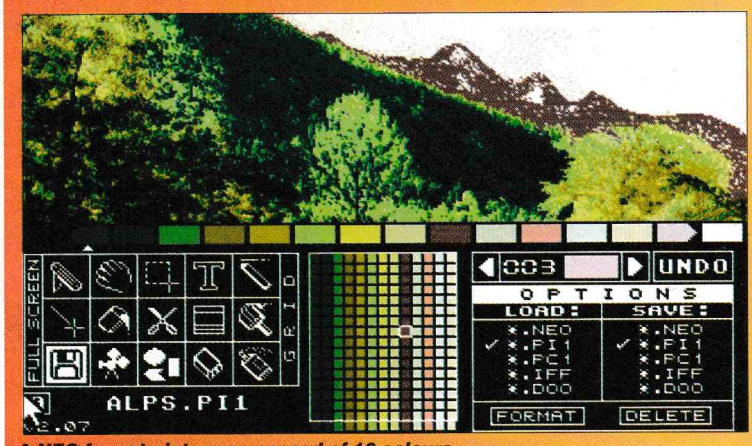
Spectrum 512
Extender: *.SPC or *.SPU
Spectrum 512 supports a palette of up to 512 colours obtained by high speed palette switching.

Deluxe Paint
Extender: *.IFF

STAD
Extender: *.PAC

Art Director
Extender: *.ART

Doodle
Extender: *.DOO



A NEO format picture composed of 16 colours

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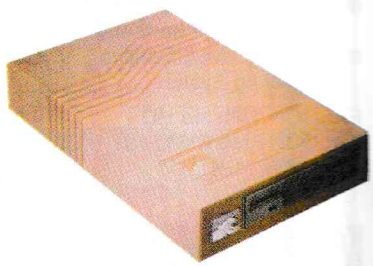

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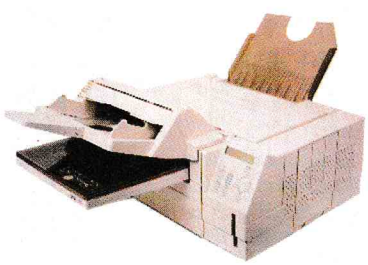

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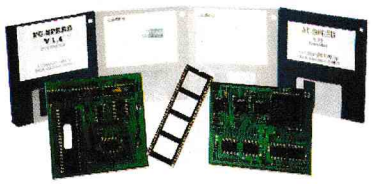

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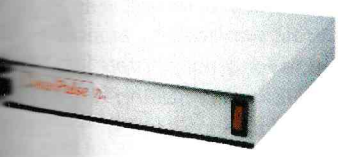

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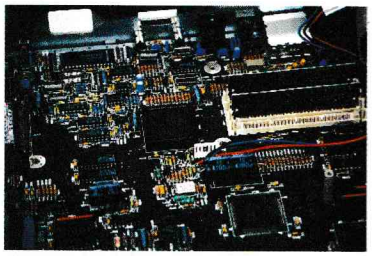
Please note: The minimum charge covers labour, any extra parts are chargeable.



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Ahead with Atari

Falcon's success will be crucial for Atari, the industry says, as key figures talk to Andy Baker about their plans for 1993

As 1992 draws to a close and our thoughts drift to the year ahead, I took a little time out from Crimbo shopping to talk to the head honchos of the ST industry and to ask them for their views on how the last year went for Atari, and what they think lies ahead.

What I uncovered was a mass of support for Atari from their developers, with numerous new products about to be unveiled (you'll read about them here first, folks), a lot of confidence in the future – and more than a little derision from Commodore.

For the computer industry in general, 1992 must rank as one of the most breathtaking years yet. Prices of hardware have fallen through the floor, games consoles have become the UK's biggest selling toys and computers have overtaken pop music as the nation's favourite pastime for male teenagers.

First

Among this mayhem our favourite manufacturer has had a very mixed year. On the one hand it now has the cheapest 16-bit computer in the market and has unveiled the first 32-bit home computer.

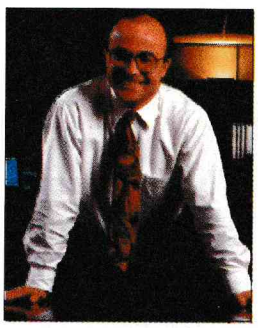
On the other it's losing money faster than it can make it and its primary range, the ST, is being hammered on all fronts. Perhaps one company that above all has had a lot to do with Atari's troubles is Commodore. Not surprisingly Kelly Sumner, MD of Commodore, was fairly critical of Atari, turning even positive issues into negatives – is anyone surprised?

When, for instance, I asked what he thought Atari's greatest achievements of '92 were he replied: "Greatest achievements – to lose more money in the second quarter than they actually turned over."

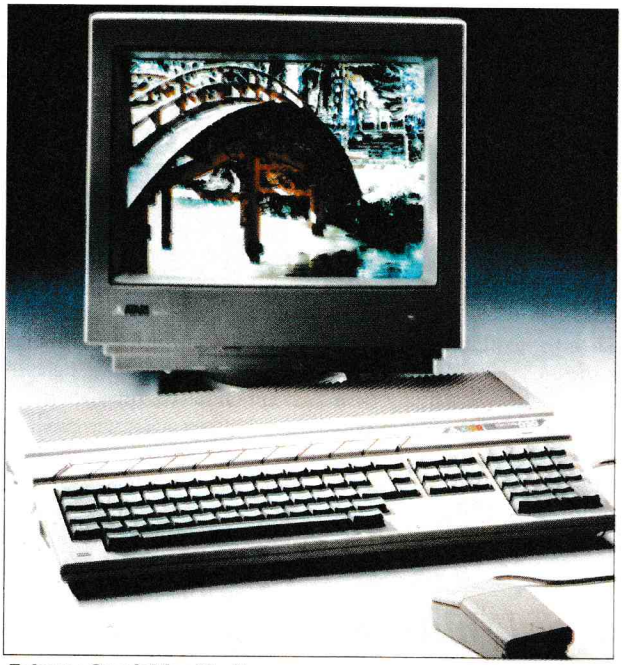
He wasn't impressed with their performance throughout the year either. As he put it: "If I were a school teacher, I'd say 'could have done better'.

While discussing the future of Atari with other figureheads in the industry it became obvious that everybody is pinning their hopes on the Falcon.

'If I were a school teacher I'd say, 'could have done better' **– Kelly Sumner**



In summing up what he feels will be Commodore's most interesting products (to ST users at least) Sumner astutely chose two areas where, even with the new Falcon, Atari are at their weakest – graphics and CD-ROM.



Falcon : Crucial for Atari's success

Commodore are obviously hoping to attract a lot of potential Atari buyers next year with their much-hyped AGA chipset in the Amiga and further developments of CDTV and their CD-ROM drive for the A500.

Atari themselves were strangely unwilling to give any real details of their achievements, successes or failures of 1992.

All that could be prised from a company spokesperson was: "In 1992 the Atari Lynx has dramatically increased its market share in the hand-held sector.

"The ST has held its own in the first

A year in the history of Atari

For Atari, 1992 was one of the most active years ever. However, even though they announced numerous new products they had, at the time of writing, still failed to ship many of these.

This ability to develop, announce, show and then not sell product after product is almost a trademark of Atari and is one reason why many loyal developers are now moving to other formats.

Products and announcements made by Atari in 1992 include:

February: New monitors introduced. The SM144 is a 14in mono model to replace the now ageing SM124. A new colour, stereo monitor called the SC1435 was also launched. Both of these are now available.

March: First ST Books were shown at the 5th International Computer Show. (it had at the time of writing, still to become available. Atari's latest comment was that it was never planned for the UK anyway!)

April: Mega STs and TTs are slashed in price.

May: MultiTOS details are announced. Again, at the time of writing MultiTOS has still not seen the light of day.

June: Atari announces intention to develop a range of games specially supporting the STE. FSM GDOS was also unveiled. Neither of these developments got any further, although FSM GDOS is frequently seen at various shows!

September: Falcon030 shown for the first time at the ECTS trade shown. In the middle of October the Falcon 030 was not available, and there are already rumours that in its initial form it will be missing several key features.

October: Price cuts on the 520 and 1040, bringing the ST down to just £249, the UK's lowest ever price for a 16-bit computer.

half of the year and latterly, with A600 incompatibility problems and the Discovery Xtra II and Family Curriculum II packs introduced at the great price of £249 and £299 respectively, sales have risen dramatically.

"This together with the introduction of the Atari Falcon030, which has been received very enthusiastically by trade, developers and enthusiasts alike, points to a very good 1993 for Atari".

What this spokesperson didn't comment on, but a reliable source did, was that the much rumoured Jaguar is at last set to make an appearance in 1993.

Without giving too many details away, the source revealed that the Jaguar is to be a "virtual reality" console for release early in the year.

Technology

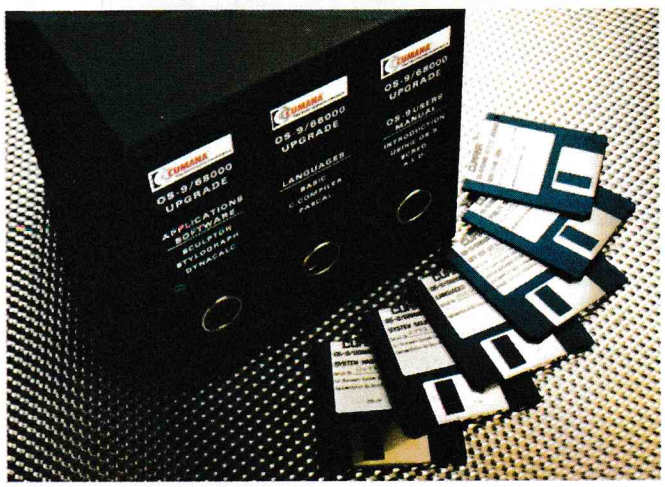
It is thought Atari will develop computers based on the technology later on, but probably not for a year or two.

While some would argue with some of the Atari spokesperson's points, there are many UK and US developers prepared to back him up, particularly with regard to the Falcon.

As much of the most interesting stuff is done in the US, I turned first to those across the Pond. Of particular note were the comments from Kevin Mitchel, president of the longest standing ST developer, Migraph.

> *'As far as Migraph and the ST are concerned things a really beginning to take off again'*
>
> **– Kevin Mitchel**

Migraph were originally formed back in June 1985 and have seen every up and down in the Atari market and will undoubtedly see many more.



OS-9 the system CD-1 is based on

Gleadow – unwilling to go on the record

Negative marketing

Over the last couple of months there have been numerous articles in the trade press about Atari and the problems they face.

Before I started this article I expected most, if not all the developers, to be highly critical of Atari. Having spoken to many of not just the UK's but the world's leading Atari developers it is obvious that they are in fact more than willing to back Atari, but Atari are not there for them.

Atari's unwillingness to go on the record and talk to me for this article is surely an example of why these developers and the market in general is currently so negative towards them!

In a year which has seen many developers abandon the ST, Migraph instead went on the offensive, unveiling not one but two major new products.

"We're very positive about the ST. We believe that in 1992 Atari started a new period in their history, one that will see them regain their position as a market leading manufacturer.

"This is the reason we chose '92 to launch two new products." said Kevin.

Talking about Atari's greatest success of the year, Kevin, like most, identified the Falcon.

"Atari have always been very strong in the DTP markets. The Falcon will strengthen this role and is without doubt the best thing they did in '92."

For the future, Kevin is convinced that Atari are on the way up. He's so convinced of this that in early 1993 Migraph are set to launch their most ambitious product yet.

He finished with "as far as Migraph and the ST are concerned things are really beginning to take off again."

Another major US developer pleased with Atari are ICD. The Atari market in 1992 was a good one for ICD, particularly in Europe. Given this ICD promised me that they will continue their support for the Atari market.

With several new products planned and their recently launched SCSI host adaptor LINK already doing well, they seem to have made the right decision.

Diplomatic

Deron Kazmaier, the developer of PageStream, was diplomatic about Atari. I've known Deron from many years now, starting way back in time when he wrote the predecessor to PageStream called Publishing Partner.

Since those days he has been a fan of Atari hardware but, like many bigger developers, has always had a problem in dealing with Atari Corporation themselves. Atari have always managed to alienate such people and Deron is no different.

According to Deron, while PageStream sales have held up, Atari's disinterest has forced him and other developers to concentrate on other formats first and Atari second.

This sentiment was echoed by most of the Stateside developers I spoke with.

In a comment revealing just how severe the economic recession in the US is, he said he believed Atari's best achievement in 92 was "surviving to 1993!" Development by Deron and his colleges at SoftLogik for the ST in 1993 will primarily be a series of updates rather than new releases. "We'll still be supporting the ST, but for the time being, given the support we receive from Atari, we can't justify new research, only maintenance updates."

On this side of the pond, Martin Welsh from Marpet Developments w perhaps more enthusiastic than any the US companies.

For those of you who may not kno Marpet have taken over the range of RAM boards from the now dead Frontier. Since setting up in early 199 they have seen sales literally shoot through the roof.

Breaking all their sales forecasts, exports have increased by almost 100 per cent in the past six months with more than 5,000 memory boards sold ST and STE owners!

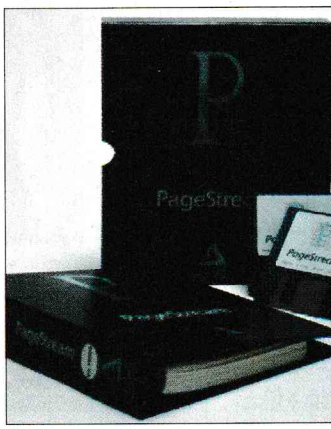
It's obvious that many of you wan much power for your STs as you can and Marpet are one of the leaders in meeting this demand.

Martin expects it to get better still '93. While many people have predica that the ST is a dying computer, whic Atari by announcing the Falcon – a n generation of computer not complete compatible with the ST – has only co firmed, Martin sees the opposite hap pening.

For him the Falcon announcemen will see a resurgence in the ST as exis ing ST users sell their STs to buy Falc

This will create a whole new gener tion of first time ST users. It will also bolster Falcon sales, which are alread expected to be high, to even greater levels.

To substantiate these comments, Martin has already invested much of



Tweeks for PageStream

Marpet's future on the ST. Future announcements, and you won't reac about these anywhere else for a whil are a new professional Falcon RAM board and a 16Mb RAM board for th STFM and STE systems.

There are also three other product which Martin was unwilling to descr also in development.

Similar thoughts to Martin's were those of long-time ST hero Neal O'n

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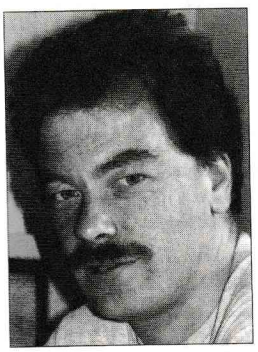
at Compo Software. Neal has been happy with Atari's recent activity, even with the apparent lack of any heavy-weight marketing campaigns.

As he put it: "Demand for Atari hardware is huge, Atari have a name for producing powerful, value-for-money computers which people will buy.

"Why spend valuable money on promoting systems that will sell anyway? It's far better that they concentrate their money on developing and building future systems that will keep them in business."

For the future he wants nothing but "Falcon, Falcon, Falcon. It's where the future is."

Indeed, Compo Software's products are already fully Falcon-compatible. The next generation of their software will



'Falcon, Falcon, Falcon. It's where the future is'

– Neal O'nions

actually use the specific features of the Falcon.

To give an idea of how significant this is, and thus how much the Falcon means to the ST community, consider that software developers are only just starting to support the STE – two years after its original release!

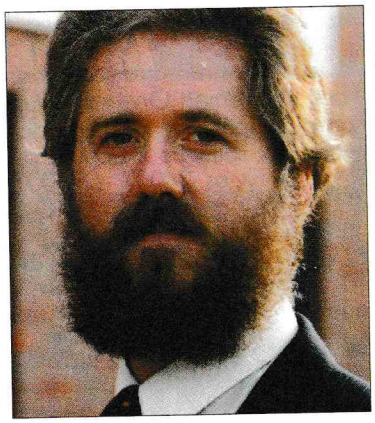
Rounding up the serious developer community I asked John Simnett MD of Cumana, the market leading manufacturer of disk drives, for his thoughts.

Impressed

Like the others he was impressed with Atari in '92. "We can only tell from our own sales into the Atari market. We were quite surprised to find that our sales of our floppy drive systems were 15 per cent up."

Like his software developer counterparts, John supported the belief that the Falcon was Atari's most important move "Atari's greatest achievement this year must be their new Falcon machines, continuing to push forward their technical prowess."

Interestingly, he also noted "their



'Atari's greatest achievement this year must be their new Falcon machines'

– John Simnet

continued pressure at the games console end of the market, maintaining this despite bringing out new products at the top."

He sees Atari taking the battle back to Commodore, competing with the Amiga's dominance in multimedia and CD-ROM arenas.

Intense pressure

"Atari will be under intense pressure in 1993, mainly because of marketing issues and presence.

"We see them likely to adopt CD-I and because of this, the OS-9 operating system, upon which CD-I is based.

"I hope that the convergence of multimedia technology across home entertainment, education and business will enable Atari to position itself as a natural contender across the different markets.

"I think that they will either achieve this or require a serious rethink by the end of next year."

For the future Cumana will continue selling their best selling external floppy disk drive, the CDA354. They will also be selling a full version of OS-9.

If John's belief that Atari are to adopt CD-I (in a bid to compete with CDTV) comes true, then Cumana have made a very astute move!

Another hardware developer prominent in the Atari market are Vortex. Best known for their PC emulators, this German firm have, according to their marketing director Ute Forestner, yet to make a decision about the future and are not impressed with Atari in 1992.

Atari's constant announcement of new products and then failure to deliver places Vortex in a very difficult position.

"How can we invest money in development for systems that will probably not actually be sold?" she commented.

Vortex may well release a Falcon PC emulator but only if the Falcon is a real success. If it isn't, the lack of a Vortex emulator will be the last thing on the minds of Atari's bosses

"Without Falcon being a success I can't see how Atari can survive." said Ute.

Games

On the games front, Atari has taken a real pounding from Sonic and Mario, while the Amiga battered it on the serious side. To get an insider's view of Atari in the games market I made a few calls, let my fingers do the walking and talked to some of the power brokers in the games market. It didn't start well, with

Paul Rason Project Development Manager at CodeMasters pretty mu condemning Atari.

"The only thing one can really s about Atari is their mistake to relea super-powered machine like the Fa in a five-year old ST design keyboa case."

Comments from Nick Wild at Psygnosis, traditionally a major Atari developer, weren't enthusiast either.

"For Atari 1992 wasn't a great ye He continued, "In our eyes Atari di make any great mistakes but they particularly do anything brilliant e If they are to continue in 1993, th Falcon must be a big success."

Nick Clarkson at Gremlin was s more positive.

"Atari's greatest success story of year has to be the Lynx. One of th hand-held game systems around, t Lynx has some real potential."

Following just about everyone else, Gremlin see '93 as a vital yea with Atari's future lying with the Falcon.

"1993 looks like it could make break Atari. The 32-bit Falcon pro to be an exciting product. Howev Atari are to regain any standing i home computer market they mus some serious software support for machine."

As for Gremlin's support for At future, he said that they will cont

'1993 looks l it could make or break Atari'

– Nick Cla

support the machine but with th viso "where technically feasible"

Things rapidly improved whe spoke to Domark. Early in the ye Domark grabbed the headlines w announcement that it would no develop for the ST.

Now, and you read here first, could reverse their decision of n development for Atari systems. Godard, their public persona, sa Domark "hope the Falcon succe if it does they will start develop again."

This would be great news for and a great start to 1993 if it co

So that's it. Although Atari ar a tough time of it at the momen future looks good with most de looking forward to the Falcon.

1993 looks set to see Atari re much of the ground they have this year and regain their status the market. If they don't, these will be pretty empty this time n year!

Who's who

In deciding who to include in this article I've tried to be as varied as possible. I've included the head honchos from Atari's major competitor Commodore, many of the larger games and serious software developers and finally one of the larger peripheral manufacturers.

Commodore (UK), Kelly Sumner, Managing Director
Cumana, John Simnett, Managing Director
SoftLogik, Deron Kazmaier, President and programmer
Migraph, Kevin Mitchell, President
Compo, Neal O'nions, Managing Director
Marpet, Martin Welsh, Managing Director
Vortex, Ute Forestner, Marketing Director
Code Masters, Paul Ranson, Project Manager
Psygnosis, Nick Wild, PR Manager
Gremlin, Nick Clarkson, PR Manager

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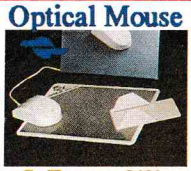

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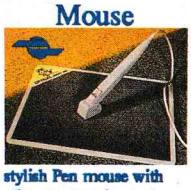

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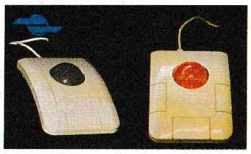

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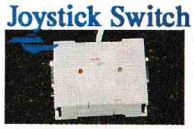

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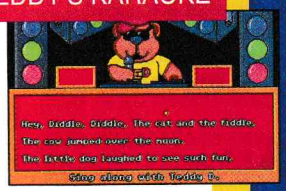
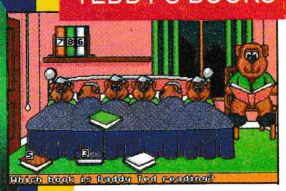
fun school 4

TEDDY'S KARAOKE



Sing along with DJ Ted to popular nursery rhymes.

TEDDY'S BOOKS



Select the correct number of Teddy's bedtime book.

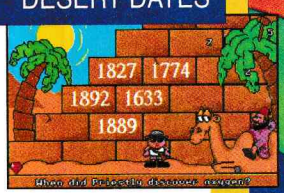
TYPING

Type the correct letters and words and save Freddy from the crocodile.

SHOP KEEEPER

Shop with Freddy and his friends choosing coins to pay the bill.

DESERT DATES



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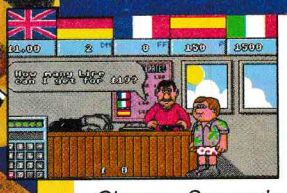

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europress SOFTWARE

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Looking for a winner

I have an Atari 1040 STF and would like to run a football pools winning program on it. I have seen adverts for several of them but have no idea which are good and which are a waste of time.

Could you recommend one, or is there a number crunching program I could use instead?

Martin Loughlin, Hertfordshire

Our October CoverDisk included Experts Pools Predictor, a program which has been updated with the new divisions.

The demo of the shareware program we gave away covers the Premier League and Barclays League Divisions 1 to 3. The full version also has Scottish football and many smaller teams.

If you don't already have it, the October issue can be bought from our back issue department, which can be telephoned on 051-357 1275.

Flying in an Amiga

Being a flight simulator buff I was interested to read your article in the October issue of *Atari ST User*. However it would appear that the reviewer was not using the ST version of A320 Airbus on which to base his comments:

- The illustration of the flight deck instrumentation differs from that on the ST
- Having put in over 80 flying hours including some as chief pilot I have never found the weather to deteriorate
- You state that pilot's wings are given to those who rise to the rank of captain. In the ST version there is no rank of captain, the highest rank being chief pilot

There would, also, appear to be a problem in the program's operation. In the course of using the program some airports are deleted, so in some instances the flight plan will reject a valid input.

Other times it has been disconcerting to make a blind approach and find that the airport has disappeared. It's no great hassle to remake a copy from the original, and in no way detracts from the general excellence of the program. It can, however, badly affect one's ratings.

Richard Shelford, Cambridge

The review of A320 Airbus was based to some extent on the Amiga version, simply because that copy was released first and I have become familiar with it.

I did, however, receive an ST copy and used it for a morning to check out the playability and confirm that it shared the same features.

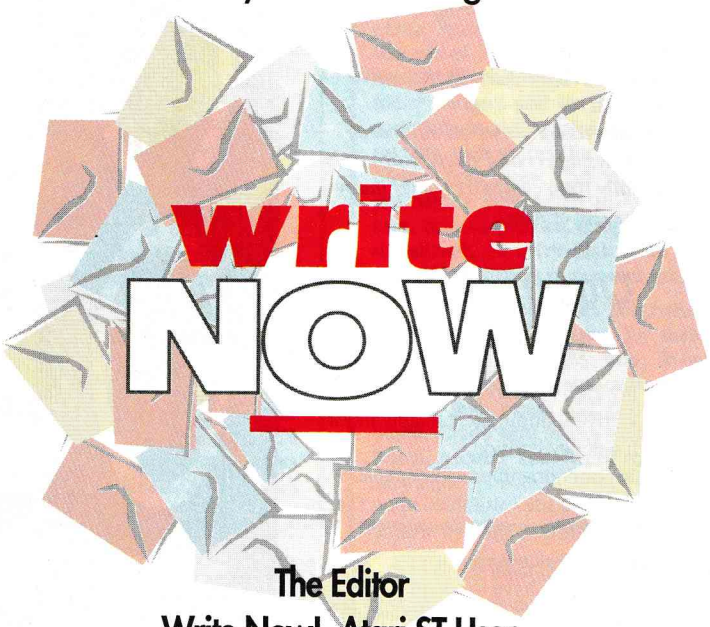
As you will be aware, the software operates at 60Hz instead of the normal 50Hz, making it incompatible with our Apple Macintosh screen grabbing equipment.

The Amiga version worked fine and because the only major difference is the aircraft's registration on the left-hand side of the display, the decision was made to illustrate the feature with shots from that machine.

It wasn't practical to fly the ST version until I reached the level of Chief Pilot, and Thalion didn't tell us of differences in the later stages of the simulation.

The problem you talk about with the program's operation hasn't been reported to us before, and your tips will no doubt benefit other users.

Got anything to say to the ST community? Send your scribblings to:



The Editor
Write Now!, Atari ST User,
Europa House, Adlington Park,
Macclesfield SK10 4NP

Fighting against the PCs

I have noticed a spate of letters of late, bemoaning the fact that Atari is in danger of being superseded by the PC.

I would like to add my own comments to the debate. I am a middle manager in an international computer reseller and own an STE.

First off, let's take a look at the technology/price ratios. Many readers have commented that the prices of the STE are too high when compared to PC386s.

This may, on the face of it be true. For a long time Atari had the best home computers on the market – stereo sound, wonderful graphics, blitter chips and so on – at a price most people could afford.

It is now possible to pick up a decent 386SX 25MHz PC-compatible, with 4Mb RAM, 52Mb hard disk, 1.44Mb floppy drive and an SVGA monitor for around £1,000 – much of the cost belonging to the monitor.

A similar STE package would cost about £1,000 without the monitor. So the obvious thing to do would be to cut the price of the STE, right? Wrong.

Sure, you could argue chicken and egg that low prices would bring more sales and thus not only would Atari regain the lost margin but also have higher revenues and hence bigger profits, but we are firmly in a depression.

What if the vast increase in sales doesn't happen? Would you take such a gamble? No, of course not. So the price of the units will not decrease by any great amounts – certainly not like the fall in PC prices.

However, then take a look at the software, for that is where the great savings are. How many decent wordprocessors, DTP packages, spreadsheets or databases

➤

Superb shareware service

In a previous issue of your magazine you included an address book database on the CoverDisk called Namenet. I liked it and decided to use it to store all my addresses on. As it was shareware I registered.

In return I received a greatly improved version, a full printed manual and the promise of further free upgrades.

I recently received v2.5, which is so versatile and has so many excellent features that it puts many commercial packages to shame.

Added to that is the facility to inform the author directly not only of bugs in the program, but also suggestions for improvements or extra features, which the author does his best to implement.

What more can you want for £15? This proves to me that shareware can offer a better service and better value for money than many commercial products, but it needs the support of us users, or else software like this will not be upgraded or even written in the first place. For those people who are already using Namenet v1.5, or need the best address book on the market, why not send £15 to Roger Derry, 38 Leapold Road, Bristol BS6 5BS?

Think of it not only as a worthwhile investment but as a small contribution to the continuation of shareware as an industry.

Sean Wright, Devon

I'm glad you've been able to share our enthusiasm for this section of the industry, which as you rightly say needs everyone's support in order to succeed.

Every shareware user should send the programmer the necessary payment for their work, and in most cases that person will receive regular upgrades and excellent service.

To keep up to date with the latest shareware programs keep tuned to the Public Sector pages in ST User.

are there sub-£150 for the PC? Not many.

Then look at the vast selection of PD and shareware for the STE, much of it better than many PC off-the-shelf products.

The sound and graphics capabilities of the PC has overtaken the STE – well, they do have 256-colour, flicker free screens.

But wait, what's this? A new Atari product with new screen resolutions, better than CD quality sound, DSP chip and the good old Motorola chip – which, incidentally, is specifically designed to handle complex graphics.

So given that we've effectively argued the pricing and technology issues away, what should Atari be worried about?

Quite simply, the superior marketing forces of the PC companies. They've got it sussed, and Atari has its head in the sand if it thinks that the odd TV advert at Christmas is going to win it a significant share in the market.

When it comes to customer relations too, well, let's be polite and say that Atari is lacking, and how about a decent upgrade policy for those who aren't afraid of new technology and make the initial investments?

Atari needs to work more closely with the developers too, especially with hardware manufacturers and see about bringing lower prices in those areas.

At the end of the day, the future of the STE lies with its parents, Atari. Instead of looking enviously at the PC market, end users should tell Atari to get its fingers out, develop new, stable products, offer better and more generous support to users, including a good upgrade policy, and market it effectively.

Basically, Atari need to employ some real marketing people who understand the industry, and not as I suspect rely on agencies who might have the Arthur's Cat food account.

Well, I've had my say. There will be people who disagree with a lot of it, but I hope at least I have stimulated some thought and discussion.

Darren Smithson, Reading

It would be nice for Atari to market its computers to the same extent as the PC manufacturers, but I doubt they could afford to do so.

The adverts we all see on billboards and in newspapers and glossy magazines are usually from computer giants many times the size of Atari.

Questionable upgrade

Today my 2Mb STE has packed up, with the disk drive sounding remarkably like a car with a dodgy ignition.

While pondering upon which repair service I should use I stumbled upon the idea of upgrading to the new wonder machine – the Falcon.

OK, so I would have to spend a little time saving up my pennies but it would be worth it, wouldn't it?

Perhaps you can help me make up my mind. I use STOS Basic extensively I am worried that a fix in the language will not be made to make it Falcon-compatible.

This matter will actually decide whether I go for a Falcon or not. Please assure me Mandarin will do the honourable thing in creating an upgrade.

Martin Cubitt, Essex

We spoke to Mandarin and they say that it is quite likely that STOS will be written to run on the Falcon.

Like most firms though, they'll be waiting to see a reasonable user base before committing themselves to supporting the computer.

Fighting in the streets

Please, please could you tell me if the excellent coin-op hit Street Fighter II will ever be released on the ST?

I know that Street Fighter was released but I never bought it because of a lack of cash. If Street Fighter II is in the making could you tell me the cost, and I would also love to see a review soon.

I am sure many other readers have been asking these questions. Keep up the great mag.

Eliot, Isle of Wight

Our Gamer staff say the game is due to be released by US Gold in time for Christmas, and that it should cost somewhere in the region of £25.

All the features from the coin-op are promised for the ST version and you can be sure that as soon as we get our hands on a review copy it will be covered in the Gamer pages.

ATARI ST USER online

We can be contacted on several bulletin boards and conferencing systems. If you have anything to say, why not get it off you chest online?

Speak to John Butters on the following services:

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Got something to tell other *ST User* readers? Send your general letters to **Write Now!** at the address below

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Enter competitions using the details on the form. If you have any enquiries connected with our competitions, contact **Lucy Oliver** on **0625 878888**

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PD libraries are welcome to submit their latest releases. Submissions should include a detailed list of what each disk contains. Jiffy bags to **Darren Evans**

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To order your copy of Family Roots, send a cheque or postal order for £24.95 to the address below. UK postage free, please add £1.50 for Europe or £3.00 for the rest of the World. Credit card orders welcome. A disk with useable demos of Family Roots, Around The World and Professional Virus Killer is available for only £1.00.

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Around The World was programmed over more than a year by The Pixel Shop, better known for their many Budgie UK titles under the name of The Happening Boiz. To order your copy of Around The World, send a cheque or postal order for just £9.95 to the address below. UK postage free, please add £1.00 for Europe or £2.00 for the rest of the World. Credit card orders welcome. A disk with useable demos of Family Roots, Around The World and Professional Virus Killer is available for only £1.00.

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GL530 SLIDESHOW
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GL531 PIN UPS 2
GL532 PIN UPS 3
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GL529 THE WIZ By Dave Cobbledick
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GL549 OUTRAGEOUS FORTUNE
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GL537 DICE CRAZY
Dice crazy is a game based on 16 dice.
GL538 ARRON
This is a graphic type adventure set on a huge prison ship in outer space, DROID a very addictive game with some excellent graphics PLAXATAX defend your teeth against plaque and germs.
GL539 BLOX
A game played in a hexagon with bricks coming from six sides. CYBER SNAKE this is a version of the old hit Centipede

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Top

Andrew Wright presents the ST User awards for the best software, hardware, add-ons and peripheral products of 1992

Over the next four pages we have listed 20 top products in rough order of merit – it's hard to compare a software utility with a graphics board – that are worthy of adding your set-up this Christmas.

We use the term "1992" as loosely as politicians have done in th past few years – most of the products are new, others have been given a new lease of life and one or two are just indispensable. We leave you to spot them.

Image Copy

Price £9.95 from The ST Club, 2, Broadway, Nottingham NG1 1PS
Tel: 0602 410241

Image Copy is a remarkably good screen capture program with lots of bells and whistles. Screens can be saved in IMG, Degas or RSC format and, for the first time, large screens can be captured, including virtual ones.

Paths for saving files can be specified and Image Copy also reads, displays and converts images in other formats including NEO, Art Director and TNY.

Colour images are dithered for mono monitors and up to four images can be displayed in movable GEM windows. An excellent utility for developers, technical authors and ST journalists, it also has plenty of features for the average user, such as viewing and converting clip art.

Image Copy in action

Turbo 20/25 accelerator

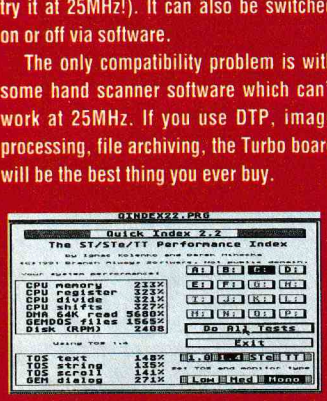
Price £299 from System Solutions, Suite 47/48, Windsor Business Centre, Vansittart Road, Windsor SL4 1SE
Tel: 0753 832212

No apologies for going on about this one again – it's still the best thing that ever happened to the ST! The Turbo 20/25 is an accelerator that speeds up your ST by up to three times and makes virtually all programs run and perform much faster.

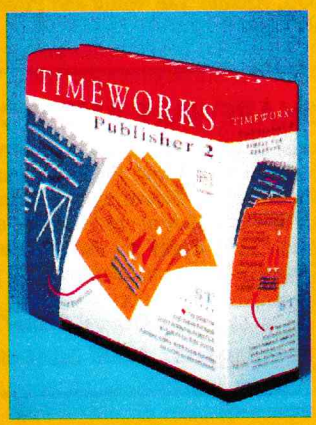
The Turbo is in fact a replacement 68000 CPU that uses wafer technology to run at a clock speed of 25MHz instead of the standard 8MHz.

It is provided with a hardware switch at the back so that you can manually switch back to 8MHz for some games (if you think the latest shoot-'em-up is no challenge, try it at 25MHz!). It can also be switched on or off via software.

The only compatibility problem is with some hand scanner software which can't work at 25MHz. If you use DTP, image processing, file archiving, the Turbo board will be the best thing you ever buy.



Just look at those Quick Index figures!



Timeworks 2

Price £99 from GST Software Products Ltd, Meadow Lane, St Ives, Huntingdon PE17 4LG
Tel: 0480 496666

Timeworks is probably the world's most popular DTP package and it sets the standard which the others have to beat. Version 1.12 dominated the ST publishing scene for years and won plenty of friends for its remarkable ease of use and excellent range of features.

Timeworks 2 is now faster and more efficient than previous versions and comes with a range of extra fonts, answering one of the major criticisms of its predecessor.

Added features include automatic text flow between columns, up to 999 pages in a document, text wrap around graphics and custom page sizes.

It can also import an amazing ranges of text and graphics files, particularly those of PC origin.

Timeworks 2 can save documents automatically, has more keyboard shortcuts and better printer support, including 9 and 24-pin dot matrix, Deskjet, Laserjet, Bubblejet and Atari laser drivers.

The manual is well-written – an excellent buy for beginners and experienced users alike.

Redacteur v3.15

Price £99 from The ST Club, 2, Broadway, Nottingham NG1 1PS
Tel: 0602 410241

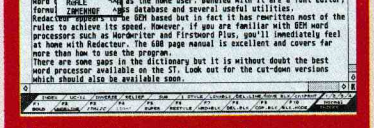
We've put Redacteur near the top of the list because wordprocessors are such an important part of our lives as journalists. When a really excellent one comes along, we can recognise it!

Redacteur fits the bill. It is the fastest text editor since Tempus – if not faster – and has a blinding array of excellent features for the serious word cruncher as well as the home user. Bundled with it are a font editor, formula editor, address database and several useful utilities.

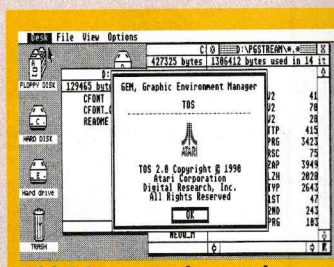
Redacteur appears to be GEM-based but in fact it has rewritten most of the rules to achieve its speed. However, if you are familiar with GEM wordprocessors such as Wordwriter and Firstword Plus, you'll immediately feel at home with Redacteur.

The 600-page manual is excellent and covers far more than how to use the program.

There are some gaps in the dictionary but it is without doubt the best wordprocessor available on the ST. Look out for the cut-down versions which should also be available soon.



Redacteur – our favourite ST wordprocessor



TOS 2.0 – a superb upgrade

TOS 2.06 replacement

Price £69.95 from Compo Software, 7 Vinegar hill, Alconbury Weston
Tel: 0480 891819

TOS 2.06 is the first operating syst upgrade to have official approval fr Atari. The T-Board, as the Compo prod is called, comes in two models for eit the ST/STFM or STE.

It needs some soldering expertise can be done cheaply through dealers it fits over the existing CPU to add a s ond, much improved operating system your machine.

You can switch back to TOS 1.0x fr a desk accessory if needed but the TOS is so powerful, it's unlikely yo want to.

TOS 2.06 lets you open up to se windows at once, which is great for h drive owners. Program or file icons be dragged from windows onto the de top and there are keyboard short-cuts menu options .

If you enjoy using NeoDesk or alternatives but find loading it a pain, 2 is for you.

of the shops 1 2 3

NVDI

Price £39.95 from System Solutions, Suite 47/48, Windsor Business Centre, Vansittart Road, Windsor SL4 1SE
Tel: 0753 832212

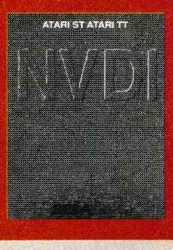
NVDI is a software screen accelerator which can be installed on any ST/STE or TT system to speed up the drawing of text, graphics, dialogue boxes and windows.

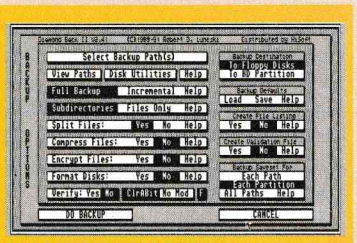
It is supplied on one single sided disk with a 16-page manual and is installed directly from the disk within minutes. It replaces GDOS, removing the need for it to be in your AUTO folder, and can also replace the ST's system font with a Mac or IBM-style font.

Once NVDI is installed it runs automatically from the AUTO folder. A special configuration accessory is provided to turn GDOS on and off – some programs won't run with GDOS installed – and it has other built-in features such as the mouse accelerator.

NVDI's main claim to fame is its compatibility with virtually all ST software, unlike other accelerators which tend to conflict with some programs.

It is also very fast indeed – use it once and you'll wonder how you ever managed before.





Best buy hard disk backup

Diamond Back 2

Price £39.95 from HiSoft, The Old School, Greenfield, Bedford MK45 5DE
Tel: 0525 718181

Diamond Back 2 is a utility that no hard disk owner should be without. It makes backing up a hard disk amazingly easy and offers a wide range of options from file and image backup/ restore to support for Spectre partitions and high density disks.

Full or incremental backups are also supported so you can do a full hard disk backup once a month, for example, and an incremental backup by archive bit or date once a week or so. Backup sets can be saved and called up whenever necessary.

Files can be compressed or not as required, and disks formatted by the program or simply erased and written over.

Diamond Back doesn't care how many tracks and sectors are present on the disk you insert – it just backs up the data.

If a problem occurs on a disk, the program stops and lets you insert a new disk without you having to start again.

Diamond Back is very user friendly and quite fast, although there are PD/shareware alternatives which are quicker.

Where Diamond Back wins is in its "usability" – with this little utility by your side, backing up a hard disk will never be the chore it once was.

Naksha hand scanner and Touchup v1.8

Price £116.32 from Naksha UK, 29 The Wharf, Warrington WA1 2HT
Tel: 0925 56398

Naksha are one of the most respected mouse and peripherals manufacturers which makes their late entry into the hand-held scanner market a little surprising.

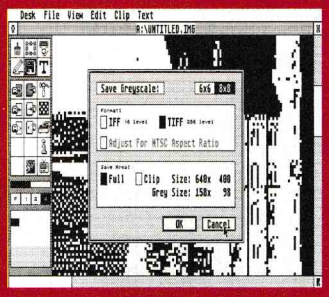
They needn't worry too much, however, as this package beats the opposition hands down (pardon the pun).

The scanner head has a similar shape to its competitors but it is much lighter and more comfortable in action. The additional long roller wheels at the back end of the head make scanning far more accurate with less sideways movement.

There are four dithering methods, including one for line art, and three scanning resolutions of 200, 300 or 400dpi as well as a wheel controlling brightness.

The superb software, Touchup v1.8 from Migraph, is an additional bonus. Although very similar to earlier versions, it can now convert mono dithered images scanned with the Naksha scanner into 256-greyscale TIFF format files or IFF format files with 16 greys.

This improves the final output quality considerably, especially when resizing or importing into DTP packages. It is also accompanied by an excellent manual.



Greyscales in Touchup

Vortex 386SX emulator

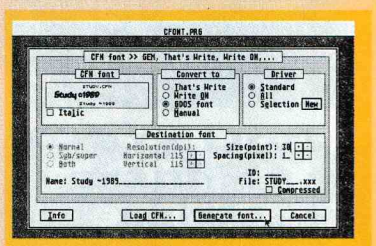
Price £349.95 from Analogic Computers, Unit 6, Ashway Centre, Elm Crescent, Kingston-on-Thames KT2 6HH
Tel: 081-546 9575

Emulating a PC is harder than a Mac because you have to add a completely different processor, an Initial 80x86 series chip.

Earlier this year Vortex brought out a PC emulator based on the 80386SX chip, a cut-down version of the full 80386 known as the DX.

When it was launched it was pretty well state of the art – unfortunately the 486 chip has now taken over, offering far more power.

All of this doesn't prevent the 386SX emulator from running DOS or even Microsoft Windows programs with ease. The chip runs at 16MHz so it is easily fast enough to run sophisticated industry standard applications such as Lotus 1-2-3.



New GDOS font coming up...!

C-Font

Price £9.95 from Compo Software, 7, Vinegar hill, Alconbury Weston
Tel: 0480 891819

If you don't need a fully-fledged GDOS font editor but you do want a method of converting Calamus outline fonts into instantly usable GDOS ones, look no further than C-Font.

It is a small utility that will act as a program or as an accessory and will load a Calamus CFN font file and produce a GDOS printer font in any resolution required.

It works particularly well with That's Write, as fonts can be converted via the desk accessory menu and then used without rebooting.

GDOS applications such as Timeworks will require rebooting after the font has been converted but it is still a quick and easy way to expand your range of typefaces.

Ricoh LP1200

Price £821.32 from Silica Systems, Hatherley Road, Sidcup DA14 4DX
Tel: 081-309 1111

The Ricoh LP1200 is a top quality laser printer with a budget price tag. It offers 300 and 400dpi resolution with built-in resolution enhancement and claims to be up to 60 per cent faster than the Laserjet IIIP it sets out to emulate.

It also has Proprinter XL24E and Epson FX-850 emulation – useful for ST owners as many packages still don't support Laserjet printing – and six page per minute throughput.

The Ricoh LP1200 is easy to set up although not particularly compact. All the leads are supplied and there is an adequate manual. The LP1200 also has a unique flash ROM facility which allows the controlling software to be updated quickly and easily.

The LP1200 is supplied with 2Mb of RAM as standard and has 14 resident bitmap fonts, including Courier, Prestige, Gothic and Line Printer, which can be selected from the control panel.

Print quality is superb – combined with its low price, this one will be hard to beat.

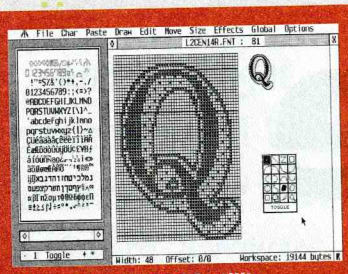
Xtra-RAM Deluxe

Price £99.99 from Marpet Developments, Meadowfield Farm, Fellbeck, Pateley Bridge HG3 5ET
Tel: 0423 712600

The Xtra-RAM Deluxe is an easy to fit memory upgrade board for the ST/STFM or Mega ST which represents the best way forward for those of you who need more memory.

The price above is for a 2Mb upgrade – for an extra £60, you can upgrade to a full 4Mb. Although 4Mb is the best option, you can go for a 2Mb upgrade first and add another 2Mb later by purchasing industry-standard SIMMs and plugging them straight in. The Xtra-RAM board is simple to fit and the instructions are excellent, covering all possible MMU and video shifter chip arrangements.

Most machines require no soldering and a two-year warranty is offered, along with telephone hotline support. A RAM checking program is also supplied. Forget the 0.5Mb upgrade – go for this one!



The essential GDOS utility

Fontkit Plus 4.0

Price £24.95 from The ST Club, 2, Broadway, Nottingham NG1 1PS
Tel: 0602 410241

Fontkit Plus is a suite of utilities for designing and using GDOS/GEM fonts. GDOS is so widespread in use that Fontkit Plus deserves a place on everyone's shelf, even if it's only for the amount of information in the excellent, highly detailed manual.

If you use packages such as Easy Text Plus/Professional, Timeworks 2, EasyDraw or Silhouette, it will make using fonts considerably easier.

The package is supplied on three disks and includes a good selection of GDOS, screen and downloadable printer fonts. Also included is Trimfont, for pruning unwanted characters from fonts to save disk space and GFU, the utility that allows you to store fonts in compressed format and decompress them "on the fly" only when you need to use them.

The heart of Fontkit, however, is the font editor and converter which will import fonts in Calamus, HP Laserjet, Apple Macintosh screen, Signum and Degas formats and convert them into GDOS or even That's Write format.

Special effects fonts can be created quickly and easily by loading existing GDOS fonts and applying effects such as shade, shadow or contour.

The next version, Fontkit Plus 4.0, will allow several windows to be open at once and can handle much larger fonts. An essential utility for all GDOS users.

Ultimate Virus Killer

Price £9.95 from Douglas Communications, PO Box 119, Stockport SK2 6HW
Tel: 061-456 9587

The Ghost Virus is particularly common these days – if your mouse moves in the wrong direction from time to time, the chances are that you're infected.

One of the best virus killers around is the Ultimate Virus Killer, or UVK, written by Richard Karsmakers. It recognises 71 strains of virus and 36 anti-virus boot sectors as well as 89 specialised applications, and is currently at v5.5.

It can scan hard and floppy disks for link viruses and recognises so many boot sectors that it's unlikely to be caught out even by the newest games.

If one of your game disks does get infected, UVK will probably be able to repair the disk's boot sector by checking its built-in database of over 1,200 boot sectors.

UVK is being updated all the time – you can gauge how much work is put into it by the fact that two new releases have appeared since it appeared on our CoverDisk this summer and v5.6 is due out any day now. Not much to pay for peace of mind.

The ghost-busting UVK

Spectre GCR

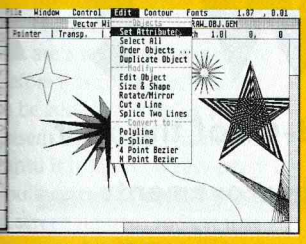
Price £300 (inc ROMs) from HCS 35, Hartland Way, Shirley, Croydon CR0 8RJ
Tel: 081-777 0751

The ST has the same central processor the Apple Macintosh and as a result, e lating the Mac using some clever softw and a plug-in cartridge with real Mac R chips has been possible for some ye courtesy of Dave Small's Spectre GCR.

The latest release of the Spectre software, v3.0, makes life a lot easier ST owners.

There are significant disk drive h dling improvements including fas access, MS-DOS disk formatting and ger partitions, better laser printer sup and a crash recovery facility wh attempts to automatically restart the system with no loss of data.

Running Spectre GCR turns you into a real Mac Plus with a 30 per bigger screen. It even runs slightly fa due to the ST's more efficient design!



ouette in the light

Silhouette

Price £60 from Ladbroke omputing, 33 Ormskirk Road, Preston PR1 2QP Tel: 0772 203166

ouette is the latest addition to the ST hics scene. It is a combined vector bitmap graphics package with built-in -tracing and useful export formats. lthough it has its flaws, such as lack oom modes and no block functions, it esents excellent value for money.

makes some sense to have all your hics dealt with by one program – e is only one user interface and one ual to wade through and one set of trokes to learn.

you need a capable graphics pack- to sit alongside your DTP program, ouette is a very good choice. It is ctively packaged, with a good man- and contains the added bonus of GDOS and plenty of GDOS printer rs.

Didot Lineart

Price £239.70 from CGS, 19, Ledbury Place, Croydon CR0 1ET Tel: 081-686 8121

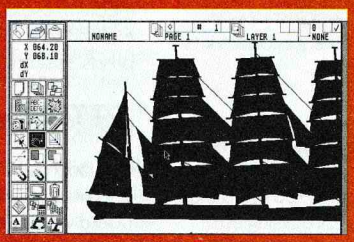
Didot Lineart is a sophisticated vector graphics package that offers many of the features of the more expensive Didot Professional.

It is, however, more realistically priced and has a good quality manual to go with it. It doesn't have the latter's text handling features of course, but it can just as easily be used for page design, especially where only a small amount of text is required.

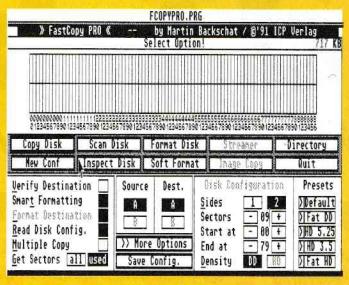
Didot's approach to design is to simulate a designer's pasteboard. For example, text objects such as logos, images and even halftones can be laid out on the "board" with the page in the centre. All the objects can then be worked on and edited before being placed on the page.

Lineart also includes a font editor and an excellent, easy to use auto-tracing module. It requires a minimum of 2Mb of RAM and a mono monitor, but screen redraws are very fast indeed, even on an unaccelerated ST.

It can use fonts in both PostScript Type 1 and Calamus formats and save artwork as EPS, GEM/3 or CVG files, making it a flexible design tool.



Great vector graphics program



Copier and formatter extraordinaire

Fastcopy Professional

Price £24.95 from The ST Club, 2, Broadway, Nottingham NG1 1PS Tel: 0602 410241

Fastcopy Professional, the commercial version of the PD Fastcopy III, really is the ultimate disk copying and formatting tool. It works either as a GEM program or a desk accessory and features a superb user interface with graphical selection of options or keyboard short-cuts.

It also includes a mouse accelerator, virus detector and hard disk streamer for backups.

Virtually any disk format can be copied or produced by selecting the required parameters from the main screen. High density (1.44Mb) disks are supported as well as 5.25in disks.

When copying disks, you can specify whether to format the destination disk or just the tracks that need it, and you can also change a disk's format in the process by copying, for example, a single sided 80-track disk to a double sided 82-track disk, complete with data.

Up to 86 tracks and 11 sectors are supported – if your disk drive is up to it! – and it can also format MS-DOS-compatible disks too.

Five pre-set disk configurations can be set up and stored, making it the fastest utility to use and one of the fastest in action.

FontGDOS

Price £2.95 from The ST Club, 2, Broadway, Nottingham NG1 1PS Tel: 0602 410241

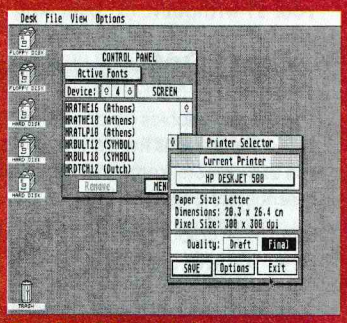
FontGDOS is the successor to GDOS and it represents a vast improvement over what was a very clumsy system indeed.

It isn't PD and can only be obtained through authorised distributors but it is cheap and it makes life with GDOS fonts an awful lot easier.

Basically FontGDOS works in the same way as before, by loading from the AUTO folder, but there is now an accessory to change fonts and drivers while you work and a font cache to speed up output.

If you have suffered from slow printing speeds or missing graphics in Timeworks or other GDOS applications, FontGDOS should solve your problems.

It's nice to see an Atari-produced program make it into our top 20 – it's also the cheapest of our top buys by a long way.



FontGDaOS – a big improvement

Crazy Dots graphics card

Price £389 from System Solutions, Suite 47/48, Windsor Business Centre, Vansittart Road, Windsor SL4 1SE Tel: 0753 832212

The Crazy Dots graphics card, despite its ludicrous name, is a serious tool for serious users and as such it is available for Mega STs or Mega STEs only.

It allows higher resolution and more colour to be displayed on-screen yet remains more or less compatible with most ST software except games.

It is aimed particularly at Calamus SL users and is officially approved by DMC.

Resolutions of up to 1,664 x 1,200 pixels are possible, using 16 colours on-screen, although more useful would be 1,280 by 800 with 256 on-screen colours out of a palette of 16.7 million.

This is some four times the size of the ST's high resolution screen – very useful for graphics and DTP applications – but you will need a multisync or standard VGA PC monitor.

What's New?

Exciting and new products from the company that gave you The BEST Add-On of the Year.

Accelerators

If you Desktop Publish, you will know about the need for more speed. The **TURBO 25** Accelerator is the very best accelerator available today, based on a 68000 processor running at a blinding speed of 25 MHz, maintaining 100% compatibility.

NEW! Plus Cache ST. A budget 16MHz 68000 Accelerator for the ST(FM) and STe.

Special introductory price £99.95

NVDI

Accelerate your screen, too ! **NVDI** optimises TOS Display routines using Assembler Code. Up to 10x faster!! Includes a very fast replacement GDOS system which can be switched off. 1000's of copies have sold in Germany. Ideal for DTP, Graphics and Animation programs.

'..It'll make you wonder how you ever used your ST without it' (ST User Aug 1992)

Crazy Dots

The Colour Graphics Card for the TT/Mega STe. Select resolutions from 640x200 to 1664x1200. Use 256 colours from a 16 million colour palette. Essential for Colour DTP.

NEW! High Colour Option (32768 colours)
NEW! NVDI for Crazy Dots.

MODEMS and FAX Software

The **TKR2400** supports speeds up to 2400bps The **TKR14400** will go up to a blinding speed of 14400 bps. Data compression and error correction modes MNP5, Lap-M, V.32bis and V.42bis are standard. Both are Group 3 compatible Fax Modems. They are of course Hayes compatible and support the UK split rate 75/1200 bps.

TeleOffice, is the best Fax Software for the Atari available today. Used as Desk Accessory, **TeleOffice** allows sending of faxes from within wordprocessors and DTP software. Special price if bundled with our modems. Also sold separately.

CartMaster

NEW! The Multi-Cartridge Control System manages up to four devices including Spectre GCR and a huge range of 'Dongles' using software switching. **CartMaster** is compatible with all known cartridge port devices for the Atari ST and TT.

TOS 2.06 Operating System

NEW! We supply only the Official Atari UK TOS 2.06 upgrade with manual. A Switch Board allows you to keep your old TOS.

High Density Floppy Drives

Yes, you too can use those IBM 1.44Mb floppy disks with our **EICo High density module** and drive kit. The kit comes with fitting instructions, software (HD formatter) and high quality 1.44 megabyte floppy disk drive. It is fully compatible with your old double density disks. Works with PC Emulators. A perfect replacement for those troublesome single-sided A drives! **Special Offer £89.95** The module is also available separately.

Tower Power

Is your computer taking over your work-space? Transform your computer into a professional tower system. Fit all those extras into a tower with lots of space for floppy and hard drives. Gain the advantage of a separate keyboard on the ST and Falcon. Ask for the new leaflet. For DIY installation: no soldering required. Or ask for our professional fitting service. Ready-to-use assembled Towers with or without hard disks available. Keyboard kits also sold separately.

ST memory upgrades

Out of memory? Phone for a quote. You'll find that we are competitive without compromising on quality. **NEW** is our 'while you wait' fitting service. Please phone to book your appointment.

NameNet

NEW! Have you have tried using a Database and got utterly frustrated trying to set it up? **NameNet** is for you. No setting up required! Just load the program to start entering your addresses. Prints labels and filofax pages, perfectly. Use the mouse or keyboard shortcuts. It can dial for you using your modem. It is even compatible with Mercury. Convert telephone numbers - just type 'Bristol' to get 0272. **NameNet** is easy, super fast, and you don't need a hard disk. Its global lookup facility is so fast that we have replaced our old Database program with **NameNet**. A brilliant feature-packed easy-to-use program for **only £49.95**

Keyboard Improvements

The **'Key-Clicks'** replacement kit is one of our most popular products, giving the Atari keyboard a firmer, more positive feel. You'll be amazed at the difference. For ST(FM), STe & Falcon (easy DIY fit). **Price £29.95** Do you ever hit two keys at once? Our replacement Key Top Set is spaced correctly, about 7mm. **Price £29.95**
Special key top set available for PC emulator user.
XMas Offer: Buy **Key Clicks** and **Key Tops** together for **only £45.95**

Autoswitch Overscan

Fill those borders. Gain up to **60%** extra screen in colour modes and up to **40%** in HiRes (752*480max). Excellent for multisync monitors. Automatically switches to 'standard' resolutions when loading incompatible programs. For ST/STF/STFM and MegaST computer ONLY!
XMas Offer only £39.95!! Save £10.00

AutoSwitch OverScan TT

NEW! ATARI said it was not possible. But the OverScan team has done it again! **61%** extra usable area in ST resolutions! **34%** in TT low and medium resolution! The 640*400 pixels of ST high expand to an unbelievable usable area of 832*496 pixels. Essential for DTP and Spreadsheets.

TT Fast Ram

Two boards to choose form. Both can be populated in stages up to 32 or 64 Megabytes. This board will speed up Calamus SL and Pagestream significantly. Essential for scanning colour images.

CodeHead Software

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LEARNING Assembler Part 10

Programming the 68000

In the last part of his assembler series Marc Young gets interrupted while playing the Game with No Name

Although the Game with No Name is now playable, there are a few bits and pieces to be ed before it is complete. The first g to be added is a scoring system. t present each target remains on en until it is hit. A bit easy-peasy I k you'll agree! OK, so let's make the e on screen limited, and get that enalin pumping!

ere are a few ways we could imple- t a timer:

mply have a counter which is set when rget is first displayed, and is decre- ented each time the program loops. hen the counter reaches zero, we would en remove the target, and set up nother.

ess the current time from the ST, and ide how many seconds to display the rget. Keep getting the time until the new me is reached, when the target will be ved and re-displayed at a new location. up an interrupt to decrement a counter gularly. The counter would be checked thin the loop of the program, and the rget erased and moved only when the unter reached zero.

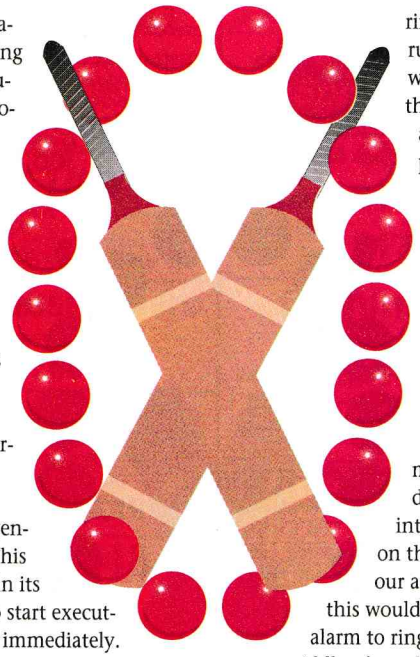
may seem at first sight that there is much to choose between the meth- The second is probably least rite, as it means accessing the ST's k every time round the main pro- loop. This will slow the program, so we'll discount it.

Difference

he first and last methods are essen- the same, with one important dif- nce. With the first method, the rate hich the counter is decremented nds solely upon the speed of the gram – speed up the program and the r will decrement more quickly, lead- to a far harder game. Therefore, we'll unt that option too.

we're left with the third option h (mere coincidence – I think not!) les me to teach you a bit about rupts on the ST.

nterrupts are aptly named, because is exactly what they do! The ST is essentially only capable of doing one thing at a time (more accurately, the 68000 processor is only capable of doing one thing at a time – the ST has other processors which work in parallel, but let's not confuse the matter).



If the processor is in the middle of performing a task, and we want to interrupt it to do something more important, we can generate an interrupt. This stops the processor in its tracks, and tells it to start executing our instructions immediately. I feel an example coming on...

Let's say I am the processor. I'm sitting here, writing this article. I can only do one thing at a time. The telephone rings. This interrupts me, I stop writing, and answer the phone. As soon as I hang up the phone, I continue with the article.

So the telephone has generated an interrupt, which I have acknowledged, dealt with, and continued processing.

To complicate matters, there are different levels of interrupt available on the 68000. To carry our analogy further, this would allow the fire alarm to ring. If I was in the middle of my document, the fire alarm would interrupt me, and I would run like hell!

If, while running, the phone rang, I would ignore it, as it has a lower priority. On the other hand, if I was already interrupted from my writing by the phone, and the fire alarm rang, I would drop the phone and run. The fire alarm has a higher priority than the telephone.

The simplest interrupt on the ST is known as the Vertical Blank Interrupt. To understand what goes on, I'd better explain about the way a TV or monitor displays its picture.

An electron gun fires electrons at your monitor screen. When the electron hits the screen it will produce a small dot. To build up a picture, the gun scans horizontally across the screen from left to right.

On reaching the right-hand side, the gun switches off, and aims back at the left, but a little further down the screen. It now scans again, from left to right, slowly building up the picture.

Civilised

When it scans across the last line at the bottom of the screen, the gun resets to point back at the top left corner. In the UK (and most other civilised countries) it does this whole operation 50 times every second.

When the gun is flying back to the top, the time taken to do so is known as the vertical blank.

On the ST, when the gun reaches the bottom and flies back to the top, an interrupt is generated. The ST tells the processor to execute some code, as a part of the operating system, which performs a few functions every fiftieth of a second.

Luckily, those clever chaps at Atari have allowed us easy access to this interrupt, so we can add our own routines to be run every fiftieth of a second.

In order to add our own interrupt ➤

On the disk...

n the CoverDisk this month, take a look at PROG0017.S. is is not part of our game, but a standalone program hich shows how to implement a Vertical Blank terrupt routine on the ST.

The routine actually executed simply draws a vertical r at the left of the screen repeatedly, one line of pixels ing drawn every fiftieth of a second.

The program adds the routine to the table every time e + key is pressed. Run the program and press the Plus y once. You'll see the bar rising up the left of your reen. Now, see if you can guess what will happen when u press the key again. Try it. Were you right?

Effectively, the speed of the bar doubles, because the utine is now being executed twice every fiftieth of a cond. Press the key again, and the speed increases as the routine is run three, then four times every fiftieth of a second.

Pressing the – key removes one of the entries in the table every time is pressed. So now this has the effect of slowing our moving bar down.

Press it enough times, and the bar will stop. Press any other key, and the program will terminate without clearing down the interrupt table first. So make sure you stop the bar before pressing another key, unless you want a bar scrolling up your Desktop!

Seriously, though, it is very possible to crash you ST if you leave interrupts running, then load and run other programs, so if you have exited the program with the interrupts still running, it's a good idea to reboot before doing any serious work!

LEARNING Assembler Part 10

routine, we need to let the ST know where the routine is in memory. We do this by putting the address in a table of addresses used by the operating system.

The operating system looks through this table every vertical blank interrupt, and executes all the routines at the addresses specified.

The alternative to this method, which is used on some other systems – and sometimes on the ST for other interrupts – is for our routine to find the address of the routine normally executed during the interrupt, change the address to the address of our routine, and jump to the original routine after executing our own. As you can see, the Atari's method is far cleaner.

Modes

Unfortunately, there is a problem in accessing the table of addresses. The 68000 has two processing modes – User and Supervisor. Supervisor mode allows us access to certain areas of memory which would give an error if accessed in User mode.

The table we need to update is in this protected memory, so we need a method of switching into Supervisor mode.

There are two ways of getting into Supervisor mode. In one instance, using GEMDOS 32, the processor is put straight into Supervisor mode, and we must remember to return to user mode before exiting.

The second method uses XBIOS 38, which executes a single subroutine in Supervisor mode. This second, less complex, option is the one I have used, as we only need to be in Supervisor mode to set up the interrupt.

The addresses we are interested in on the ST, as far as adding our interrupt routine go, are as follows:

$452 – If the word at this address is zero, the Vertical Blank routines will be disabled. As the default is for them to be enabled, our program will not use this word.

$454 – This word holds the number of Long words allowed in the table. This is useful, as it is possible that other programs could have added their own routines to the table, and we will have to search through to find an empty slot – knowing the size of the table allows us to limit our search.

$456 – This Long Word holds the address of the table currently in use.

So, the sequence of events, to ad our routine to the vertical Blank Interrupt Queue are as follows:

- *Get the address of the table from $456.*
- *Get the Length of the table from $454.*
- *Look through the table from beginning to end, looking for a zero Long Word*
- *If we find one, move the address of our routine to the Long Word.*

And that's it! Our routine will now run every 50th of a second.

There are, however, a number of important points to bear in mind when using interrupts of any description. Firstly, remember that, unless you prevent it in some way, your routine is likely to interrupt itself if it executes for any length of time!

With our example, if the routine takes longer than one fiftieth of a second to execute, another Vertical Blank will interrupt it before it has finished. If this happens you're certainly going to crash your ST.

Too long

Also, it can be dangerous to execute built-in routines (eg GEMDOS, XBIOS etc) Some of these may use interrupts themselves, or simply take too long. An obvious example would be executing the routine to wait for a vertical blank, from within a vertical blank interrupt!

Error trapping can be even more difficult than ever when using interrupts. Depending on your assembler package, you may or may not have a debugger. If you have then using it for debugging programs ca save great deal of time. The proble comes when trying to debug progr using interrupts, is that the debug itself is likely to be interrupted!

So that's it folks. Over the last t months we've gone right through assembler programming, and toda should be able to understand how simple bat and ball game was put together.

If you have any questions, by all means write to our Advice Serv at Atari ST User, Europa House, Adlington Park, Macclesfield SK10 4NP.

Getting bette all the time

The Game with No Name has been improved further this month by th inclusion of the vertical blank inte rupt routine, which both animates the target colours, and counts dow a timer which is used to move the target regularly.

The new routines are fairly obvi ous. Load up PROG0018.S and tak look toward the end of the code. New subroutines inter, which is t interrupt routine itself, vert_on an vert_off, which turn the interrupt routine on and off.

Target

Changes have also been made t the target routines, simply to mak life easier when drawing a new tar get, when the old one has not act ally been hit. The new routine, move_target, deals with this.

You will see from this that, wh ever a target is drawn, the counte set to a random value between 1 a 255. This has the effect of allowin the target to appear on-screen for between one fiftieth and five sec onds. Obviously this figure could modified to suit.

A little flash

While we are playing around with interrupts, I thought we could spice up the graphics a little by doing some colour cycling to animate the target in The Game with No Name..

The ST can display 16 colours on-screen at once as standard. Each of the 16 can be any one of 512 (or 4,096 for the STE) in the ST's colour palette.

I have designed the target used by our game to use only colours 10 through to 14, and the colours I have selected are in increasing brightness from very dark 10, to bright 14.

If we were to change the palette, so that colour 11 became the colour which was allocated to colour 10, 2 became 11 and so on, and repeated this, the effect would be one of movement as the colours changed. In the target sprite, each colour is used for a ring, so the effect is one of a contracting circle.

Memory location

The ST holds the colour palette information at a specific memory location. Each of the 16 colours on-screen has a word of memory assigned to it, starting at address $FF8240.

So to achieve our effect, we simply need to move these words around, on a regular basis. The ideal place to do this is in our vertical blank interrupt routine. The animation would actually appear tle fast if the palette is updated 50 times a sec so I have halved this my checking the counter odd before updating the palette.

To do this I have used a new instruction, B This merely tests a single bit of an operand. I used it to test bit zero – the least significant bi the counter.

As the counter is being updated once every fiftieth of a second, this will be set once every twenty-fifth of a second. You may like to try different values (eg test bit one) to see the results.

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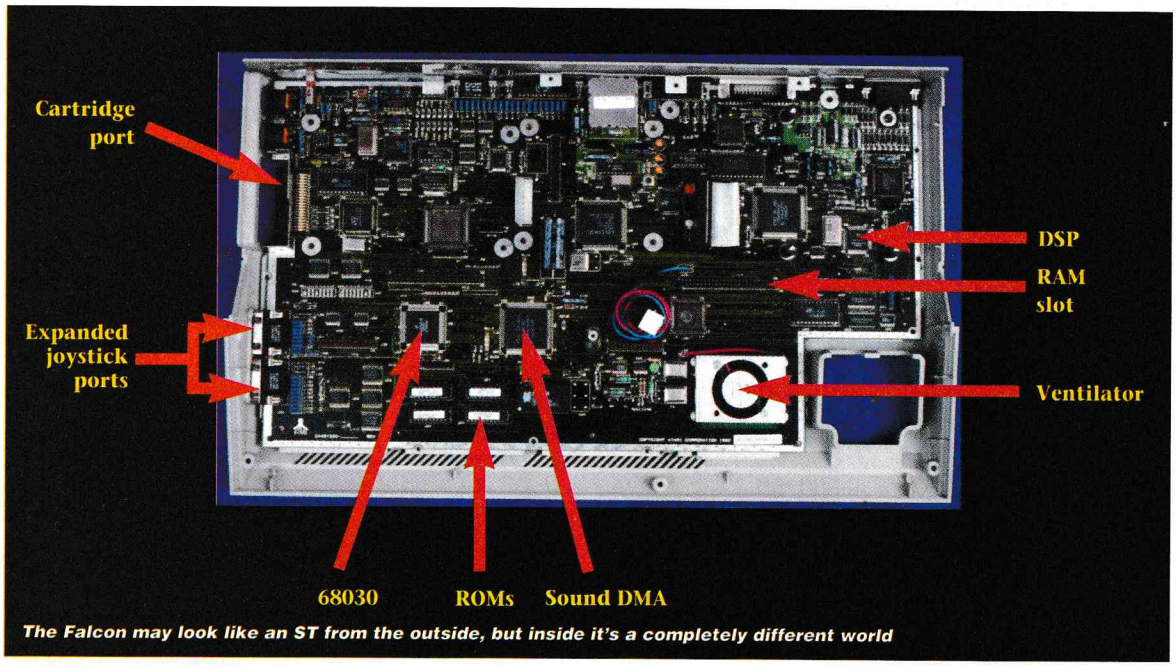
ari invited us to get ands-on experience f their new Falcon. Darren Evans came ack bubbling with enthusiasm



The Falcon may look like an ST from the outside, but inside it's a completely different world

High flying Falcon

he Falcon 030 is, without a doubt, a powerful and technically sophisticated machine. ook at its standard features con- hat Atari have here a machine hould bring back those who may been shying away from the current nge.

d that includes the big entertain- software companies who have eluctant to develop new titles for T, as well as those being drawn to nsole market.

e Falcon, Atari's new generation of uter, provides performance, speed, r and graphics capability rivalling ound on PCs. Based on the power- 030 32-bit processor, it is nced with a 32MHz Digital Signal ssor (DSP).

is extremely versatile and powerful ssor is already standard in some tations such as the powerful NeXT uter. Its inclusion into the Falcon very good move by Atari.

e DSP is not, as is sometimes ht, just restricted to processing d signals – it is much more versatile hat. For example, the digital signal g into the DSP could be from a digitiser so making the DSP capa- image processing.

lso provides some very useful netic abilities, being capable of cal- ng scalar, vector and matrix calcu- s – all handy in 3D graphics ssing.

d the DSP is capable of modulat- emodulating an incoming phone in realtime, hence the possibility DSP replacing the modem gh software.

e abilities of the DSP, in addition already powerful processing speed 68030, make for a level of power times greater than that pro- popular home comput-

ith such capabilities as electronic mail, fax and telecommunications es, the Falcon can provide users viable alternative to the higher PCs.

a games machine, the Falcon is ically superior to today's home uters as well as the current con- offered by Sega and Nintendo.

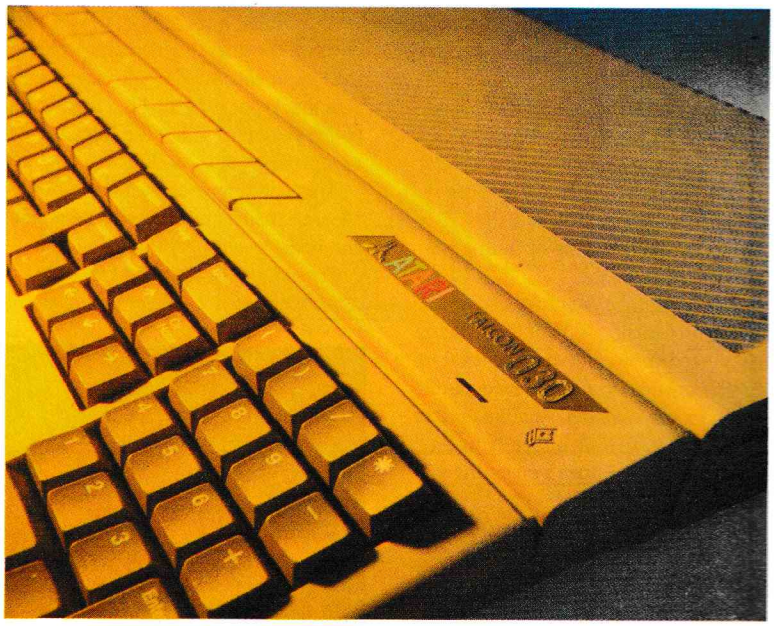
It is up to Atari to somehow wow the console-owning community into realising the limited abilities of consoles compared to the versatility of the Falcon.

It is common knowledge that the trend from one console to another tends to be based on the 'It plays better games' philosophy, which generally means it has better graphics, better sound and has additionally been accompanied by slick, hi-tech TV adverts to enforce the fact.

The Falcon scores over the consoles in both graphics and sound quality. With direct memory access (DMA) enabling communication with external peripherals such as CD-ROMs and hard disks, Falcon's audio system allows the recording of eight channel 16-bit data and then playing back four channels of 16-bit stereo data.

Also, with sample rates of up to 50kHz, Falcon has better sound quality than compact discs, which have a 41kHz sample rate, and digital audio tape at 48kHz.

Realtime audio special effects are also possible through the use of a standard microphone plugged directly into the Falcon. Using a program that lets users adjust certain parameters of the DSP, voice signals entering the chip via the microphone are processed resulting in effects such as flange, echo and reverb.



Graphics are equally impressive, with a maximum screen resolution of 768 x 480 (with overscan) and a staggering 65,536 colours from a 262,144 colour palette. Other modes include 256 colour and the ST-compatible modes of low, medium and high resolution.

Such high resolution colour modes will produce some stunning games, usually only found on PCs, with the true colour mode ideal for producing near-photo quality images and stunning ray traced pictures. Just take a look at the picture produced by the Falcon on the next page.It uses a mere 256 colours and the quality is still superb. Imagine it in 65,536 colours!

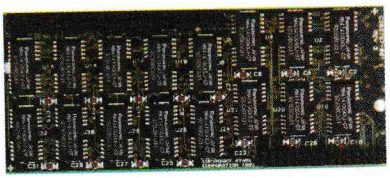
Manipulating such huge amounts of graphics data is where the DSP will excell, taking the strain off the 68030 and thereby enabling programmers to create extremely fast graphic applica- ➤

Falcon is ideal for producing near photo quality images

Falcon features at a glance

- 16MHz 68030 microprocessor
- 32MHz Motorola 56001 Digital Signal Processor (DSP)
- 1Mb, 4Mb or 14Mb of RAM
- Video colour palette of 262,144 colours with 65,536 colours on screen at onc
- 1.44Mb PC-compatible internal floppy disk drive
- A multitude of ports including: SCSI 2, RS232, Parallel, RF, Video, Midi, Cartridge, LAN, Microphone, Headphone, Joystick (expanded) and DSP

Optional enhancements that can be added include a 16MHz 68881/2 floatin point unit (FPU) and a internal hard drive



A 14Mb memory card. This particular one is Atari-designed but expect to see memory boards from other manufacturers to appear when Falcon is released

tions and games.

There is already one well known and respected company working on a true colour art package. TruePaint from Hisoft will be one of to the first software titles to appear on the Falcon.

It is the first art package to take advantage of its true colour mode. It works in all resolutions including the 768 x 480, multi-window environment and animation facilities. Graphic formats include IFF, TIFF JPEG and more.

Mirage are currently working on Space Junk, an RPG type space game featuring specially designed digitised latex puppets with which you can converse.

The operating system shown to us did not have multi-tasking ability. However, it is believed that when the machine becomes generally available, the MultiTOS multi-tasking operating system will be standard.

The operating system we saw was apparently version 4.0 but is still being completed. Essentially it is identical to 2.06 with additional features to handle the extra video modes. Anyone used to the ST will have little difficulty in getting used to the Falcon's operating system.

When it comes to communicating with the outside world, the Falcon has some pretty impressive output ports. Three of the most important are the DSP, SCSI 2 and LAN. The SCSI 2 port, the most interesting of the three, enables you to connect standard SCSI devices such as CD-ROMs (even those designed for other machines), hard drives and Floptical drives .

The DSP port is also interesting as hardware manufacturers will be able to design hardware to be controlled by the Falcon's DSP – such specialist equipment spectral analysers and robotic systems. The LAN port (Local Area Network) allows easy construction of a network of Falcons. Other ports include headphone and microphone sockets, 9-pin modem port, RF port for connecting a normal TV, printer port and a video port for connecting VGA monitors.

There are also the standard Midi ports, cartridge slot and also the expanded joystick ports as found on the STE. Annoyingly, the infamous mouse ports are still in that frustrating position found on standard STs

And while on the subject of bad points, I consider the decision to place the Falcon within a ST-type case rather a bad one. What is needed is a new casing to enforce the fact that the Falcon is a new platform of computers.

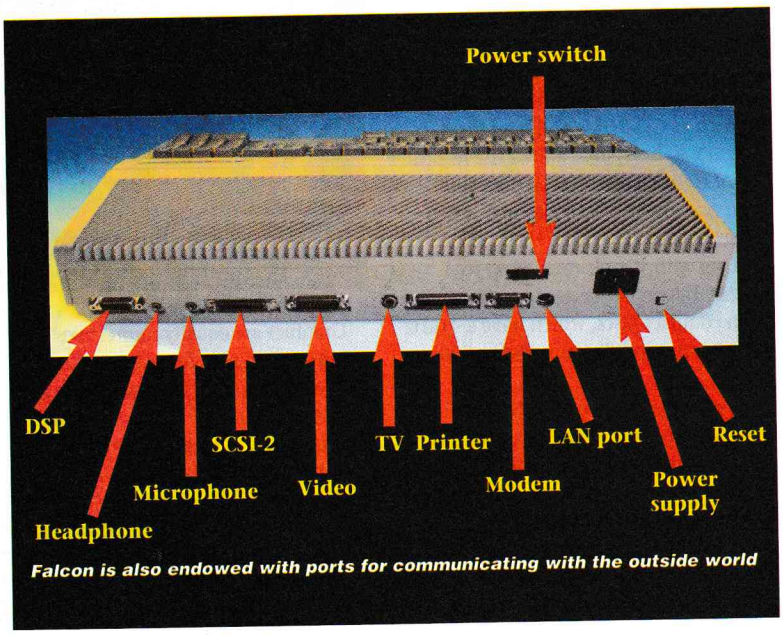
Atari could have at least put it in a Mega ST casing and given it a separate and better quality keyboard.

The standard 1Mb Falcon is easily upgraded to either 4Mb or the maximum 14Mb via slot in RAM boards. With the large amounts of memory required when using the high resolutions even 4Mb would have been restrictive for the graphic applications which the Falcon can use.

Besides the ability to attach external hard drives via the SCSI 2 port, there is also the IDE interface into which the extremely compact, internal IDE drives – which the 4Mb, £899 Falcon has as standard – can be installed.

The Falcon deserves to be successful if not for the new technology alone, but I can't help feeling that Atari have not got things entirely together with their marketing image and there may be problems in delivering the machine.

Such problems will damage Falcon's impact on the market and lessen its effect on the competition, Commodore's Amiga 1200 and the console arena.



Falcon is also endowed with ports for communicating with the outside world

Potential DS applications

The applications to which the DS can be put are numerous to say th least. Take a look at some of the u for which the DSP is ideally suited

Telecommunications
- Tone generation
- Noise cancellation
- High speed fax
- High speed modem

Image processing
- Pattern recognition
- Image restoration and enhanc

Graphics
- 3D rendering
- Animation

Instrumentaion
- Spectral analysis
- Waveform generation
- Transient analysis

Data acquisition
- Speech processing
- Speech sythesis
- Speech recognition
- Voice mail

Audio signal processing
- Digital hi-fi pre-amplifier
- noise cancellation
- music synthesis
- acoustic equalising

High speed control
- Laser printer servo
- Robotics control

The DSP is also capable of reliev the 68030 from some time-cons ing arithmetic operations. It is ble of calculating Scalar, Vector Matrix calculations at high spee as such brings complex, high-s 3D graphics well within the Fal ability.

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Output answers

I have a Mega STE4 and have just managed to obtain a Miracle Technologies WS4000 modem.

I am eager to access to the many excellent BBSs and online services such as CompuServe and CIX that are available but I have a slight problem.

The modem lead that I received with the WS4000 has two 25-pin D-type connectors on each end, one male and one female.

Unfortunately, the Mega STE's modem ports are 9-pin D-type male plugs.

I know it should just be a case of replacing the female 25-pin on my modem lead with a 9-pin female plug but I have lost my manual that came with the Mega STE which had details of the pin assignments on the 9-pin ports.

I already know the pin assignments of the standard 25-pin plugs so I would be grateful if you could print those for the 9-pin. both of them if possible.

Also, could you please tell me an address where I can contact CompuServe for information on gaining an account with them?

S Marlon, Strathclyde

The numbers for general and sales enquiries for CompuServe are 0272 255111 and 0800 289378 respectively.

Now where did I put my Mega STE manual? Oh, here it is. Here are the pin outs for your perusal Mr Marlon:

Modem 1 port

Pin No	Description	I/O
1	Carrier Detect	Input
2	Received Data	Input
3	Transmitted Data	Output
4	Data Terminal Ready	Output
5	Ground	***
6	Not Connected	***
7	Request to send	Output
8	Clear to send	Input
9	Ring Indicator	Input

Modem 2 port

Pin No	Description	I/O
1	Not Connected	***
2	Received Data	Input
3	Transmitted Data	Output
4	Data Terminal Ready	Output
5	Ground	***
6	Not Connected	***
7	Request To Send	Output
8	Not Connected	***
9	Not Connected	***

Slow driving

Please help me. I have a ST with a Megafile20 hard drive attached. With the drive now nearly packed with data, I am experiencing extremely annoying delays when transferring files to and from the hard disk and from partition to partition. When the hard drive is reading or writing, the busy light seems to pulsate quite a number of times before actually writing the data.

This is extremely annoying when copying large numbers of files and is getting on my nerves. What is wrong? Is it my Megafile or is it my ST that is causing the problems?

L McCoy, Dublin

Does your ST have TOS v1.2 by any chance? If so, this may be the cause of the problem.

You see, the disk access routines are not exactly efficient when it comes to reading from and writing to the hard disk.

Upgrading to TOS v1.4 or higher will greatly improve the performance of any disk I/O.

Also, does your hard drive data have deeply embedded directories? If so, accessing these can be very time consuming when using TOS v1.0.

Heavy disk fragmentation may also be the cause too. Fragmentation means that a single file is split up into numerous parts over the hard disk instead of being continuous.

There are a number of PD de-fragmenters which clean up this fragmentation and it may be worthwhile obtaining one of these.

Dirty driving

Please find enclosed one of a number of disks that are being damaged every time I try to use them with my ST's internal drive.

This is a fairly recent occurrence and it has got to the stage where I just cannot use my internal drive any more.

Luckily, I have a hard disk but I am unable to play any games at the moment because I am not prepared to risk my expensive games collection to my obviously damaged drive.

Should I just get another completely new drive or is it possible to repair the drive?

K Shackly, Blackpool

I tried the disk that you included and I too could not read it. I couldn't even re-format it, so that suggests that there is some dirt on your disk drives head or the heads have been scratched by dirt and are now scratching the surface of any disks you put in it.

Before rushing out to buy another replacement disk drive, try cleaning the heads using any of the commercially available disk cleaning kits. This may clear up the problem.

Colourful art

Last month I bought a Citizen Swift 24e from a friend of mine and having a great interest in art packages, I was eager to print out some of the artwork that I have done using Neochrome Master and Hyperpaint.

Unfortunately, I cannot seem to get the printer to reproduce the colours on-screen. Instead, it prints only in one colour every time.

Is there something wrong with the printer or is it a problem with the art packages?

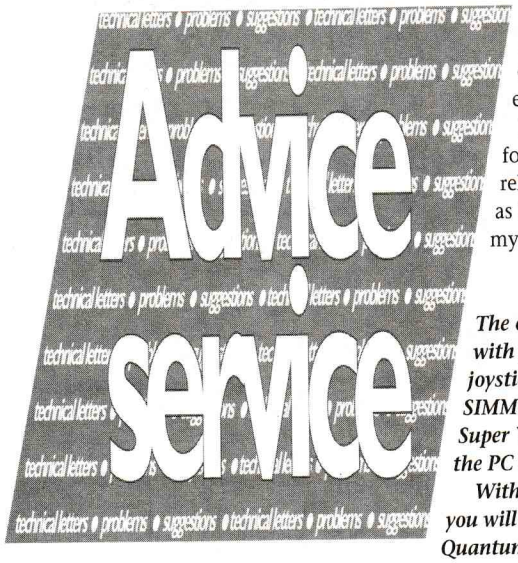
C Smith, Huddersfield

Rest assured Mr Smith, your Citizen printer is quite all right. The problem is indeed with the art packages you ➤

Got a problem?

Is your printer playing up? Floppies behaving strangely? Having problems loading ZX81 games on your Spectrum emulator? Maybe *ST User* can help. Jot down your gripe, along with as much information about your set- up as possible, and send it to:

Darren Evans, Advice Service,
Atari ST User, Europa House,
Adlington Park,
Macclesfield SK10 4NP



➤

are using. They are totally unable to print in more than one colour because the printer drivers supplied with the packages are not for colour printers.

However, do not fret because Deluxe Paint, from Electronic Arts, is capable of outputting full-colour prints to the Citizen Swift as well as other colour dot matrix printers.

Electronic Arts can be contacted on 0753 549442.

Crossed wires

I have a Hitachi TV/monitor and would like to use this on my Atari STE.

I have a monitor lead from the ST and a 7-pin plug for the monitor. I would be grateful if you could provide me with the pin connections that need to be made.

The manual for the monitor lists the pins as: 1 Red input, 2 Green input, 3 Blue input, 4 Sync input (negative), 5 Earth, 6 Audio input and 7 Not connected.

L Cotterell, Northampton

Your ST's manual should contain details of the (13-pin) assignments for the ST's monitor outputs. The Green, Red, Blue and Earth pin numbers are 6, 7, 10 and 13 respectively.

You must connect the ST's audio out (pin 1) to your Hitachi monitor's audio input. The next tricky bit is in joining the ST's two sync pins (pins 9 and 12) to form a composite signal.

This requires that you add a 4,700 Ohm in-line resistor to each of the ST's sync output pins and then join them together. You should then connect this to your monitor's sync input pin.

In and out

I have built an input/output port for my ST which currently uses the joystick port for the input side.

I would prefer to use the printer port for both input and output but I need to know which register is used to change the data direction.

I have a Mega ST2 upgraded to 4Mb with an internal 1Mb drive and a Megafile 30 hard drive.

R Goodhall, Plymouth

Bit 7 of register 7 of the programmable sound generator (PSG) is responsible for the data direction of the parallel port.

If set, the port is output. If cleared, it is input. To set this bit, the value of 7 – for the register number – should be written to $ff8800 as a byte.

Then 128 should be written to $ff8802 as a byte. To reset the bit, simply write zero instead of 128. You should then be able to read data from register 15 by writing 15 to $ff8800, then reading a byte from $ff8802.

Virus attack

Strange things are afoot with my Atari STE. During use, the mouse pointer suddenly decides that it's getting bored with moving up when the mouse moves up and decides to move in the opposite direction instead.

The same thing happens when I try to move the mouse down, it goes up instead. Is my STE taking the mickey or is my mouse faulty?

T Stapleton, Gloucester

Oh deary dear. You seem to have contracted the most common virus on the ST – the Ghost virus. This annoying and potentially software damaging virus suddenly rears its ugly head in the form of reversed joystick controls in the vertical axis.

I suggest you obtain a good virus killer, such as Ultimate Virus Killer from Douglas Communications on 061-456 9587 and then sit down to a good virus killing session with all your disks.

To prevent viruses from spreading, get into the habit of write-protecting all of your disks.

Hard bargains

At a recent computer hardware auction, I managed to obtain quite a few items that I would hopefully be able to use with my STE. The items in question are a anologue joystick, a Soundblaster sound card, a Quantum hard drive mechanism, a Super VGA graphics card and 6 SIMM cards (with 9 chips on each).

I realise the STE uses SIMMS for it's memory, but I am reluctant to just plug them in as I'm worried about damaging my computer.

J Marks, Sheffield

The only items that you can use with your STE are possibly the joystick, the hard drive and the SIMMS. The Soundblaster and Super VGA cards are specific to the PC only.

With regards to the hard drive, you will have to remove the Quantum mechanism and purchase a interface and a power supply in order to connect it to your STE. The interface you should look at is The Link by ICD. This is available from Power Computing and also comes with excellent ICD hard drive software.

Those joystick ports on the side of the STE should be able to accomodate a anologue joystick but I can't think of any software for the STE with which you could test it. As for the SIMMS, they should be compatible with your STE. Just plug 'em in and go.

Accessory knowledge

Being very new to the ST scene (I've had one about two months now) I am still coming to grips with all the lingo and various aspects of the ST operating system.

Some of the things that confuse me are the various types of files that can be run from the Desktop.

What are the differences between files ending with TTP, ACC, TOS, PRG?

Also, why is it only possible for non-GEM programs to be launched from the AUTO folder?

M Wilson, Lincolnshire

Although the differing types of files may seem somewhat confusing to the newcomer, they give the ST great versatility. I will attempt to explain each file type in the order you listed them.

TTP files (TTP is short for TOS Takes Parameters) are files that request information, sometimes referred to as "arguments", from the user before the actual program is run.

When you double click on a TTP file, you will get a parameters box on-screen which allows you to enter the information. This information you enter is dependent upon what commands the TTP file you are running accepts.

For example, a file called LHARC.TTP is used in the process to compress files to save space on our CoverDisk (files compressed with LHARC.TTP are recognised by the fix .LZH). LHARC.TTP can accept number of commands in the parameters box such as -x for extracting f

So if you have a compressed file disk called FONTS.LZH and you w to extract the files within it using LHARC.TTP, you would double cl on LHARC.TTP and would then b presented with the parameters box

You would then type -x FONTS into the parameters box and when LHARC.TTP executes, it looks at t parameters you typed in and acts them. In this case the -x FONTS.L means extract.

ACC stands for accessory and i cates a program that can be activ from the Desk menu item from th Desktop.

These files are constantly in m ory and are also immediately ava able from within other programs. While in a wordprocessor program example, you might find that the no function for formatting a disk

However, you have a file called FORMAT.ACC which you put in t root directory of your wordproces disk (all ACC files need to be in t root directory for them to automa cally load into memory).

When you execute the wordpro sor, the FORMAT.ACC also loads and can be found in the Desk me selection. When you activate this accessory from the Desk selection will execute and allows you to fo a disk.

When you have formatted a d and quit from the accessory, you then be returned to the wordproc

TOS files are programs that do use menus or windows at all. Th purely text-based programs. Whe TOS program is run, you will not that the screen is cleared and th gram title that usually appears a top centre of the screen is not pre

PRG is the most common file on the ST and generally denotes GEM program. However, a TOS p gram that doesn't use menus ca be renamed to have a .PRG suffi it will still operate OK, although screen is not cleared and it will ally look messy.

In answer to your last questio cannot place GEM programs in AUTO folder because such progr are executed before the GEM rou in the ST's operating system are tialised.

This means that these routin not available to AUTO program any program which tries to use routines will crash the ST. All A programs, even though they do GEM, must be of type .PRG.

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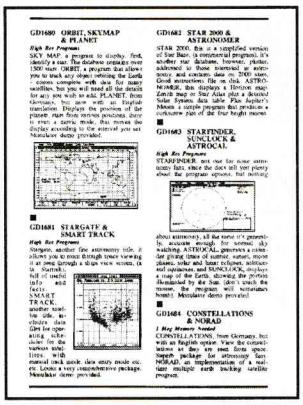

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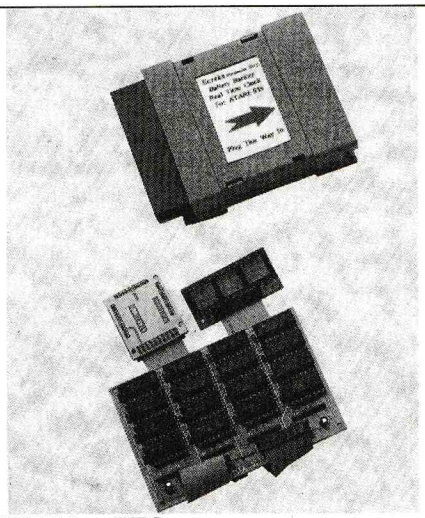

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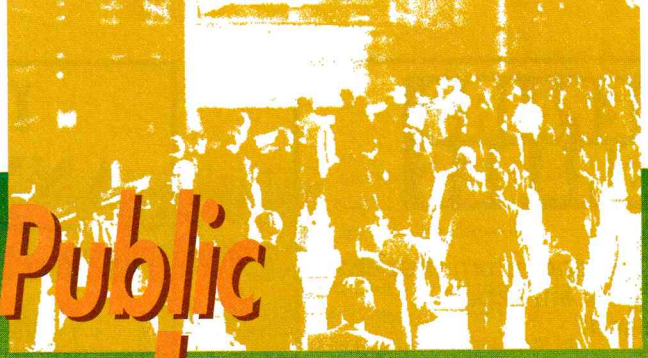


Public Sector

It's PD extravaganz
time again. Take a
look at what Darre
Evans found in thi
month's postbag

Mindlock

Public Dominator ● Disk No G165
Programmed by Dave Cobbledick

I was never any good at general knowledge. Even at school they used to decide which quiz team I'd end up joining by going through a random process involving straws of varying length.

So it's not very surprising that while playing this extremely playable and entertaining quiz game I managed to attain the rank of office dumbo.

Trying to write a PD column wearing a conical hat displaying a large character from the fourth position of the alphabet is not very easy, I can tell you.

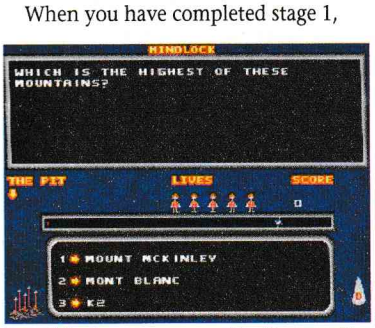
However, I persevered and I can tell you this is one of those games that has you playing again and again. Mindlock is reminiscent of the computer quiz game machines you find in many a pub. You have to answer questions posed to you by the computer within a certain time limit.

In Mindlock, the number of questions you have to answer is determined on the Skillmaster.screen. Here you are presented with a grid of numbers with a flashing cursor randomly highlighting various numbers.

At the press of a key, the flashing cursor stops and the number it highlights is the number of questions you have to answer.

The game consists of "rounds" with each round broken down into three stages. Stage 1 is where you answer general knowledge questions covering a wide and varied range of topics.

When you have completed stage 1, you are transferred to Stage 2, the "cliffhanger" screen, where your skill in mathematics is tested.



Careful of your answer, the lives of the Clarences are in the balance. Just look at those sharp spikes

Quick, somebody pass me a calculator

If you manage to complete this stage, the final stage is where you are given questions regarding the English language. You may be asked a question about a particular word or to give the definition of the word.

Every time you successfully complete a round you will be given the chance to bump up your score by up to 5,000 extra points. This Bonus section increases in difficulty with each round.

When a question is posed, you are given three possible answers with only one being correct. You select the answer you think is correct by pressing the appropriate number on the keypad of the ST.

You only have a limited time to answer, indicated by the rotating blue star at the bottom of the screen. You have to answer the question before the star stops rotating.

Once you select the answer, you will be told if it is correct or not and your score will be incremented or decremented. For each game, your lives consist of Clarences, little people who will suffer a horrible fate at your every failure to answer correctly.

Each Clarence has three lives and every wrong answer loses one of them. When a Clarence is on its last life, an incorrect answer will make it suffer a rather spiky demise and it will then ascend to Heaven.

The game ends when all your Clarences have snuffed it, at which point if you have achieved a high score, you may enter your name into the high score table which is saved to disk.

Mindlock has 300 general knowledge questions and 100 questions for stages two and three. Five hundred questions should keep anyone busy for some time. Also, because the answers and questions are contained in files, the author is able to provide alternative files for a fee.

Mindlock is a shareware product and the registration fee is £5. When you register, you will be given first choice of updated questions and answer files for Mindlock, which will cost you £3.50 as opposed to £7 for non-registered users and you will also receive priority information on new programs.

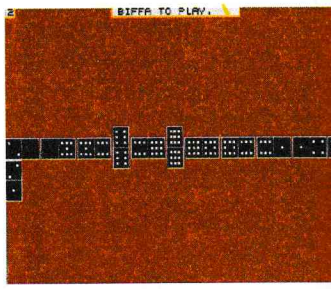
I thoroughly enjoyed playing Mindlock and think it is well worth the £5 registration fee, so if you like the odd quiz challenge, you will find this program hard to beat for the price.

First Dominoes

Floppyshop ● Disk No BUD 3309C
Programmed by Gary Wheaton

Not exactly an exciting game dominoes, is it? This computerised version retains all the sedateness of the real version with the advantage that you will nev lose any of the pieces.

The window shows your hand, allows you to change speed of play and also shows the status of the other players



Ooh, the excitement overwhelms a the dominoes fill the screen...

I never could gain any interest in game at all. The only time I ever touched a domino was when my litt brother spent three hours carefully li ing up his collection ready for toppli

He'd just reached the 200 mark w a streak of pure evil overcame me, I picked up a nearby domino and non chalantly flicked it towards the starti domino.

I expected it to miss but with sup natural accuracy, it hit and sent thre hours of careful arranging up the sp

However, although the game bore me to tears, being the comprehensiv columnist that I am, I have persever with it and managed to stay awake l enough to provide those of you who like dominoes with this review. So (yawn) here goes.

According to the author, First Dominoes is said to be the first real computerised version of dominoes o any computer.

The game uses a double nine set o dominoes (whatever that means), pl a nine-domino-per-player game, pla matchplay-type single games and us standard legal move techniques (wh I think, means it doesn't cheat).

The game supports two to five pla – one human and one to four comp controlled – so if you can't find any one else to play, you can test your s against the computer.

The first thing to do when you ru the program is to enter the names o players who are going to take part.

Once done, clicking on the SAVE button on the screen will save all cu rent names thereby negating the ne to re-enter the names every time yo load the game again. To make thing

Where to get them...

- PDOM, PO Box 801, Bishop's Stortford, CM23 3TZ. Tel. 0279 757692
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ore colourful, you also have the
o alter the colours used in the
your own preferences.
n your turn to play comes, a win-
pears on the screen showing
dominoes you have. This is your

will obscure any dominoes that
en played and are on-screen –
r, a small box at the top left of
dow allows you to temporarily
the window in order to see what
n played.
the window, you have various
at your disposal. You can knock,
means you are scuppered because
n't have a domino that matches
f the ends, you can select Player
, which tell you how many
es each player has left and at the
of the window, you have your
and.
lay a domino, you just select one
is hand and if it matches either
nds, it will be placed on the
he winner is the first person to
of their dominoes.

icture Hunter

erdene PDL ● Disk No 1021ST

Hunter is a neat utility that lets
eze a program by pressing the
tton on the back of the ST.
then possible to search through
y, using the arrow keys, to locate
ge that was on the screen when
ssed the reset button.
e found, you can save the image
gas PI1 file for inclusion into any
kage.
is achieved by Picture Hunter
into memory first and then
ng the Reset vector to point to its
utine (when the reset button is
, the ST's operating system runs
gram pointed to by the vector).
re Hunter then allows the pro-

"Anybody seen any Magnetic Anomaly Distortions around here?"

gram you wish to freeze to load in and run. When you press the reset button, Picture Hunter is activated and the ST's memory displayed on-screen.

You can then scroll through the memory using the arrow keys, looking for the screen image that was displayed when you pressed reset.

Once found, pressing the spacebar saves the image to disk in standard Degas lo-res format.

Picture Hunter will not work with all programs however. Those programs which change the reset vector themselves will just erase the information that Picture Hunter put there, thereby disabling Picture Hunter.

Also, if you are intending to grab pictures from commercial software such as games, don't. It's illegal and you'll have the FAST boys (and girls) on your tail if you incorporate the image into any of your own programs.

Jetpac

Floppyshop ● Disk No BUD 3308C
Programmed by P J Whitby

All you former Sinclair Speccy owners out there will remember this brilliant game. You
are in control of a rather unfortunate astronaut who's spaceship is in somewhat of a mess. In fact, it's totally knackered and is lying around the screen in three pieces, asking desperately to be re-assembled before you can take off.

However, it's not just a case of casually moving around and picking up the parts. There are all manner of nasty space creatures floating around the screen which are not at all good for your health should you bump into them.

Fortunately, you have your trusty space laser with which to dispatch these bothersome meanies so that you can get on with the repairs.

Once you have re-assembled the three parts, you will then have to collect the fuel pods to fuel up the rocket.

Once done, just walk into the base of the rocket and you will lift off to the next level.

Not only are there rocket parts and fuel pods to pick up, you also get the odd bonus object floating down from the heavens. Pick these up for lots of points.

The game features 50 levels and if you get to the end, you will be treated to an end-of-game sequence.

This is a brilliant game and will bring back memories of Speccy days gone by for all you Sinclair fans.

t the rocket parts and fuel to get to the next level. Finish st level and you will be treated to the end sequence

Hunt for Grey November

Floppyshop ● Disk No. GAM 3278C
Programmed by Martin Ribbink

The story so far... a group of terrorists have stolen some of the most modern submarines in the world which they intend to use to sink your ships.

It is your task to find these submarines and if possible destroy them, before they destroy your ships.

To carry out this task you fly a Lockheed S-3A Viking. The game has you moving a plane over a map in an attempt to locate the submarines. As soon as the plane is moved to an area, the Magnetic Anomaly Detector (MAD) comes into operation. This electronic device is able to detect small distortions in the earth's magnetic field. Submarines can cause these magnetic disturbances and are therefore detectable by the MAD. If the line on the MAD is straight, then there are no distortions, hence no submarines but if the line is distorted then the MAD has located a submarine in the vicinity.

When a submarine is detected, it will be in either above, below, left or right of the square that your plane is currently in.

However, be careful that you don't move onto the actual square where the submarine is or you'll be shot down by a missile from the sub.

It's not a bad game at all and it should keep you amused for some time.

TV Toonz

Floppyshop ● Disk No GAM3326M
Programmed by David Becker

Does anyone remember the American TV series Mr Ed, or even I Dream of Genie?

If you do you'd better keep quiet or you'll be divulging your old age because all the tunes on this disk are from classic TV series of the 60s.

Once the game is up and running, a sampled tune is played and you are given a choice of five TV series which you must match with the tune.

The actual samples are not exactly of brilliant quality, but I guess that fitting as many as possible onto one disk required that they be sampled at a fairly low rate to save memory.

Also, being a German PD program, it will only run on a mono monitor.

Next time you have a few friends around, this will be a hit for those who are old enough to remember the subject matter.

Cubasic?

Ian Waugh looks at Steinberg's budget sequencer, Cubase Lite, and finds it worth serious consideration

The two best-known sequencers are C-Lab's Notator and Steinberg's Cubase. Although the prices of both these programs have recently dropped to around £300, that's still a hefty price if you only want to dabble.

Both C-Lab and Steinberg have budget versions of their biggies – C-Lab's Notator Alpha and Steinberg's Cubeat. Alpha offers scoring but will only print out four staves. Cubeat has no scoring facilities at all. Cubase Lite would seem to fill the gap.

It's a rather, er, lighter program than Cubase – both in terms of features and price! – but it still retains the familiar look and feel of its big brother.

One song

Lite (review version 1.0) isn't copy-protected – 11 out of 10 for this, Steinberg. On booting you are presented with an Arrange screen very like Cubase, although with a few less buttons. Lite only has 16 tracks although that will be enough for most users at this level. It can also only store one song or arrangement in memory.

But the main features are still there – the Cubase arrange facilities. Each music Part is shown as a small rectangle which you can drag around the screen to any Track and apply copy, cut and paste operations to it.

For example, if you have recorded a two-bar bass line which you want to use throughout a piece, you can simply copy it, drag it to the end of itself and transpose it. It's a great way of working and is one of the major reasons why Cubase is so popular.

You can move quickly to any part of a song using Cue Points. Movement through the music is controlled in now-standard fashion with typical tape recorder transport controls. Two columns to the left of the track List show Midi activity on the Tracks and let you mute individual tracks.

A large Solo button at the bottom left of the screen will solo the currently-highlighted track. You can record in Cycle mode in which the program cycles continuously through a part while you add new lines to it each time through.

Some people find this useful for creating drum tracks although I much prefer to record each drum on a separate track and merge them later.

Useful

When you move or copy a part to another track, it will play on that track's Midi channel but by setting the track's Chn column to "No", it will play back using the Midi channel with which it was recorded. It's useful, but it's not as flexible as being able to change a part's transmission channel.

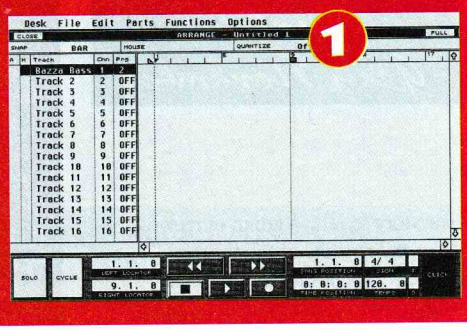
When creating arrangements you can put a part on top of other parts. This is useful for creating upbeats or adding small ornaments to a drum track, for example. You can physically merge parts, too.

You can also create Ghost Parts which contain the same Midi data as t original part but which can be played on different channels. Any alteration made to the original automatically affects any Ghosts. These are useful to create Midi delays, layered sounds and so on.

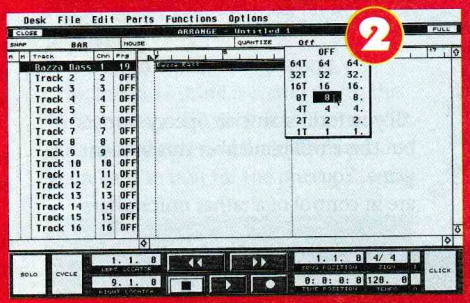
Quantisation is used to correct slop timing and pulls notes onto certain di sions of the beat. Quantisation is fairl basic in Lite in that notes are fully qua tised.

There are no half quantisation or "feel" settings which are found in mo

Creating and printing out a song



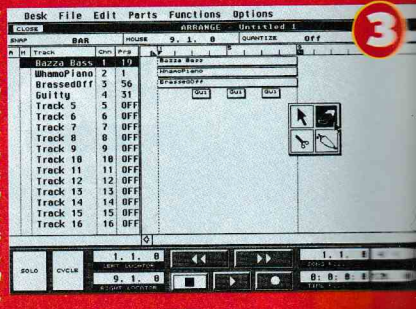
First, the setting up. Double click in the Track Name column to name it. Select the required Midi channel and a voice number in the Prg column. Adjust the tempo. Set the Left and Right Locators to mark out the number of bars you want to record. Ensure Click is on if you want a Metronome click and switch Cycle on or off depending on whether you want the recording to loop. Click on the Record button and after a one-beat count in, off you go.



Recording will cease when you reach the Right Locator althoug Playback will continue (there's nothing to play back at the moment).

Click on the Stop button to st recording and your recording, known as a Part, will appear as black bar. It will take the same name as the Track but you can double click on it and change it. you want to quantise it, choose quantise value and select Over Quantise from the Functions

Carry on in a similar manner recording different Tracks. Copy these and place them on any Track and in any position. Short phrases can easily and quickly be scattered around the score as in the Guitty Part. Pressing and holding the right mouse button produces a four-item Toolbox – Pointer, Eraser, Scissors and Paste. Point to the tool you require and release the button. These are used to move parts around the window, delete them, cut them into bits and stick them together again.



Bottom line

FEATURES: Cubase Lite is the cheapest sequencer with built-in scorewriting and printing – and it does a good job. However, the score is the only way to edit the music – you'll find editing difficult if you're not au fait with "the dots".

EASE OF USE: The visual Arrange window is the best method of creating and organising a song yet. It's ideal for use in education and for beginners and seasoned musos who don't want to spend a fortune on a sequencer.

arket sequencers such as Cubase
er and Notator.
hidden column to the right of the
and Prg columns in the Track list
have to drag the Arrange window
e right to reveal it) lets you set a
me level for each track.
is is useful for balancing sounds
ve to each other, although it works
track basis and not a Midi channel
so you have to bear this in mind.
can alter a Part's Velocity from the
tions menu which can help with
olume balance, too.

Notation

you're familiar with music notation
one of Lite's main attractions will
e ability to see and edit the score in
tion form and print it out.
u can select as many parts as you
for editing in the Score page. The
ay can only show around three
s at once although you can scroll
indow to show the others.
ere are lots of facilities to help you
ne best out of this page. There's a
tise option plus a Snap function
h restricts note editing with the
se to certain note values.
e Score Display lets you decide how
core will look on the stave. You can
single or double (grand) staves and select the split point. There's an Auto Clef function too, which lets the program decide if the bass or treble clef is best for showing a part.

Auto Quantise has several options in a sub menu which help display the score correctly. Syncopes shows syncopated notes in a more legible way. You can set the key signature, here, too.

Notes and rests can be inserted by clicking them into place with Note and Rest tools, and you can insert notes in step time from a Midi keyboard. You can select notes and change their pitch and note on and note off velocities from a Midi keyboard, too. Setting up a Loop independent of the Cycle function on the main page lets you hear a section of music while editing it.

However, as notation is the only form of editing available, you can't edit any other type of Midi messages such as controller messages or even program changes.

Printing

And so to the printout. You load a printer driver in the Printer Setup window. Epson, Atari, NEC and Seikosha printer drivers are supplied along with IBM nine-pin and a HP LaserJet driver. The only other options here let you alter the margins.

The Print option lets you select the range of pages you wish to print and select Fast or Best print quality.

There is no text or lyrics option or facility for adding music symbols. Many bells and whistles which appear on more upmarket score printing programs are missing. The program does a good job of arranging the score – certainly for a program in this price range – but you must be aware of its limitations.

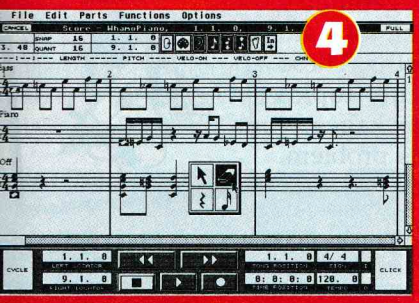
Lite can handle Midi files – essential in modern-day sequencers – but unlike Cubase it can't handle Pro-24 files or individual arrangements, parts, drum maps and so on. Most functions and operations have keyboard short-cuts. The manual is clear and informative but an index would be even more useful than five pages of contents.

Cubase Lite is an excellent budget-priced sequencer for anyone who likes working with the dots or who wants to print out basic music scores. You just have to make sure that you wont need any of the editing facilities which are missing.

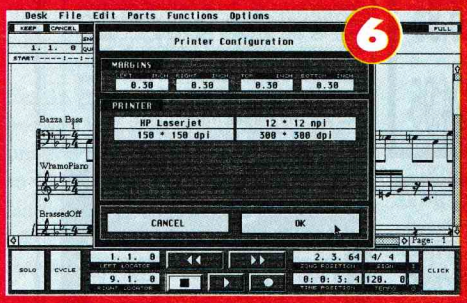
When a manufacturer decides to produce a budget version of their best-selling sequencer, it's always difficult to know what to leave out.

Steinberg have targeted a particular aspect of the sequencer market and what Lite sets out to do, it does very well. For the notation-oriented musician on a budget it's worth serious consideration.

Product: *Steinberg Cubase Lite*
Supplier: *Harman UK, Mill Street, Slough SL2 5DD*
Telephone: *0753 567911*
Price: *£99*
Configuration: *All STs, 1MB RAM, double-sided drive, mono monitor*

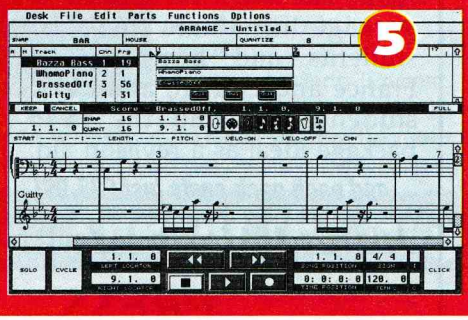


Select a part or number of parts (shift and click) and choose Score from the Edit menu to enter the Score page. You can edit notes here by clicking on them and dragging them to a new position. The Score page has its own Toolbox, too, with a Pointer, Eraser, Rest and Note tools. Use the scroll bars to scroll to different parts. Keep or Cancel any changes you make by clicking on the relevant box in the upper left of the window.

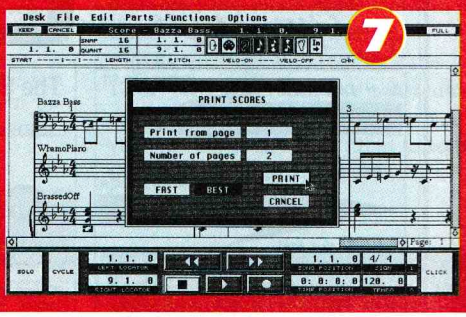


Edit the score using the numerous facilities mentioned in the main text. When it looks the way you want it, load a printer driver. Adjust the paper margins if necessary.

You can resize the Arrange and Score windows so both ear on-screen at the same ne. Click on the Full box in the upper right of the windows to toggle them ween full size and the last size you made them. t's sometimes useful to be le to see both windows at once. There's an Undo unction but don't forget to save often while editing!



The final stage is to print out the score – and very good it looks, too!



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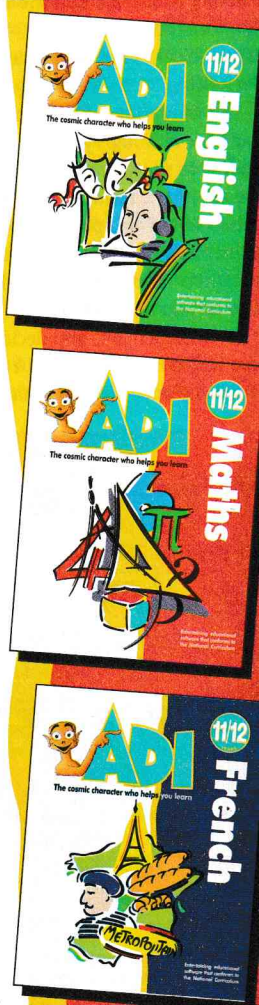

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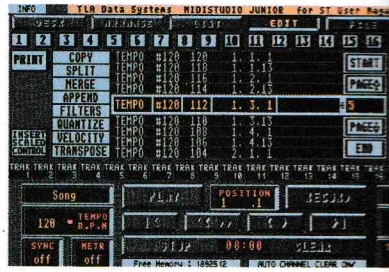
Midistudio Junior



Quantising a drum track

Over the past three issues we've looked at all the program's functions and you should now be able to record and edit your own music. In this final part we have a collection of hints and tips.

Keeping it human

One criticism often levelled at sequenced music is that it's robotic and mechanical. This can be caused by too much quantisation.

In many cases you'll find that quantisation works fine with no ill side-effects but if your music is starting to sound mechanical, take it easy with the quantise function.

Drums generally always sound OK when quantised as their job is to provide rock-steady beat.

Another humanisation ploy is to vary the velocity of notes and here the random velocity function can be very useful. Again, drums can benefit most from this, particularly to remove the machine gun effect which is often apparent when you program 1/16th notes on the hi-hat.

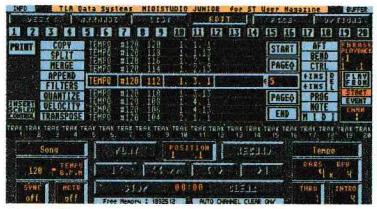
Add accents to bass and snare drum parts by increasing their velocity manually in the Event editor.

Tempo track

Many pieces of music contain tempo changes, often near the end where they slow down or rall. They way to create these is to record the piece all at one tempo and then program tempo changes in later. It's a good idea to use a dedicated tempo track rather than insert tempo data in several different Phrases.

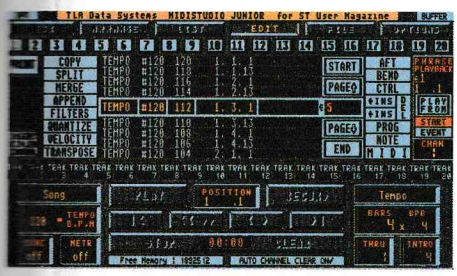
Midistudio uses Controller 120 to control tempo. You can insert a tempo change instruction at any point in a track and create changes using the Insert Scaled Control option in the Editor.

You'll probably find that a change every half bar – 12 clicks – is sufficient although it will depend on how quickly and smoothly you want the change to take place.



A dedicated tempo track showing a programmed rall from 120 to 60bpm across four bars

Fade ins and outs



A fade out created with the Insert Scaled Control function using Controller 7 – volume

You can create fade ins and outs in two ways – using the Insert Scaled Control function and Scale Velocity. We covered these last month. However, it's important to understand the difference between velocity and volume

Although velocity is almost always linked to volume levels – the harder you play, the greater the velocity values of the notes and the greater the resulting volume – it can also affect tone, the pan position of a sound and many other parameters.

If it is linked to tone you will find that a sound becomes less bright as you reduce the velocity. This can be useful although for most fades it's probably better to use volume control.

An added advantage is that volume messages move the faders on the Desk.

Creating harmonies

You can create instant harmonies using the transpose function. You can apply this to a track on the Desk or transpose a copy of a Phrase in the Editor.

Useful transpositions are thirds, fourths and fifths. However, any transposition you make will be a chromatic one and not take into account the scale so you will probably have to make some adjustments after transposing. For example, the first few notes of a scale of C in thirds is:

C(A)	D(B)	E(C)	F(D)	G(E)	A(F)
-3	-3	-4	-3	-3	-4

The thirds are in brackets with the semitone transposition below them. So if you applied a global -3 transposition to music part you would have to adjust some of the notes to produce a correct harmony.

Drum tracks

Many beginners have problems creating good drum tracks. The first step is to work out a good drum pattern. Dedicated music magazines often have articles on drum pattern programming and there are music books containing drum patterns.

Use two or more hi-hat sounds to add tonal variation. Also, try applying pitch bend to a drum – this can be very effective, especially with toms, and you can create Indian tabla drum effects by bending the pitch.

The object is to simulate the natural changes of tone which occur live because a drummer doesn't hit a drum in exactly the same place every time.

Exotic

You can also add extra drum hits throughout a song, rather than simply repeating a couple of patterns. Try throwing in a few exotic percussion instruments, too, such as agogos and bongos. These can fit well into rock and pop songs if used tastefully.

If you record each drum into a separate Phrase while constructing your drum track you retain flexibility when it comes to putting them together.

We used this method to create the 12-bar blues demo song in the first tutorial. You can merge the tracks later if you wish although it won't hurt to keep them separate unless you need to free-up some tracks.

Caught the bug?

By now you should be an expert Midistudio Junior user, able to use all its functions to create music in a way which is not possible using a multi-track tape recorder or any other method.

As you experiment with the program and your knowledge of sequencing grows, there may be operations you wish to perform which Junior can't manage. That may be the time to consider an upgrade.

Midistudio Master works in the way as Junior but has been updated in every department – the result of a two-year long rewrite. It has all the features you would expect to find in a top-level program and you can load the files you've created with Junior into it. See the reader offers for a special *ST User* price.

● *Ladbroke's Midistudio Junior was given away free on our September CoverDisk – see the reader offers pages at the back of the magazine for ordering information if you missed it.*

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These are the FAX

André Willey examines some major contenders for the fledgling Atari ST fax market

Most businesses, and now a growing number of homes, possess fax technology. It has quickly replaced telex as the de facto standard for sending urgent messages around the world, with the added bonus of being able to send any printed document – even photographs.

In its simplest form, a fax machine consists of just three elements – a scanner to digitise your documents before sending them, a modem to translate that information into a form which may be passed along a telephone wire, and finally some sort of printer to create the hard copy at the other end.

Since many documents are now created using computers – either via a wordprocessor or a DTP package – it would make sense to cut out the printing/scanning stages and send the fax directly from the computer's memory.

Even better, it would be possible to read incoming faxes on the computer screen, thus saving yet another forest from being decimated to supply our insatiable desire for paper

Cheap

Although cheap modems designed for this task have been available for some time as plug-in cards for IBM PCs, the only option for the ST was the ludicrously expensive Fast-FAX unit from Michtron.

For around £600 you could have a dedicated fax modem, which couldn't even be used to contact an ordinary bulletin board

Now, as the prices of modems have plummeted, you can buy a dual operation modem (which will handle 2,400 bps communication using V42bis compression, as well as sending and receiving faxes) for under £150.

The latest state-of-the-art unit, which will also give you high speed V32bis (14,400 bps) modem communication, will only cost another £100 or so.

As far as fax software goes there are two major contenders – one from the USA and the other from Germany. The US offering, STraight FAX!, comes from Joppa Software Development while the German Tele Office program is from TKR.

If you're planning on getting into fax on your ST, it's worth considering that you will need at least 1Mb of RAM, preferably more.

Just to store a single A4 fax page in memory will take around 480k, so it's easy to see where the memory goes!

Equally, it's a good idea to use a hard disk rather than a floppy drive system. Although Huffman compression techniques are quite efficient, an average A4 page will still use 70 to 100k of disk space.

This would result in a very limited number of faxes per floppy disk, and the loading and saving times could be prohibitive.

While on the subject of hardware, the review sample of Tele Office (which was admittedly pre-release and undocumented) didn't work correctly on a med-res colour display.

STraight FAX! was fine though, and both programs preformed well in hi-res, and also in the TT's 640 x 480 16 colour mode.

STraight FAX!

STraight FAX!, from Joppa Software Development in the US, is the simplest of the two packages to operate with easy to read Help screens available at every stage, but it does tend to lose out on overall flexibility.

After you've copied all the files to your work disk or hard disk, simply run STFAX.PRG and the system will install itself.

If you haven't already set your ST's internal clock, a small program will be called to allow you to rectify this (how could you schedule a fax without knowing the current time and date?).

This is a nice feature, which does not appear in the German offering – I guess the Germans all have Mega STEs and TT with built-in clocks!

From the main screen you can now configure the system to your own liking. Both STraight FAX! and Tele Office offer flexible setup screens to define what sort of modem and printer you will be using and to set the various control fields that are required within a fax.

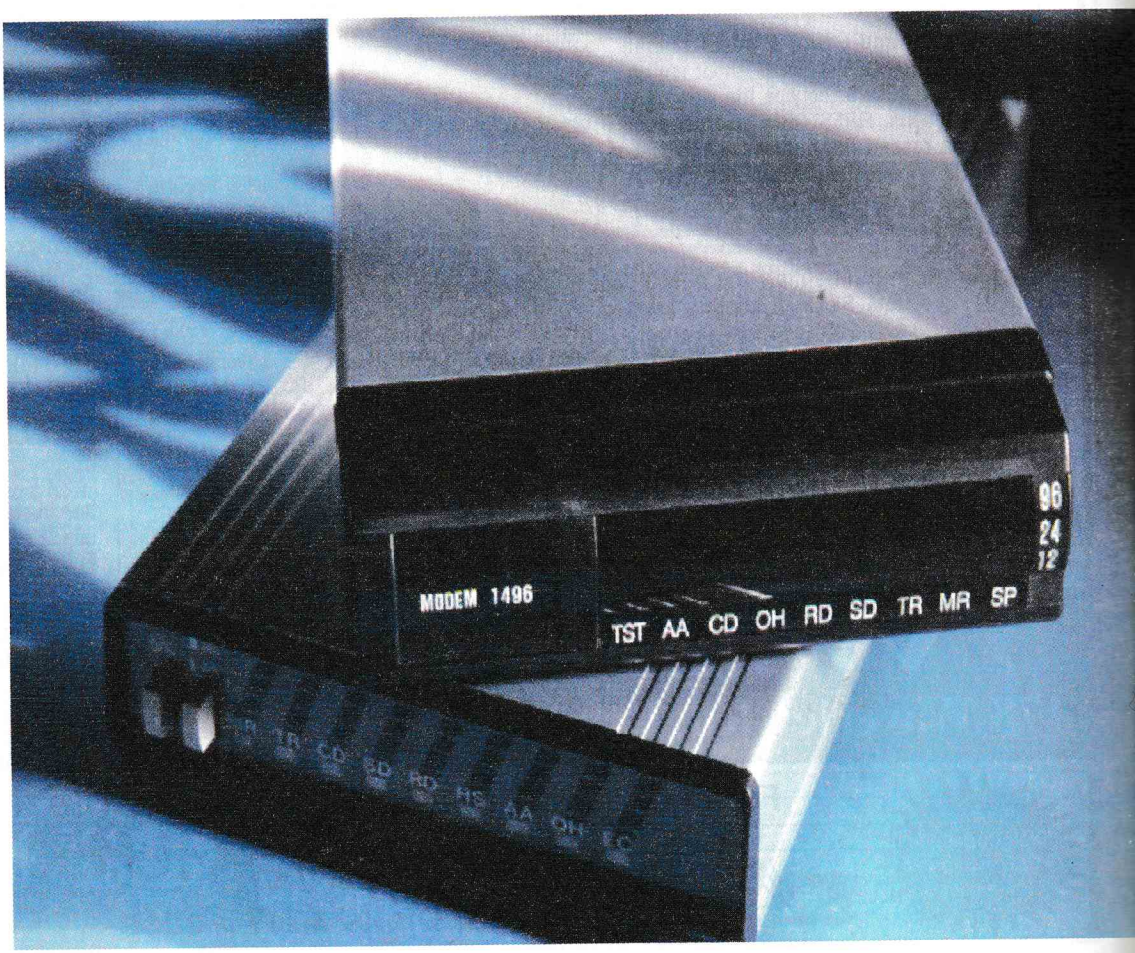
Indentification

These include your own telephone number and a text identification line, automatic page numbering, and so forth.

Your next task is to store your regularly used fax numbers in the Phone Number directory.

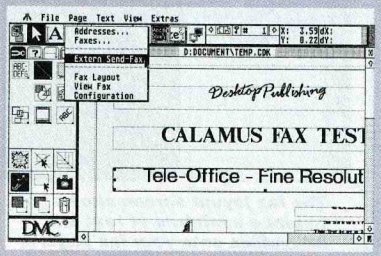
This is a fairly basic affair, but one nice feature is the macro facility which is extremely useful for the lengthy identifications strings required to use Mercury for long distance calls.

Sending a fax is simplicity itself. STraight FAX! can transmit either ASCII text files, hi-res Degas pictures, Image files or even take its input directly from a scanner driven by the ScanLite desk

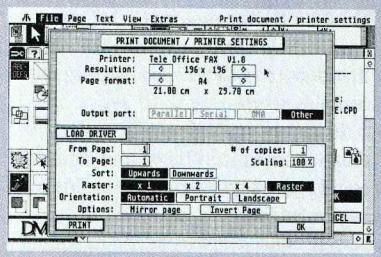


Sending a fax from within another program

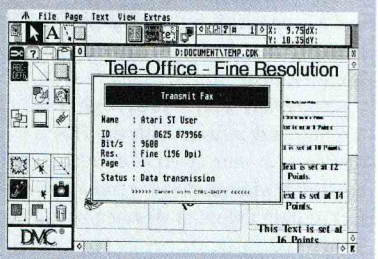
th Tele Office and
Traight FAX! are supplied
with a variety of printer
rivers to suit many popu-
ar ST applications.
From within Calamus,
or example, you can use
ele Office as an accessory
o send pages directly by
ax, without the need to
eturn to the Desktop.



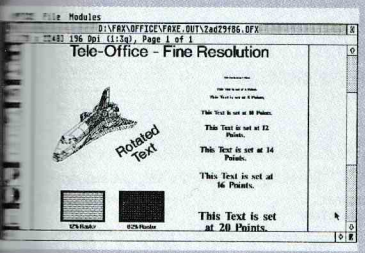
1 Select the Tele Office accessory and then activate the External Send-fax mode from its sub-menu. You can choose either Fine or Normal resolution for your fax



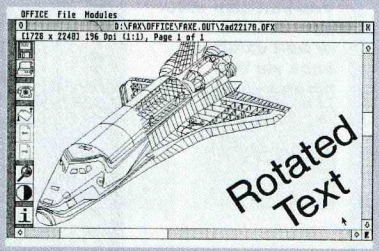
2 Using the supplied Calamus (or Calamus SL) printer driver, output the required pages



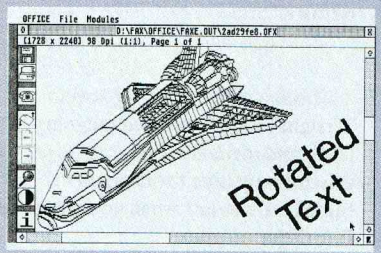
3 When you have output all the pages you wish to transmit, select the Tele Office accessory again and stop the External Send-fax mode. Finally, specify a destination for the fax and it will be sent automatically



4 The Calamus page, previewed as a fax document



5 Note the difference between fine resolution (203 x 196) and...



6 ...Normal (203 x 98) when shown at full magnification

7 The final fax document, as received on a standard office fax machine

ssory. It can also re-send an existing
ile, should you so wish.
Once you've selected the file to send,
raight FAX! will convert it to its own
rnal fax format, using the filename
nders .J01, .J02, .J03, and so on for
secutive pages.

Text

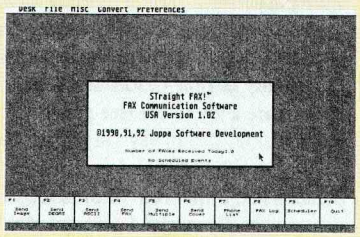
f you wish you may enter some text
e sent as a cover page, optionally
luding a previously created fax file of
r company logo or other design.
Text is generated using two GEM
ts, one for Normal resolution, the
er for Fine (although GDOS is not
uired in order to use them).
There would seem to be no reason
y you couldn't substitute your own
and 36 pixel fonts if you don't like
e ones supplied.
Finally, choose the phone number or
mbers to which you wish to send the
. Unless you specify a particular time,
fax will be transmitted immediately.
In addition to sending a single file to
ltiple destinations, you can also send
eral files to one or more phone
mbers. This mode allows you to send
ixture of text and images – although
h must still be on a separate fax page.
Receiving a fax is even easier – simply
able the Auto Receive option and each
e an incoming call is detected by the
modem the software will automati-
y answer and save the received fax
disk.
You can then use the View mode to
d the fax – at a choice of either full
alf size – or print it out. Strangely,
rmal resolution faxes are displayed
ashed vertically, rather than
anded to show their true size
l shape.

The printer option, as with Tele Office, uses a standard GDOS printer driver although GDOS is not supplied with the product.

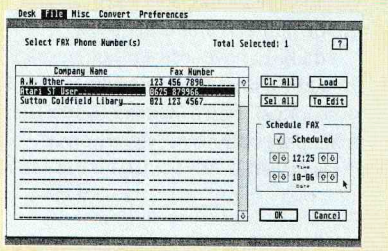
This is not a serious problem as it's easy enough to get hold of, but it would be nice if it were included, as it is with Tele Office.

The View fax window, which can also display text, Degas and Image files, allows you to clip out any section and save it as either a fax page or an Image file. This feature could be very useful if you wish to transmit just a portion of a file, or maybe use a section of a received ➤

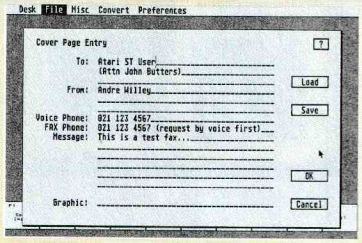
Getting to grips with STraight FAX!



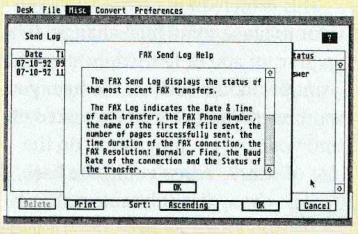
1 The main STraight FAX! screen, complete with function key short-cuts



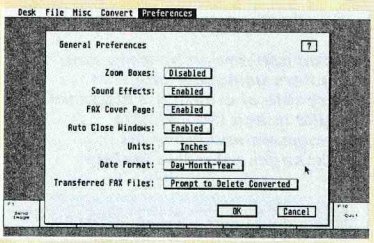
2 The Phone Number editor screen is also used to schedule a fax for transmission



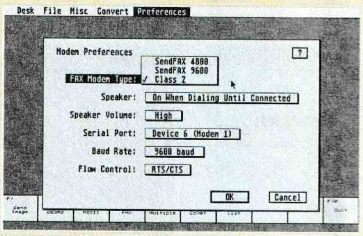
3 Once a destination has been selected, extra information for the cover page can be entered



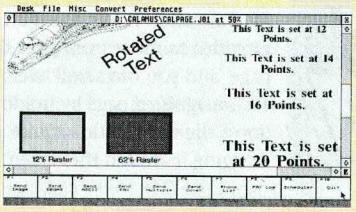
4 STraight FAX! can supply comprehensive Help information at any stage



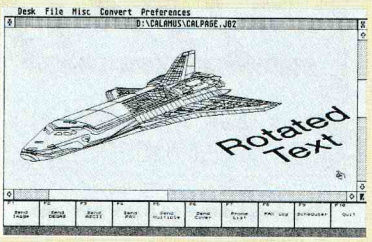
5 The General Preferences screen



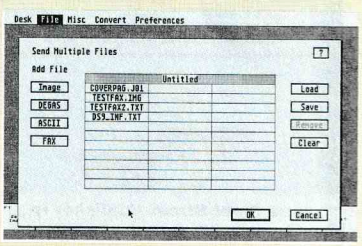
6 From the Modem Preferences screen you can define the standard settings for your fax modem



7 A Calamus page, ready for sending via STraight FAX!



7 Strangely, STraight FAX! shows normal resolution fax images at half their true height



8 STraight FAX! provides a simple but useful method of sending multiple files to a single destination, although each file must be sent as a separate fax page

fax in an art package.

On the TT, dragging the clip corners was a little tricky as the program kept insisting that the mouse button had been released.

Our review sample of STraight FAX! did not work reliably with the TKR modems we were given to evaluate, especially when trying to send a fax – in fact, it didn't work at all when trying to send a fax!

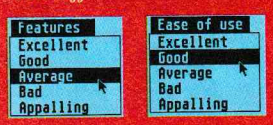
The UK suppliers had already reported this problem to Joppa Software, but neither their, nor our own efforts, have gleaned any indication from Joppa as to when these problems are likely to be solved.

For now, we recommend using the Supra fax modems with STraight FAX!

Bottom line

FEATURES: No layout facilities, and no background accessory mode, let down an otherwise fairly well-specified program.

EASE OF USE: Very easy to operate for simple send/receive tasks. Sending a fax from an external program is more complicated than with Tele Office.



Tele Office

The German fax program Tele Office is a significantly more powerful product, but that does tend to lead to a slightly more complex setup.

Its lack of on-screen help, and a reliance on an icon-based user interface, could prove slightly more daunting for beginners.

Tele Office consists of two major components – the Tele Office program itself, which creates your faxes and allows you to view incoming files, plus a small desk accessory which does the actual modem transfers.

Advantage

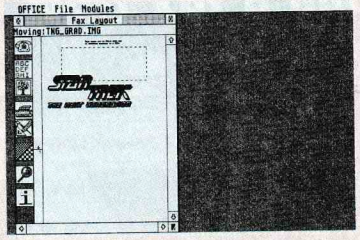
This is a major advantage over STraight FAX! – scheduled outgoing faxes, and incoming calls, can be processed at any time the computer is turned on, not just when you are in the Tele Office program.

This fact alone makes Tele Office a considerably more useful product.

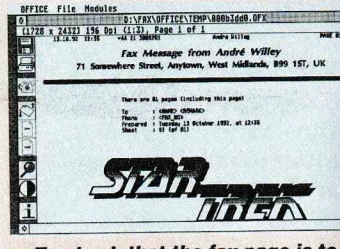
Setting up the system is similar to STraight FAX!, except for the need to tell each program where the support files are to be found – unless you keep everything on your boot drive.

The Address Book is a lot more comprehensive than the simple phone number list used by STraight FAX!, allowing you to store names, addresses, fax and phone numbers and other notes.

I'd like to have seen a bit more space for address lines though, and a facility to store long-distance Mercury codes. The cover page options are significantly more powerful, but the layout can't easily be changed for each new fax – although the contents can be altered automatically, based on information stored in the Address Book.

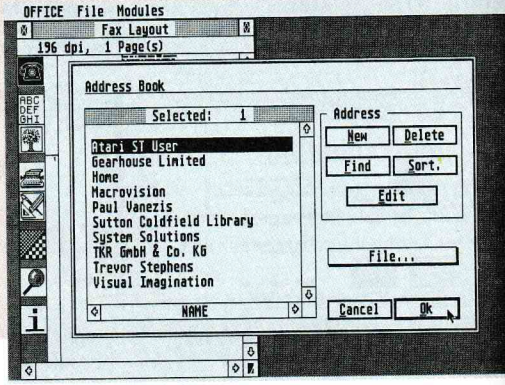


1 The fax layout screen allows you to place a mixture of text and imagefiles onto your fax page, editing or moving them about at will



2 To check that the fax page is to your liking, you can view each pag before transmitting

4 When the fax is finished, choose its destination. You can also enter new details, or edit existing ones via this screen



The very flexible header and footer options are a joy to use (see panel below).

Although Tele Office does not incorporate a text or picture editor of its own, you can specify external programs for each task.

Useful

This is incredibly useful when you want to make some final changes to a graphic, or add of few words to the text – simply double click on the item you want to edit and you'll be whisked off into your chosen program to do the work. When you come back, the changes will be automatically incorporated into the fax layout.

Once you've laid out your pages you can preview them before sending, at any of four magnification levels. Icons are provided to move from page to page, and you can scroll over each magnified page by holding down the mouse button and dragging it around the screen.

Viewing

All of these features are also available when viewing received faxes, although strangely there doesn't seem to be any easy way to re-send a fax to a new destination.

Both programs can send faxes fro within other software. Tele Office co with support for Calamus/SL, First Word, CompoScript, Signum, Temp That's Write, Didot Lineart, and seve others. The beauty of their desk acce sory option is that you can send eve multi-page fax directly from within appropriate program – even if it doe up two desk accessory slots, which I consider excessive.

Create

With STraight FAX! you are also a to create fax pages from within Cala or PageStream, or using GDOS or FS GDOS-compatible programs, but yo must then run the STraight FAX! pr gram in order to schedule those pag for transmission.

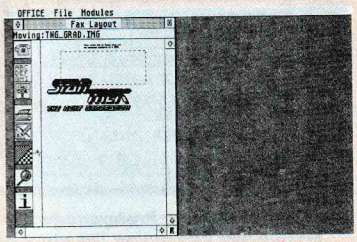
Transmission times vary accordin the complexity of the material bein sent. Simple text is fairly fast – usua much less than a minute once the l has been established – but complex graphics, especially those involving tones, take rather longer.

Considering the extra layout wo is undertaking, Tele Office seems slightly faster at generating pages b sending.

Which program best suits your n will be very much a matter of perso preference. For those who just wan send text and the odd graphic, and receive occasional faxes by request, STraight FAX! is ideal.

If you feel you need a bit more p and flexibility, plus what I consider be the invaluable facility to send a receive faxes while running anothe gram, then Tele Office is the one fo you.

Creating headers and footers for Tele Office



1 You can design headers and footers using any program capable of creating a standard GEM Image file – all DTP programs and many art packages offer this facility

2 Here Fleet Street Publisher is being used to output the Image file at the same resolution as a fax – 203 x 196 dots per inch. This avoids the need for Tele Office to scale the image before incorporating it into a fax

3 The front page of a fax can use different header and footer files to those assigned for subsequent pages. You can also select short Ascii text files to be used for header and footer information

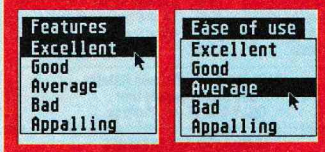
Various magnifications are available this screen can scroll to show every pixel of the final fax transmission

Editing an address/phone number entry

Bottom line

FEATURES: Highly specified package, let down by minor niggles only. Better facilities to resend an existing fax would be nice.

EASE OF USE :Slightly more complex to set up than STraight FAX!, and more difficult to send just a simple piece of text or picture.



What is fax?

Facsimile machines – or just fax for short – have been available for several years, and have varying degrees of sophistication.

However they are all based on the simple premise that at either end of a telephone line there should be a device capable of two fundamental tasks – receiving an incoming fax transmission and displaying or printing it, and secondly transmitting a document to another similar machine.

The original fax standard, now referred to as "Group 1", was a slow analogue system taking up to six minutes to send a poor quality A4 page.

This was quickly superseded by the Group 2 standard which, while still using analogue signals, was considerably faster than its predecessor – coping with that same page in under three minutes.

However due to its analogue nature, there was still no way to compress the signal for even greater speed.

Fax's true potential was realised with the introduction of the Group 3 standard, the digital transmission system in general use today.

To improve transmission times, a modified Huffman compression technique and white-space skipping are used to reduce the overall size of the data stream.

A Group 3 fax machine should normally be able to send an A4 page in under a minute.

Since the Group 3 fax standard is fully digital, it is possible to implement new features without losing compatibility with older equipment.

The machines always go through a complex preamble – known as handshaking – to determine the fastest common speed and compatible facilities before sending any pages.

The essence of the standard is that any Group 3 machine should be able to send documents to any other Group 3 machine completely automatically – the operator should never need to know which features the two machines eventually decide to use.

Before a page can be sent it must first be digitised into a pattern of binary data bits, in much the same way that a scanner is used to import a picture into a desktop publishing program.

The normal scanning resolution is eight pixels per mm horizontally and 3.85 pixels/mm vertically, equivalent to 203 by 98 dots per inch.

All Group 3 machines must also be able to receive Fine mode transmissions, in which the vertical resolution is doubled to 196 dpi – although not all machines are able to send such a document.

Group 3 machines must support a minimum data speed of 2,400 bits per second, although virtually all run at the V29 standard which allows 9,600 bps in one direction, and a slower data rate in the return direction.

If a reliable link cannot be established at the highest speed, the baud rate is automatically stepped down through 7,200, 4,800 and 2,400 to as low as 1,200 bps if very poor line conditions prevail.

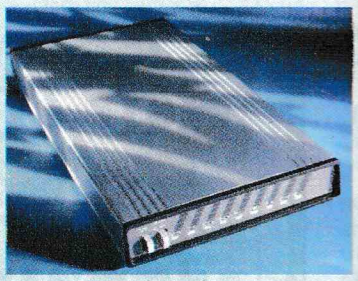
Choosing the right fax modem and software

There are a wide range of fax modems on the market today, but the two most popular ranges for Atari users are the Supra series (available from First Choice, and a number of other dealers) and the German TKR units from System Solutions and Ladbroke Computing.

Any other Class 2 fax modem should work with either program, although STraight FAX! seems somewhat fussy on its modem requirements. Tele Office also supports the Sierra fax modem standard.

Model: Supra-fax Plus
Price: £139.99
Supplier: First Choice Computer Centre, Unit 3, Armley Park, Court Off Cecil St, Stanningley Road, Leeds LS12 2AE
Tel: 0532 319444
Features: Class 2 fax send and receive (Group III, 9,600 bps), plus V22bis/V42bis (2,400 bps) modem. Supplied with Vanterm PD comms software, but no fax software.

Model: Supra fax V32bis
Price: £259.99
Supplier: First Choice Computer Centre, Unit 3, Armley Park, Court Off Cecil St, Stanningley Road, Leeds LS12 2AE.
Tel: 0532 319444
Features: Not only do you get Class 2 fax send and receive (Group III), but also a fully-featured V32bis/V42bis (14,400 bps) high-speed modem. Supplied with Vanterm PD comms software, but no fax software.



Model: TKR 2400
Price: £189.95
Supplier: System Solutions, Windsor Business Centre, Vansittart Estate, Windsor SL4 1SE.
Tel: 0753 832212
Features: Class 2 fax send/receive (Group III, 9,600 bps), V22bis/V42bis (2,400 bps) modem.

Model: TKR 14400
Price: £299.95
Supplier: System Solutions, Windsor Business Centre, Vansittart Estate, Windsor SL4 1SE.
Tel: 0753 832212
Features: Class 2 fax send/receive (Group III), V32bis/V42bis (14,400 bps) modem.

Software: Tele Office
Price: £59.95 (or £29.95 if purchased with a modem)
Supplier: System Solutions, Windsor Business Centre, Vansittart Estate, Windsor SL4 1SE.
Tel: 0753 832212
System: 1Mb RAM, mono monitor. Hard drive and more memory recommended

Software: STraight FAX!
Price: £59.99
Supplier: First Choice Computer Centre, Unit 3, Armley Park, Court Off Cecil St, Stanningley Road, Leeds LS12 2AE.
Tel: 0532 319444
System: 1Mb RAM, mono/colour. Hard drive and more memory recommended

Model: TKR 2400
Price: £224.99 (special offer, incl STraight FAX! software)
Supplier: Ladbroke Computing, 33 Ormskirk Road, Preston PR1 2QP
Tel: 0772 203166
Features: Class 2 fax send/receive (Group III, 9,600 bps), V22bis/V42bis (2,400 bps) modem. Supplied with STraight FAX! software.

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Get into fonts

**pefaces play a critical
ie in wordprocessing
d DTP. Andrew
ight takes a look at
e types of font
ailable, where to get
em and tools to
esign your own**

You could write a gripping novel or a sizzler of an article but if it was printed in the wrong type- few people would ever bother to it.

his is one of the reasons why book magazine design is left largely to the essionals whose main concern is ity and readability.

owever, the arrival of DTP and dprocessing has put you in the posi- of typographer, as well as artist and gner. You have to decide on a suit- typeface for every publication you duce – whether it's a newsletter, a chure or a simple letter – and only can be blamed if it fails.

o exploit the full power of your DTP text-based applications, you have to derstand at least the fundamentals of typographer's art.

Tecnology

echnology has changed dramatically ce the days of hot metal printing sses but many of the rules, developed the pioneering typographers and nters as far back as the fifteenth cen- , are as applicable today as they were n.

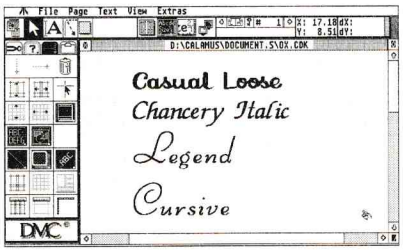
ver the next four pages we'll look at terminology of type design as well as tools you need to design your own efaces or convert existing ones to the propriate format.

e'll also show you where to get hold new typefaces for your favourite DTP wordprocessing package and look at ne of the rules for using them prop- .

ut what exactly are typefaces? Let's t with a font and work our way up. A t is a full set of characters, including upper and lower case alphabet, merals and punctuation marks, in a ticular point size and style.

hus Times Roman 12-point is a font l Times Roman is a typeface. Several efaces, all variations of the same ign, such as Times Italic, Times Bold and Times Bold Italic, make a complete type family. Most type families are supplied in the four styles discussed but others such as Univers have as many as 36 different variations to make up the complete family, from Univers Extra Light Condensed to Univers Ultra Bold Expanded.

Typefaces can be classified in several different ways – the subject will be dealt with in greater detail in the DTP Aspects column over the next few issues but a quick rundown shouldn't prove too repetitive.



PD script typefaces in Calamus

In basic terms, there are five main groups. Purists will throw up their hands in horror here but we are concerned with the look and feel of the typefaces rather than the true classification which takes into account historical origin as well as style.

First comes the most widely used group, the serif typefaces. These include the Dutch and Serif faces of Timeworks and the Garamond and CS Times supplied with PageStream.

They are mainly used for body text – the bulk of the text on a page – but can also be used as headlines and cross-headings.

The second major group is sans serif. Examples include the Swiss face (actually it's a version of Helvetica) supplied with Timeworks 1.12 and the CS Triumvirate face supplied with PageStream. These faces are mainly used for headlines but they can often be used for small areas of body text, annotating diagrams and captions. The group also includes modified sans serif fonts such as Autumn in Timeworks 2 (a version of Optima).

Thirdly we have the square serif typefaces such as Timeworks' Rockface and Easy Text Professional's Athens. They aren't generally suitable for body text but make useful headline or display fonts.

The fourth group is the script typefaces, both connected and unconnected. These look similar to handwriting, brush strokes or calligraphy but also include the so-called Black Letter typefaces used in the very early bibles such as Old English or Textura. One example is Timeworks' Sage.

Finally there is a broad category of rather ill-defined fonts that I will simply call display faces. This group includes all the weird and wonderful typefaces commonly found in the public domain collections as well as some of the proprietary PageStream fonts such as Oriental and Artistic.

Fonts can also be divided into proportional or monospaced, although most fonts used in DTP are proportional. In other words each character takes up an amount of space relative to its actual size. In monospaced fonts such as Courier and Letter Gothic each character takes up the same space. It's probably fair to say that the average professional designer has two or three typefaces from each group and sticks with them. Looking through my own work, I can see that my own sub-conscious preferences are for Garamond or Times (serif), Franklin Gothic or Gill Sans (sans serif) and Copperplate, Cooper and University Roman for displays.

Combine

Once you have a basic selection to work from, the next stage is to combine the various styles into a document. One option is to have several weights of a typeface to broaden the choice but still maintain compatibility.

Headlines in Gill Sans Extra Bold, cross-headings in Gill Sans Bold and captions in Gill Sans Italic are a good example.

Body text should be in a serif typeface as they are widely accepted as the most legible of all. Try not to drop below nine points in size as legibility declines rapidly for those with average eyesight.

University Roman
COPPERPLATE
Cooper Black

Display fonts

The easiest approach is to combine opposites – a standard sans serif face such as Univers or Helvetic will blend in with almost any serif typeface but mixing Univers and Helvetic will never do.

Combining serif typefaces is a little easier but again, opposites are the best approach. A square serif face such as Rockwell/Rockface will go well with Times but two similar serif typefaces should never be used.

To provide contrast between two dif- ➤

Serif - in Adobe Garamond
Serif - in Times Roman

Serif typefaces – spot the subtle differences in the word "Serif"

ferent areas of body text, try using italic in one and roman in the other or even a serif and a sans serif.

Another important factor in choosing a typeface is to look at what it is meant to convey. This will apply more to the design of leaflets or advertisements than newsletters or reports but sometimes it can make all the difference.

Precision

For scientific reports, try a sans serif font for the body text to give the impression of discipline and precision. A good alternative would be a precisely structured serif font such as Bodoni.

Documents dealing with engineering might be best with a square serif face such as Clarendon or Aachen Bold – these suggest solidity and strength.

Classical and religious works look best with more traditional typefaces such as Times or Caslon while more artistic work could use italic or script typefaces.

Invitations, menus and poetry look good in Zapf Chancery, for example, which manages to retain some legibility yet still appears decorative.

Certificates for the local sports club can look very good when typefaces such as Old English are used in conjunction with a more legible script for the main text.

One thing to bear in mind, however, is that many typefaces look subtly different depending on the supplier. Even Helvetica has several variations while others such as Garamond can be so different from supplier to supplier as to look totally different.

There are two font types available on the ST – bitmap, and vector or outline fonts. Bitmap fonts include those in GDOS applications such as Timeworks, and Signum/Script fonts.

Separate

Bitmap fonts are saved in separate files for each font size, weight and output device and as laser printer versions at 300dpi can take up as much as 300k in larger point sizes, they tend to use up a lot of disk space.

Vector or outline fonts are stored as font outlines. When an application demands a screen font for display or a printer font for output, the outlines are scaled and a bitmap font in the correct size is generated.

This provides more flexibility but uses up much more processing power. The sluggishness of programs such as Calamus and PageStream is partly a result of this font scaling "on the fly".

Applications handle fonts in different ways. GDOS programs such as Timeworks, Easy Text and EasyDraw have separate fonts for screen and printer. This means they are not truly wysiwyg (what you see is what you get) applications although the close similarity between them provides a good approximation.

GDOS fonts have to be constructed for a particular output device – a dot matrix font at 120 by 144dpi cannot be used in a 300dpi laser.

This leads to the anomaly that a Timeworks document printed on a dot matrix printer will look different to the same document printed on a laser.

There are other types of bitmap font too. HP LaserJet format bitmap fonts can be downloaded into a LaserJet or DeskJet printer's memory and then used instead of or in conjunction with the built-in fonts.

To download fonts to Canon and Sta bubblejet printers and some dot matrix printers, special software such as Fontprint, available from the ST Club, can be used.

Print speed isn't affected although they are more useful for wordprocessing than DTP owing to their non-wysiwyg nature

Taste

A third type of bitmap font on the S is the system font itself, which is a monospaced font. Programs such as Harlekin and NVDI can change the ST's screen font, as can the ST Club's Fontswitch utility. Personally I prefer the ST's system font the way it is but there's no accounting for taste.

PageStream uses outline fonts in PostScript format while Calamus uses

Where you can lay your hands on new typefaces

The ST Club

GDOS fonts are available from most PD libraries but they vary widely in quality and range. For example, you might find a good 18-point version of a font but nothing more.

Your only option, if you want say 10, 12 and 15 point versions is to use an editor like Fontkit Plus to scale the font and tidy it up yourself by hand.

On the other hand the ST Club has several full sets available to liven up your collection. The PD fonts Athens, Venice, Futur and Camelot are supplied by an Italian enthusiast and are of very good quality. They are available for 24-pin and laser/inkjet printers.

There are also several assorted disks containing useful GDOS fonts, but be careful when ordering to ensure that you get the right resolution for your printer.

The club's own commercial series are even better. The Fontpac collection includes the serif face Castleton Roman – very good for body text – and the calligraphic Derwent typeface. Again available only for 24 pins, lasers or inkjets, the font packs cost £9.95 each.

The ST Club also has several disks full of Calamus fonts and others in PostScript Type 1 format for PageStream 2.

• *The ST Club, 2 Broadway, Nottingham, NG1 1PS, Tel: 0602 410241*

Image Art

Image art is a specialist PD library which concentrates on DTP and graphics software. Apart from a large catalogue full of clip art it also has over 200 PD Calamus fonts and nearly 70 PostScript Type 1 fonts, mainly originating from Canada.

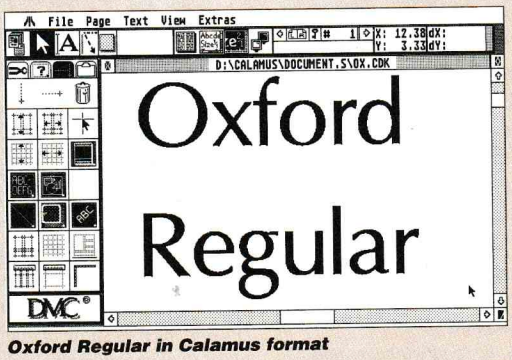
• *Image Art, 19 Brenda Road, Tooting Bec, London SW17 7DD. Tel: 081-767 4761*

Gate Seven

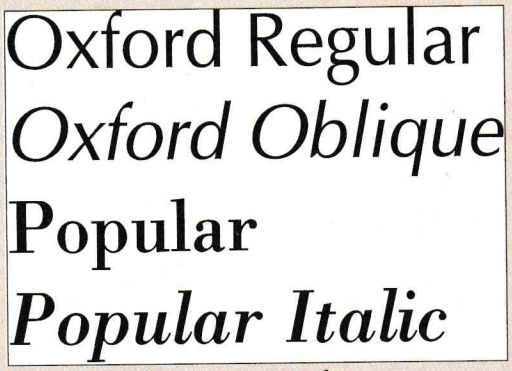
There's no doubt that you pay for you what you get. PD fonts tend to have less than the full character set and the quality is usually fairly low.

At large point sizes and when used as display type, these PD fonts are fine. If you're after a good body typeface, you'll have to go to somewhere like Gate Seven.

The Gate Seven collection consists of outline fonts in PageStream, Calamus or PostScript format. While prices are somewhat higher than PD fonts, the quality is excellent.



Oxford Regular in Calamus format



Two top quality Gate Seven typefaces

Prices start from £5 for a single typeface to £19.95 for a four typeface family. Gate Seven also specialises in foreign fonts such as Tamil, Urdu, Greek and Gujurati. If you need specialist fonts like these, this is the place to go.

• *Gate Seven, 6a, Gwenwr Road, London, W14 9BG. Tel: 071-602 5186*

Other sources

Although Soft-Logik supply good quality, additional PostScript and PageStream format fonts, they are relatively expensive due to the current exchange rate.

Suppliers such as Monotype, Adobe and Letraset also work out expensive – around £35 for a single type face and £140 to £210 for a family.

However, there are often special deals available such as the Monotype Design Solutions range currently on offer for £99. They are aimed at novices and include a design guide, publishing guide and glossary, type specimen books and between 9 and 12 typefaces.

Separate packs are available for reports and presentations, newsletters, and forms and catalogues. The required *.AFM files are included.

• *Monotype – tel 0737 765959.*

Other sources are the online worlds of CompuServe and CIX, not to mention various BBSs and PD libraries dedicated to the PC.

Calamus fonts are available on CIX but you'll have to be careful when downloading PostScript fonts or ordering from PC oriented PD libraries.

If a font is labelled as an ATM (Adobe Type Manager) font, it will have a *.PFB outline file but it will probably have only a *.PFM file with it – making virtually useless for PageStream users.

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them in its own proprietary format. Didot Professional goes one better and uses either.

The use of outline fonts means that what is on the screen is far closer to what ends up on the page. This makes things like dropped capitals and kerning much easier. Outline fonts can also allow type to be manipulated as if it were a vector graphic and skewed, rotated or stretched.

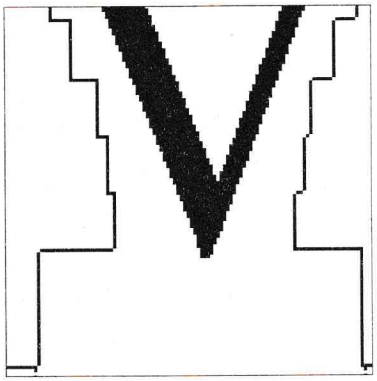
PostScript is the world's most widely used outline font format and there are something like 10,000 typefaces avail able from suppliers such as Monotype, Letraset, Abobe and Agfa.

Intelligent

The now standard Type 1 format supports hinting– intelligent routines built in to the font outlines themselves which optimise the font when scaled down to small point sizes.

However, PageStream will not use the hints when printing to a none–PostScript printer.

PostScript fonts can have several associated files. The font outline is stored in the *PFB file while the detailed spacing information is contained in an *AFM file. Bitmap files,*ABF files, are



Calamus step kerning system – the "steps" on either side of the character dictate how close the adjacent character can be placed

somtimes supplied and can be used in PageStream. Two other types of file, *INF and *PFM, are applicable only to PCs.

The Calamus outline font format, consisting of a single *.CFN file, isn't hinted either, although its kerning system is technically superior to the PostScript one.

A third format is the PageStream proprietary outline font format. It is lower in quality than the other two and has much poorer kerning information built in.

Typeface terminology

Typography is both a science and an art – to design or modify your own fonts successfully, you'll need to understand how characters are described.

Although there is disagreement over many of the finer details in typography, the following glossary should help those unfamiliar with the basic terms.

BOLD – type with thickened strokes. Most typefaces are supplied with a bold version although there are invariably other weights available, including black, extra bold and ultra bold.

CAPITALS – capital letters are also known as upper case while normal letters are referred to as lower case.

CONDENSED – a typeface that looks narrow or horizontally compressed. The opposite is expanded.

ELITE – a typewriter typeface printing at 10 characters per inch.

EM – a space equal to the size of the type in points. In a 10 point font it wi be 10 points wide. The term was origi nally derived from the width of the le ter "M".

ITALIC – italicised text generally slopes to the right but a true italic typeface will often have a totally diffe ent style, including exaggerated serifs and a lighter weight, especially in the lower case letters.

KERNING – the practice of adjusting of spacing between individual characters to produce a more pleasing appea ance. Most outline fonts have kerning information built in. PostScript fonts use a look-up table but Calamus uses much better dynamic system.

LEADING – the space between consecutive lines of text, measured from base

Font editors – tools of the tra

Font Designer – £99

Font Designer was the first professional standard font editor for the ST and it is still the most flexible in terms of conversion options and design aids.

It is supplied on a single disk with a brief 24-page manual and runs on a 520ST/STE with a mono monitor. A number of example fonts are supplied, illustrating various features of the program.

The program uses its own unique font format, called editable computer font or ECF, and several utilities are provided for converting PostScript, Calamus and PageStream fonts (including DMF, PSF and FM files) to and from ECF format.

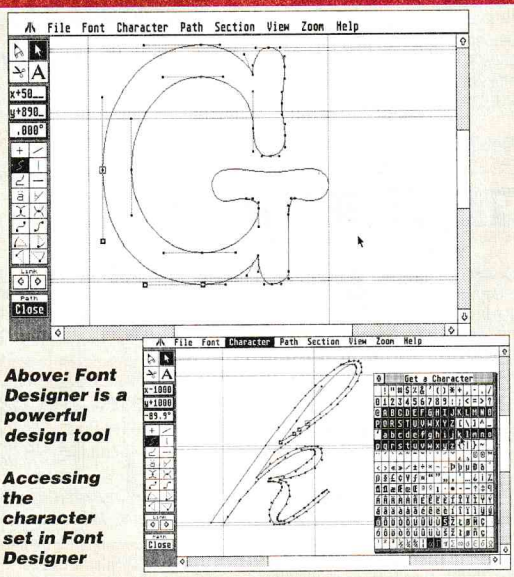
Only PostScript Type 3 fonts can be saved without an extra add-on program but ST users are unlikely to worry about this – the PageStream outlines are exactly the same quality as PostScript fonts when printed to non-PostScript printers.

All the expected vector graphics drawing tools are present including Bezier curves, lines, arcs and various shapes, and there are also facilities for creating both filled and stroked fonts.

The manual contains brief but important information about font design and global operations include compressing and expanding fonts, automatic overlap removal and user-defined stem widths for all characters.

The user interface is over-complex and character selection a might awkward but if you're a PageStream user or you want to design your own fonts and alter or tidy up PD ones, Font Designer is probably the best choice.

• *Polytype, 11 Marsh Street, Barrow-in-Furness LA14 2AE. Tel: 0229 836957*



Above: Font Designer is a powerful design tool

Accessing the character set in Font Designer

Genus – £99

Genus is yet another program from the Codehead stable and it is aimed primarily at Calamus users fed up with the inadequate accessory provided by DMC.

It is supplied on a single disk with a brief ring-bound manual running to 24 pages. It can import either Calamus or PageStream outlines, storing two in memory at once, but saving only in Calamus or CVG format.

As a result you'll need at least a 1040 ST/STE and, again, a mono monitor.

The user interface is particularly well-designed – there are very few sub menus or hidden dialogues to worry about and all the tools are in front of you all the time, including the character set. You can't tell immediately from the character set what characters are mi ing but at least you can switch the view to outline view and get a better idea of how the font is progress ing.

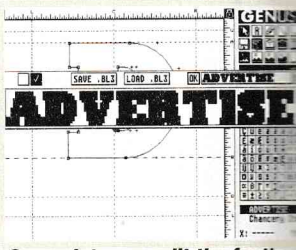
There are four zoom levels and a very comprehensive kerning facility to deal with Calamus' excellent but highly intricate step kerning system.

It also includes a built-in calculator for applying global operations to the whole font, including italic ing, centralisation and resizing. The integral bitmap image that Calamus uses to depict the font in the fo menu can also be edited and saved with the font.

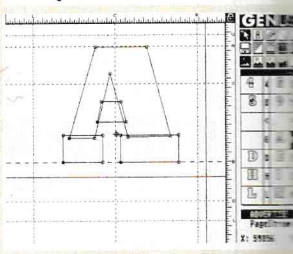
Genus is very easy to get to grips with and the ma ual is straightforward and helpful. Global overlap removal would be an advantage but it should appeal to any Calamus user who wants to create new fonts or edit existing ones.

The CVG export feature should be useful for creating special characters too.

• *System Solutions, Suite 47/8, Windsor Business Centre, Vansittart Road, Windsor SL4 1SE. Tel: 0753 832212*



Genus lets you edit the font's bitmap as well as the font



Overlap removal would come handy for this

ine to baseline. It is usually specified in points.

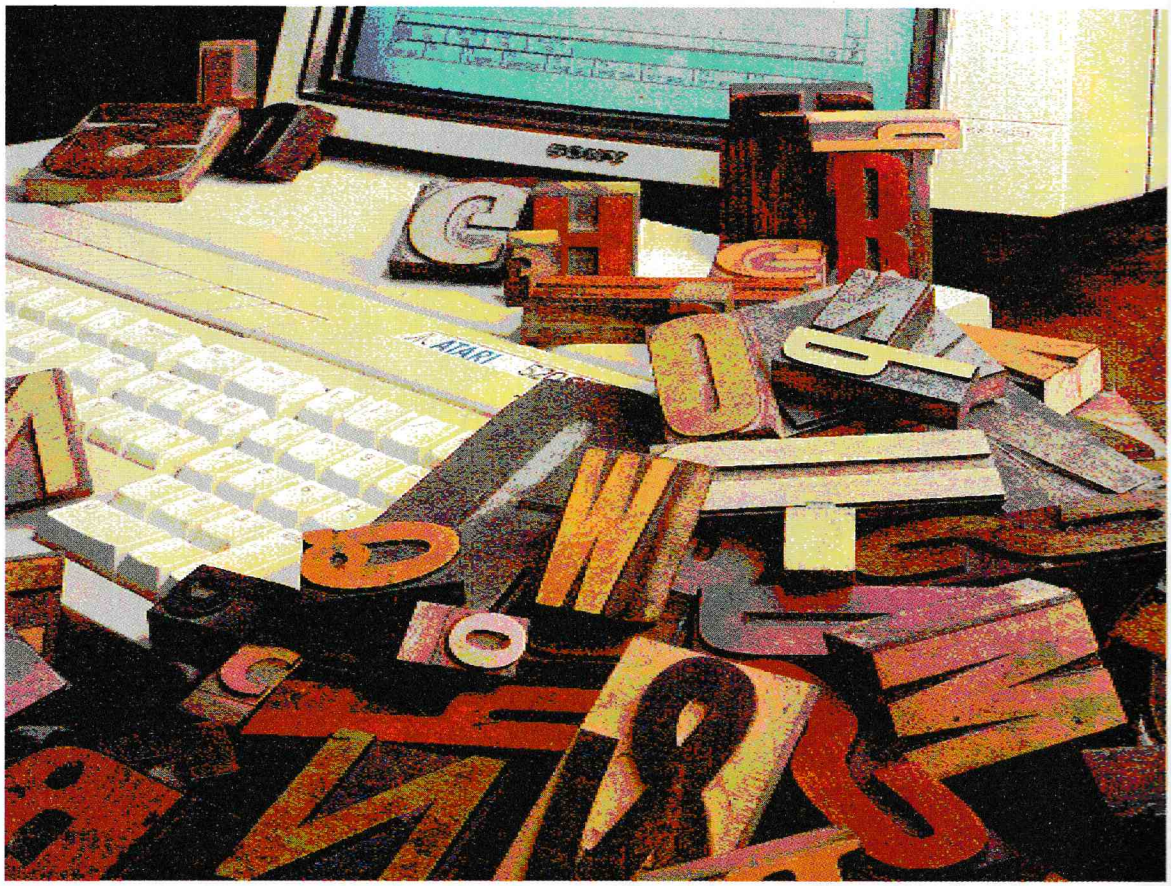
LIGHT – a thinner, hence lighter, version of a typeface

POINT – a unit of measurement equal to approximately 1/72 inch (three points to a millimetre is a more useful rule of thumb). Note that the continental Didot point is somewhat larger than the UK/US point which is generally accepted as being 0.01384 inch (0.3515 mm).

PICA – six points equals one pica. It also refers to a typewriter typeface at 12 cpi.

ROMAN – upright characters.

TRACKING – adjusting spacing between characters, usually over a whole paragraph or document rather than a pair of characters as in kerning.



for designing your own fonts

Fontkit Plus v4.0 – £24.95

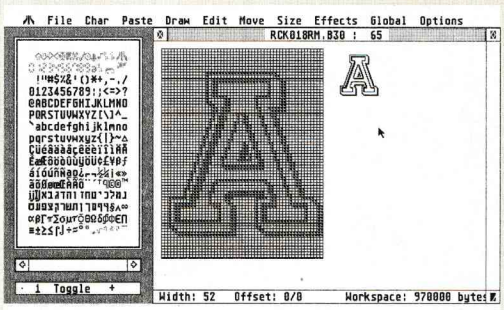
Fontkit Plus v3 was reviewed in December 1991 and a demo was given away on March 1992's CoverDisk. It is a fully-featured bitmap font editor that can import Calamus, HP Laserjet, Signum and downloadable printer fonts and save them as GDOS or That's Write-compatible screen and printer fonts.

As such it is ideal for GDOS users and an extremely worthwhile companion for Timeworks 1 and 2, Wordup, EasyDraw, Hyperpaint and Hyperdraw, to mention but a few of the more popular GDOS programs.

Version 4 adds a number of welcome features such as multi-window editing, a larger grid size, memory-resident modules and a custom file selector to make font selection easier.

It can also export HP Laserjet downloadable fonts and has a much improved interface, including keyboard short-cuts and menu boxes placed under the mouse cursor.

The same flexibility is present in the new version which can create special effects fonts out of standard GDOS offerings, including outlines, inlines, shadow,

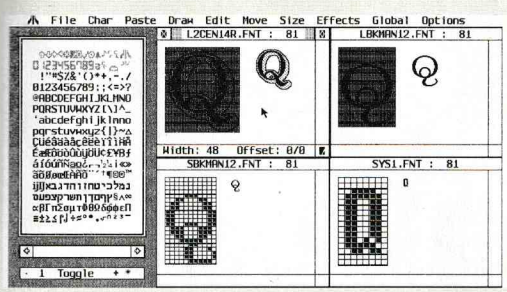


Applying special effects to a Timeworks font

shading, 3D effect, contour and pattern as well as standard ones such as slant, thicken and lighten.

It is also the only font editor to be able to display an entire font on-screen. The price has yet to be finalised but upgrades from existing versions should be somewhat less.

• *The ST Club, 2 Broadway, Nottingham NG1 1PS, Tel: 0602 410241*



Multiple windows in Fontkit Plus 4.0

PageStream Font Editor, Didot Lineart and Avant Vector

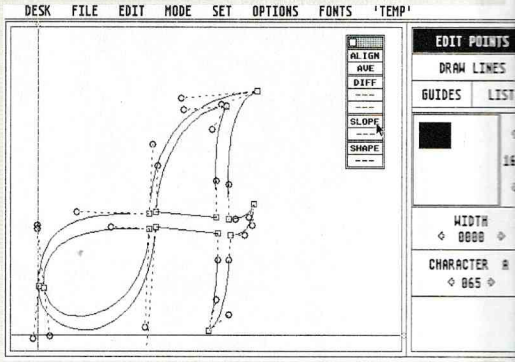
Other alternatives are available, of course. PageStream users can get hold of a PageStream outline font editor for the price of a disk.

It is a shareware program, supplied by Soft-Logik themselves, and although pretty basic, it's fine for occasional use. Contact the ST Club and ask for disk number FON.41.

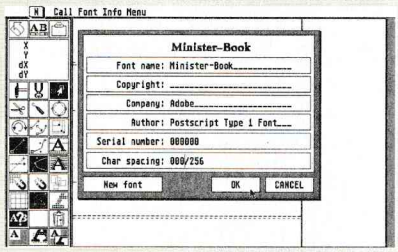
If you're after combining a good font editor for occasional editing and conversion with a top notch vector graphics program, you have a choice between Didot Lineart (see the feature on Best Buys) and Avant Vector (£343 from System Solutions).

Both have surprisingly comprehensive font editing facilities which are capable of importing Type 1 PostScript and Calamus fonts.

Didot Lineart has the edge here as it has more capable import functions (Avant Vector refused to load some commercial PostScript fonts) and much better kerning facilities.



PageStream's shareware font editor



Didot's PostScript import and editing facilities

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ISSUE FIFTEEN ▪ DECEMBER 1992

GAMER

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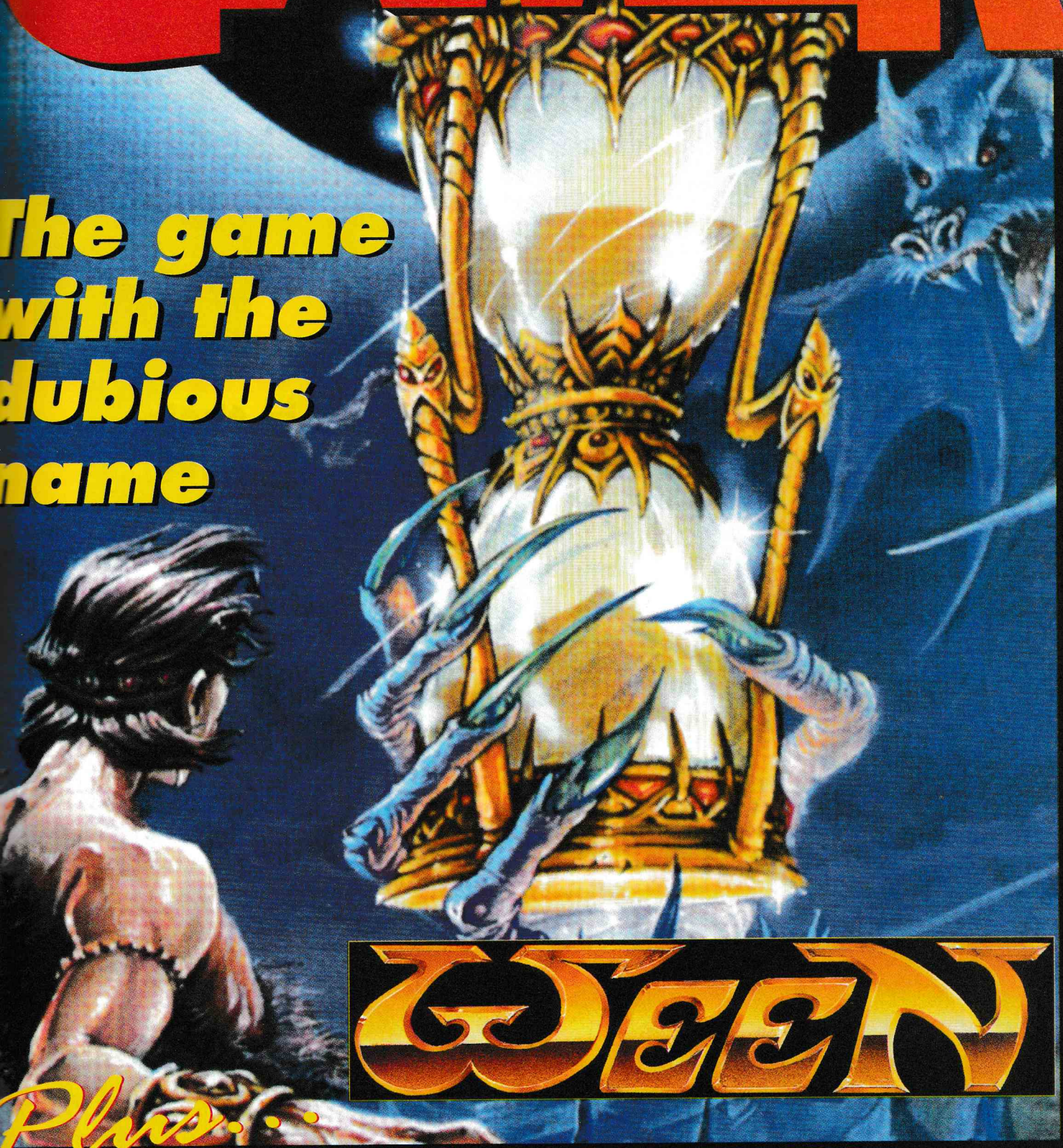

The game with the dubious name

WEEN

Plus...

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ALSO... ELITE 2 PREVIEW • JOYSTICK ROUND-UP • A STONKING OBITUS CHEAT MODE • GREAT COMPETITION • LATEST NEWS AND MUCH, MUCH MORE!

ONword

This is rumour control... these are the facts

Serious, oh no!

First things first. Your omnipresent Gamer is to change its format slightly next month with the introduction of a new page. The recent staff changes have forced the ever-ridiculous Gamer to take a slightly more serious vein. But will this stop Biffa making references to lager or stop Ben being a miserable sod? Oh no! We will just try to be a little more objective and listen to our readers a bit more.

The new page is going to be called "Back Stroke", the charts are moving from their usual place to this new spot and it will be full of useful hints and tips that you can't afford to miss.

So if you are stuck in an game we will try our best not to giggle at your plight or make you feel inadequate. The name of our game is to help you – so get writing!

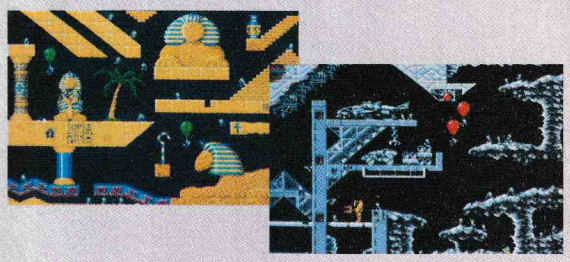
Lemmings II

The only game ever created that will stand the test of time better than Tetris, Lemmings is back with some IIIs after its name.

The new version leans more to the arcade side than the previous one. It has 12 different tribes of Lemmings, ranging from Beach Bums to Egyptians.

Each tribe has part of a magic talisman, and you have to lead each group through eight levels – which makes a total of 96 levels you have to complete. Spooky eh?

And just to really confuse you, you no long have the usual eight skills – climbers and so on. Instead you're faced with 50, some of which are specific to some tribes and some common to all. Great fun!

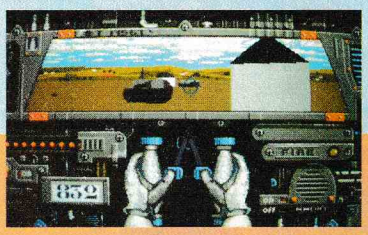


D-Day

The latest in a spate of war games is D-Day from Futura. You take on the role of a foot soldier and try t progress through the ranks to the level of supreme commander. You can choose to be in the infantry, paratrooper or take control of a tank, ship or plane.

As you gain experience you will command entire divisions, go from one battlefield to another ar eventually control a whole army.

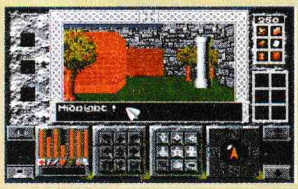
From what I could glean, the game seemed quite modular, so you could play it on a number of d ferent levels and on various depths. It will appeal to arcade addicts and strategy types alike.

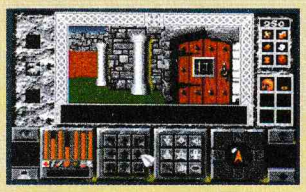


Legend in their own disk drive

US Gold are really going for it at the moment. As if SF II wasn't stonking enough, soon to be seen is th massive RPG Legends of Valour, part one.

Designed by Kevin Bulmer, of Corporation fame and Resolution 101's Ian Downend, Legends is veritable "virtual world" according to the golden ones. Well they would say that, but it does look bi and besides, any game that allows you to enter a tavern and get drunk is all right by me!





The Charts

ELSPA PENGUIN CHARTS - COMPILED BY GALLUP

This month	Last month					This month	Last month			
1	1	Sensible Soccer	Renegade	£25.99		11	ne	F16 Combat Pilot	Action 16	£9.99
2	5	Formula 1 Grand Prix	Microprose	£34.99		12	12	Oh No More Lemmings	Psygnosis	£19.99
3	4	James Pond	GBH	£7.99		13	10	Epic	Ocean	£29.99
4	3	Magic Land Dizzy	Code Masters	£7.99		14	9	Striker	Rage Software	£25.99
5	ne	Captain Dynamo	Code Masters	£7.99		15	18	Falcon	Action 16	£14.99
6	6	First Division Manager	Code Masters	£7.99		16	14	Pro Tennis Tour	Hit Squad	£7.99
7	ne	Panza Kick Boxing	Kixx	£9.99		17	ne	Supercars 2	GBH	£9.99
8	ne	Dizzy Prince of the Yolkfolk	Code Masters	£7.99		18	8	Rainbow Islands	Hit Squad	£7.99
9	7	Lotus Turbo Challenge	GBH	£9.99		19	ne	Shoot-'em-up Construction Kit	GBH	£9.99
10	13	Jack Nicklaus Golf	Hit Squad	£7.99		20	ne	Bubble Bobble	Hit Squad	£7.99

Street Fighter II

Biff's bet for the Christmas number one, and a pretty safe bet at that I'd say. It's the new beat 'em up from US Gold – originally a coin-op from Capcom. As usual, it boasts all the spectacular graphics which we have never seen before (arf arf).

Basically you have to head butt your way across the globe, facing some of the strongest, meanest and ugliest, men and women in the world.

Banzai, plorn clacker, sore finger

Those wacky Japanese are back on the film-making trail with the release of a new batch of Manga Videos. Cream of the new crop seems to be the totally un-pronounceable over-18 rated Urotsukidoji Legend of the Overfiend.

The story unfolds into a tale of big beasties with moralistic problems, young men who are possessed by various devils who pour their energies into the bodies of young girls (Yes, yes I know it sounds a bit fnar).

Every 3000 years the three worlds in which the universe supposedly exists are attempted to be brought together by Chojin the main beastie. This will produce a world of eternal debauchery,violence and supernatural forces. A bit like the ST toilets really.

All the usual Japanese violence with a more than usual helping of sex thrown in. A possible rival to the mighty Akira.

-stop press-stop-press-stop press

Tornado, the flight sim to end all flight sims, is nearing completion. The boys at Digital Integration are still locked away deep in the Tornado dungeon, but hope to have made sufficient progress to be allowed home for a few hours at Christmas.

From what we've seen, the hard slog – over two years in development – will prove worthwhile with a massive hit.

The level of detail, features and speed should make this an essential purchase for every flight sim fan and may turn the heads of a good few non-simmers too. Coming to an ST near you early 1993

GAMER

INNER VISION

A theme this month is Gamer's aim – a little rhyme for every game

WEEN 4
Sorcery and magic spells, horrid guards and prison cells

CAMPAIGN 6
World War Two's the destination, battle hard to save the nation then come home in wild elation

JOYSTICK 8
Entendre time, so let's not haggle, as Biff and Ben enjoy a waggle

LOTUS III 12
Spin the wheels, let out the clutch, this sequel differs – but not by much

MCDONALDLANDS 14
The burger boys have hit a snag, 'cos Hamburglar's nicked Ronald's bag

DOODLBUG 15
The king is feeling sad today, his lovely girl has gone away!

SHADOW WORLDS 16
Er... horrid guards and prison cells.!

CEASAR 18
Build an empire to the sky, then get stabbed and sort of... die!

PALLADIN II 21
Erm, sorcery and magic spells...!

ONWORD 2
News aplenty, pics galore, but next month you'll get even more!

THE CHARTS 2
Uppers, downers, entries too – I never look at it, do you?

COMPETITION 19
Win the Lotus third edition in this Gamer competition

BLAST FROM THE PAST 28
The memories are far from fading, cars and interstellar trading

THE SOURCE 23
Elite is back and it's a stonker, Ben is going mildly bonkers

CHEAT MODE 24
Fear not frustrated Obitus fans, the answer lies in our fair hands. (Well, some of it anyway)

PREVIEWS

REGULARS

Mad bats and sorcery

Ween – THE

DIGITAL INTEGRATION ▪ £24.99 ▪ ½meg ▪ Mouse ▪ Out now

Adventure games, my oh my have they changed. Instead of playing the simple but fun Hobbit on the Spectrum you now get into a whole interactive adventure with superb graphics. It's almost like controlling a movie.

I'm not complaining about the fact that we get superb adventure games, but sometimes more emphasis is put on presentation than on gameplay, which is a sad and sorry shame.

This smashing review is all about a game called Ween, which is brought to you by the letters "c", "z" and Coktel Vision. If you don't know who Coktel Vision are, well they're from France and have made games ranging from the supremely crap Fascination to the highly amusing and entertaining Gobliiins series.

When I had a quick squint at the box I saw what I thought were amazing ST graphics on the back, but I then loaded the game and realised that they were on the PC. The graphics are good though, but not as good as the PC version.

So, beware. Before buying software always check a review of it first, like this one for instance. Right, now for the game itelf.

This is where the adventure starts, so what are you waiting fo?

Ween, who apart from having the most unfortunate name since, err anyone, really is a magician's apprentice who has to save the the Kingdom of the Blue Rocks from the evil sorcerer Kraal. Why does Ween have to do this? Why? I tell you why, it's because he has a noble heart.

Blimey, talk about unfairness, just because he has a noble heart he has to rescue the kingdom and fight millions of beasties and other such terrors.

If I was Ween I'd tell to find someone else and go back to bed. But I'm not, so Ween – who is obviously lacking in the brain department – has to confront and defeat Kraal.

Whoops, I've forgotten about the story... damn, there goes the job on Jackanory. Well, better late than never I suppose. It was a Thursday afternoon and on that fateful day a storm has blown up in and around the Kingdom of the Blue Rocks.

The reason for the storm was that the Great Eclipse was approaching and only three days remained before the moon would veil the astral light. Ween's grandfather, Ohkram, braved the storm and went to visit Ween with the terrible news that th Kingdom of the Blue Rocks was in danger.

Now Ohkram is a Master Sorcerer an protector of the people and his powers a strong and formidable – until today, that i For it was written down on the back of fag packet somewhere in the kingdom tha is was today that Ohkram would lose h powers.

It just so happens that Kraal, a greed and dangerous sorcerer once banished b Ohkram, is well aware of this fact and is s to rule the kingdom.

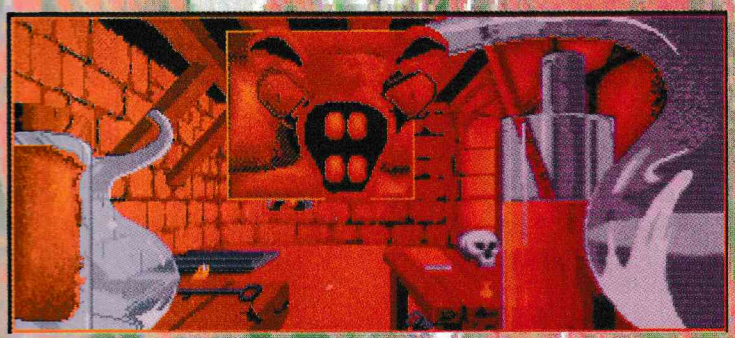
Petroy, a faithful buddy of Ohkram, ha heard that Krall was back on the scene an warned Ohkram of the coming danger Ohkram can no longer stand up to Kraal th tyrant, so it's left to Ween to save the day.

There is a prophecy that "On the day the Great Eclipse three grains of sand will b placed in the Revuss by the valiant–hearte and thus the enemy will be defeated...".

So, there you have it. Ween's task is t find three grains of sand. Easy peasy, shou take you about three seconds. Just go dow the beach, grab a handful of sand and Bob your uncle.

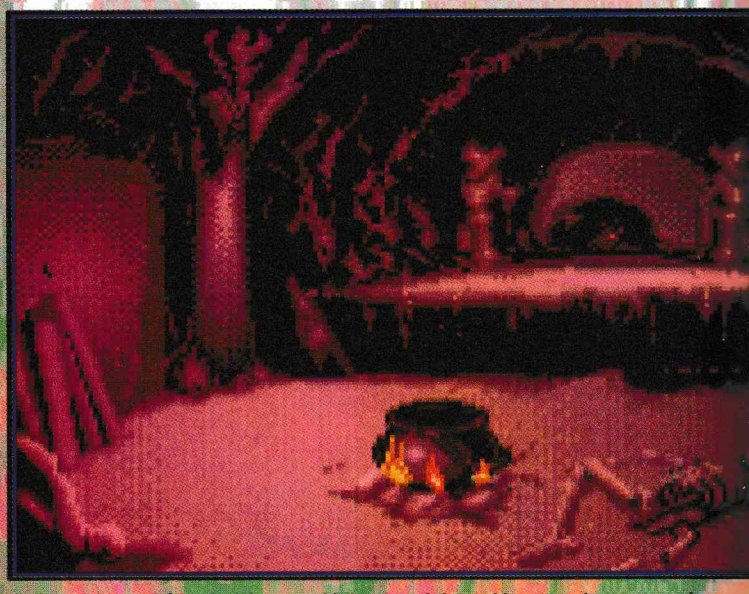
Pardon? What, they have to be mag grains of sand? Drat I was hoping tha wouldn't be the case. Oh well the adve ture is about to begin...

Ween is controlled via the mouse and involves a lot of clicking on left and rig



Waaahhh, what in the name of Bob Holness is that?

It's that comedy duo, Ubi and Orbi. Why aren't you falling around laughing?



Skeletons are great fun – look I can use his bones and the cauldron to make some soup!

PROPHECY

GAMER GOLD

...e buttons. You start off in a room in ...ch there is a fireplace, a cupboard, a ...helf and some other objects. All the ...ible objects in the room show up on-...en whenever the mouse pointer passes ...er them. Objects that don't show can't be ...ed.

...ow obviously Ween has a tough task ...ead of him, so he does have a bit of help ...the shape of a copper ball, a mad fruit-...ing vampire bat, Petroy and a couple of ...erbrained twins.

...e mad bat, which goes by the name of ...m, has got an unbelievable fruit fetish – in ...t it'll just about do anything for it. You ...n call it at any time by playing on your ...te.

...Petroy contacts you through telepathy ...d helps by deciphering ancient texts or ...sages written in strange languages.

...e twins, Ubi and Orbi, are more of a ...medy than a couple of adventurers, but ...ey help by carrying Ween's bag. As for the ...per ball, I'll leave you to suss that out.

I enjoyed Ween immensely. It's easy to ...y and won't cause anybody any trouble ...all. There are a few bad points though. ...e playing area is under half of the actual ...reen, so it could have been a lot better. ...d you have to be almost pixel perfect to find some of the objects necessary to complete a puzzle.

Not all of Ween requires logical thinking. Sometimes you just have to try things and see if they work out. A spooky soundtrack flows throughout the game, but you can always switch it off.

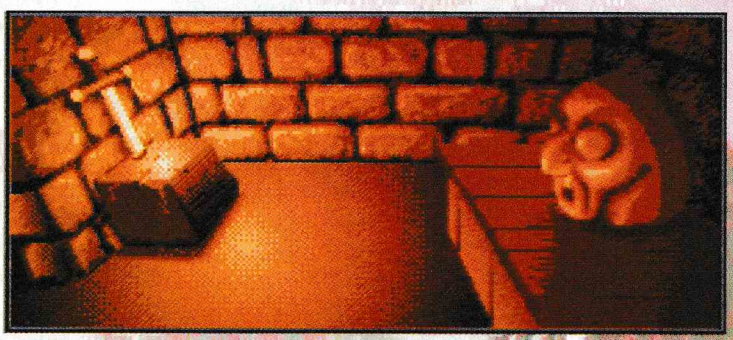
This is a really, really good adventure game and I recommend it to adventurer and non-adventurer alike. Pity about the name, though.

Jonathan

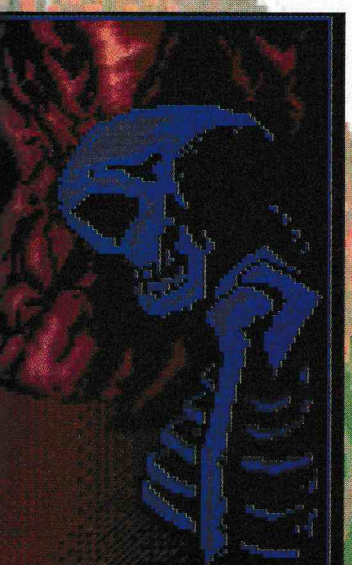
Oh look it's Hugh Skully. Bwahh ha haa ha haa haa ha...

A simple caption. A frog and a couple of Strawberries...

Arrgh, a monster. Brown trousers time?



It's the Mad Bat. Rearrange the letters and you get Damtab, err I think that went wrong somewhere...



Cor, it's that great film. The Sword in the Stone. Ho Ho I kill me

VISION
GGG●●
Not bad graphics, but I was fooled by the shots on the box.

AUDIO
GGG●●
Spooky soundtrack with optional volume switch.

PLAYABILITY
GGGGG
A great adventure that is easy and fun to play.

ADDICTION
GGGGG
I'm off now to get that third grain of sand.. 0or else.

90%

Get tanked up

CAMP

EMPIRE ▪ £34.99 ▪ ½ meg ▪ Mouse/keyboard/joystick ▪ Out now

Right, let me just clear one thing up before we get going. You'll gather from above that this game runs on a half meg machine, which is true.

However, this review is written on the strength of my amateurish toolings on a full meg ST, which is only fair to those responsible for it in order to give the fairest view possible. The differences between the two lie only in the detail of the scenery in some sections and in the map editor, which will obviously have less memory.

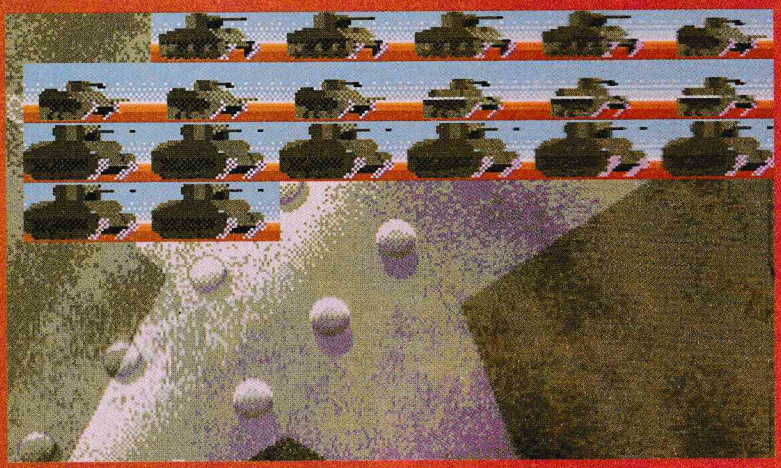
So for those out there who got all excited at the inclusion of a fraction in the top line, don't despair read on, I've looked at Campaign on my little brother's ST – you're getting a full game for your half meg's-worth. Just thought I'd let you know.

Well, after that jolly informative little introduction, let's find out what all the fuss is about, or indeed, if there is any fuss at all.

"Campaign is a war simulation for Everybody" claimed programmer Jonathan Griffiths when I put the question to him, heavily emphasising the capital E.

He elaborated that the game was designed not only for the seasoned strategists who think nothing of reading and digesting a manual in ten minutes flat, but also for those who are perhaps deterred from buying such a product because of the time spent reading and studying before any gameplay can to begin.

Fair enough – so far so good, thought I, who while perhaps not being the most intelligent being on the planet, certainly felt a quiver of fear creep down my spine when confronted with an instruction manual resembling the Oxford dictionary and the task of writing a review of the game it represents. I just hoped he wasn't fibbing.



You'll never be short of firepower with these babies around!

The game itself is as accurate a representation as you can get of the whole of World War II, comprising seemingly dozens of campaigns played out on historically accurate maps from the era.

Literally millions of square kilometres are packed into one bulging disk. there are some 3,000 vehicles to command on behalf of either the allies or, uh. other side, and the action takes place virtually wherever you like within the perimeters of the war.

All this is well and good – the question we need to answer, strategic friends, is whether or not it's done well enough to warrant the effort of playing the thing.

I was fortunate in that I was able to spend a good two hours sitting with the programmer, who was obviously better equipped to guide me around the fundamentals than I would be myself after manfully tackling the manual.

Everything seemed so easy, prompting me to heartily agree with his earlier claim as I merrily whizzed from screen to screen, battle to battle with all the apparent military skill of Stormin' Norman or that other chap, the English one with the long name

Yes I know that was a different war, but I failed A-level history and struggle to relate to an event that ended quarter of a century before I was born, OK?.

Returning to the game on my own nearly a week later however, and being a little bit on the clueless side, I found it took me rather longer than anticipated before I was sitting in my tank ready to kick bottom.

Once in, I found myself at the map screen. It's not actually a map of anywhere in particular, and is a little sparse on detail and squadrons, or battalions or whatever they're called.

This is of course to enable the player to familiarise himself (or herself, for our lady reader Matilda somewhere in the West Midlands) with the icons, scrolling and controls. It is from here that you will control your land and air forces and plan your strategies. The control screen is great – it offers just about every option you could wish for, with a help window sorts explaining each icon. Your forces are clearly marked, as is the destination towards which they are travelling.

At the beginning of the game, forces are automatically controlled that is, you aren't actually in control of anything at all. Ha! I've just summed up my life in one short sentence. Ahem, let's press on...

It's up to you to decide which parts of the individual battles you wish to control, and which bits you wish to leave to the ever-wise computer.

I found it much more fun to control everything myself, even though major damage was sustained in just about every battle I entered!

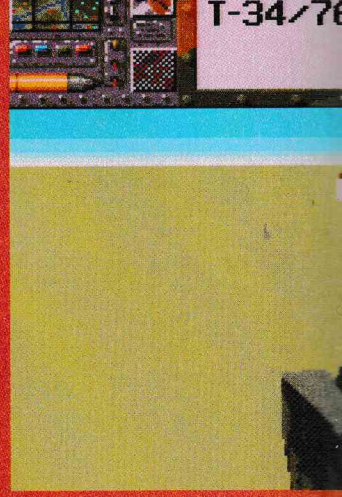
You can, for example, decide to plan the strategy of the battles – plot the course of your aircraft, give your tanks/fleets a destination, decide which vehicles to use and then sit back and bask in glory (or not) as the results filter through.

This is fine, and there's enough variety in the game to keep you happy for days and days using this method alone.

As I've said, I prefer to plan my albeit dodgy, strategy then climb into a tank myself and do things my way.

The control method used in Campaign tanks is really good. You can of course use the conventional keyboard method – this is a bit tricky at first

They just don't make 'em like this anymore. Good job too – you'd never get to Tenerife on this



Every war has it's share of innocent civilians. I'll just make my contribution

AIGN

this is more like it, arm those guns and let's get shooting.
on, isn't this a friendly tank? – oh what the hell

to the realism of steering the
g.
I start explaining I'll be here all
t, so you will just have to find
for yourself. The joystick method
eat though, if a little bizarre.
Plonk two joysticks on the table
use them to literally steer the
s tracks – forward and backward
obvious, but if for example you
d to turn (which is quite often
ssary in the middle of a war, you
w), then by pushing up on one
k and down on the other,
tank will virtually turn on a six-
ce.
he level of detail on things such
ouses, while not really breaking
new ground, is very acceptable –
t's more, the speed is good and
control relatively easy to master.

Jonathan Griffiths is a bit of a World War 2 aficionado and it shows. All the maps are geographically correct, or at least they were in 1945, if you see what I mean.

A clock runs throughout the game, and events that actually happened in the war happen in Campaign at the right time. Every vehicle within the game is correct in every detail, and come complete with a comprehensive almanac detailing damn near everything there is to know about it.

Campaign comes with the obligatory map editor which I'm not going to talk about because there's not a lot one can say, except that it's good.

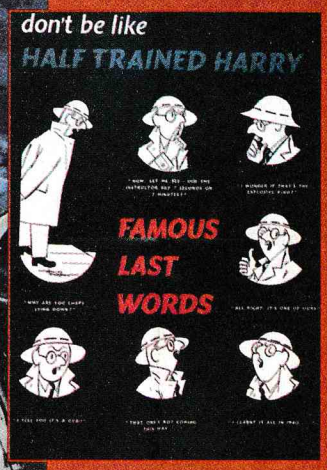
Suffice to say that even if there are no map editor, Campaign would keep you going for months. Yes, I did say months.

A software developer recently said to me that the American gaming public have a credo – they expect one hour of entertainment for every dollar they pay for a game.

Just thank God that Empire didn't apply this to Campaign – it would be about the same price as an average family saloon (and you'd have to go to Thomas Cook's to get some dollars!).

Paul

Ceaselessly new vehicles roll off the production lines. Army units await them, the ATS deliver them



Over £,1000 CAMPAIGN COMPETITION!!

In a blatant and unashamed attempt to make absolutely certain you buy next month's issue, here's a taste of what we've got for you.

- CAMPAIGN BOXED SETS -
- WW2 VIDEOS -
- WW2 COMPENDIUMS -

Over a grand's worth of Campaign/WW2 paraphernalia to give away – and don't think you'll get this kind of treatment from other ST mags either – this ST campaign compo is exclusive to GAMER

VISION
GGG●●
Good graphics but they won't make your eyes boggle...

AUDIO
GG●●●
...and there's not really much sound at all.

PLAYABILITY
GGGG●
So how do I justify the mark below?

ADDICTION
GGGGG
Easy. Get a copy and you'll see what I mean.

87%

Cheetah 125+

I remember when this joystick came out. At that time I still owned a Spectrum and the Quick Shot II was the best, even if it was as brittle as an icicle. And what a winner it is – everything a classic should be, boring, unadventurous and above all reliable. Yes it won't fall to bits even if I play decathlon on it.

The Cheetah 125+ is nothing spectacular, with bog standard ergonomic grip and the usual fire buttons. Like all today's kit it uses micro switches instead of the old terminal switches, which in all honesty were usually knackered in about three days.

It performs admirably when used on racing games and the like because it is not too sloppy – it was invaluable on Stunt Car Racer when Biff insisted on beating me. The major down point is its stiffness. It isn't so fast, and you don't get that satisfying click sound when you move it.

The auto fire is suitably placed between the front two fire buttons – unlike a lot of the competitors who try to put them in the most awkward place possible – and there's no danger of you flicking it on by accident

RESPONSE
APPEARANCE
FEEL
OVERALL

Crystal Turbo Clear – Powerplay

This joystick made by Powerplay is similar in style and feel to the Cruiser and the Zipstick, although the shaft on this joystick is completely different to the ones mentioned previously.

It is in fact moulded to fit your hand better than other joysticks and it gives you quite a firm grip which is very handy if you're playing a driving game like Lotus Turbo Challenge III. The unique feature on this stick is that it is completely clear, so that means you can actually see how a joystick works, how very interesting – not!

Cheetah Mach I

Another early Cheetah joystick, this one came out a little later than the 125+, but in my opinion the 125+ had a far superior design.

It's biggest let-down is the ergonomic grip, which is slightly less detailed than usual and the shaft leans forward at a 20 degree angle which feels comfortable at first but gives you wrist ache in the long term.

Biff and I gave it a good seeing to on Cybernetix when it proved very responsive, but it was a little too light on car driving games – you couldn't get it to hold nice and steady on the bends.

And they've done it again, they've put the microswitch at the back of the base in the middle where you are likely to switch it on by accident.

My only real beef is with the fire buttons. They are so heavy you have to exert a good amount of pressure to move them – the last thing you need when playing Project X unless you want your finger to fall off very quickly.

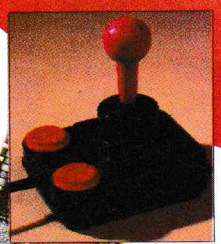
This is not the joystick I would choose personally, but no doubt some people would swear by it.

RESPONSE
APPEARANCE
FEEL
OVERALL

Wig

Just a

Hey, it's
getting
Christm
again,
time to
for som
really g
present
and wh
could b



Competition Pro – Powerplay

Ahh, it's my old friend the Competition Pro – I remember the days when I used one to play Spectrum games with it, it's that old. In fact my little brother still uses it for playing Kick Off 2. It is a pretty simple device, for instance it hasn't even got an auto–fire, so you can't cheat on shoot-'em ups.

The latest Competition Pros now have microswitches, which make the joystick twice as good as it was. It is very similar to the Zipstick, but tends to fit into your hands rather better.

You won't attract members of the opposite sex with this particular joystick due to its rather boring black and red colours, but you can get luminous green and pink versions. While I'm on the subject of colour, I personally would like to see some other joysticks brightened up – most of them are either very drab or boringly black.

Verdict? The Competition Pro is a classic joystick and a lot of games players would not swap it for anything.

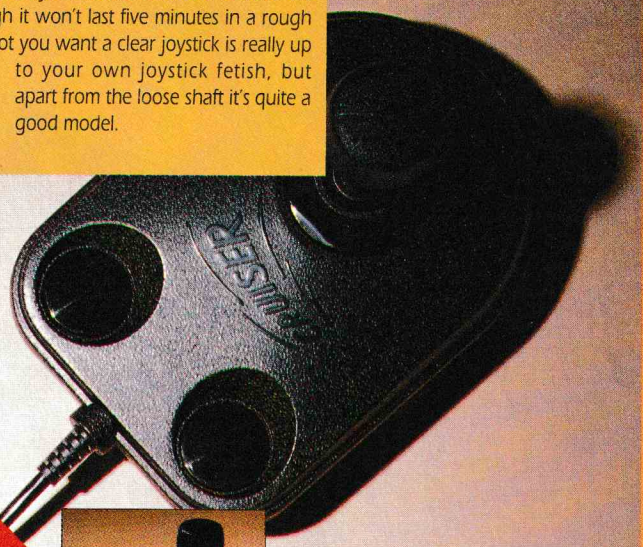
RESPONSE
APPEARANCE
FEEL
OVERALL

Joysticks kin
provided b
Powerpla
0457 8766
Cheetah
0222 8677
Ta very much
we have some

To be honest all this see through business is a bit of con, all the joystick manufacturer is trying to do is show you something different so you'll put your hand in your pocket and spend some hard-earned wonga.

The really bad thing about the Crystal Turbo Clear is the shaft. It's really loose and it looks as though it won't last five minutes in a rough session of Kick Off. Whether or not you want a clear joystick is really up to your own joystick fetish, but apart from the loose shaft it's quite a good model.

RESPONSE
APPEARANCE
FEEL
OVERALL



Cruiser – Powerplay

This joystick brings a fair few tears to my eyes because it has only just broken down after four years. Yes, a long and happy relationship cut short by a terrible misunderstanding.

Okay, so I did throw it on the floor and jump on it, but when your little pipsqueak of a brother beats, nay thrashes, you at Sensible Soccer then it's time for a change of joystick. So I ritually destroyed it, just like Nirvana do with their equipment. Oh boy, did I regret it!

Well, enough of my misery, what about the Cruiser? Well it's one of those that you either love to bits (more terrible memories) or hate to death.

There are two models, one like mine, green with a pink shaft and yellow fire buttons, or an all black one. It boasts a unique control – by twisting the pink shaft you can make the joystick's action vary from loose to stiff. This is ideal, because you can adjust it to suit the game you're playing.

The Cruiser does feel very bulky, but you do get used to it after a while. Yep, I'd recommend it to anyone.

RESPONSE
APPEARANCE
FEEL
OVERALL

le it, tle bit...

etter than brand panking ew oystick. Biff and Ben the Gamer men ound up their favourites...

Cheetah Stare Probe

What a monster! This really is a refugee from the arcades of the '70s, chunky beyond chunkiness, just how a joystick should be. Everything about this stick is old, even the plastic feels that way, yet despite this it's a pleasure to use.

It's fully microswitched and you g all the nice clicks in use. The shaft its is very heavy, so even on car sims yo can still hold the stick steady, yet it's st a corker for shoot-'em ups.

There's your average ergonomic gr again but the fire buttons are massiv so you can't miss. The autofire is in th same place as the 125+, in the midd of the two fire buttons on the base.

This is probably the best all-rounde have used out of the Cheetah rang and it certainly looks the most durable wouldn't pick a fight with it in the pub

RESPONSE
APPEARANCE
FEEL
OVERALL

Zipstick – Powerplay

Ask almost any games reviewer which joystick they prefer and eight out of ten will say that they go for the Zipstick. The reason is probably because of its simple design. There's nothing fancy to get in the way of those furious joystick thrashing moments. It has a nice black and yellow design and is fully micro switched.

The only major gripe is the positioning of the auto–fire switch, which tends to turn itself on without you knowing – until it's too late. For instance, imagine you're playing Kick Off 2 and 2 – 2 with 30 seconds to go and you accident switch the auto–fire on.

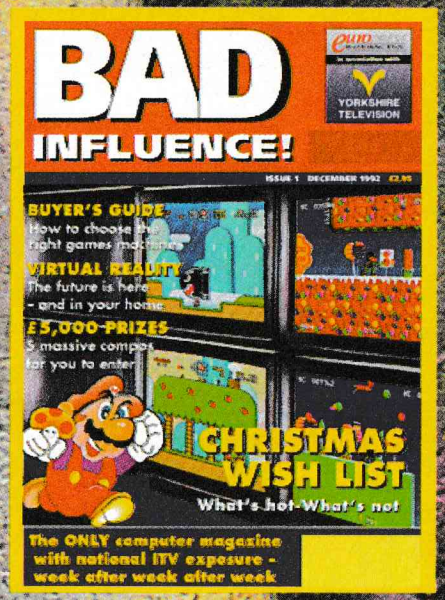
Quick as a flash your man slides in the area a crops one of the opposition, so it's a penalty a your smiling opponent slams the ball into the b of the net. All of a sudden you get an uncont lable urge to chuck the joystick across the room a watch it explode into tiny bits.

However, apart from that minor gripe t Zipstick is indeed one of the best joysti available.

RESPONSE
APPEARANCE
FEEL
OVERALL

BAD
ボーイズ!

INFLUENCE!



HITS THE STREETS ON NOVEMBER 19TH

Don't they know that during fog conditions speed should be kept to below about 40km/h, and you should always maintain a large distance between you and the car in front? They should be arrested, the lot of them

Let's think. What silly and slightly comical names can we enter today? And should we bung extra-easy or try to look good and stick it on impossible mode?

Shouldn't it be Lotus 3: The Final spin-off?

LOTUS III THE ULTIMATE CHALLENGE

GREMLIN ▪ £25.99 ▪ 1/2 meg ▪ Joystick/keyboard ▪ Out now

In the beginning there was Outrun, and it was feeble. And Magnetic Fields did look at the ST and think, "This computer needs a decent driving game," and so they set about creating one.

First they created Lotus Esprit Turbo Challenge. It was a 3D behind-the-car-viewpoint game, which featured a simultaneous split-screen two-player mode which was great fun to play.

It also had lots of options, even down to selecting your in-car music from a CD player screen. Magnetic Fields looked down at Lotus, and saw that it was good.

Then they created the sequel, and lo! It featured a full-screen one-player mode, a checkpoint race system instead of the previous circuits, a second type of Lotus car to drive, and even more in-car CD music.

They created it in the image of the first game, and Magnetic Fields looked down at Lotus 2, and saw that it was quite good too.

Finally (we hope), in the year of our lord 1992, Magnetic Fields looked down on the world and thought, "Hang on, we could make a packet doing yet another sequel." Thus was born Lotus III: The Ultimate Challenge. And it was OK too.

So what does this have that the previous two didn't? Well, it combines the best aspects of both the prequels to produce what is actually quite a playable driving game. You can decide whether you want to hurtle around either checkpoint-typ or circuits with a varying number and also whether you want to race the clock or against the other compu trolled cars.

There's also the addition of designer. You can set the perimete track in the form of percentages, things you can twiddle around with the amount of hills and curves, and distance. You can design loads of y courses, and they can be either ci checkpoint jobs.

The game is very well present some stylish graphics and absolute lent music. The in-car CD now offers others, a dancey, ravey, hardcore-y the-score, midnight beatbox ecsta reasonably heavy rock affair, and music (?), the last of which is utterly

You'll find everyone around y humming the tune when this com least they did here in the office).

You can choose the control sy want for your car, although I fo default Fire-button acceleration set to cope with.

Select whether you want to driv Esprit, an Elan SE, or an M200 which are shown on a trendy rot screen, which also shows weird lit of acceleration and so on.

You'll eventually get to the gam

Ugh, look colour sch that there purple car disgusting

Streams and puddles can be found on tracks such as this one. Don't they know they should be driving carefully, etc

Well, this is the sleek and sexy M200, the car that's new to the Lotus series. It's a shame it's the same as the other two

If you fancy yourself as a bit of a track designer, hop along to this screen and you can poke about with all sorts of weird bits and bobs

VISION

Nice enough graphics, although a couple of glitches.

AUDIO

Brilliant music thumping in the background, good car sounds too.

PLAYABILITY

Good, especially when you've a chum to pummel into a soft pulp.

ADDICTION

A bit samey in the long term, but should last a few weeks.

84%

starting light goes on, and you accelerate away. Then you've got to successfully negotiate your way through several tracks, which are different depending whether you chose easy, medium or hard difficulty settings.

These stages vary between checkpoint races and circuit races, and can take place in a variety of conditions, including the old favourites, wind, fog and rain.

The graphics are pretty much the same as in the two previous games, and they move at a fairly zippy rate, although one amusing thing we noticed is that for some reason, on some tracks it can look like you're reversing the car along.

Apart from that slightly strange quirk, the game looks fairly good, with colourful backdrops and sprites.

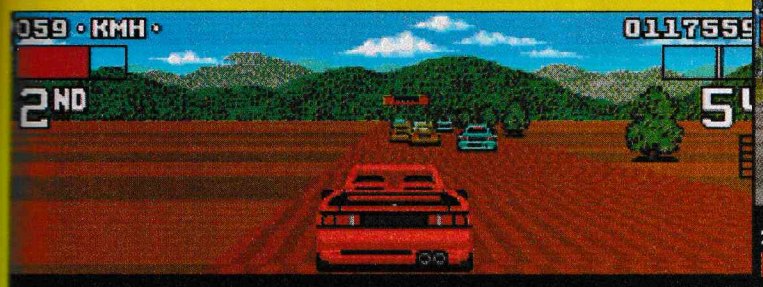
The car is quite responsive and easy to handle, and with a bit of practice you'll soon find yourself managing to stay on the road on those tough icy corners.

One thing that Lotus games have never been is realistic. When you hit an obstacle or another car, you simply slow down by about 15 km/h. Still, if anything, this adds to the playability, as you don't find yourself out of the game just because of one slip-up.

This also produces some excellent two-player frolics as you fiercely battle to be the first to the finishing line.

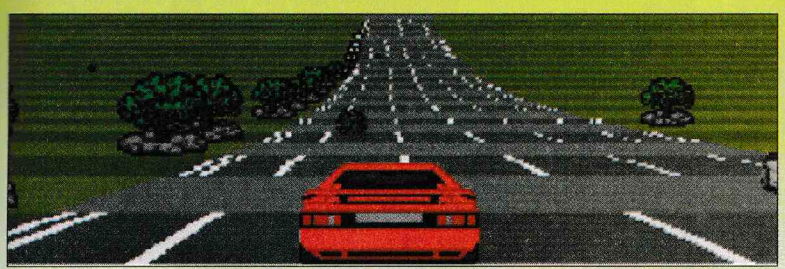
While Lotus 3 isn't original, and certainly isn't the best game in recent months, it's nevertheless a playable product with a fair bit of depth. There are lots of levels to go through, and the facility to design your own adds a great deal to the game. I think the best game in its field, because it m ages to combine the best elements of previous games and adds a few new o too. Shell out for this and you won't be disappointed.

Da



Stick Lotus 3 in two-p mode and you and a can slog it out to see who's the most mani suicidal and reckless

Yes, Lotus 3 lets you too have the chance to enter silly player names and then laugh hysterically when they are innocently displayed on-screen



Maybe Lotus 3 is designed for escapists. It's great, you know, out on the open road, heading for the hills, the fresh air and the smell of exhaust fumes...

Lotus is great, because it's the only driving game where you can hit anything you want and still keep going, without so much as a dent in the car

Would you like fries with that?

McDONALD LAND

VIRGIN ▪ £25.99 ▪ ½ meg ▪ Joystick ▪ Out now

It had to happen. As sure as the sun sets in the west, as sure as the stars are in the sky, as sure as you can never find the TV page in your daily newspaper – it had to happen.

We've eaten their burgers, we've been patronised by their bored, spotty teenage staff, and we've written letters to their complaints department And now, God help us all... we can play the computer game.

If you haven't heard of McDonalds then you're dead. I'd lay odds that there's not one person reading this review who hasn't at one time or another sampled the delights offered by these emporia of healthy eating.

There will be very few parents who haven't been dragged down the high street by their screaming offspring who genuinely believe that their world will come to an end without the intervention of a Ronald McDonald Happy Meal.

Get your wallets out mums and dads – this one's for the kids. Virgin tell me the game is aimed at pre-high school kids aged between about five and ten (the ones who are old enough to know what they want but still young and shameless enough to damn well cry their heads off until they get it).

It's a platformer as you'd expect, with the intrepid gamester taking the part of Mick or Mack, two of Ronald's young chummies.

The Hamburglar – he's the fat one with the stripy sweater on the adverts – has run off with Ronald's magic bag. Ronald has really only got himself to blame however, since he was showing off with said bag at one of the many picnics such an ambassador as he must attend.

Although not mentioned in the story, we in the Gamer office believe the importance of the bag lies in it's power to transform a dead dog's tongue into a "100 per cent hamburger in a sesame seed bun". But don't quote us on that.

Erm... now he is on a block. The block is in the sky. Yes

Ronald's got a heavy schedule, so he enlists the help of daring duo Mick and Mack in his quest to recapture his pilfered satchel, insisting for no obvious reason that they gather all the puzzle cards he so carelessly scattered around the various levels as they go.

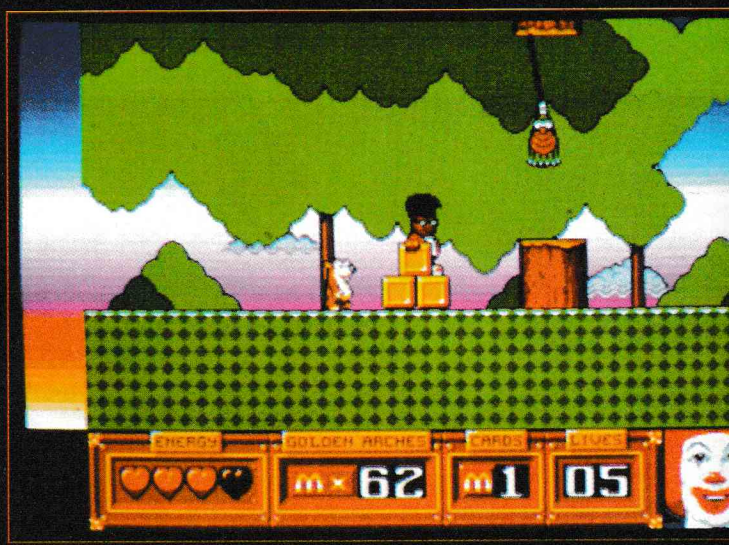
The levels then – there are seven in all, each watched over by a different one of Ronald's bizarre friends, and each containing about half a dozen sub-levels, making around 40 in total, plus the odd bonus level here and there.

The idea is to avoid the cute little nasties and generally bounce and jump your way to the end of the level, your pockets bulging with the all-important puzzle cards.

There's a theme to each one too – for example "Birdies Treehouse" is, as one might imagine, set up in the trees, with clouds and other sky-like objects providing added obstacles.

Other goodies that need collecting are the (in)famous golden arches, McDonalds' trademark – these suspend in mid-air and if memory serves me correctly provide bonus points at the end of the level.

A nice touch is the way in which Mick – or is it Mack? – can run upside down on certain platforms as long he's going fast enough, and another is the slow motion effect the gravity-less moon level provides.



This nifty little map lets you begin wherever you like. Sadly, the location of the loo isn't plotted, so don't sample the food

The puzzles are quite simple and the colours bright and childish in order to appeal to the younger market, but the platform action suffers a little from the much of a muchness stigma. Where McDonald's Land should really win the hearts of kids – and the pockets of their dads – its versatility.

For starters there is a two-p option, whereby Mick and Mack ate not in a competitive way, bu forces to foil the evil Hambu together (aaahh).

At the beginning of the first a simplified map shows the va levels within Ronald's Clubh Using the joystick you can guide geezer to whichever level you wa tackle first.

Once the first main level has completed, you are given the c again with level two.

But that's not all – oh no. you are on a subsequent level only are you given the choi attempting any sub-level therein read this carefully because it g bit muddled) but can travel using the map, through any o levels you have already complete

So for example when on th level, you can choose between 40 places as to where you want Well I think it's good, anyway.

Now be warned – don't buy game if you're looking for an in tive challenge, it's just not for

But for those of you whose run around the house all c mas upsetting aunty Bery knocking over everyone's get your hands on this an keep the buggers quiet for a few days.

Springboards eh? That's a startling new concept. Not

Scary upside-down zone. Try it at home kids

VISION
Clear, bright colours galore.

AUDIO
Cute tunes, nice enough FX.

PLAYABILITY
It's aimed at the kids so it's simple.

ADDICTION
This is my opinion, but it's not exactly aimed at 22-year-olds, is it?

81%

Bombs away – it's the...

DOODLE BUG

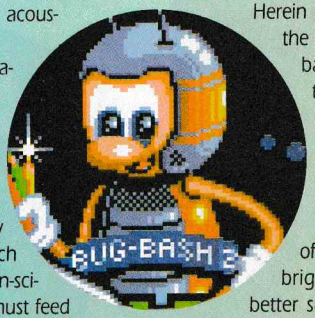
CORE DESIGN ▪ £25.99 ▪ ½ meg ▪ Joystick ▪ Out now

oodlebugs. They were those strange looking bombs with wing-like things used in the Sec- Vorld War, weren't they? And correct 'm wrong, but doesn't the contempo- rm refer to both the larva of an ant- nd indeed, a non-scientific device to he location of minerals?

ressed? Don't be – I found all this out he dictionary. The first and only thing rang to mind when this disk arrived office was that awful song from a few ago, whereby the banal chant "Do-do oodlebug" was repeated about 300 co the lacklustre rhythm of a cou- snare drums and an acous- ar.

en the above informa- hen, you would be en for believing that ge is dedicated to a y game set around where you as the nvade hostile territory flying bomb in search erals (using your non-sci- device) which you must feed larva of an ant-lion.

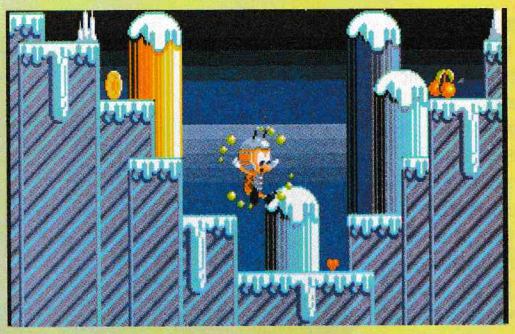
possibly not. Doodle Bug is in fact a ony platformer set, astonishingly h, in the colourful world of Cartoonia. king of Cartoonia is up in arms – his ful daughter, the Princess Lady-Bug, has been kidnapped, spirited away in the dead of night by a large shadowy figure with an evil cackle.



Herein lies the problem – obviously the king would like his daughter back fairly sharpish but Cartoonia, by its nature, is a bit short on large, shadowy evil people who might be up to the job of rescuing her.

You see, most inhabitants of this unlikely land are small, bright and friendly, and much better suited to working as a stunt double for Tweetie Pie than as a destroyer of dark overlords.

There's always one though isn't there? In this case it's you – a "brave little bug-like creature" who steps forward to answer the king's plea, namely to travel through distant lands battling with dozens of creatures about eight times your size until you reach the princess prison, where you must release her and return her to her ever-loving pappa.



Wahey! Watch out – the ice is dead slippy it is

The king is grateful of your offer – so grateful in fact that he promptly presents you with a few magic pencils and various other pieces of brightly coloured stationery to assist you on your quest.

A long-handled sword, a pocketful of grenades and the odd automatic weapon would have been nice, but hey – you got pencils! C'est la vie...

Toyland is your first port of call, and very nice it is too. Jack-in-the-boxes, aeroplanes, clowns, and that's just the nasty elements.

Things are moving around everywhere, and Doodle Bug can even get help from one or two of the nicer people in town who'll talk to him and give him advice.

It's here where you realise that the magic pencils aren't quite as useless as they first appeared. For instance, when thrown, the blue pencil turns into an umbrella which will slow down your descent should you, say, fall off a doll's house or something.

Other pencils will turn into balloons (to take you to higher places), potion bottles (for temporary invincibility) and stopwatches (freezes the enemies for a few seconds).

Don't despair if you find yourself in a tricky situation – Doodle Bug carries a rubber at all times which rather handily doubles as a kind of smart bomb for instant disposal of hostile creatures.

Other levels are in a similar vein – bright colours and cute creatures asunder relating to the theme – Forbidden Forest and Fortress of Doom to name but, erm... two.

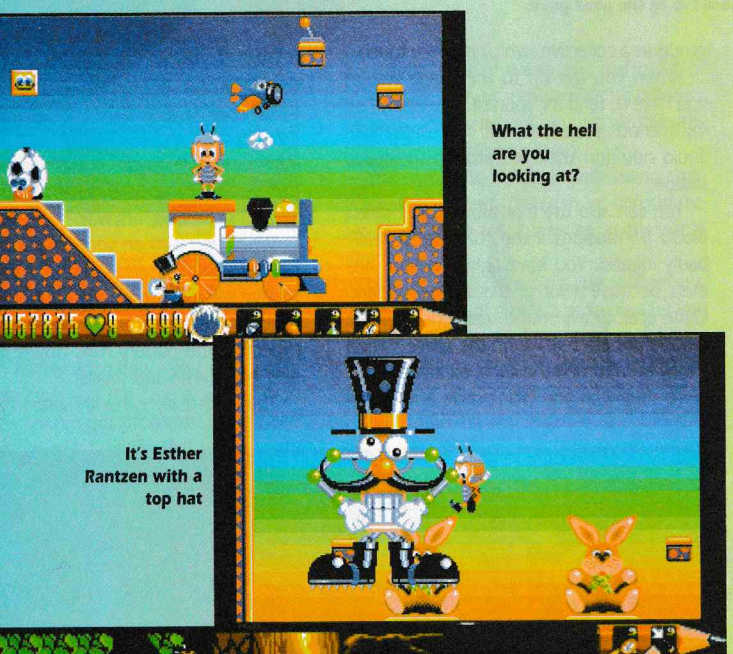
What else then? Well, Doodle Bug has quite a nifty spin attack with which he can do away with his adversaries, and there's loads of stuff to collect such as money, fruit and power-ups, all of which add a little to your paltry armoury.

The sound throughout is really good – Liz the art girlie is driving me mad humming the tune as I write. ST owners will be chuffed with the number of effects, and the graphics are great.

Although they don't come right out and say it, I guess this game is aimed at the younger market, just in time for Christmas.

The truth is, I had a good time playing it – it's a little bit easy, but fun, and there's loads going on so you, or your beloved offspring, won't become bored too quickly.

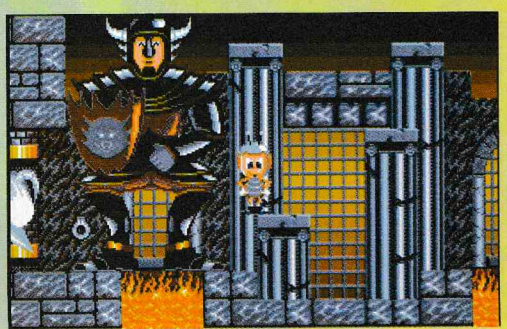
Paul



What the hell are you looking at?

It's Esther Rantzen with a top hat

little man, I'm the tree monster and I'm going to eat you up. Ha ha ha haa



"Excuse me, but can I borrow your shoes to go boating?"

VISION

GGGG●

In another era I could have said it was "bright and gay' without being laughed at.

AUDIO

GGGG●

Catchy tune and plenty of good FX, but there's always room for more.

PLAYABILITY

GGGG●

Plenty to do... simple to play... the list goes on

ADDICTION

GGGG●

I still keep sneaking a crafty game when no-one's looking.

83%

Deep, dark and spooky with...

SHADOW

KRISALIS ▪ £29.99 ▪ 1 meg ▪ Joystick ▪ Out now

In the not-so-far-off future, man has finally come to his senses. War slowly dies out across the globe and enemy starts helping enemy to solve world problems such as famine. Space travel has been mastered and people realise that they no longer have a use for weapons – food is plentiful.

But as long as people like me are still around, all this lovey dovey arm-in-arm dancing through falling petals isn't going to happen.

Really bitter and twisted cynics like myself will always keep something in reserve just to make sure that the other terminal cynic hasn't got the upper hand.

As is the case in Shadow World. It is based in the future when everything is sugar and spice and all things nice, but somewhere in the government there is a cynic who has kept open a weapons development centre on the edge on the galaxy, a quite nice little place where people won't notice if they drop a bomb or two.

Everything was going quite well at this little Armageddon lab until a week or so ago. All communication dropped off, gone, not a peep, the whole crew have disappeared into thin air.

As you would imagine, the authorities are a little distressed at this – leaving a space station full of weapons unguarded guarded is a bit like giving a mad man a pair of scissors in a nudist camp.

But as with most management groups they want to save some money so what do they do? Send the nutters.

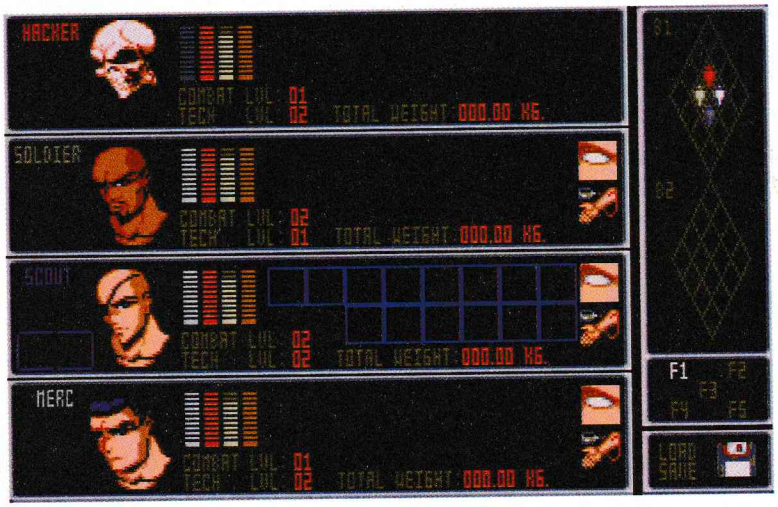
You are head of this mission and you have to first choose your team – four of them from the vast array of head cases that the government wouldn't miss anyway.

They are a colourful bunch ranging from intensely ugly mass murders to nubile young clairvoyants. You have got to find the four who are the most suited to your cause.

On-screen you have the individually history and what his or hers talents are, and you also have a graphical representation of what they look like.

Once you have chosen your merry band you jump into your space ship and have a kip until you reach the space station.

Right now you can really start playing the game. Your four characters are shown on-screen in their space suits – the life support systems went down after the crew disappeared so this isn't exactly the Hilton any more.



What a nasty looking bunch – and these are supposed to be the good guys!

As well as the characters on-screen you have the four heads of the team at the bottom, I will explain what this is for later. In the middle of the panel at the bottom of the screen is a blueprint of the suit which all of the characters are wearing.

With this icon you can make the characters do certain things – for instance, click on the head to turn on the lamp, click on the left arm to use the object which you are holding.

The view you have of the playing area is a diagonal view in an elevated position so you are looking across and down on the characters, very similar to Space Crusade.

You have to move the characters around on-screen and make them do all the work for you. In games similar to this it used to be a real bind moving all the characters about one by one, but it is possible to move the group as a collective, which is a nice touch.

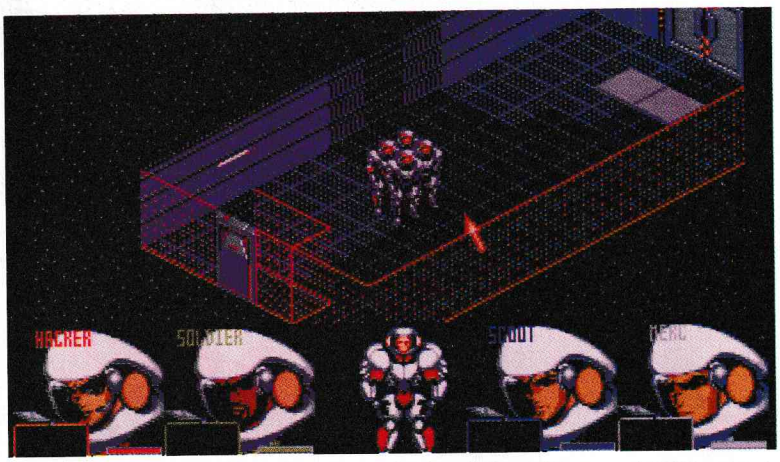
When you get on to the space station you have to fend for yourself. You eat via an intravenous tube, and will find packets of liquid nutrition scattered around the space station.

You can also use that tube to give direct blood transfusions if the character is really badly injured. You have lights on your helmets because a lot of the station is dark. Quite ecologically sound really these blokes who've done a bunk from the space station – they even turned the lights off after them.

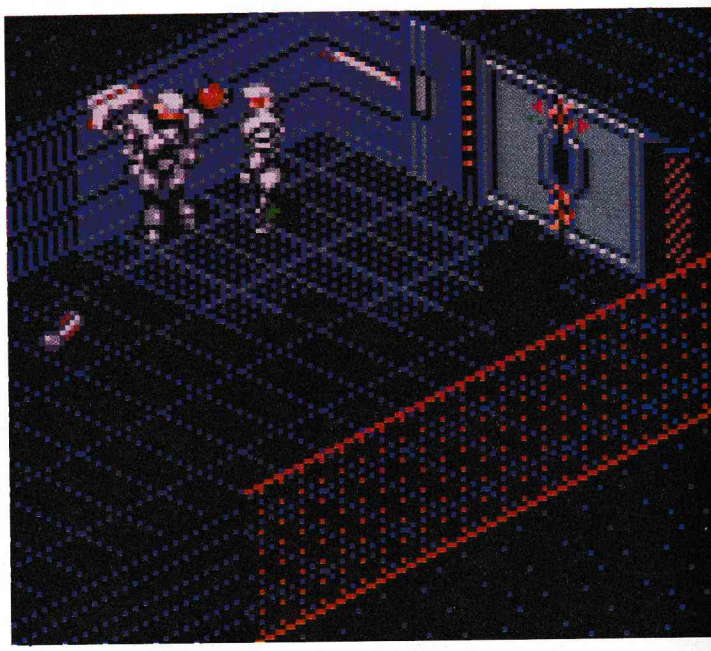
To start with you won't have any batteries but if you go smash up the local security robot it usually obliges. The really impressive part on the lit helmets is the Super Photoscaping – not ba Sounds impressive, anyway.

When you turn on your lamp it th pool of light. Fair enough, but if you your character around, the pool of li move in respect to you. As you expect as the battery runs down th gets less intense and smaller.

The light really is handy when ex



Don the obligatory helmet and tinfoil suit and we're all ready for some space exploration



Tricky business this space malarkey – why don't they ever put handles on doors?

WORLDS

VISION
Well done, clear characters even though they're small.

AUDIO
A bit sparse but a tune would ruin it.

PLAYABILITY
The programmers thought around the problems well.

ADDICTION
Can't get enough, action that makes you think.

90%

Ah... yes, here we still are in the same room and indeed, don't appear to be getting very far at all

GAMER GOLD

station because there are loads of nooks d crannies in which you can find things. The heads at the bottom of the screen e you quite a lot of information. Each has ealth bar which shows you how perky character is – if the face is a skull then u know you've got problems. If the head urned around it means that that particu- character is on a different level.

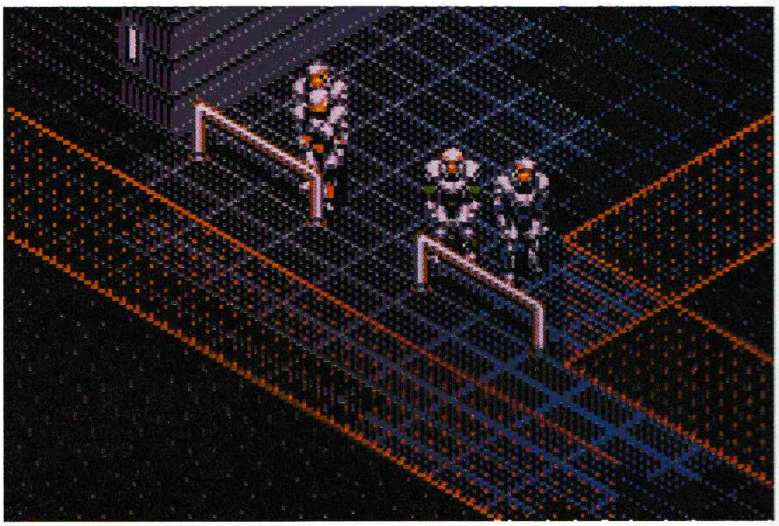
This being a weapons development site u would expect to find a weapon or too und but I think the guys who were here ore you went a bit overboard – you can everything short of an H-Bomb. Not only are there a lot of weapons, but most of them seem to turn into something different anyway – you can put all sorts of different nozzles and the like on them.

The game also boasts a multitasking character actions thingy. You can set one character to do different things all at the same time.

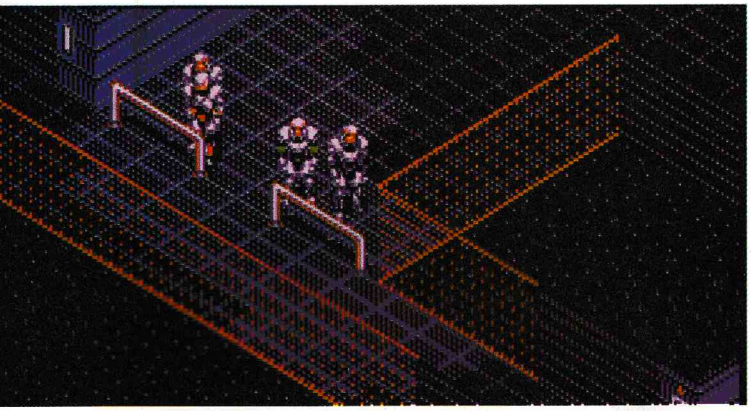
Games like Space Crusade where you were in control of a group of soldiers let you do one thing at one time which got a little tiresome after a while. In Shadow world it is possible for you to have one character sleeping, one fighting and one eating, it's all very clever y'know.

I really enjoyed Shadow World and have no moans about it at all – it's been well thought out in every respect. Shadow World is the more arcadey side to Krysalis – take a look at their Sabre Team this month if you prefer the strategy side of things.

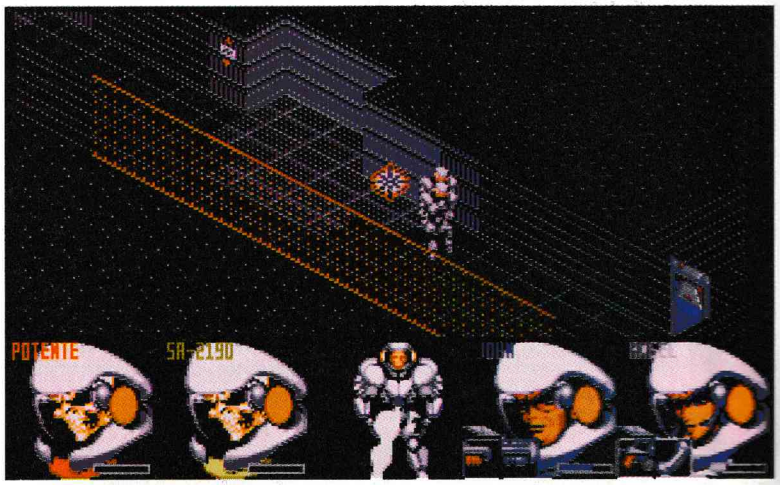
Ben



Sorry but when all the screenshots are alike it's difficult to come up with captions



last! – a screenshot that looks at least slightly dissimilar to all the others



"But John, where is everyone?"

The Ides of March have come

CAESAR

This is a bit of scenery this is

VISION
On top looking down, with a couple of nice stills.

AUDIO
Sound? What sound?

PLAYABILITY
Well it's like this, it's not difficult to play.

ADDICTION
It's a lot easier to leave alone. But what do I know?

55%

IMPRESSIONS ▪ £25.99 ▪ 1 meg ▪ Mouse ▪ Out now

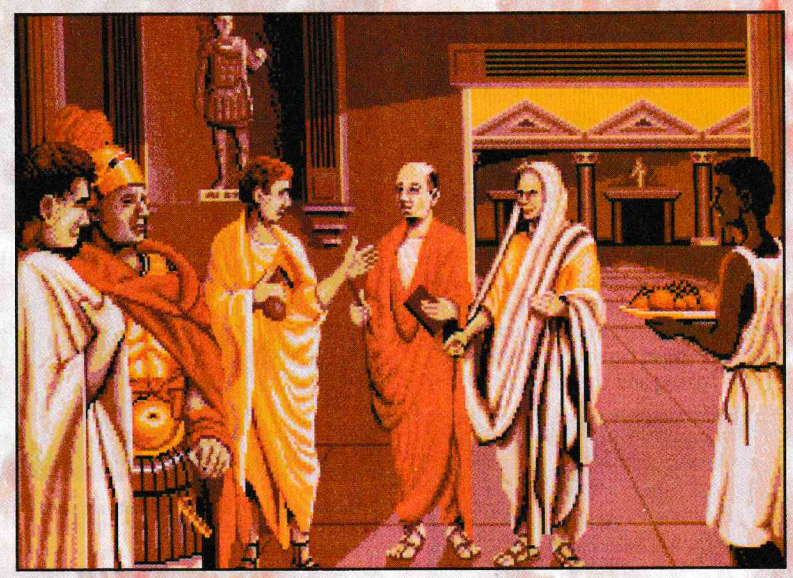
What are your feelings about Julius Caesar? You probably haven't spent a great deal of time troubling over the subject really have you? Quite right too in my opinion – after all, he did come over here and start bossing everyone around, lopping corners off our nice bendy roads, getting rid of much of the filth and slime that we did so love running in our streets, installing sewerage systems and so on. Just who did he think he was?

He's been dead for a good few years now anyway, but he still keeps popping up in some guise or other; films, books, BBC2 satires, and now he's infiltrated the damn software market. I reckon Bill Shakespeare had the right idea – wrote a play about the bloke in which he didn't appear until about half way thorugh, and killed him off two acts before the end. Put the bugger in his place, that's what I say.

The title of the game is a little misleading – you're not Caesar, in fact you're not actually anyone and must first choose a suitable name. Unfortunately there isn't enough space to spell Incontinentia Buckets, so I was forced to opt for the other great Python favourite, (the one describing the size of the male reproductive organ that I don't think I'm allowed to say) providing myself with literally seconds of childish glee at my own boldness.

In keeping with the general megalomaniacal tendancies of just about every Roman in the first century BC, your task, nay obsession, is to build a mighty and indestructable empire thus securing vast power and wealth and becoming the Emperor of Rome. What a mind-bendingly jaw droppingly original plot. Not.

Luckily enough your job is aided in that you have just secured the governership of a small province. You begin as a Decurian, which is about one rung up the ladder from an animal abuser, and must climb this ladder rapidly if your aspirations are to beome reality. You see, if promoted, you gain control of a new region, where the standards must be higher for further progression.



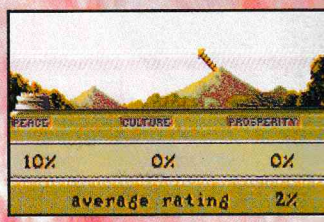
Typical men – all they ever talk about are chariots and last night's christians versus lions game.

What are the standards that must be maintained then? Well there are four peace, culture, prosperity and empire – these cover everything from the security and wealth of your people to the amenities and communications afforded them.

Sound easy? Well it might be if you live in Cheshire where everyone shops at Kendals, owns a lawnmower and a company Granada, and nods politely at their next door neighbours because they don't know their names, but it wasn't quite quite the same in pre-Christ Rome – there were a sight more people of a, shall we say... passionate disposition. In other words, they were a set of barbarians and they liked to kill.

It's a point 'n' clicker, and you begin by staring at a wildly uninteresting landscape of trees, rocks and rivers which you must make marginally less dull by building your empire. The icon list is extensive and reasonably easy to use in conjunction with the handy card included in the box, which almost makes up for the atrocious mouse control.

Everything follows a very logical course: build your houses close to the forum which



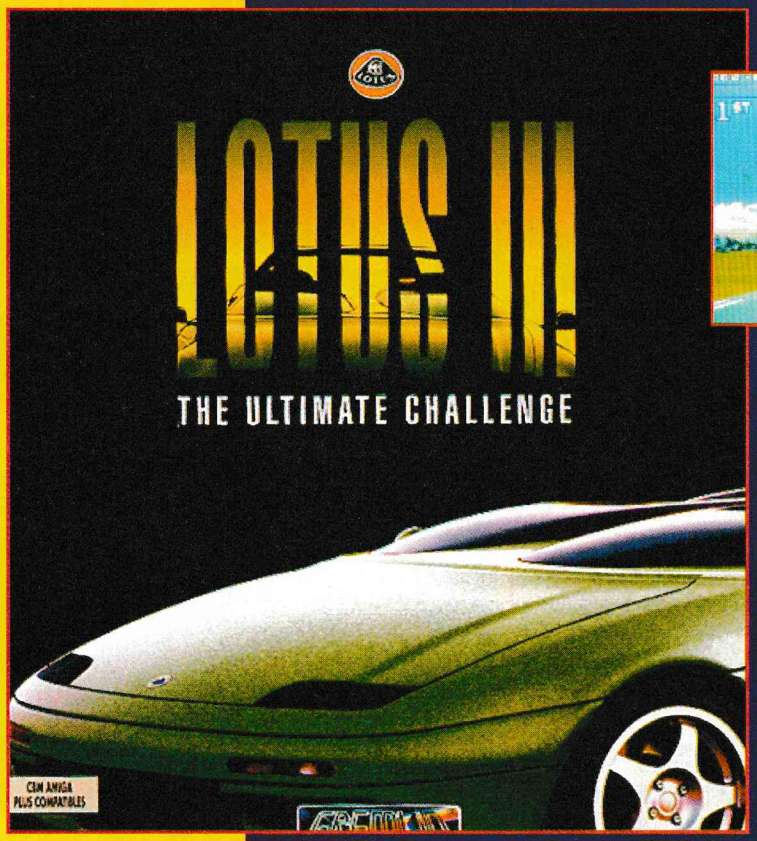
Astonishingly successful empire building just for screenshot purposes at all, oh no

in turn must be close to water to enab laying of pipes from the reservoirs tha will have made etc etc. All things mu kept ticking over nicely if your puny e is going to strengthen. For example, spend all your money – remembe annual tribute to the emperor – keep slaves healthy and your soldiers happy set up small businesses, build roads fo ter communications. Etcetera.

Your province (or city, or whatev called) must be kept well-protected, wise you are likely to find yourself in by one of the sixteen different races o barians. If and when this becomes the your army – which you will have cou this time carefully built and nurtured be forced to go into battle to save th from destruction.

There's not a lot else I can tell you The graphics really aren't that bad, b sound is non-existent and the gamepl resents nothing new and for me very q became boring. Caesar is undoubtedly small game, and if you're a fan of th of thing it might be worth checking like me you're not (and I gave it m shot – I honestly did!), then spend money on something you know you'll Or else send it to me.

WIN A LOTUS FOR YOUR ST



Lotus III incorporates the awesome power of RECS TM, a revolutionary concept giving you the power to generate a virtually infinite number of unique racing scenarios.

LOOK OUT FOR LOTUS III

They've saved the best for last. Following the phenomenal success of Lotus 1 and Lotus 2, the best selling racing game trilogy is now complete. And we've got 15 copies to give away.

- Creates over three trillion different tracks using RECS TM
- Larger sprites and roadside objects than Lotus 1 and 2
- Music selection via on-screen CD interface
- Select between the Esprit, Elan or futuristic M200 concept car
- Thirteen different scenarios including mountains, roadworks and futuristic levels
- 64 pre-defined circuits to race
- Full or split screen action

ENTRY FORM

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Questions

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a. £25.99
b. £100
c. £70

2. How many copies are we giving away? Is it
a. 15
b. 0
c. 3.5

3. Which Alien phoned home? Was it
a. ET
b. CB
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Entries to be in by December 29, 1992

Send to: Atari ST User December Gremlin Competition, Database Direct, PO Box 2 Ellesmere Port, South Wirral L65 3EB.

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A blast from the past

In this new section we're going to take you down memory lane to the great monoliths of gameplay which we've looked at in years gone by.

We're bound to be biased because these are games which we really believe are strokes of genius by the programmers, but we will cover all types from strategy to platform.

If there are any games you especially want to look at we will check out your selection and pick those which we deem fit for review.

Elite

When Elite eventually graduated from the BBC to the Spectrum and the other 8-bit machines of the time, the magazines practically had an orgasm over it, with Your Sinclair dedicating almost a whole issue to it.

And rightly so – it remains one of the outstanding and unbeatable games of all time. The amount of depth in Elite is quite astounding.

Basically, it's a space trading game with lots of frills. You begin with a bog standard ship with bog standard weapons and bugger all money.

To work your way around the various planets you hyperspace between them and dock at the space stations. But don't think that you are going to be able to cover all the planets in a hurry.

There are 2,000 planets spread across eight galaxies, each with its own inhabitants, government, population, industrial structure – you get my drift, it's slightly immense.

You can work your way up by trading the various commodities or you can go out bounty hunting by flying without trading and killing the ships that attack you without provocation, but that's not advised until you have some better weapons.

The trading posts are situated in space stations a few miles above the planet surfaces, and you have to enter them through a door on one of the sides.

The ultimate goal is to reach the status of Elite which you do by killing things. Whether you do it legally or illegally is up to you, but it depends on how many things you kill and let me tell you it takes a fair few.

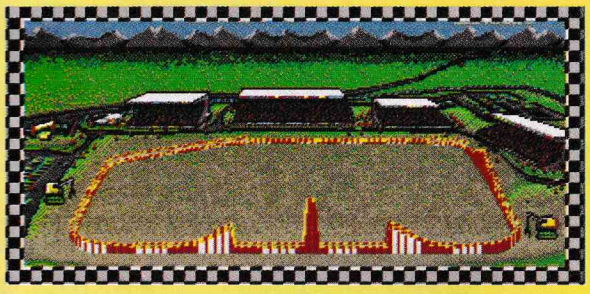
Do yourself a favour – go and play it for at least two solid days.

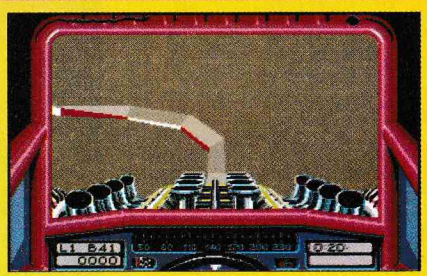
Stunt Car Racer

Yes it's the first of the racing car games to appear in Blast from the Past. But it is no ordinary racing game – it's one of the few interesting concepts for a car game in the last few years.

You race against an opponent on a track – nothing special there, granted – but the track is in relief to its surroundings so the bumps go way up (about 400 feet in some cases) in comparison to where the spectators would be.

To get to it you have to be air lifted and dropped onto the track by helicopter, so you can imagine what happens when you fly off the edge. Incorporated into this mad scenery are huge jumps and gaps in the track that you have to bridge using the speed.





At first stunt car racer is a very tricky game to play, but unlike other racing games that use the same controls and driving view, it has a handling technique that finally clicks and every thing seems easy

The fist few times I played it I loathed it because it was so tricky, but with some perseverance it came to me.

Another feature of the game which really does make it a scorcher is the lap link capability. It is possible to play the game by linking up two STs.

This enables you to race directly against your opponent but on a separate machine. If you're so unpopular you don't have a friend, you can race in a league against the computer-generated racers which, for a change, aren't all experts.

As far as I know, Stunt Car Racer is now out as a budget game. Forget Lotus – for thrills get SCR and stuff your mate off a 300 foot wall.

Ben

Adventure and strategy all rolled in to one, it's...

PALADIN II

Paladin 2 ▪ Impressions ▪ £25.99 ▪ ½meg ▪ Mouse ▪ Out Now

VISION
Best graphics seen in a Impressions game yet

AUDIO
Reasonable tune with a mere smattering of sound FX

PLAYABILITY
Icon system makes the game easy to play

ADDICTION
Not everyone's cup of tea, so you might lose interest

70%

Ah it's the Paladin, who will be remembered for his courage, skill and bravery. Also his total lack of personal hygiene.

Now don't get me wrong, but I'm not particularly fond of games which involve a lot of thinking. I'd much rather strap on my army boots and run around killing dictators and their frenzied followers or shooting wave upon wave of aliens from the planet Zog than play a strategy game.

Most Impressions games have picked out the short straw in today's market and are constantly being overshadowed by those huge film and TV licences made by companies with loads and loads of loot.

So there you have Impressions, a small company trying to bring the world of strategy to the general public and also beat the recession. Strategy is a bit of a touchy subject among most games players and gets ignored rather a lot.

Most of time when someone says "strategy" they think of a little old man who wears a anorak with a fluffy hood and NHS glasses, who also dribbles a lot while listening to Max Bygraves records and huddles around his computer day and night.

But, this is not so, more and more people are getting into strategy games, especially ones that incorporate an adventure theme. Coincidence time coming right up folks. What should happen to land on my desk this week but a copy of Paladin 2 by Impressions for moi to review, and by 'eck what a coincidence (told you) it's an adventure strategy epic.

In it you are the Paladin, a legendary hero as well as being a pretty funky knight to boot. It is your duty to seek out and destroy evil and protect the weak and innocent.

A Paladin has a bit of a busy life, because as well as fitting in the odd bout of bingo, you have to go through many adventures and face and fight many enemies. Even though you are a bit of hero, you still need help in completing your adventures, so you have many comrades, ranging from magical mages to swishing swordsmen to help in your quest.

The object is to advance your Paladin from a wet-nosed novice to a hardened veteran, achieving this by completing quests, of which there are 20 – plus a builder program which allows you to create more of your own.

The objectives of each quest are different. You might have to rescue some captives, obtain all the white scrolls or kill a certain number of enemies. And all within a specified time limit.

In each quest you control the Paladin and up to nine allies. Most of the latter are pretty much expendable, but if the Paladin is killed then it's time to start over again. As with most such games, Paladin 2 can be controlled entirely via the mouse by pointing and clicking on the appropriate icons.

This is quite a good little game – it certainly impressed me more than Impressions' previous efforts. For starters, the grap are very good indeed especially the s screens. But the best thing it has going f is that it is so easy to play.

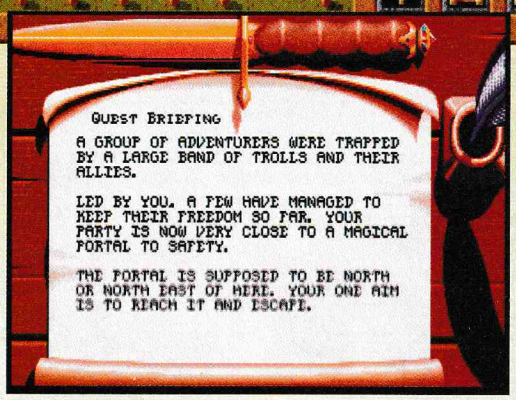
This sort of thing is becoming more more popular, yet will probably not appea a lot of people simply because they go for big licensed games that get hyped up bey belief. Which is a bit of shame, because adin 2 is fun to play even if it's not exa going to set the games world alight.

One last thought: Whatever happene Paladin 1?

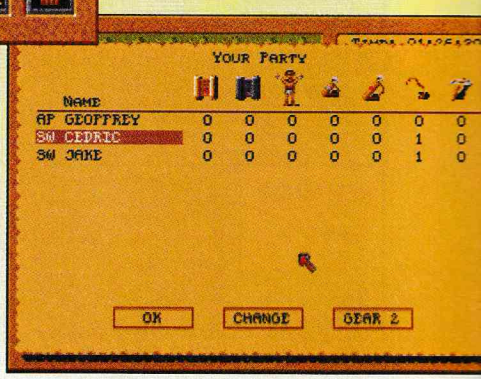
Jonath

Just what every adventure/strategy game needs, a decent map thingy

Oh no, death rears it's ugly head once again...Hoorah!



Here's the quest briefing screen – and doesn't it look pretty!



A statistic screen...with not that many statistics on it. Never mind it's not that bad

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Frontier – Elite II

Any ST owners who have never heard of Elite must inhabit a desert island. It was, when it came out in the early eighties, the most revolutionary game of its kind. It made everything else look silly and inadequate – we haven't had such an explosion since.

Not a bad bit of work really from two programmers who were a bit bored and needed something to amuse themselves with while they were reading at university. A touch of the "those pesky kids" syndrome, I think.

Now eight years after its release the sequel is on the verge of release, and is set to make its predecessor look as paltry as the original Elite made other games appear.

The first Elite was in all honesty relatively basic, but because it was so well designed it was something you could really lose yourself in. It allowed you to be virtualy anything you wished – hundreds of games in one. You could be a trader, a pirate, an outlaw, and people treated you according to how you acted. Basic it was, but how well it worked.

Frontier – Elite II is not going to be basic, far from it. On Elite you always docked at space stations, never on the planet – if you ventured near the planet you were toast, simple as that.

But Frontier allows you to fly down to the surface, where you can visit cities and fly through the scenery between them. Once in the cities you can communicate with the people who live there. This is the sort of depth of programming that gives me a headache.

There are reputed to be about 100,000,000 planets in Elite II, and if that isn't mind bending then nothing is.

The two superpowers in the game – the Federation, which is based on Earth, and the Empire – are not on the best of terms, and you may occasionally have to switch your politics to save you skin!

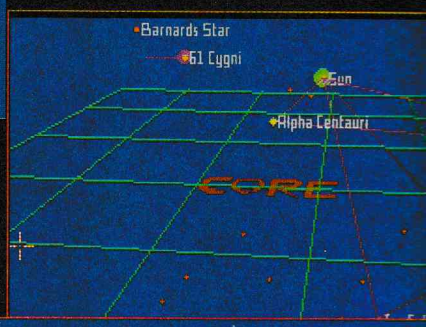
The programmers promise that Frontier will let you do everything that the original novel (The Dark Wheel) said you could. With more than 100 astronomically-correct star systems including Earth and the solar system, coupled with the massive 20 mile long space dreadnoughts I think that's a fair assumption.

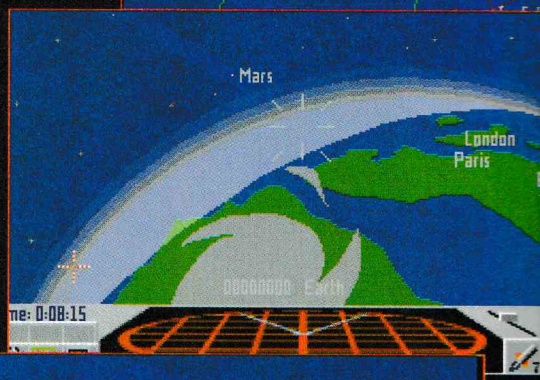
The trading aspect has taken a back seat in the new version. It is still there, so you can buy and sell things to boost your ship's equipment , but this time the action is concentrated on the mission – few and far between in the original version.

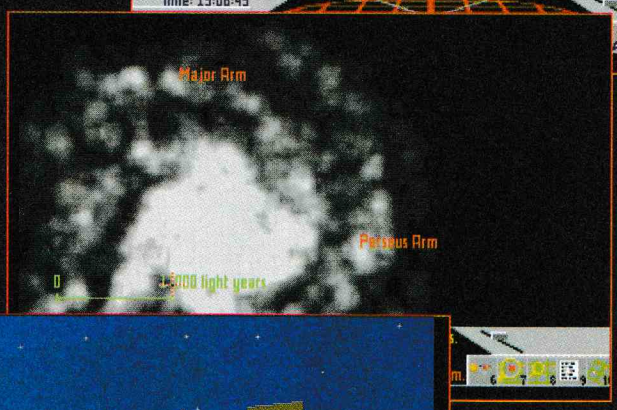
A sort of bulletin board offers various jobs varying from taking passengers across the galaxy to escorting granny across the road. And if like me you traded in drugs in the original because you made loads of money dead quick, you can still haul contraband – but be prepared to take the consequences. You can also join the army as a mercenary and bump off anybody committing offences.

The old hyperspace drive is still in operation but there is a new relative time feature. The time scale works in a similar way to the game Dark Seed on the PC – if your character remains relatively inactive and isn't interacting with any of the other characters time will run very fast. If you are engaged in whatever you'll be in real time.

Hopefully we will be reviewing Elite II in our next issue. But we've waited eight years, so what's a few more months?







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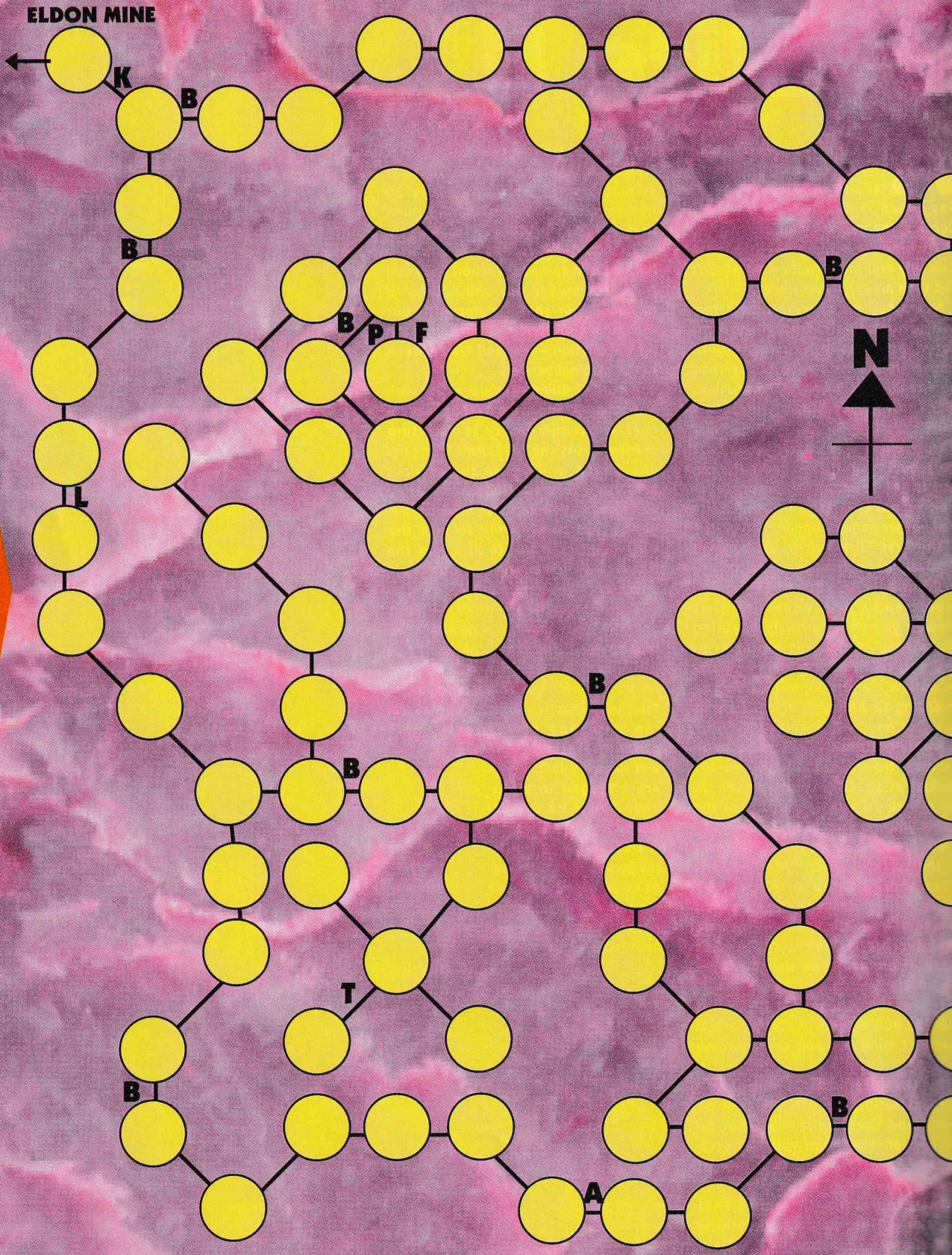

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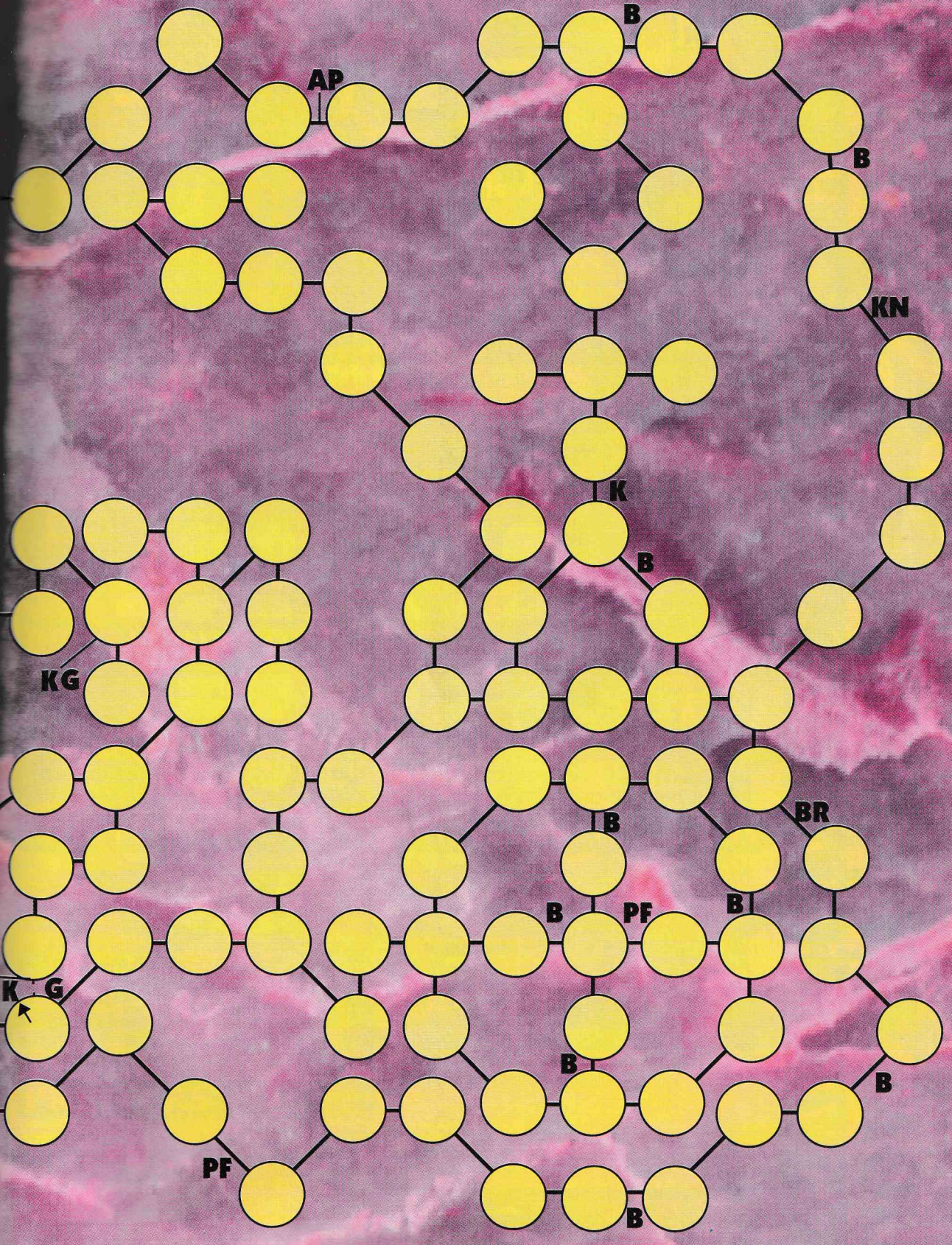

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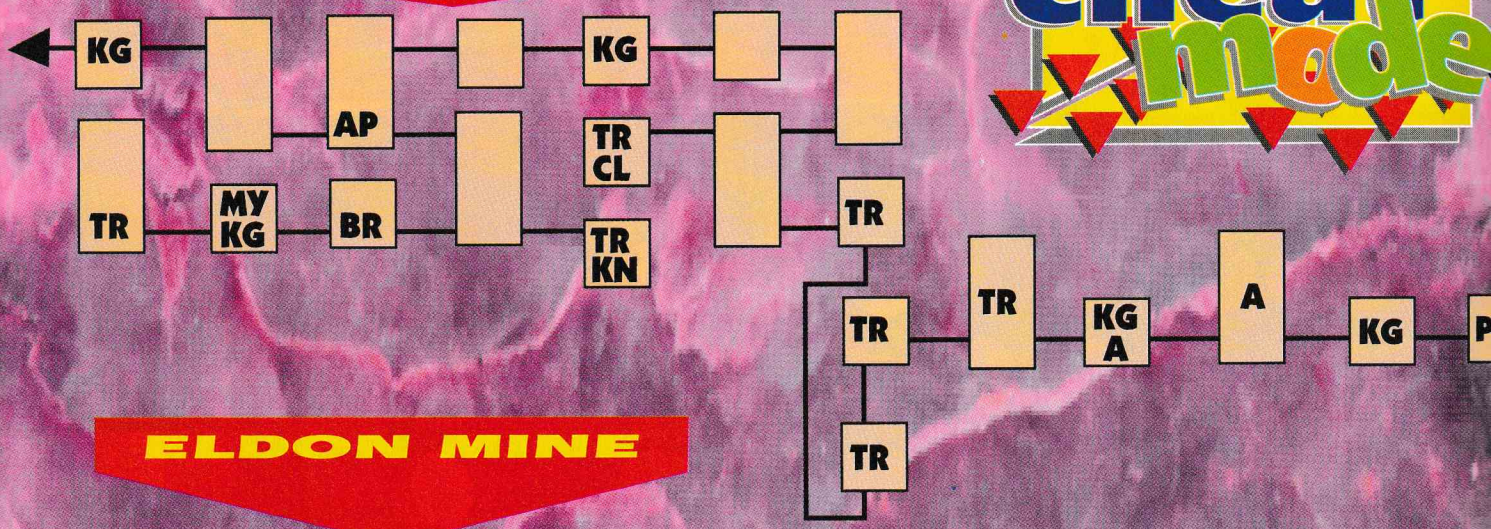
AH.....ALCOHO
AP.....APPL
AR .....ARCHE
B .....BEAS
BR .....BREA
BU .....BULLIO
C .....COI
CH .....CHERR
CL .....CHALIC
D.....DO
F .....FIREBRAN
FL .....FLAS
G .....GE
K .....KE
KG .....KNIGH
KN .....KNIF
L .....LAM
M.....MA
MY .....MYSTI
P.....POTIO
PF .....POWDER OF FIR
PG.....PAG
R .....ROL
RI.....RIN
RO .....ROP
S .....SCROL
T.....TALISMA
TR .....TRA

cheat mode

DRAKENHURST CASTLE



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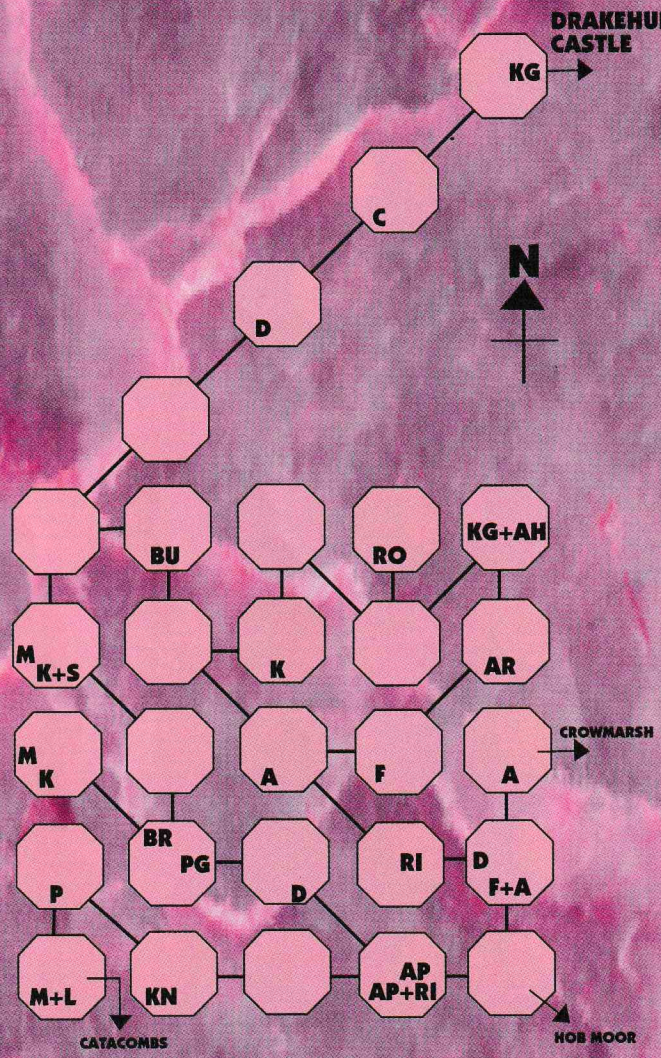

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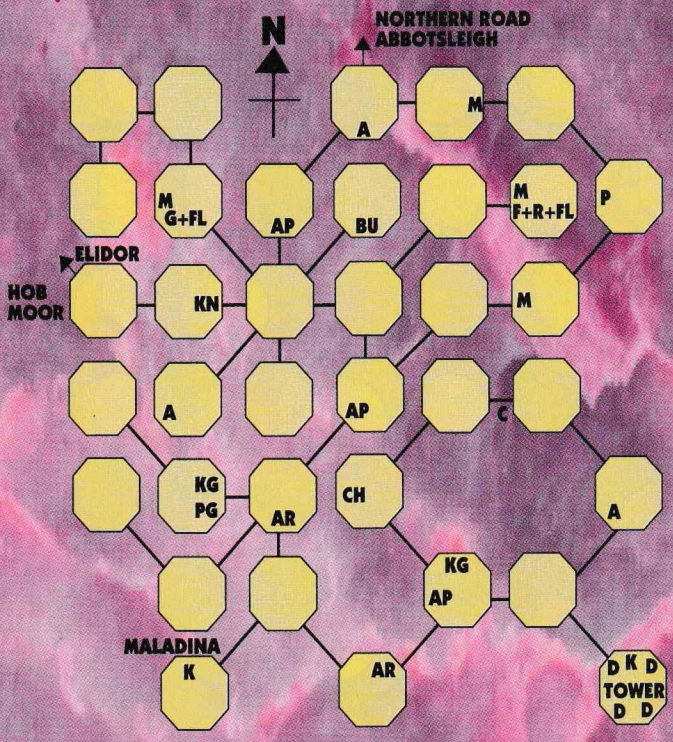

Key

A	ARROWS
AH	ALCOHOL
AP	APPLE
AR	ARCHER
B	BEAST
BR	BREAD
BU	BULLION
C	COIN
CH	CHERRY
CL	CHALICE
D	DOG
F	FIREBRAND
FL	FLASK
G	GEM
K	KEY
KG	KNIGHT
KN	KNIFE
L	LAMP
M	MAN
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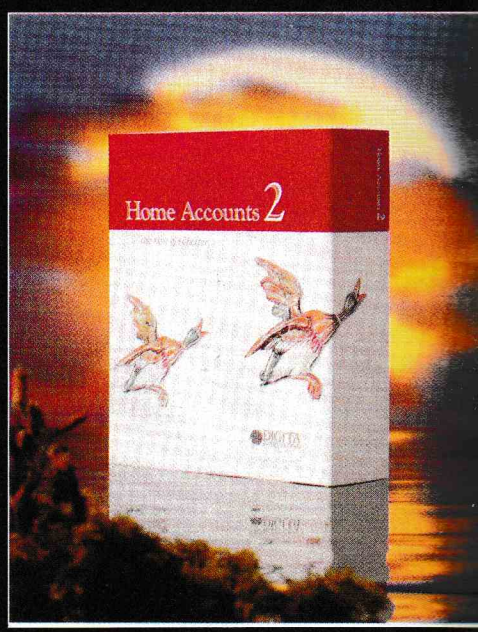

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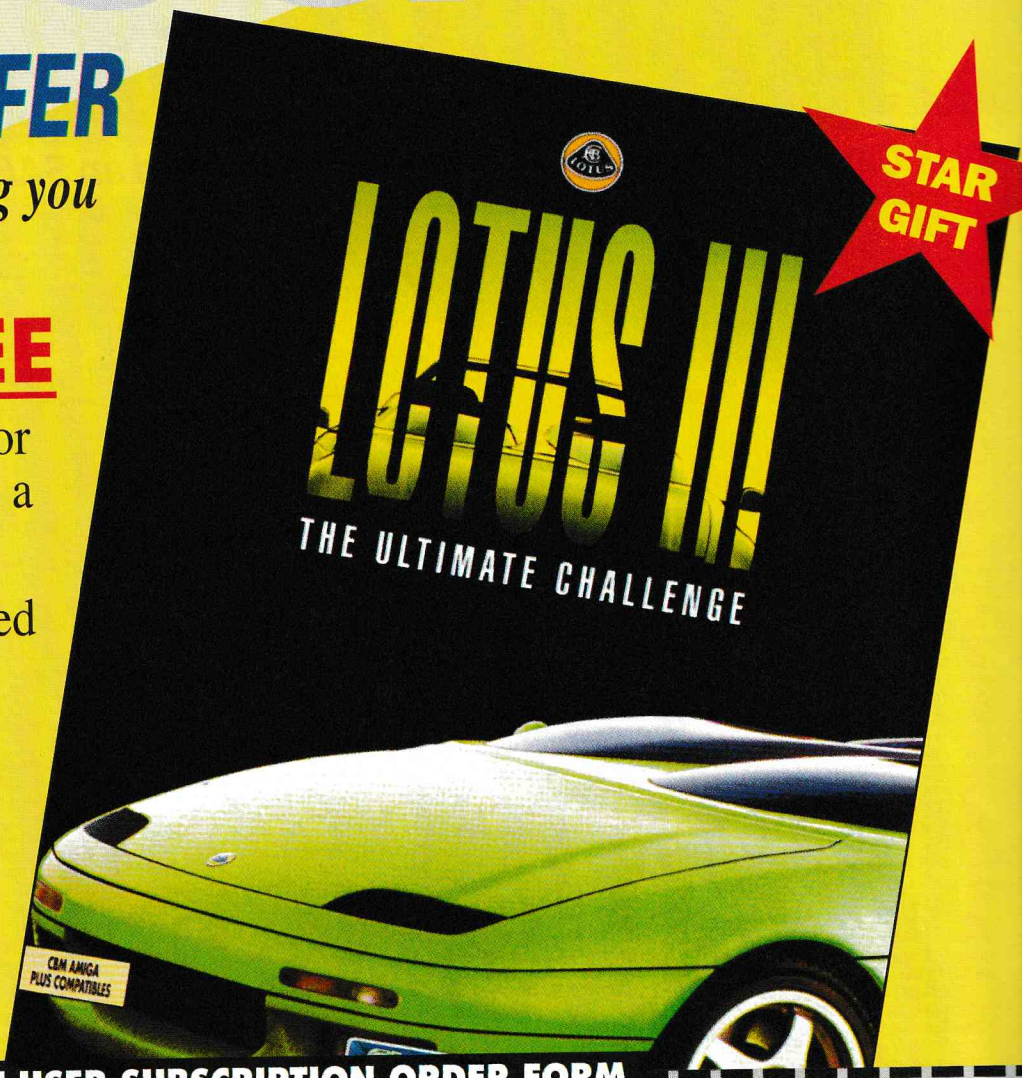

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384 On this disk is a prog called LABEL EXPERT good label maker. Preset formats for floppy disks, video, & cassette tapes. *M*.
843 AUTOGEM autoboots any Gem program when booting. XFORMAT2 extended formatter & VC Spreadsheet.
745 STAR LC-10 UTILITIES. PRINTER config utils for 1st WORD & 1st WORD PLUS. TRANSPORT 90 download alternative character sets. STARACC.ACC control the usual functions of the Star LC-10 multi-font printer.
746 SUPER VKILLER detects 5 different viruses,recognises 7 anti-viruses & 133 other types of boot sector.
573 Files to assist in graphic print-outs for 24 pin Dot Matrix printers.
572 GEM PLUS. This is a great variant of Neodesk.
749 RECOVER is a file recovery utility.
438 REAL TIME MULTI-TASKING OPERATING SYSTEM. *D*
439 GEMDOS USERS GUIDE.
572 GEM PLUS. This is a great variant of Neodesk. Alter desktop icons, design your own, and do the same with progs.
381 dbMAN tutorial. Visicalc style spreadsheet. Disk formatter. Multi-purpose file print util. Mramdisk. acc. +
882 CHK 2.3 - Disk checker. Desktop Manager v2.1. IBM MODIFIER alters DS Atari disks so that an IBM can read them.+
885 PROMOUSE self-adjusting mouse accelerator. RATTRAP locks out menus. TURBODOS. MAXIDISK reset proof Ramdisk.
333 Printer drivers for use in progs such as 1ST Word, Degas & Gemfont.
444 XCONTROL: ATARI's latest TT control panel accessory for all STs.
448 CYPHER: Encodes pics so that they cannot be loaded into normal art packages. LITTLE GREEN SELECTOR.
454 MEMFILE 2.0: Memory & powerful disk editor.
457 HD SCAN 1.6: Comprehensive shareware hard drive manager.
481 STDCAT V4.0. disk catalogger
623 SUPERBOOT V7.0

GRAPHIC, FONT AND ART/DRAWING DISKS

323 Great digitised pictures. 5 from Raiders of the Lost Arc & 12 from Ghostbusters.
375 FONTEDIT v3.0, Editor & loaders for Ram & downloaded fonts. not STE.
577 PALART. art program with full docs.*C*
390 E-PLAN CAD, stock list facility.*M*
391 COLUMBIA, drawing prog part 3D. Studio (*X*) menu driven drawing package. Both German.
397 DOODLE, art package, Mono & Colour versions.
578 ST GRAPH. comprehensive graph program
376 FONTS2, Screen & desktop fonts. Columbia, Devoll, Hudson, Saturn, Spokane,. Thames & Universal Roman.
876 DELUXE FONTMASTER v2.0 *MD*
757 CANVAS, a great art package, fully supports STE.
879 PALETTE MASTER, art package, great features, up to 512 colours.*C*
388 Pics, Mona Lisa, Moon, ST keyboard, Planet, Yoohoo, Saturn & others.
803 Amiga & Macpaint pic files plus PICSWITCH which can read Neo, Degas, etc.
808 FRACKTAL is a fractal drawing program from Germany. Fractal landscape prog.
850 FONTKIT 3.31 An excellent font program. * D *
880 COLOURBURST 3000 v0.2, add different colours to pictures from other packages.*CX*
888 ANI-ST, HIGHLY PROFESSIONAL quality animation system.
396 MASTERPAINT, drawing package, Mon & Col. LITTLE PAINTER.
394 PICWORKS, utility for enlarging, reformatting & manipulating pics.*M*
809 AIM v3.21, An image processing package.*DX*
540 PUBLIC PAINTER An excellent German art package.*M*
820 SNOOPY, 25 cartoons with display prog.*C*
577 PALART. Excellent art program with full docs on disk. Excellent features. *C*
556 VAN GOUGH(Dutch)& STUDIO2(*X*), art packages.*C*
401 LOW COST CAD 6.20. PD demo version.
442 ST CAD v2.1, med/high res CAD package.
393 THE ARTIST, drawing package*M*
469 JILCAD, a good shareware CAD package. Lots of features (2D)Add-ons available. *XD*
471 FONTS, Calamus PD fonts from USA. Advert, Babyteth, Barnum, Carolina, Casual, Celtic, Chancery Bold, Chancery + others *D*
785 MOVIE CONSTRUCTOR: animate objects & text. FACE ANIMATOR.*M*
775 FULL SCREEN CONSTRUCTION KIT V1.9.*DX*

CLIP ART

521 Various human figures, different cartoons, Titles & more.
522 Sports figures of high quality, July 4th logos.
523 Children's whimsical & elaborate fonts & Christmas card images.
524 Food images, Atari ST & Fuji logo etc. Disks, Computers, Robots & other Sci-Fi.
525 Faces & Eyes, concentrating upon expressions, Horses, Building plan symbols & some different Christmas images.
526 American trademarks from the 1920's & 1930's. Some very atmospheric images.
527 Various borders, tints etc. High arty & cartoons - Picasso to small fluffy animals.
732 IMGSHOW, IMGVIEW show progs.Various fruit, over 20 arrows & Access symbol.
733 Occasional Clips, Various Characters etc,
734 Loads more fruit, Vegetables.
735 Herbs & Kitchen parts.
736 More Arrows, Artdeco, Breakfast, cups/glasses & more kitchen parts.
738 Humorous clips plus the individual letters A-Z.
737 Babies, Boys & girls.
739 More Girls, Scrolls & Occasional clips.
740 More Artdeco, Baby Boy & Girl
741 More Varied Humorous clips.

WORDPROCESSING & DESKTOP PUBLISHING

727A-F TEX, 6 DISK PACK, Includes TEX the document processor & typesetting system.*DM*
835 1ST WORD Wordprocessor. Fully GEM based professional wordprocessor.
831 (SS)/841(DS) EASY TEXT v1.2 Fully working Desk Top Publishing demo.
482 ST WRITER ELITE,4.1. Latest version. additional utils on disk 363.
758 STPAGE is a super fast editor. It produces pure ASCII files for writing programs.
450 REVENGE V2.01: Super intelligent document displayer.
877 ST FOLDING EDITOR v0.9A Shareware 'folding' text editor which allows sections, sub-sections & paragraphs to be made invisible so the structure of the document can be clear.

GAMES DISKS

All games are in colour unless otherwise stated.

343 SHERLOCK, A cluedo game Sherlock. El Bozo City, Sci-Fi text adventure. Around The World In 80 Days, collect 17 souvenirs in order to succeed.* M *
317 Battleships, Checkers, Maze, Megaroids (Mono), Pool.
547 ADDICTION, card game patience, graphics *S*.
863 SLEUTH, A CLEUDO style whodunnit. LOCATION CRISSLEFRIDGE.
891 SUPERBREAKOUT, 40 brick types.*M*
894 DEEPLAIR, 2 player underwater shoot' em up.
554 NAPOLEON, conqueror Europe.*M*
352 Eamon is an Adventure game writing write your own games. Comes with 5 games.
856 CHESSNUT, is a 3D chess game. SPOOKS is a great PACMAN clone. BELLUM INTERNECINUM, Galaxian clone. *S*
781 MAKE A BREAK, A great Trivia game leaning heavily towards Snooker rules.
761 EMPIRE BUILDER property development, LOST TREASURE. JUMPSTER.
762 RUSH, move bricks to create a way out for the ball.*S*
763 BUMPER JACK superb platform game.*S*
764 YAHTZY. *S*
545 UPSTART shoot the cherries *S*.
765 COMPANION shoot'em up in outer space.
548 ENGLAND TEAM MANAGER. Football team management. MILEGAME.
566 DIE ALIEN BLOB, shoot the coloured balls & avoid the laser cannons.
344 Baller, arcade castle & cannons game graphic adv.*M*
309 ADVENTURE WRITING SYSTEM.
766 TUNNEL VISION, maze game. PATIENCE card game.
552 BERMUDA RACE 2.
562 INVASION. adventure set on a huge spaceship.
544 AYATOLLA, Defeat the terrorists.*S*
868 ROBOTZ, highly addictive & very playable game. 40 levels.
847 FRUIT MACHINE fruit machine simulator.
546 SLIDER, good quality puzzle game with 3 levels.*S*
507 SKULDUGGERY runs in Mono & Colour. 100 levels.
508 ATOMS is a mentally challenging game for 2-4 players. KILLERCHESS. AMMOTRACK race & blast'em game.*S*
565 SKIDPAN, motor racing game.*S*
529 STOCKMARKET, Wheel & deal. GALACTIC WARRIORS, a good shoot-'em-up.
346 ADVENTURE Colossal Cave type Adventure.
855 EXPLODE outwit an opponent on a Chessboard type layout. BALLZONE an Arcanoid clone. JITTERBUG, try & rescue aliens.
528 FLOYD THE DROID, an ultra fast shoot'em-up.
530 AIR WARRIOR, a Flight Simulator.
531 COMPUTER PINBALL. DEVASTATOR & a DARTS game.
576 TALESPIN. The wolf and the 7 kids.
513 FUZZBALL a great platform game
515 SHIPWRECK, educational maths with graphics. *S*
512 ZOG a great blasting game. SUPER SENSORI.
514 A DUDLEY DILEMMA, great adventure game. You guide a student at Harvard University in an attempt to get a Diploma.
518 Cribbage, Othello, Yahatzee, Wheel of Fortune
519 WIZZARD'S LAIR complete text & graphic adventure.
780 UNDER BERKWOOD massive graphic adventure
782 NAVAL BATTLE A good version of the good old Battleships
705 HARRIS WENT SKING, *S*
783 CHESS,MONOPOLY, BACKGAMMON, LASER CHESS
709 CORE WARD, You have to write rival programs.
710 VIRUS, a game with great graphics and sound.*S*
403 FLYOVER, a bombing raid game.
404 GLOB, you collect cherry cakes while avoiding pursuers.
405 BOXING CHAMP,*S*
406 TRACKER, drive your tracker through enemy.
407 OVERLANDER fly in & destroy the enemy base.
408 CHANCE, destroy the Archons
409 ESCAPE FORM THE TOMB OF RA, collect jewels to prolong your life, find the secret passsages.
410 MUTANT, A reactor goes out of control. Workers mutate. You must get to the end cavern and destroy it.
411 KEY TO ATLANTIS, excellent scrolling shoot'em up.
412 GRAND PRIX, good fast racing game.*S*
413 MARS MAZE, good platform game.*S*
414 STEEL, blast everything in sight.
415 BATTLE COMMAND, Missile Command clone.
416 WHEEL OF FORTUNE, good quiz base on TV program.
417 HEDGEHOG, FROGGER clone.*S*
418 THE NAME GAME, based upon the Sun puzzle.
419 CHESS, a very good implementation.
421 COMPANY, business simulation.
422 MOTORBIKE, drive your bike around the track.
423 TARK, great text adventure. D & D type.
467 BATTLE FOR THE THRONE, a role playing adv.
449 LLAMATRON: A great Shareware game.
451 VIDEO POKER, Las Vegas poker playing machine.
452 DERRICK THE DROID: A great mix of platform, Shoot'em up & puzzle game.
772 PORK I: A parody of the Infocom adventure ZORK I.
784 PORK II: Another send up of the ZORK series.
773 MORIA: A fantasy role playing game.*D*
779 PICTURE CONCENTRATION: Children's recognitio matching game
788 ROLL 'N' NUDGE:fruit machine game.
789 DUNGEON!: Multi choice fantasy adventure with s humour.
778 C ADVENTURE TOOL KIT.
712 ASYLUM: Text adventure set in an asylum.
713 HACKMAN: 509 level Pacman clone.
714 ELVEN CRYSTALS II
716 FROGGY: Frogger arcade classic.
460 NETHACK THE ADVENTURE, text based adv.
461 STARMAZE: Guide your craft around the various levels.
896 A NIGHT ON THE TOWN text graphic adv.
897 TILE GAME, rearrange letters. *S*
899 SOKO, 50 levels. *S*
596 QUIZ CONSTRUCTION KIT. STOS TRACKER FILESP *D*
597 MEGAROIDS, RIPCORD, SPACEWARE, BUGS.
491 BATTLE SCAPE game
600 FRUSTRATION & CRISS CROSS; ZPOKER.*M*
601 BACKGAMMON & POKER SQUARED. *M*
605 OZONE arcade game
606 FLY ROBIN & SANTAS WORKSHOP
607 PENGUIN, shareware.
608 CROCODILES PASTIMES.
609 ARTHUR OF THE BRITTONS; Adv/ Arc game.
620 KOZMIC 2; *XD*
625 REVENGE OF THE MUTANT CAMELS.
628 MR DICE, KLATRIX
629 SPACE INVADERS
631 BLOCKADE
617 INFILTRATION, game
799 BOMB OUT BROTHERS, Compilation disk No.1. MOLE, great version of the Boulderdash, LASER R. defeat enemy laser cars in the arena.. ALIEN BLOCK based upon the arcade game QIX.
563 DARKNESS IS FOREVER, adventure full graphics in Mo text only in Colour.
354 Diamond Miner is a multi-screen game with a built in editor. Snafu & a card game called Skat.* M *
402 JITTERBUG,The ship contains rare alien lifeforms whic have to catch.
326 Arcade games including Warzone, Daleks, Haunted Ho Mousemess.
547 ADDICTION, a great version of the card game patience, graphics (not STE).
329 Checkers, The Original Adventure, Pool & a fun Chess ga M *
891 SUPERBREAKOUT, There are over 40 brick types all special features.*M*
351 HACK 1, a Dungeons & Dragons text adventure with gr maps.
511 SCANNER a checkers game, SPACEWAR, 2 space ships it out
707 CENTAURI, a Horizontal scrolling shoot 'em up.
786 SIMPLE DRAW V3.4: A great art package that wo medium & high Res. Degas compatible samples incl (Docs foreign)
787 HYPERTEXT: Shareware prog suitable for the producti very professional documents. Simular to a DTP but flexible, pics & text easily mixed on screen *MD*
458 TETRIS:Classic 2D tumbling blocks game that's highly tive(MONO). PUZZLEMANIA: Multi level mayhem, addictive puzzle game wher you have to plan you around the maze, turn on the generator and tra droids.(COL)

PROGRAMMING/LANGUAGE DISKS

574 6800 ASSEMBLER.
702 STOS SOUND FX CREATOR.
325 XLISP v1.7, Experimental object orientated language. In masses of docs.
828 STOS RUN, is a utility that enables you to run STOS pro without STOS.
312, 313 & 314, C LANGUAGE DISKS 1, 2 & 3 of Elementar disks.
305 CPM EMULATOR, This is a CPM-8 version 2.0.
306 CPM UTILITIES, for 305.
334 C COMPILER, boot up utility, ram disk, & CLI.
813 PROGRAMMING EDITORS, CONTEXT v2, PRO-ED EDIT.
839 Nigel Smith's ST 68000 Ref. pop up guide v2.0
887 SOZOBON C, the best PD C compiler with full compiler support.*D*
759 Sprite designer & editor.
440 C TUTORIAL, superb disk manual that provides an ex intro into C programming.
474 GNU GDB, capable source level debugger. SZ ADB, deb for SOZOBON C.*D*
475 MKRSC, GEM resource construction utility.
476 MODPAS, Pascal Compiler with CLI.*D*
711 6800 M/C course by Mark Van Der Boer.

Introducing Atari ST Machine Code – Book & Disk £20.00 (+ 2 free PD)
Easy Text Plus (Full Version) £18.50.
Easy Text Professional – in stock! Plus 5 free PD disks of your choice £39.95

OMMUNICATIONS DISKS

4 PACK-ET-TERM v3.3A, radio package. YARP split screen RTTY terminal prog.
6 XMODEM, MODEM 7, a multiple file transfer utility, transfer a whole disk in one go. Plenty of docs.
6 UNITERM v2.0a, docs inc. Superb comms package. Tektogem transformer prog
2 VANTERM 3.71 & 3.8 PD Communications package. FLYING START, standard RS232 comms pack.
6 HagTerm Elite V3.3

APPLICATIONS SPREADSHEETS, DATABASES ETC.

6 DATABASE 1, GEM driven database.
7 ST SHEET spreadsheet *C*
0 HOME ACCOUNTS v1.0 Pullin. 43 different statements in memory. 100 entries per statement *C* NOT STE.
5 PERSONAL DTB is a database for storing your names & addresses & creating labels or personalise mail shots.
3 B/STAT v2.01, graphing & statistical analysis program.*DX*
4 OPUS v2.2, GEM based spreadsheet & charting program.*DX*
3 WG DATA, no frills high quality database.
7 DOUBLE SENTRY, fully working accounts package, no VAT.
1 INVENTORY PRO V2.0 is a fully featured stock control system.
2 TCOS a great database that allows data to be structured in a tree arrangement.
3 ZAPCARD, card type database. BANKER, keep track of your bank account.
4 SHEET V2, fully featured spreadsheet.
5 NAMENET:An excellent database, Med & High res.

MUSIC

5 COMPOSER, A music creation program.
0 CZ SOUNDS, transfer data from CZ101 to ST midi.
0 MUSIC WRITER, create music on screen.
21A-B -SOUNDTRACKER PLAYER & MODULES. ZOWEE, TIMDEMO, SHORT, AUSIFOOT, GRILLED MUSIC1, MUSIC2, DELTA2, ECSTASY, HOWDEEP, BALLJAM, TOXOPLAS, IVORY, MADNESS, OPERATE.* 2 Disks ! !
0 Digital sound demo, Degas & Neo graphics. Quartet demo, 4 channel sequencer.*C*
0 SINGING CALIFORNIAN RAISONS 4 piece group of singing raisons *DX*.
6 CASIO CZ SOUNDS & EDITOR,2 synthesizer editors/librarian programs.
1 CHANNEL SCOPE, an early version of Midi Monitor. HIGH-TECH TRIVIA v1.2 +
3 XBIOS Music Construction Kit.
4 PERCUSSAMAN is a 4 track, 16 instrument, digitally synthesised sequencer.
0 SOUNDTRACKER PLAYER & MODULES. D_DREAD1, D_DREAD2, PAT_MIX, RVB_DEMO, SPREAD.
7 MICHAEL JACKSON BAD, digitised song & graphics.
8 TWB DIGI-SYNTH 4: 9 MOD files with player.Shadow Warriors Intro, Stress, Show, Alf, Biomix, Grandmix, Harleymix, Horney, Sanxion.*D*
8 MIDI v 2.0 Med/High res Midi monitor. EX800v2 DATA LIBRARIAN, Med/High res. TUNING 2 v2.
6 MIDI editors, AKAI XE8 & YAMAHA DX100.
7 Daybreak Step Time Sequencer v.3.
6 GHETTOBLASTER, a simple but enjoyable demo designer. LOW RES.
7 MFP, music design package from Yugoslavia. Comprehensive package in English *DX*

EDUCATIONAL

9 REBUS WRITER, This is a superb program, design & print Rebuses.
1 BARNYARD the animals from memory.*C*
5 WELCOME TO CHEMISTRY V2.8.*S*
4 CHUNNEL, A Fench to English game & vice-versa *SC*
9 TYPING TUTOR(2) A very good package, full documentation.
7 SPELLING MADE EASY, The computer speaks the word & you then type in the correct spelling.
8 MATHS MADE EASY, great prog with speech synthesis.
2 KIDGRAPH, painting prog. which lets children. KIDMUSIC, KIDPIANO, KIDPOTATO.*C*
9 KIDPUBLISHER, DTP for the young.
4 DOT2DOT, join the dots to make pics. Also create your own. KIDCOLOUR, introduces colours to young children. KIDSHAPE.
426 THE BODY SHOP, introduces the locations of all main bones & organs.
427 SOLAR SYSTEM GEOGRAPHY.
428 GEOGRAPHY TUTOR, a great shareware package. Covers Europe.
429 ZOO MAKER, you are asked questions & the computer tries to guess the animal.
430 ME FIRST, put pics in the correct order. BUTTERFLY IN THE PARK, find the hidden boxes in the park.

GENERAL

575 CONSTELLATIONS. A comprehensive Astronomers disk *M*
701 PLANETARIUM, statistics on various planets/moons.
802 THE PLANETS, slide show around the planets, plenty of pics, facts & figures.*D*
549 POOLS PREDICTION SYSTEM.
462 AUTOROUTE DEMO, covers just the south of England.
832 ST TOUR, guided tour of your ST.
833 YOUR SECOND ATARI MANUAL A 250 kbyte text file of the book.
776 ST TECHNICAL MANUAL: ATARI GEMDOS REFERENCE MANUAL, ENGINEERING HARDWARE SPECIFICATION OF THE ATARI ST, A HITCH-HIKERS GUIDE TO THE BIOS and PROFESSIONAL GEM.
437 BUSINESS LETTERS, 100 business style letters in ASCII code.
717 ASSISTANT CHEF 1: 42 great recipes.
478 ASTRO 22: a professional Astrology program.

DEMO's

586 LIFE'S A BITCH, demo by The Lost Boys *D*
587 STEVE'S COMP' DEMO NO.1 Bat Demo, Micromix II, Fuji Bonk.*D*
588 STEVE'S COMP' DEMO NO.2 Megabang, Robomix, & Magiceye.*D*
589 STEVE'S COMP' DEMO NO.3 Micromix, Stingray & Ballit.*D*
568 THE DEFINITIVE DEMO, by The Lost Boys.*D*
569 SLATATANIC CULT, Music Bemo I & Music Demo II*D*
591 ASTERIX DEMO, digital sound & pics.
593 TRANSYLVANIA DEMO by The Lost Boys *D*
542 REFLEX DEMO, THE OPPOSITION *D*
542 REFLEX DEMO, THE OPPOSITION *D*
599 COUNTERPOINT DEMO
479 CUDDLY DEMOS *D* Not STE
488 POV23, TCB Sound tracker, Micromix 3, TLT & Yello demos.

NEW ADDITIONS

610 FASTBASE; great DTB
611 INTRO CREATOR, spectacular effects *D*
615 COMPACT OFFICE MANAGEMENT PROG comprehensive*D*
626 EDSYNTH V1.2.
627 MASTER DOODLE.
632 EZ ART, Low Res
633 DAYLIGHT ROBBERY
634 MAGASNAP,FASTRAM(ACC)
636 TENNIS.
639 MOUNTAIN, LSYSTEM.fractals
643 ACCOMPANIST 2.4.
644 ARTPRINT *M*
653 FCHECKER V3 & FLISTER AUTOLOADER.
658 ARCSHELL 2.05.
665 ARMOURLYTE game
666 JAMES desktop butler.
667 GRAV, rotate & thrust game.
674 TOP DOG, Greyhound form prediction system.
100 BLACK DAWN, Adventure with very nice graphics. Destroy the Lord Darn of the Narcollisis. *D*
101 FORMFINDER V2.1, loads of features, limited to 10 runners per race & no print option. RIP IT UP, over 30 questions to teach & test your knowledge on road signs & symbols. Both shareware.
102 MASTERTIME, Educational Shareware program to teach the time with Digital & Analogue clock options. The difficulty level is graduated.
103 RAMWORLD, 3D World & Object creator & viewer released as shareware.
104 COLLECT, vertical and horizontal scrolling game. Battle the robots & obstacles.
107 SHOWMEM V1.5, runs a .prg or .acc on all STs & TTs. A technical utility for utilising & minimising memory usage. N_SYSCOM1.1, use to see Gemdos, Bios, Xbios & Gem actions your computer is doing on screen. + much more.
110 HPCHROME, This program prints Degas & Neo pics in colour on HP Deskjet printers.
111 SLAYER. The game is not like a standard text adventure whatsoever. It has over 650 locations, no verb input and over 50 different endings. Docs on disk *X*
112 PLOTTING, full instructions on the disk. Comes with a construction option. Eliminate blocks by hitting them with the same marked block.
115 1st WORD .IMG FILES. 188 *.img files. A great selection. Something for everyone, courtesy of L. G. Robinson.
117 UTILITIES by A. Sutton, The Address book v1, address database with print options, search etc, load & edit printer drivers. BRAKCHCK, is a short bracket checking programming aid. DENCRYPT, disk encrypter for encrypting "personnel" files. .FORMATER, formatter with a fast load format option, simple but effective. SATTRIB, a short file attribute modifier which can be used to hide or protect files.
119 GAMEPACK 2 from Erictronics, AWARI, Ancient African game played with 14 bowls & 36 beads. NIBBLERS, Eat away at the biscuit, the person who eats the last piece is the loser. QUEEN (*S*) Based on the moves of the Queen in chess, player verses computer. SOLITAIRE, simple variant. TRAFFIC JAM, Control London's traffic lights.
140 BLAT, great 3 in a row falling block game (STE only).
141 MYSTIC WELL, Dungeonmaster type adv.
142 MINDLOCK, Trivia quiz game, various subjects STE only. *X*
143 ANARCHY ACADEMY, great 3D shareware game.
144 T-GAME, good falling block Tetris type game.
145 GRANDAD & THE QUEST FOR THE HOLEY VEST, the ultimate adventure? *DX*
159 VIOLENCE!, vertical scrolling shoot 'em up in the Xenon mould.
160 CYBERSNAKE, variant of the classic 'snake game'.
161 UNKULJAN UNDERWORLD, large fantasy text adventure. *X*
162 PABLO & THE GLOD OF MONTEZUMA, Fast action boulderdash type game.
163 NUTHOUSE, Massive demo with 18 minutes of digital music. *D*
164 SO WHAT, 17 great demo's from the Care Bears.
165 OVERDRIVE, Plasma fractals etc, demo by Aggression.
166 ALCHEMIE JR, Great Swiss multi-window/multi-task sequencer. *X*
167 SAGROTAN, great virus killer. *X*
168 CRACK ART, Excellent German art package. *D*
169 STAC, The ST Adventure Creator, now PD.
170 JC MEGA MENU, Menu creator with smart fonts, music, program selector etc.
171 JIGGERS, a strategy game of coloured squares to make you think hard.
109 THE BRADNESS CROSSWORD GENERATOR V2.3, find word matches in part-completed crosswords or design crosswords. (Shareware).
123 ACCOUNTABILITY V1.0, general purpose fully featured, multi-financial accounts program. *D*
124 ATOMIX, complete shareware game. The aim of the game is to place atoms of varying energies on a 7 * 7 grid.
126 ART TUTOR. A step by step on screen guide to what is needed to become an artist. *CD*
129 THE FINANCIER v1.1s, keep track of your finances, all your credit cards & bank accounts etc. Has a powerful search capability. Shareware.
130 GODEL, an intelligent maths program, Shareware. It can manipulate arithmetic & algebraic expressions etc.
132 RIFF, "The Ultimate Backing Track Creator." Create your own backing tracks. Various parameters can be selected & set with full midi support, with documentation on disk. *DM*
133 OOH CRICKEY WHAT A SCORCHER, demo by The Lost Boys. *D*
134 *.MOD files including player. BLUESONG, EG, HARR, KEFRENSO, MAGNUM, NONAME, REV, WILD_INT & WOTRACK. *D*
180 COMBAT, You parachute into open desert and must shoot down the enemy missiles. (Shareware).
181 PLAN, a critical path analysis tool for planning projects.
185 TURBO 407, fast reset proof Ram disk & Printer buffer. RESOURCE TO C CONVERTER. *.ACC LOADER & REMINDER, + more.
186 NAMENET v2.0, a personal DTB designed for ease of use & the minimum of setting up by the end user. Shareware. *D*
189 THE MYSTERIOUS REALM, complete shareware adventure game, featuring full colour graphics.
190 D_REZ, is an Asteroids type game brought up to date with good sound & graphics. Shareware.
191 UNTOUCHABLES SOURCE DISK, No. 1 demo disk. *D*
192 SIMPIG, Manage a pig farm & grow a big healthy stock.
1002 ALBASE V1.00, A good database with help, a screen designer and good other features. Plenty of docs on disk.
1007 SPIDER SPELL, spelling program for kids. Based upon hangman.
1008 TURRETS, Thrust clone. Destroy the enemy while manoeuvering your spacecraft from level to level.
1009 PURE LOGIC V1.1 a logic puzzle game based upon Boolean Algebra. It's a fun & educational program.
1013 NEWGEN V4.14, Shareware geneology package with an 18 entry limit. An unlimited version is available from the author.
1015 MONTALITI, a game for 2-4 players where you must match a category & letter to determine how many moves you make. + others.
1017 CHAIN REACTION, is a game of strategy & luck. Shareware.
1019 HARDCORE DANCEFLOOR, demo by the Wild Boys. *DX*
1020 FANTASIA, an interactive demo. STE only. *DX*
1021 QUIZ CONSTRUCTION KIT, design & participate in multiple choice quizzes. Shareware.
1027 KAOSDESK 2.01, great new icons & an option to design your own with this alternative desktop.
1033 TESERAE, A colour Tetris clone.
1037 DRACHEN, a 2500 year old game from China. 144 pieces on the playing board. The aim of the game is to remove all the pieces. Highly addictive. *M*
1038 STDCAT V5.0B. Comprehensive disk cataloguer. Shareware.
1039 BLOX 2.0, brilliant & addictive game.
1040 SUPERCARD V2.43, versatile & card-based database. Shareware.
1042 INTERNATIONAL CRICKET, a great complete Shareware cricket simulation. *D*

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HEAVY METAL HEROES	HOLLYWOOD POKER
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EAGLES NEST	SKRULL THE BARBARIAN
CAPTAIN BLOOD	
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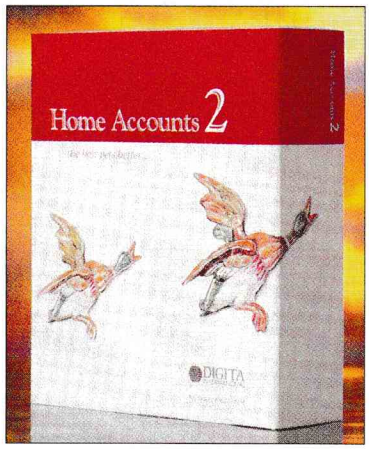

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Aspects of the ST

Six pages devoted to your favourite applications on the ST

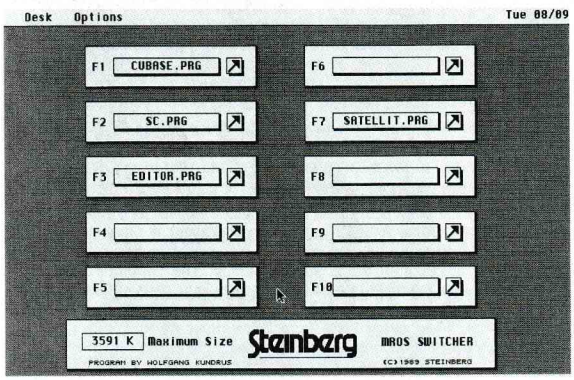
Composing a program

Symbolic Composer is one of the most interesting music concepts I've seen for a long time. Regular readers will be aware of my interest in music composition programs. Symbolic Composer is a music composition language.

It could be described as an expert system for music production and it's based on the granddaddy of all AI (Artificial Intelligence) languages, Lisp.

It differs dramatically from other music composition programs such as M, Ludwig, Realtime, Tango and so on as it is infinitely more flexible.

You compose with symbols rather than notes and there is a library of functions you can apply to these symbols including generators, processors, converters, mappers, neural experts and librarians.



Symbolic Composer running with Steinberg's Switcher

You then use definers to build instruments which are scored on a timesheet and compiled to standard Midi file.

Midi-compatible

The music is written as text and must be compiled and loaded into a Midi file-compatible sequencer. It will run quite happily within Dr T's MPE in KCS and with Steinberg's Switcher program.

The text format means it is easy to edit and programs can be transferred to other symbolic composers running on other computers (it's already on the Mac and is currently being ported to the PC).

Symbolic Composer costs £250 and requires an ST with 4Mb of RAM. As well as the dosh and the memory, you need some patience, too, as it is a fully-fledged language.

However, the basic rules of syntax are about as easy to learn as the rules of chess (it says here).

Academics will love Symbolic Composer but it can be used to create more mainstream output, too. There are two files on the CoverDisk this month which show just two of the types of music the program is capable of generating.

They are in Midi file format 0 (one homogenous track) and should load into any sequencer which supports standard Midi files (although Roland's Tentrax sequencer, will only load type 1 files).

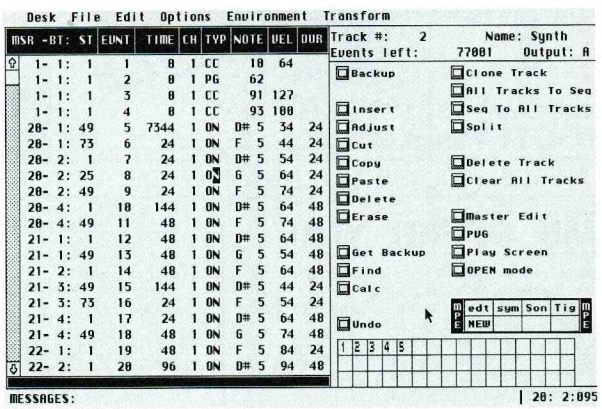
If your sequencer has a de-mix function you can split the track into their respective Midi channels. The files are configured for use with a GM (General Midi) instrument. Fiborock.Mid produces a surprisingly band-like funk/fusion performance.

If you don't have a GM instrument, set Midi channel 1 to a synth sound, 2 to a bass, three to a guitar and 10 to drums. It uses the GS/Roland drum map.

Channels

FRACTAL.MID was produced by one of the program's Fractal Generators. The music is on channels 2 and 3 – select sounds to suit!

For the more dedicated and adventurous composer and for anyone who just can't get what they want out of a sequencer, Symbolic Composer is worth investigating. Get in touch with IMPAC Consultants, 8 Park Avenue, Denby Dale Road, Wakefield WF2 8DS. Tel: 0924 383017.



Symbolic Composer running within Dr T's MPE

Ian Waugh with the latest from the music world, starting with a new music composition language

Improving Improvise

Improviser was reviewed in column in May and has si undergone a couple updates. The program is on the few which can produ seemingly human-like mu output in, as its name sugge an improvisational vein.

The current version is and modifications have b made based on feedback f users.

The program now recogn 240 different chord shapes the next update prom extended chord recognit The Save Improvisation func now also saves chord symb as text in an extra track wh you can see in y sequencer's editor.

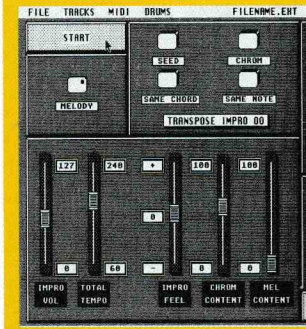
Progression

This is very useful for follow the harmonic progress should you want to do e work on the file.

Sometimes the program c not analyse a sequence notes exactly in which ca will now do a best guess put a "?" after the chord na

Finally, the program produ an alert box before exiting program so you can't quit a dentally. Essential!

If experimentation's your and improvisation's your go it's well worth looking Improviser is £99.50. More Creative Sounds, PO Box Bristol BS99 5AU. Tel: 0 244395.



Improviser's Main screen

A real Gem

n't it strange how certain types of oducts inspire user groups? There re precious few in the music world o it's nice to hear about new oups.

The GemWorkS Europe user oup isn't brand new. It's been ong long enough to establish self and create a good track ecord. It was set up by Dave illiams to support the GEM orkstation series of instruments nd the new S2 and S3 Music ocessor Synthesisers.

Membership is £20 a year which ncludes a free copy of the WS ostyles 3 disk.

You can buy dozens of support isks at nominal prices – typically 4.29 – and you have access o a telephone helpline run y Dave most evenings from pm to 9.30pm – there's dedica-on!

You also receive the GemWorkS agazine six times a year which is ll of tips and info.

If you have a GEM instrument, 's well worth joining. More from ave Williams, 46 Hampton Close, erne Bay CT6 8BZ. Tel: 0227 42790.

Music Update – December

● Feeling Partner, which was reviewed in our May issue and updated in our September issue, has received yet another update, this time to Version 2.

Also, Heavenly Music, who are no strangers to these pages, is writing libraries for the program which will include drums, models and songs. There will be two libraries per disk which will cost £20.

● Lizard (£165), the Universal Editor Librarian now has a baby brother. Lizard Single (£35) is a dedicated Editor/Bank Manager for users with only one or two instruments. You can buy additional disks of drivers at £35 each which are the same as Lizard's. You can upgrade to the full version of Lizard for the difference in price – £130.

● MPI have taken on UK distribution of the French Rhythm 'n' Soft range of music software which includes educational and composition programs.

Big Boss is one of the major programs. It includes a score display and lets you select sounds by name rather than by program change number. Sounds good. More info soon.

● MPI are also to distribute a brand new synth module called the JMX-1 from French company Dream (Digital Research in Electronics and Acoustics Music).

The sounds are PCM-based, it's GM-compatible, 16-part multi-timbral, 32-note polyphonic and has an RS232 interface as well as Midi In, Out and Thru sockets. But the best news is the price – it has an RRP of £279! Should be worth looking out for. Again, more info when we have it. For details of any of these items contact Music Pro Import (UK) on 081-789 8641.

● Zone Distribution (071-738 5444), major distributors of Amiga music software, also handle ST software. They have a special offer on all six Heavenly Music rhythm disks – £74 instead of £82 – and are offering Improviser at £85 (instead of £99.50) and Feeling Partner v2 for £129.

What's more, if you get your order in before the end of November you could win a Kawai FunLab keyboard.

● There's lots of movement on the Midi file front. Midi Music UK are to distribute 700 Midi files from American-based Glitter Music bringing their catalogue to over 2,000 songs. More from Midi Music UK on 0602 633908.

● Protracks have come to an agreement with London Orchestrations to distribute their arrangements as Midi files.

London Orchestrations are responsible for most of the professional parts used by resident and cover bands throughout the country and their catalogue includes a wide range of material.

More from Protracks on 081-763 2225.

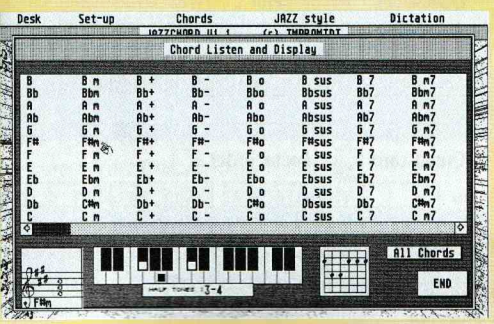
Jazzin' about

There's nothing more boring than learning the rudiments of music – scales, chords and that sort of thing. It's difficult to make the subject interesting although a degree of computer interaction can help.

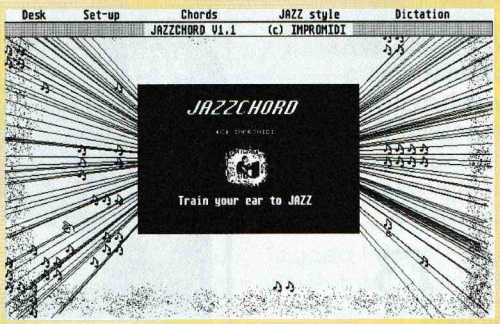
Enter JazzChord (review v1.1) which aims to teach you to play and recognise chords. In spite of its name it includes basic chords as well as m/M9+5 and other chords to make you hair and fingers curl.

The program will copy to a hard disk but you must insert the floppy when booting. It runs in mono or colour.

Chords play over Midi when selected. There are 51 types which can be shown in notation form and on a keyboard. Guitar fingering is also shown for the simpler chords.



JazzChord can show how to form a chord on a keyboard and the guitar



JazzChord Main screen

There are several options for explaining, playing and testing your knowledge of chords and their construction.

The Phrase window, for example, shows that in jazz, notes written as straight quavers are played with a triplet feel. Another window shows four sets of chord progressions used in the blues.

Scale Display plays a chord and the notes in the scale. The Construction window shows how simple triads and seventh chords and inversions are constructed.

There are a couple of games/tests, too. In one you play against a timer to select the notes which make up a chord. In another, the program plays a series of notes and you have to pick them out on a stave or play them on a Midi keyboard.

There's a similar test for chords and both tests let you select a difficulty level. Unless you have a very good ear you'll find this difficult. But in that case, this is the area in which you need practice!

The manual shows signs of having been translated from the French by a Frenchman (who hasn't quite mastered our idiosyncratic language) but the program is easy to use and you should have no problems.

The only minor gripe is that in the chord notation display, the key signature shows the number of accidentals in the chord rather than the key signature of the chord.

C minor, for example, shows two flats (the key of C minor has three flats) and the chord of C augmented shows three sharps (although there is no C augmented key, it is most likely to appear in the key of C which has no accidentals).

But in spite of that, JazzChord sure beats learning by rote and if you're struggling with chord formations it's worth checking out.

JazzChord costs £55. More from Music Pro Import (UK), 15 Gartmoor Gardens, Southfields, London SW19 6NX. Tel: 081-789 8641.

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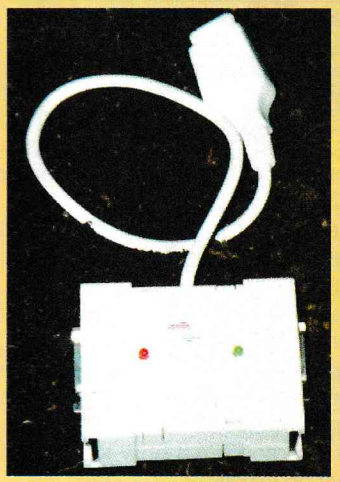

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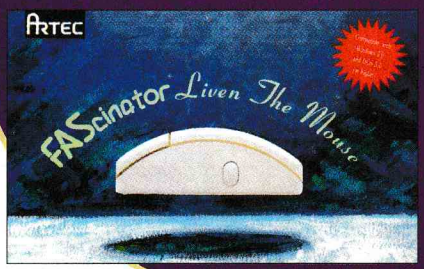

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Something for nothing

Günter Minnerup dips into the large bag of free Mac software, and opens Windows to Europe

At £300 plus, including the required Apple ROMs, the Spectre GCR Mac emulator is not exactly a casual buy. Few ST owners will be able to fork out further hundreds of pounds on top of that for much of the notoriously pricey Mac software – after all, if funds really were that plentiful, why not buy a real Mac in the first place?

Fortunately, there are loads of public domain and shareware programs from PD libraries or, if you own a modem, from bulletin boards and conference systems such as CiX.

So many, in fact, that it is quite possible to perform most common computing tasks with low-cost or free software and restrict the purchase of expensive commercial packages to the few specialist jobs that really cannot be tackled without.

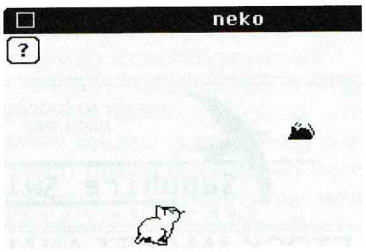
Frivolities

The public domain can also be a source of fun. Let's face it, we are not all incurable workaholics and there's nothing better than some enjoyable on-screen frivolities to take the strain out of hours of spreadsheeting or wordprocessing.

One such frivolity which I have recently downloaded from CiX is supposed to be for children, but I must admit that it has given me quite a lot of happily innocent entertainment in between more serious pursuits.

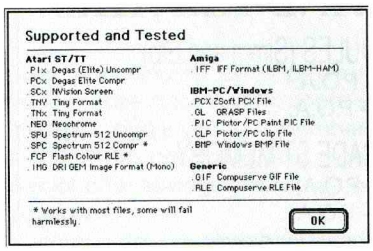
Neko, as this little desk accessory – and therefore always available from within other applications – is called, does little but open a window containing an animated kitten.

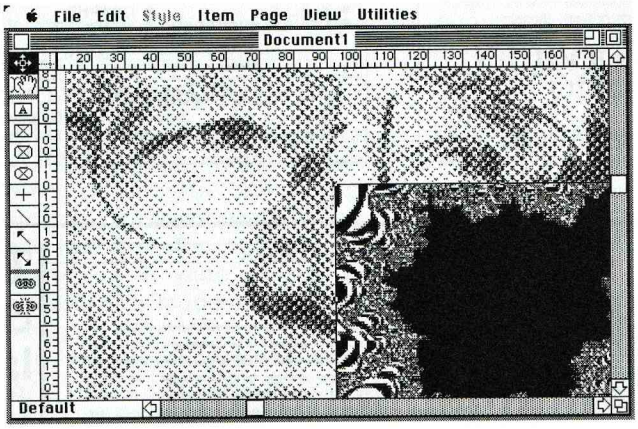
The fun starts when you move the cursor into the window – it turns into a mouse and is instantly chased around by the little feline. If it manages to catch it, it scratches its head, gets visibly bored and eventually falls to sleep until the cursor is moved again and the chase resumed. The speed of the game can be user-defined, and the cursor turned into a little fish or bird rather than a mouse – good, harmless fun indeed.



Playing cat and mouse with the cursor – Neko's animation is really fast and smooth

Clicking on the icons below the copyright message produces lists of fully tested, untested but – theoretically – supported, and unsupported graphics formats





A scanned image in IMG format and a Degas Mandelbrot set converted to TIFF and placed onto a Quark XPress page

A common, more serious requirement for ST owners using Mac emulators is to transfer Atari artwork into Apple software. The Transverter utility supplied with Spectre may make it relatively easy to move the files from one environment to the other, but Mac applications can make little sense of the common ST graphics formats, and few ST programs can write Mac-compatible files.

Enter Imagery, a nifty utility written by a Canadian defector from the Atari to the Apple camp. Extremely fast and simple, with a primitive – by Mac standards – but effective user interface, Imagery converts Degas, IMG and a host of other ST and PC pictures into the Tagged Image (TIFF) file format which has become the graphics standard for all major Apple software.

I found that it is important to tell Transverter to keep the linefeeds when copying the ST files to an Apple disk or partition, or Imagery will hang up when reading the data.

The file type is identified by the commonly used filename extenders (.IMG, .PI3 and so on), and all you really need to do is to use the file selectors to choose your input and output files – everything else is automatic.

Imagery is available from CiX and most good Mac PD libraries. It is not in the public domain, but may be freely distributed except for profit and the author expects satisfied users to make a donation to the RSPCA.

Given the stress I have inflicted on the poor little mouse in Neko recently, I feel a moral obligation to do so anyway!

Mac's trick

Following my recent series of tips on how to use foreign language characters under MS-DOS and the Mac operating system, some readers have asked me how they could access accented letters in Windows.

This can depend on the application, of course, but in general terms the problem is that Windows 3 does not use the standard PC character set but an alternative, 8-bit set known as the ANSI character set.

This offers a large variety of foreign letters and, using the Symbols font, special characters, but they are obtained from the keyboard by a rather cumbersome method.

Involved

To obtain the German a-umlaut, for example, you need to hold down the Alternate key while simultaneously pressing the 0 on the numeric keypad, and then, without releasing the Alternate key, type in the character value 228, also from the numeric keypad (this is important!) before releasing Alternate.

Try out any other character value between 161 and 255, in the Write accessory for example, for an impression of the full range of characters available.

This should work with all standard Windows fonts, at least as far as the appearance of foreign-language text on screen is concerned.

Whether or not you can print all these characters, of course, depends entirely on the printer driver and the capabilities of your printer hardware. Have fun with all the umlauts, cedillas and circumflexes!

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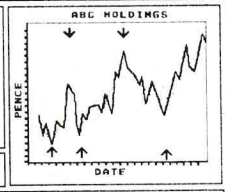

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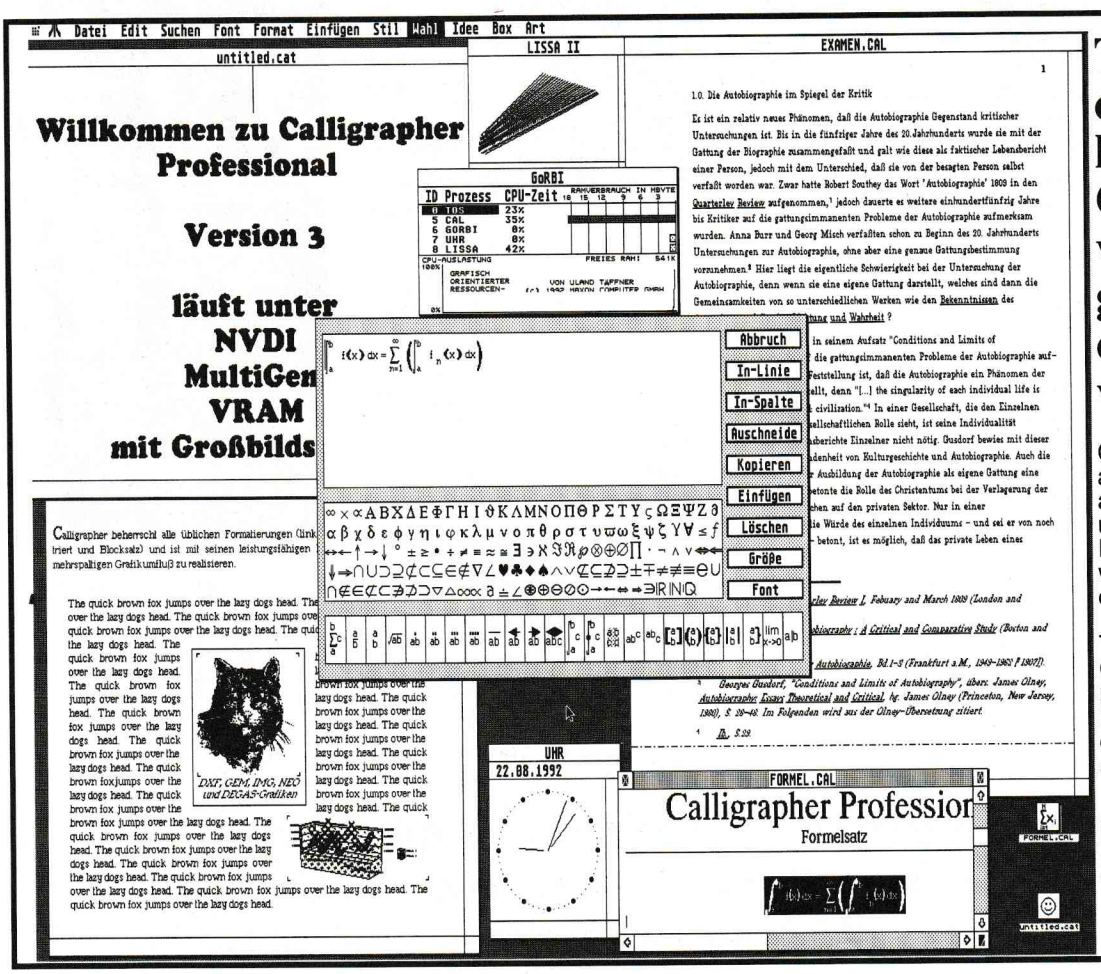


The message is clear in any language - Calligrapher version 3, a generation ahead of other wordprocessors.

Copies of Calligrapher registered after November 20th 1992 that are not version 3, will be upgraded automatically. Previously registered customers will receive details of upgrades directly.

The screen shot shows Calligrapher Gold version 3, running under MultiGem,with the interactive formulae editor displayed in the centre of the screen.

A brochure on both Calligrapher Professional and Calligrapher Gold is available from WorkingTitle, PO Box 4, Eynsham, Witney, Oxon, OX8 1UD. Tel 0865 88 35 92.

Supersonic modems

The modem market is in a state of turmoil at the moment. A few years ago, anyone with £300 burning a hole in their pocket could go out and buy the latest, state of the art V22 modem, offering a speed of 1,200 bits, or about 120 characters, per second.

I know, because I was one of those people, upgrading from my slow old 300 baud modem. Now, as technology continues to march inexorably forward, that same sum will pay for a V32bis modem, capable of a basic transfer speed of 14,400 bps – and which will very likely handle faxed documents as well!

Add this to the fact that the CCITT have authorised a new data compression system, V42bis – similar to but more efficient than the older MNP5 system – which can supposedly transfer data at up to four times the basic rate of the modem.

Such claims do rely heavily on optimised conditions, so in practice a three-fold increase is about all you can expect – but even that is a very significant improvement.

V42bis also clears up a minor problem which can occur with MNP5, related to transferring data which has already been compressed – for example, when sending an .ARC or .LZH archive file.

When using MNP5, the overhead of the system itself can result in the data transfer actually being slower than if you had sent the file with no compression at all. V42bis recognises this possibility, and will turn off its compression routines when there is no advantage to using them.

Variety

All of this means that for less than £300 you can now get a modem which can transfer any data at around 1,500 bytes per second, and text at well over 3,000 cps. There are a wide variety of V32bis/V42bis modems around at very good prices.

If you're not too worried about using a BABT approved modem – would we suggest such a thing? – you could try Supra's new high speed fax modem, or maybe the TKR 1496 from System Solutions, both of which retail for under £300.

If you're looking for an approved modem, take a look at Miracom's offerings – and if you're a member of CiX, there are some very nice special offer savings available on these units.

Unfortunately, these kinds of high speeds require your ST to be set to a baud rate over 30,000 in order to keep up – and the highest figure thoughtfully provided by Atari is just 19,200.

There are a number of options open to you. First, if you happen to be using either a Mega STE or a TT, the second RS232 port can be configured to run at very much higher baud rates.

Several packages now support this feature, including the German PD program ConNect, and the latest version of the commercial US comms package STalker from Gribnif Software.

If you are using a standard ST, your options are somewhat more limited. In order to achieve higher speeds, you must fool the RS232 driver chip into operating at a faster rate. There are two ways to do this – software and hardware – but neither are guaranteed to work as well as the current 19,200 rate.

If you opt for the software method, a small program sits in your AUTO folder, or as a desk accessory, and forces the RS232 chip to run 16 times faster than normal. Thus if you select a baud rate of 2,400, your ST would actually function at 16 times that rate – or 38,400 baud.

Kludge

However this patch is something of a kludge, as the RS232 chip has only one machine cycle to check for each incoming data bit rather than the normal 16.

This means it can very easily get out of sync, and corrupt odd bytes of data. If you want to try it out for yourself, one program which will set up this mode for you is the German HSPD_232.ACC, available for downloading from most bulletin boards.

The alternative method is to change the internal RS232 hardware clock frequency, deep inside your ST. This is a bit like upgrading from an 8MHz to a 16MHz processor, but the speed increase is localised to the RS232 chip.

This sort of modification requires some soldering, and maybe the addition of a small switch to turn the enhanced mode on and off, so it's probably best left to an engineer to avoid frying your ST's circuit board!

If you want to have a go, these modifications are detailed in a text file which again is available for downloading from places like CIX and other bulletin boards.

Transmission speeds

Approximate speeds of transmission (in characters per second) of a text file over a V32bis link. The actual speed will vary considerably depending on the compressibility of the data, and the file transfer protocol used.

Error correction/compression

Filetype	None	MNP4	V42	MNP5	V42bis
Text file (30,720 bytes)	960	1690	1680	2550	3100+
ARC version (16,592 bytes)	960	1610	1580	1560	1590
LZH version (12,904 bytes)	960	1610	1600	1560	1605

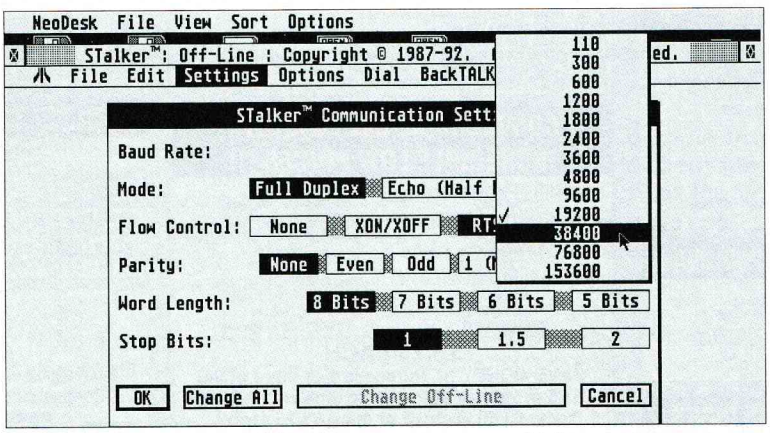
In touch

In future issues we'll be looking at the variety of communications software packages now available for the Atari ST.

Over the past year or two, interest in communications has soared and several excellent packages have become available – from the PD Freeze Dried Terminal (supplied on our March CoverDisk) to the powerful STalker and Flash II from the USA.

If you've got any particular favourites, or maybe a horror story to pass on, drop me a line at the editorial address. Or you can always contact me directly by electronic mail, of course.

My Email address is andre@cix.compulink.co.uk, which can be reached from anywhere in the world that has access to the Internet mail system – for example CiX itself, CompuServe, BIX, FidoNet and many others.



Using STalker on a Mega STE or TT, you can run your high speed modem at its full capacity – 38,400 baud is a good choice

André Willey takes an informed look at a rapidly changing market

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U003 Desk. ACCs formatter, calendar, Disk Manager, calculator
U008 68000 Assembler, Address/Mailing List. Autodial Utility
U009 PICSWITCH 7 changes pics graphics res. Mono/colour emulators. SWITCHER, 2 progs in memory FSEL 5.5
U010 STE BOOT UP, boot medium res
U014 ARC file compiler. BI CLOCK set time/date. MONOEMUlator v5.0.
U016 IBM compatible disk formatter. ARC SHELL v1.91, MEGA formatter
U019 DRFLOPPY, disk editor, SCODE make ASCII for data transfer
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U027 ANTIDOTE, detect & kill most bootsector viruses.
U028 DISKMECH disk analyser/archiver/editor, edit/format sectors etc. full docs. CPANEL
U030 AMC GDOS
U032 MOUSE TRICKS, extensive control over mouse, movement etc.
U033 MX-2 v2.3 a multi-tasking environment, up to 7 concurrent tasks. *D*
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U035 DEC edit clone. Disk engineer v3.01 do alsorts to a disk via GEM.
U040 AUTOGEM autoboots Gem programs. VC Spreadsheet non-GEM.
U041 ADDRESS LOG, Address book & label printer, disk cataloguer.
U046 SUPERVKILLER detects 5 viruses, 7 anti-viruses.
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U052 GEM PLUS. Neodesk variant.
U057 GEMDOS USER GUIDE, full of info about GEM-DOS
U058 ATARI TOS 1.4 bug fixes (STFMs with Rainbow TOS)
U059 XCONTROL ATARI'S latest TT control panel accessory for all STs.
U063 MEMFILE 2.0. Memory and disk editor with powerful features.
U065 STDCAT v4.0, disk catalogue.
U067 ARCSHELL v3.0, Arc V6.0
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U069 ST Zine shell, Disk mag development tool.
U070 SUPERB Intro creator, sprite, pics, text & music
U073 SUPERBOOT V7.0
U075 ST TOOLS, many features
U077 GOODIES, multiple featured desk accessory
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GRAPHIC, FONT AND ART/DRAWING DISKS

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A009 COLUMBIA, Drawing prog, some 3D elements. Studio (*X*), Drawing package. Both German
A012 DOODLE, mono & colour versions. Also some Mandelzoom pics.
A013 ST GRAPH. Comprehensive graph prog, handles bar, horizontal/stacked bar, line & dot charts.
A015 FONTS2, 7 screen/desktop fonts, inc. Columbia, Devoll, Hudson
A018 CANVAS, great art package
A020 PALETTE MASTER, art package, up to 512 colours. *C*
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A025 FONTKIT 3.31 *D*
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A042 ST CAD v2.1, a med/high res CAD package. Full docs. CALC-PLOT, scientific calculator
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A054 SIMPLE DRAW v3.4, art package. Docs foreign. Med/Hi-res
A059 MASTER DOODLE, shareware art package for the younger user.

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C011 Loads more fruit, vegetables.
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APPLICATIONS – Spreadsheets, Databases etc.

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S002 ST SHEET, quality spreadsheet *C*
S005 B/STAT v2.01, sophisticated graphing & stat analysis. *DX*
S007 OPUS v2.2, GEM based spreadsheet & charting program. *DX*
S009 WG DATA, high quality DTB. Full docs.
S011 DOUBLE SENTRY, fully working accounts package (no VAT)
S012 PERSONNEL DTB, Names & addresses DTB.
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S017 DATAPLOT, sophisticated data plotting package.
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W009 Easy Text v1.2 fully working DTP demo (w010 for DS users)
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W015 HYPERTEXT. Shareware prog. Produce professional docs. *MD*
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P013 CPM UTILITIES for P012.
P017 PROGRAMMING EDITORS; CONTEXT v2, PRO-ED & P-EDIT, full docs.
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G033 ADVENTURE WRITING SYSTEM
G037 TUNNEL VISION, maze game
G038 BERMUDA RACE 2
G039 INVASION, adventure
G041 Hack! is a D&D adv.
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E015 KIDPUBLISHER, KIDSONG
E016 DOT 2 DOT, includes creator.
E019 SOLAR SYSTEM GEOGRAPHY
E020 GEOGRAPHY TUTOR
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F018 NEWGEN V4, shareware, 10 record limit.
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PageStream perfected?

Andrew Wright on the long-awaited Pagestream upgrade, plus some sound advice on font organisation

Well, it's finally here. The Pagestream 2.2 upgrade can now be downloaded from CompuServe or obtained from the US for $25 if you are a registered user.

There are a number of improvements and plenty of bug fixes, including one to remove the problem with Compugraphic fonts which appears to have worked.

Soft-Logik also claim compatibility with the forthcoming MultiTOS which will first hit the streets in the Falcon and become available later as an upgrade for ST owners. Several years later if present form is anything to go by...

A new magnification tool can be used to zoom in or out, doubling or reducing the magnification each time. The minimum and maximum levels are now 15 to 1,500 per cent and the current level is displayed in the toolbox.

The reshape and column tools have new icons but their functions have not changed. The two line tools have been merged into one, as have some of the other graphics tools, using the Shift key to differentiate when drawing.

Toolbox

Page handling is also improved with several changes to the relevant parts of the toolbox.

PageStream 2.2's text display speed is slightly faster than its predecessor although I couldn't see any direct improvement when using PostScript fonts.

Compugraphic and proprietary fonts were around 25 per cent faster to redraw. It does have a draft mode, however, which means that all text is shown as bitmaps rather than outlines.

If none are available, Soft-Logik say a generic sans serif font will be used.

Pagestream 2.2 also has some new keyboard shortcuts. Using the Shift key with many menu selection procedures will avoid opening dialogue boxes and will carry out the command directly using the existing settings.

For instance, Shift-New opens a new document using the defaults and Shift-Print prints the current document using whatever driver and settings have already been chosen.

There is a new printer driver for PostScript printers which has many more options including colour support. Crop marks are also much improved with slur gauges and offset colour strips being printed on separations.

There are a number of significant new import modules for the new version, including CVG (Calamus Vector Graphic), Calamus/PKS Write text, That's Write, and Calligrapher.

Encapsulated PostScript import options have been enhanced to display built-in preview images (PICT or TIFF) on-screen and Soft-Logik claim Pagestream 2.2 is now compatible with Adobe Illustrator files.

Importing

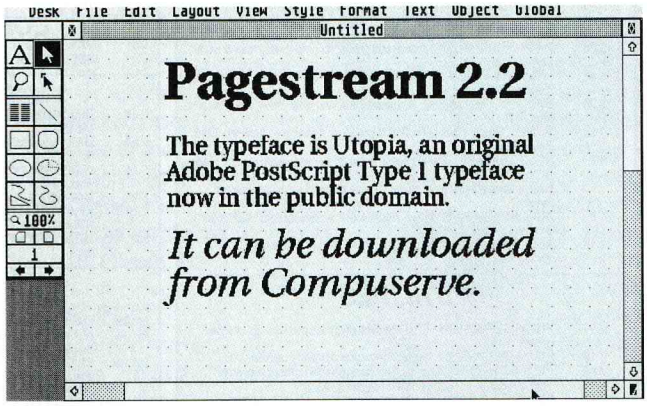
My attempt at importing a file supplied with the latest PC version of Illustrator didn't back this claim up at all, however.

The GEM import module has been improved to accept files stored in the GEM/3 format. This format includes Bezier curves and is used by several graphics programs such as Avant Vector and Silhouette.

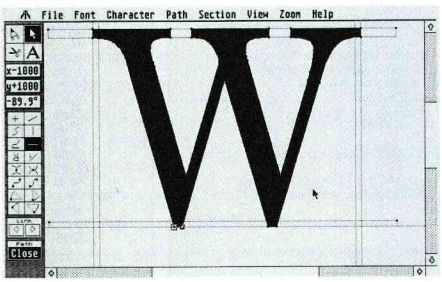
The new release of PageStream also contains changes to improve program stability. Soft-Logik claim that PageStream is now stable on 1Mb machines and will let the user recover from low memory situations.

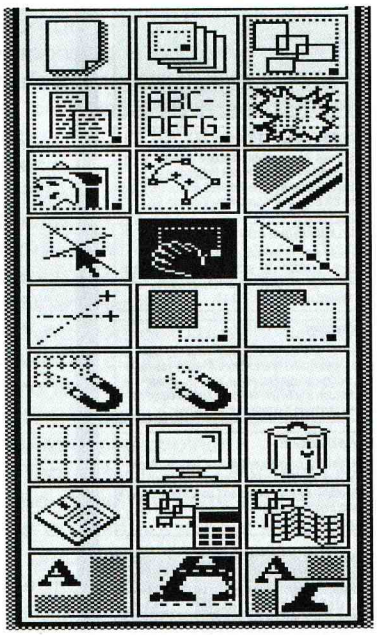
Placing the cursor before the first character in a column now picks up the attributes of the first character, a useful time-saving feature. The em and en dashes should now work correctly with Compugraphic fonts.

Registered users should note that Soft-Logik now have a new address as well as a support BBS. The address is Soft-Logik Publishing, PO Box 510589, St. Louis, MO 63151-0589. Tel: sales 01013148948608; technical support 01013148940431; fax 01013148943280. Soft-Logik BBS: 01013148940057



Pagestream 2.2 with its smart new interface





Keep it simple

Since writing last month's column, I've tried to organise my typeface library into some semblance of order, a job that was long overdue. This included printing out samples and storing the hardly used ones away on floppy disks.

It also made me follow the advice a respected typographer friend once gave me. His method was simple – divide all your typefaces into the appropriate classifications and then choose two or three contrasting ones from each. Then forget the rest.

Obviously that advice isn't entirely practical. Occasionally you'll need to match a typeface with that in existing material or in a logo, but the sentiment is a good one.

Designers are all too often awash with obscure typefaces gathered from bulletin boards here and PD libraries there, most of which they would never dream of using!

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CUSTOMERS WORLDWIDE ARE FINDING WE ARE THE ONES TO DEAL WITH FOR QUALITY AND SERVICE

Safe as houses?

Getting a software house or individual to tailor-write your business software can be fraught with danger. Let Pat Winstanley be your guide...

Having decided you need a program written to help you run your business, how do you go about finding someone to do this work for you?

Before anything else, decide how much you can afford to pay for it – if anything. Where your needs are simple – the writing of some spreadsheet macros or the setting up of a database program such as Superbase – you may not need a "proper" programmer at all.

Lots of people who use these sort of generic programs are competent enough to do what you want, in return for a few beer tokens or similar favours.

Ask your friends, use our letters pages and bulletin boards. It's very likely you'll find someone – if not to do the work for you then show you how to do it for yourself.

Bespoking

Where the software is important enough, either in potential extra business or the amount of time it will save you, that you can afford to spend hundreds or even thousands of pounds on its creation (or "bespoking"), then it's much like engaging any other form of professional help – caveat emptor, or buyer beware!

The majority of software houses and one-man-band programmers are legitimate businesses who will deal with you with impeccable integrity. But there are some cowboys out there.

Try not to take on the first programmer or software house who happens along. However you have contacted them, via a friend, responding to an advert or from a bulletin board, always ask what sort of programs they have written in the past, and for at least two "reference sites".

Programmers and software houses are generally proud of their work, so should be more than happy to refer you to their already satisfied clients.

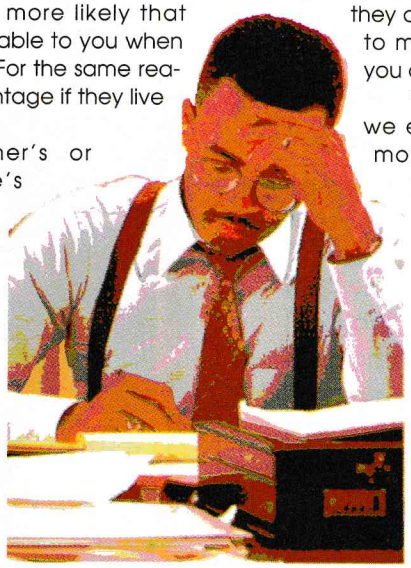
What sort of things should you take into account when choosing who is to write your software? An often neglected fact is that you should like each other.

That way if any problems do arise – and few software projects are completed without some sort of problem along the way – they are more likely to be sorted out quickly and amicably if you get along with them as people.

The more important the software is to your business, the more important that you do get friendly with whoever wrote it. Very likely you will need support or changes at some time in the future.

The better your relationship with the author, the more likely that they will be available to you when you need them. For the same reason, it's an advantage if they live close to you.

A programmer's or software house's technical competence is best judged by what they have done before. Visit the reference sites they've given you rather than just ring them up for a chat. Of course you will only be referred to already satisfied clients, but would you be happy with the sort of software which they are using? Only a visit and some hands-on experience can tell you this.



Price is obviously a factor. As a general rule, a one-man-band programmer will be cheaper than engaging a software house. On the other hand, a software house is more likely to be able to support you and make changes promptly in the future. The old adage applies – you generally get what you pay for.

No software house or programmer worth their salt will give you a quotation without finding out in some detail what it is you want from them.

This is where all too many software projects fall down. You know how your business runs, they know how to program. It's all too easy for you to assume they know something about your business which they don't, or for them to misinterpret what you do tell them.

Which was why we emphasised last month how important it is to approach the programmer(s) pre-armed with an accurate if brief software specification – a statement of what you want the software to achieve – plus a description of how you perform this work now, and where you are expecting the new software to fit in.

Give a copy of these documents to each of the programmers you are thinking of employing, and the quotes you get back will at least be based on the same information.

Very likely you will end up in discussion with the programmer over what you want. Maybe they can see what they think are better ways to apply your ST to your business, or maybe what you want the software to do is too ambitious for your budget.

Take note of everything they say. Where you think their suggestions sound sensible, update your software specification and business description accordingly, then give it to them afresh for a requote. Needless to say, if you are spending a substantial sum of money, you should insist on quotations in writing.

As was mentioned last month, the maintenance and support of a substantial piece of specialist software can cost more than it takes to write. You will have to budget for these ongoing costs as best you can.

As you are paying to have this software written, the copyright in it should belong to you. Make sure this is stated explicitly in the quotation. Also ensure that you are given a copy of the source code, just in case you need to engage another programmer to change it at a later date. Again you should insist that this be stated explicitly in the quotation.

Having chosen which quotation to accept, it's unlikely you'll be able to just sit back and wait for the finished and perfect software to arrive – though it does sometimes happen that way, especially if your needs are not too complex.

Generally you will be shown at least one prototype. Sometimes the programmer will have to come back to you several times before every aspect of the software is to your satisfaction. Remember what we said earlier about making friends with them!

Relationship

It's at times like these you'll need that relationship. That said, the better the software specification and business description you gave them to work from, the less likely is this or a similar problem to crop up.

When the working software arrives, don't be tempted to immediately trust the health of your business to it. Run your manual system in parallel with it for at least a month, ideally for three months.

Onerous as the extra work may seem, it will be worth it if you find a bug in the code which costs you money – and a bug-free piece of software has yet to be written!

If all has gone well, you'll have a piece of software to be proud of – and who knows, someone else in your line of business may be in touch with a view to buying it in the future.

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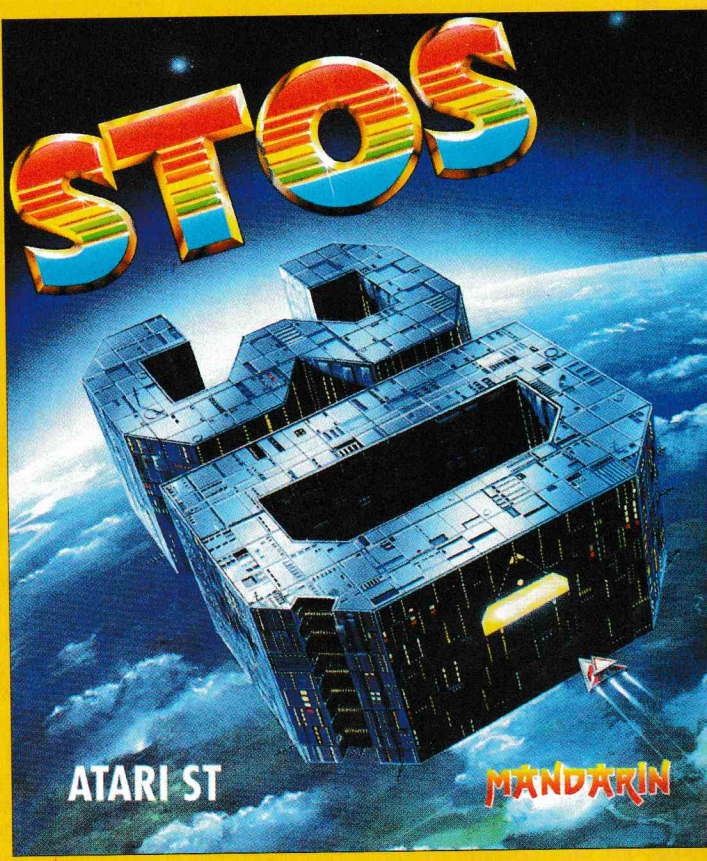

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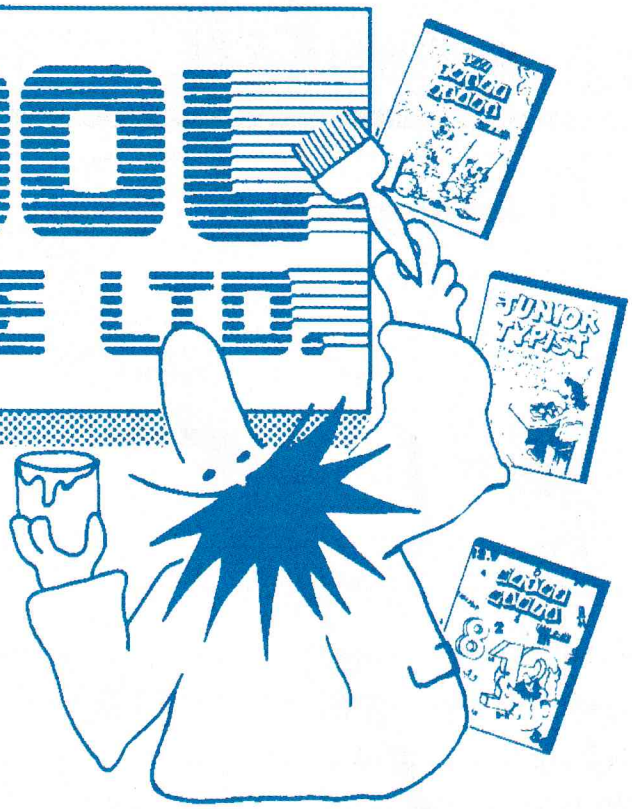

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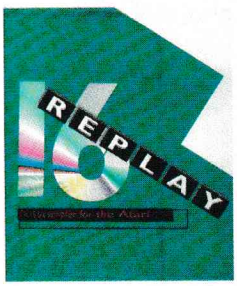
ATARI ST USER

READER OFFER

Replay 16

At last, a low cost 16 bit sampling system for the Atari ST, featuring full 16 bit input and output in the same unit. The system comes complete with a sophisticated sample making/editing program, superb digital Drum machine program, and a powerful MIDI keyboard emulation program which gives the user the ultimate in MIDI sample control.



HARDWARE – The 16 bit sampling unit plugs into the cartridge port of the ST. Audio connections to and from the sampler are provided via standard Phono connectors. An Input volume control is also provided.

SOFTWARE – EDITOR – The sample editor is a highly flexible 'WIMP' style program which allows conversion or editing between any AVR format 8/12/16 bit, Mono or Stereo samples. Sampling rates of up to 48Khz can be used, but the program can re-synthesise samples to practically any other speed.

Features include: • Volume control • Digital filtering and 3D frequency analysis • Cross fade looping • Record • Play • Fast Forward/Rewind with VCR style controls and much, much more...

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DRUMBEAT – A 4 voice polyphonic Drum machine with full MIDI control. Up to 30 different samples can be loadedinto a kit at once and 50 patterns can be programmed in either realtime or steptime. Samples can be up to 1Mb in length each.

MIDIPLAY – Flexible keyboard emulator which can cope with up to 128 samples in memory at once. Any sample can be assigned to any note or range of notes in a 9 octave range. Midiplay can play up to 4 VOICE/NOTE polyphonic with 3 levels velocity sensitivity while in single voice mode. An advanced sample loop point editor with AUTOLOOP (Zero Crossing) detection is also incorporated to ease loop point editing.

The system runs on any ST or STE with 502K (1Mb min is recommended), and comes complete with hardware, software and comprehensive manual.

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The NEW second generation Pro-Punter is written to professional standards and is attractive and easy t use. It features full editing and review of race data entered and also a unique low-maintenance database that does not need constant updat

INTERNATIONAL USERS please note that, in addition to UK features, Pro-Punter 2 contains unique course/going/class editors and will configure to metric weights/ distances, thus allowing configuration for racing anywhere outside the UK where relevant data is available.

Phazer Gun

The Trojan Phazer gun opens up a whole new phase of computer entertainment. This advanced light phazer presents a challenge of ski accuracy for Atari ST gameplayers of all ages. The pack includes two games, Orbital Destroyer and Skeetshoot, which will test your shooting skills to the extreme and a full manual.

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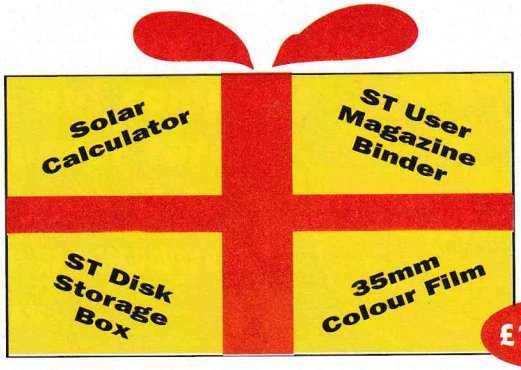

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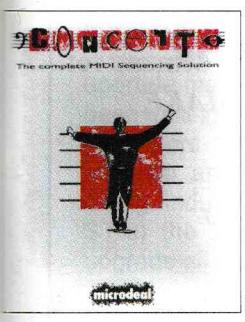

CONCERTO offers a large range of editing tools and can represent MIDI data in a number of different ways including on a traditional score, on a grid editor, drum machine, step-time editor or even as text in the event editor.

CONCERTO allows you to spice up your music by using the studio-type mixing desk and full sequencing interface.

CONCERTO also gives you 24 tracks, 100 sequence slots, sequence parameters such as ghosting, transposition of pitch and velocity, sample out for STE/TT computers and much much more.

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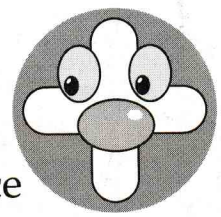

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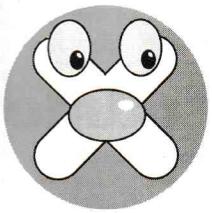

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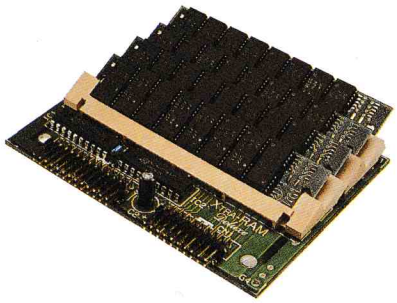

XTRA-RAM *Deluxe*

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Installation couldn't be simpler - you just plug it in and turn on your ST. With a full two year warranty, including the long life lithium cell battery, why not join almost six thousand satisfied users?

Here's what some of the leading Atari Magazines had to say about this top selling clock cartridge:

Atari ST Review: *"A good, well engineered product. Get one now." 91%*

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Buy the Xtra-RAM STE Memory Upgrade!

There are many suppliers of memory upgrades for STE machines. Not all cater for your particular needs. Most STEs require Single In-line Memory Modules, commonly referred to as SIMMs. However, a number of machines require SIPs - these are like SIMMs but use pins instead of an edge connector.

Each and every STE upgrade supplied by Marpet Developments contains all that is necessary to upgrade STEs requiring either SIMMs or SIPs. This is achieved through the use of a special adaptor. With the Marpet STE upgrade there is no risk of buying the wrong kit!

The Atari STE computer uses 256k SIMMs (or SIPs) at a speed of 150nano seconds; and 1Mb SIMMs (or SIPs) at a speed of 120nano seconds. Buying faster SIMMs or SIPs does not increase performance on your STE, but faster ones may be required if you later upgrade to a different computer system. Marpet always supply SIMMs rated at speeds in excess of the STE's requirements.

Each STE memory upgrade supplied by Marpet carries a full two year warranty. Here's what one of the leading Atari Magazines had to say about this top selling STE upgrade:

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More Atari News & Views from HiSoft

The Serious Page

Devpac 3 £79.95

HiSoft Devpac 3 is the latest version of the popular assembler/ debugger package for *all* Atari 680x0 computers. Packed full of features, it is the ideal programming environment for beginners and professional programmers alike.

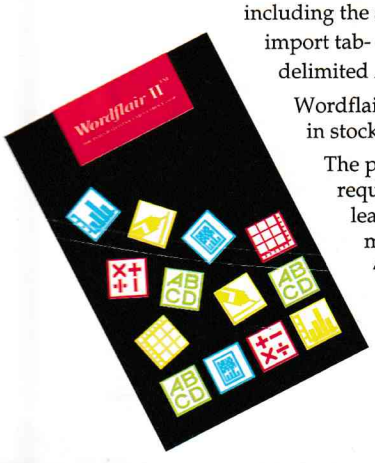
Improved and extended, the Devpac 3 macro assembler is now often 40% faster than its predecessor (without using pre-assembly), has many extra, switchable optimisations and, with the ability to pre-assemble files for inclusion, can now claim to be the fastest assembler on the Atari computers. It produces 68000 up to 68030 code (via a user option) & supports the maths co-processors.

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.

Wordflair 2 £129

We are delighted to announce, at last, the immediate availability of the English variant of Wordflair 2, version 1.1. The main features of this exciting, and long-awaited, package are:

- Full support for FSM GDOS which is included with the product
- Much improved user interface
- English language spelling checker and thesaurus included, with up to 5 user dictionaries. Plus hyphenation
- Improved graphic handling including the ability to preserve the aspect ratio of the graphic, hide the graphic (for faster display) and find the graphic on disk
- Expanded and improved region setup with a easier choice of Calc/Graph/Write regions
- Enhancements to the database handling including the ability to import tab- or comma-delimited ASCII files



Wordflair 2 is now in stock.

The package requires at least 1Mb memory or 4Mb if used with an Atari Laser printer.

The HiSoft Promise

While many other companies are abandoning the Atari market, we are moving forward, acquiring and writing new titles, many of which are detailed on this page.

Rest assured that we will continue to offer you the best software at truly competitive prices with a range of customer support options to ensure that you can use your Atari 680x0 computer, and our software!, with confidence and ease.

We are very encouraged by the Falcon030, believing that it will breathe new life into the general-purpose microcomputer market, which has often been driven by the computer enthusiast, who will find this new machine both fascinating and exciting.

We will sticker all Falcon030 product with Atari-approved labels for convenience and clarity; there are three such labels - *Falcon030 Exclusive*, *Enhanced* and *Compatible*, watch out for them.

TruePaint £39.95

Due for release in November 1992, TruePaint is the first art package to take advantage of the true colour capabilities of the Falcon030 computer. Some of the highlights of the product are:

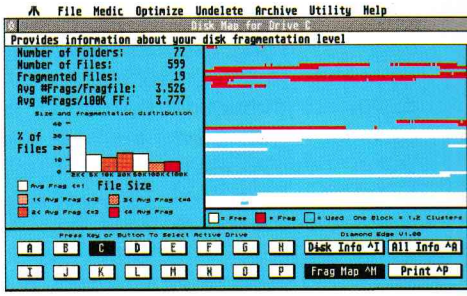
- Works in all resolutions including 768x480 True Colour
- Easy-to-use multi-window environment with menus, toolbox and keyboard shortcuts
- Full range of drawing tools
- A large variety of effects including shear, wrinkle, smooth, rainbow etc.
- Zoom, full screen mode with edit, colour picker, bezier curves
- Animation, FSM/Speedo GDOS support, wide variety of file formats including IFF, TIFF, JPEG and more

Watch out for more details of this exciting new package, or call us and we will send you a brochure when this is available.

HiSoft BASIC 2, Harlekin 2, Lattice C 5.5, HiSoft C, HighSpeed Pascal, FTL Modula-2, KnifeST, WERCS, HiSoft Devpac, Wordflair, Diamond Back, Superbase, Diamond Edge, K-Spread, K-Data, K-Word, FirST BASIC, HiSoft FORTH, ProFlight, Tempus 2 ...

All prices include UK VAT and P&P within the UK. Please call for export prices, educational discounts etc. E&OE. Specifications and prices may change.

Diamond Edge £39.95



From the authors of Diamond Back, the popular hard disk backup program, comes a new package that is essential to any serious user of an Atari 680x0 computer.

Diamond Edge is a complete set of management, optimisation, diagnostic, repair and data recovery tools for use with floppy disks and hard disks.

XBoot 3 £34.95

We are pleased to have acquired the exclusi rights to version 3 of this package, which provides comprehensive management of yo AUTO folders.

XBOOT is an efficient, easy-to-use program and comes with a well-written and useful manual.

Kuma Products

We have taken on the majority of Kuma Computers Ltd's products for the Atari and Amiga computers, while Kuma concentrate their book titles.

We are re-compiling K-Spread 4 under Lattice C and hope to end up with a faster, more compact product, which we will correct and enhance.

Superbase Professional £99.95

Following the sale of the ST and Amiga versions Superbase to Oxxi Inc with whom we are workin closely on a project for the Falcon030, we are pleased to be able to offer Superbase Professiona (Version 3) at a substantial saving over its previo recommended price.

All HiSoft's products should be available throu your local computer dealer. If you have difficu in obtaining a title you can order directly fro HiSoft using your credit or debit card - just c Julia, Sallie or Marlynne on 0525 718181.

HiSoft
High Quality Software

The Old School, Greenfield,
Bedford MK45 5DE UK.
Tel: +44 (0) 525 718181
Fax: +44 (0) 525 713716