Save £s on upgrades

November 1994 • Issue 106 • £3.99 Overseas £4.25 Hfl18.95

europress PUBLICATIONS

ATARI ST USER

CMYK

DA'S Layout

Hints, tips and secrets on getting the most out of one of the most powerful DTP packages around

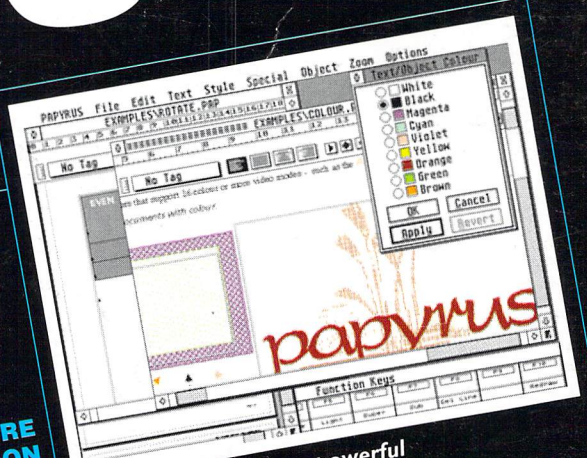
STANDFIRST

COLUMN GUIDES

ANY desktop publishing project involves much more than the actual page layout software itself: the better packages may include a text editor, some drawing and retouching facilities and even, as a font editor, but the more require specialist software for preparing text copy and illustrations. Ideally all the different programs used should integrate into one harmonious working environment, with mutually compatible and consistent user interfaces and, above all, easy exchange of data between them. There is nothing more frustrating than to find that your DTP software doesn't like the vector files from your drawing program or that it has different ideas about the TIFF picture format from your image retouching program!

This is one good reason for combining DA's Layout with the other products in the software suite, such as DA's Vector. Now

No disk!
Ask your newsagent



PICTURE CAPTION

Could this be the most powerful document processor for the Atari?

HiSoft's power processor reviewed

TEXT proc... one of the first ... was programs a... first releas... simple wit... Today ... what is a... word processor is ...

9 770952 300077 11>

PLUS: DA's layout tutorial, Musicomm, SMS2, Stormtracker, Janus and games galore

GASTEINER

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

LOOK!!!
What is included with Gasteiner Hard Drives is the Toplink SCSI external controller for all Atari ST computers

All NEW GASTEINER Hard Drive for Atari ST, STFM, STE, MEGA ST, MEGA STE & the formidable FALCON 030.

Award winner for BEST HARDWARE 1993
– ST Review

The All NEW GASTEINER Hard Drive has all the following features:

1, **Auto Booting and Auto Parking**
2, **Front On/Off switch**
3, **Power indicator (LED) light**
4, **SCSI icon selector switch**
5, **Sleeve bearing Fan (17CFM)**
6, **Dual SCSI Port**
7, **Internal 5% Tolerance P.S.U. (90-260 VAC)**
8, **Top Quality Formatting and Partitioning Software**
9, **New Compact Case (4.00x4.64x9.00) (HxWxD)**
10, **12 Months back to base guarantee**

A SERIOUSLY BIG DRIVE FOR A SERIOUSLY SMALL PRICE – ST FORMAT GOLD AWARD AUGUST 1994

GASTEINER HARD DRIVES

		TT/FALCON	STE/STFM
GHD	40Mb	£189.00	£199.00
GHD	120Mb	£229.00	£275.00
GHD	170Mb	£259.00	£295.00
GHD	270Mb	£279.00	£309.00
GHD	340Mb	£399.00	£445.00
GHD	540Mb	£429.00	£449.00
GHD	1080Mb	£699.00	£799.00
GHD	1800Mb	£1299.00	£1345.00

NEW REMOVABLE SYQUEST

	DRIVE/W.CART	CARTRIDGE
SYQUEST 44	£129.00	£49.00
SYQUEST 88C	£455.00	£59.00
SYQUEST 105	£429.00	£55.00
SYQUEST 200	£645.00	£64.50
SYQUEST 270	£539.00	£69.00
OPTICAL 128 MB	£749.00	£39.00
OPTICAL 1.2 GB	£1999.00	£89.00

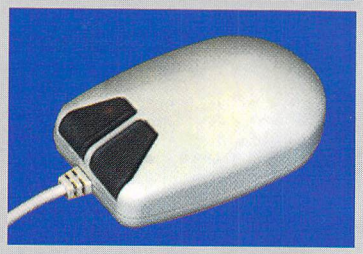
NEW CD-ROM
For Falcon £299 For ST, STE £329
including cables

(1) EXPERIENCE
With over 20 man years experience in the Atari Computer market. Servicing many happy customers (over 10,000) we are the foremost manufacturers of Atari Hard Drives.

(2) DESIGN
Using the latest C.A.D. Technology we consider Power Supply design, Air Flow characteristics and Drive Specifications, combined with innovative manufacturing processes, ensure that we can produce the most reliable products to the highest standards.

(3) TESTING
Following the initial design process all our products are subjected to an in-depth testing procedure including mechanical and electrical tests while thermal Trials ensure the reliability of any configuration in every possible environment.

NEW



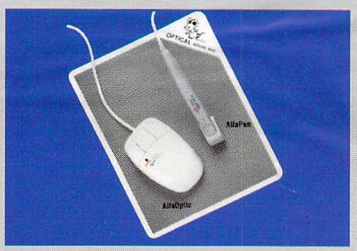
NEW 200 DPI MOUSE. Small and compact for all Atari ST range systems.

£6.99

ALFA DATA SCANNERS

Alfa Scan Plus.....£119.00
Alfa Scan OCR.....£139.00
System requirements 2Mb RAM + Hard Drive
Mono Scanner for Falcon.....£99.00
Colour Scanner for Falcon.....£399.00

MICE+TRACKBALLS



- Pure Optical Design with High Resolution
- Light, accurate, easy to use and long life
- With tough pure optical mouse pad

Alfa Pen.....£34.95
Alfa Optic.....£29.95

- Two colour illuminating crystal ball (TKB MT AC ONLY).
- Ergonomic Design for very comfortable operation.
- Top quality construction with micro switch buttons.

Standard Trackball.....£29.95
Crystal Trackball.....£34.95

Repair service
New service/centre for most Amiga computers. We offer a quotation service of £10 for which we will examine your computer and report back with an exact quotation price for the repair. If the repair is carried out the £10 is then deducted from your bill.

How to order
When ordering by telephone please quote your credit card number followed by the expiry date and also your full name and address. If paying by cheque please make it payable to Gasteiner Technology. In any correspondence please quote a phone number and also a postal code, please allow five working days for cheque clearance.

Delivery charges
Small consumables and software items under the value of £59 please add £3.50 P&P. Other items except lasers, next day courier service £10 per box. Offshore and highlands, please call for a quotation. In addition, we offer the following express services:- Saturday delivery normal rate plus £15 per box, Morning, next day normal rate plus £10 per box. E&OE prices subject to change without prior notice. All trademarks acknowledged.

ATARI COMPUTERS

All in stock

Atari 1040STE 1Mb.....P.O.A.
Atari 1040STE 2Mb.....P.O.A.
Atari 1040STE 4Mb.....P.O.A.
Atari 1040STE 12Mb.....P.O.A.
Atari 520STFM 1Mb.....P.O.A.
Atari 520STE 0.5Mb.....P.O.A.

FALCON 030 COMPUTERS

Falcon 030 1Mb.....£399.00
Falcon 030 4Mb.....£499.00
Falcon 030 4Mb + 85Mb HD.....£649.00
Falcon 030 14Mb + 85Mb HD...£1149.00
Falcon 030 4Mb + 120Mb HD.....£649.00
Falcon 030 14Mb + 120Mb HD £1200.00
Falcon 030 4Mb + 210Mb HD.....£900.00
Falcon 030 14Mb + 210Mb HD £1300.00
FPU for all the above Falcons
– Please call

emagic
...we make computers groove.

Emagic Notator SL.....£199.00
Emagic Logic.....£299.00
Emagic Unitor II.....£299.00
Cubeat.....£150.00
Cubase Version 3.....£319.00
Cubase Light.....£70.00
Cubase Audio.....£599.00
Steinberg Pro 24 III.....£49.95
Musicom.....£43.95

FORGET-ME-CLOCK II

CLOCK CARTRIDGE FOR
ST-STE- FALCON
Clock with Thruport.....£11.95
Clock no Thruport.....£11.95

ATARI MEMORY UPGRADES

INCREASE YOUR MEMORY ST-STF-STFM-MEGA ST + FALCON

Xtra-Ram Board 0Mb.....£24.95
512K to 1Mb.....£29.95
2Mb.....£75.00
4Mb.....£125.00
8Mb.....P.O.A.
14Mb Falcon.....£599.00
4Mb Falcon.....£149.00
1Mb Falcon.....£49.00
Virtual Memory.....£49.00

INCREASE YOUR MEMORY FOR ATARI STE COMPUTERS ONLY

1Mb.....£4.95
2Mb.....£50.00
4Mb.....£100
8Mb.....P.O.A.

FALCON INTERNAL HARD DRIVE

HIGH QUALITY INTERNAL 2.5" IDE HARD DRIVES FOR THE FALCON, INCLUDING MOUNTING BRACKET AND IDE CABLE

65Mb.....£139.00
85Mb.....£149.00
120Mb.....£199.00
170Mb.....£239.00
209Mb.....£299.00
350Mb.....£349.00
Bracket for Hard Drive.....£15.00
IDE Cable.....£15.00

Falcon Eagle Sonic 32 (32MHz) Accelerator for Atari Falcon 030 .....£149.00

FALCON 030 EXTRAS

SCSI II Cables.....£29.95
ST Monitor Cable.....£9.99
SVGA Monitor Cable.....£9.99
Truepaint.....£33.95
Midi Cable.....£12.95
Stereo Speakers.....£29.95
Stereo Headphones.....£16.95
400DPI Mouse.....£14.95
Dust Cover.....£9.95

SCSI BARE HARD DRIVES

40Mb.....£99.00
85Mb.....£179.00
127Mb.....£199.00
170Mb.....£219.00
240Mb.....£249.00
540Mb.....£399.00
1.0 Gig.....£799.00

SOFTWARE

BLANK DISKS

10 DD.....£3.50
50 DD.....£15.00
500 DD.....£117.50

10 HD.....£8.00
50 HD.....£25.00
500 HD.....£225.00

All our disks are fully guaranteed and include labels

NEW PRODUCTS

Papyrus.....£127.00
True Image.....£27.95

WORD PROCESSORS

Word Writer.....£45.00
1st Word Plus v3.2.....£39.95

DTP SOFTWARE

Calamus 1.09.....£69.99
Pagestream v2.2.....£169.00
Timeworks Publisher.....£39.95
Calamus SL.....£199.00
O.C.R. Software.....£49.95
Touch-up Upgrade.....£27.95
Easydraw Supercharged.....£15.00
Cyber Studio.....£10.00
Cyber Control.....£5.00
Cyber Paint.....£5.00
ST-Basic.....£3.00
Human Design Disk.....£9.00
Future Design Disk.....£9.00
Signs + Banners.....£15.00
Calendar + Stationery.....£15.00
Art Library.....£15.00
Easy Tools.....£10.00
That's Fun Face.....£10.00
Family Curriculum Software.....£15.00

BITS AND PIECES

Internal Power Supply for Atari ST, STF, STFM, STE.....£32.95
Internal Disk Drive.....£45.00
Keyboard.....£69.00
STE Motherboard.....£99.00
TOS 2.06 STE.....£49.00
Outer Casing STE, STFM.....£20.00

ACCESSORIES

Twin Joystick Ext. Cable.....£3.50
Mono Colour Switchbox.....£14.95
Multisync Switchbox.....£29.95
Printer Cable.....£6.00
Modem Cable.....£6.00
Null Modem Cable.....£6.00
Serial Cable.....£6.00
Philips/Atari Cable.....£10.00
Scart Cable.....£10.00
3.5" External Disk Drive.....£50.00
Blitz Turbo.....£25.00
Power Cable.....£6.00
Mouse Mat (picture).....£5.00
Box 10 Disks.....£4.00
Dust Covers (all sorts).....£6.00
DMA Cable.....£6.00
SCSI Cable.....£6.00
Centronics to Centronics.....£10.00
Optical Mouse Mat.....£10.00
ST-TV Cable.....£10.00
Printer Switchbox.....£9.95
Auto Printer Switchbox.....£14.95
Disk Box (80 capacity).....£6.95
Disk Box (100 capacity).....£9.95

AUTOMOUSE-JOYSTICK SWITCH

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

£9.95

BUILD YOUR OWN HARD DRIVE FOR ATARI COMPUTERS

Casing.....£35.00
45 Watt P.S.U.....£35.00
SCSI Cable.....£6.00
DMA Cable.....£6.00
Power Cable.....£6.00
SCSI to Centronics Cable.....£18.00
G.E. Soft Host Adaptor.....£59.95
SCSI II Cable for Falcon.....£34.95
Top Link Controller.....£75.00

MONITORS

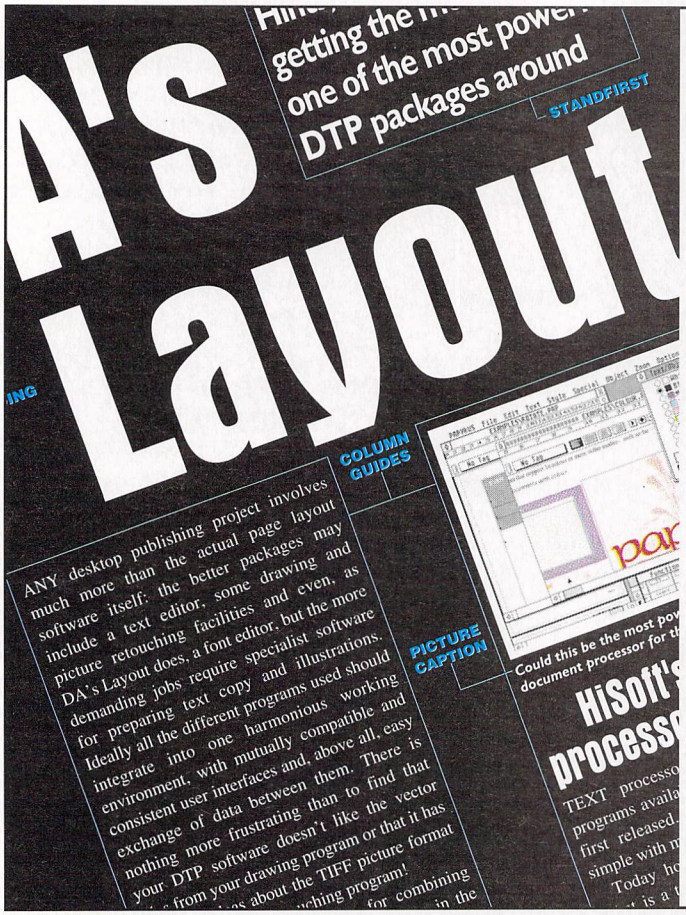
Microvitec 1448.....£279.00
Gasteiner GM148 with Sound...£129.00
Microvitec 1440 Multisync.....£389.00
Commodore 1084 SC Colour....£199.00
SVGA Mono for Falcon.....£120.00

Official purchase orders welcome from Educational establishments and major corporates. (Strictly 14 days net). Please phone for approval.
All prices include VAT. Prices and specifications subject to change without notice. E&OE.
All goods under £50 please add £3.50 p&p and all goods above £50 please add £10 Courier Service. Next day service please call.

126 Fore Street, Upper Edmonton, London N18 2AX

Major credit cards accepted

Contents



DA's Layout tutorial

DA's Layout is a powerful and feature-packed DTP application, but is it a worthy alternative to DTP king Calamus? Günter Minnerup thinks so in his DA's Layout guide 16

utilities ❖ comms ❖ dtp ❖ business ❖ falcon

Aspects of the ST

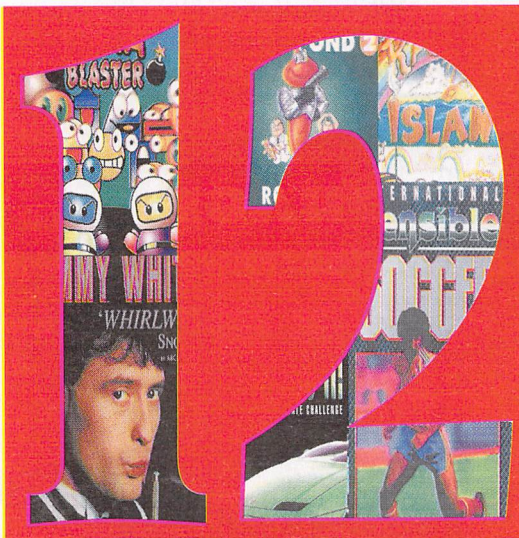
Utilities 73
Andrew Wright peruses some of the greatest and latest Atari utilities which help make your computing life that much easier

Communications 75
Comms guru Steve Gold reports on the latest developments and services for the much talked about and televised Internet sensation

DTP 77
Gamma curves? Registration? Crop marks? Are you confused? You won't be after reading Günter Minnerup's introduction to scanners

Business 79
Need advice on some helpful points for a successful product launch? Then follow Richard Williams' action point guide in this month's business column

Falcon 81
John Hetherington is totally gobsmacked as he upgrades his Falcon's TOS 4.01. Plus advice on installing your own TOS upgrade



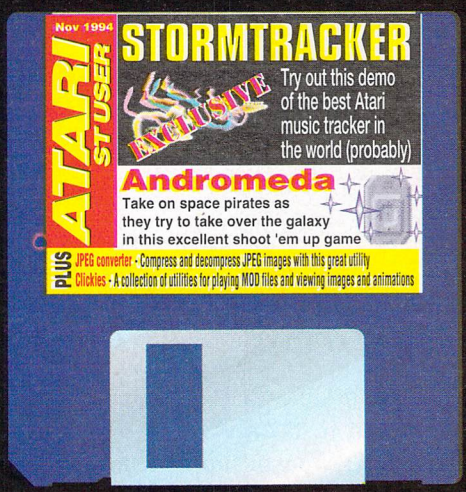
12 ST ACTION fave games revisited

STA's fave games **56**
Ishar 1 solution **62**
Final Conflict **64**

Page 55

Check out the ST Action crew's all-time favourite games. Plus the final instalment of our guide to Silmarils' RPG epic – Ishar

The CoverDisk



This month we have an exclusive demo of what promises to be the best music tracker for all Atari computers. Storm Tracker works on all Ataris and takes full advantage of the superior sound capabilities of the Falcon

PLUS:

- **JPEG Converter – Compress and decompress your own JPEG image files**
- **Clickies – Brilliant utilities for viewing graphics and playing sounds**
- **Fonts – More fonts in PostScript and Calamus format**
- **And much more**

The DISK starts on page 12

specials

7 Goodbye from us
Yes, this is the end of *Atari ST User* as we know it, and we are about to merge with our sister mag *Atari ST Review*. Read all about it here

26 TEAM interview
In the last of his series of interviews with Atari developers in Germany, Don Maple talks to TEAM Computers about their activities in the Atari market

reviews

26 Storm Tracker
Dave Cusick reveals his musical skills and passion in his review of what is probably the best music tracker available for the Atari

29 Series 9 234Mb
We take a look at one of the latest and stylish SCSI hard drives to enter the Atari market from The Upgrade Shop. Dave Cusick tells all

33 Papyrus
HiSoft release what promises to be the most powerful document processor for the Atari. Does Günter Minnerup feel that it's lived up to all the hype?

38 SMS2
With multitasking operating systems like MagiC, NeoDesk and MultiTOS all battling for supremacy, SMS2 enters the fray from Furst Limited

50 Janus
Don Maple checks out the ST emulator hardware for the PC, and finds that it just may be a cheaper alternative to buying Atari dedicated performance boosting add-ons

52 Graphics cards
André Willey tests two new graphics cards which give power to your pixels, and transforms the weedy 16 colour graphics modes of standard\

67 Musicomm
All we can do is pity the neighbours of the Wright household, as Andrew tests his musical talents with this latest direct to disk sampler from Compo Software

50 Janus
We are all susceptible to the ravages of a destructive virus. Dave Cusick receives protection from the greatest software hero for all virus victims

regulars

8 News
This is the place where you can find out what's going on in the Atari world, courtesy of our roving news hound, Adam Phillips

19 Euro News
Recovering from the tension of building (and using) a PC, Don Maple settles down to report on Atari news in Germany

12 CoverDisk
A disk packed with quality demos and programs, including a demo of Storm Tracker, quality fonts in PostScript and more

20 Special offers
Here's your chance to get your hands on some great software for your Atari at incredible bargain prices.

36 Switched On
Günter Minnerup visits one of the most senior members of the ST on-line community and asks what it's all about

51 Advice Service
This is the place to turn to before taking that axe to your Atari. Our computer guru may just be able to solve your problems

68 Subscriptions
This may be STU's last issue, but you can still read all about the latest Atari products and developments in *Atari ST Review*. Find out how to subscribe

70 Aspects
This is where you can read the wisdom and views of some of the most respected Atari journalists in the business, covering such major topics as utilities, comms, DTP, Business and Falcon

READER OFFERS

36 Upgrade Service

Fifteen £££-saving ways to improve your ST's memory, power and ease of use

EDITOR Darren Evens
NEWS EDITOR Adam Phillips
ART EDITOR Terry Thiele
PRODUCTION EDITOR Neil Jackson
DISK EDITOR Andrew Wright
STAFF WRITERS Jonathan Maddock
EDITORIAL ASSISTANT Tina Hackett

AD MANAGERS Emma Barr
AD PRODUCTION Wendy Binnersley
MARKETING MANAGER Lucy Oliver

PRODUCTION MANAGER Sandra Childs
CIRCULATION DIRECTOR David Wren
DISTRIBUTION COMAG (0895) 444055
SUBSCRIPTIONS 051-357 2961

Published by Europress Publications Ltd.
Europa House, Adlington Park,
Macclesfield SK10 4NP
Tel: 0625 878888 (all departments)
Fax: 0625 850652

CHAIRMAN Derek Meakin
MANAGING DIRECTOR Ian Bloomfield

Member of the Audit Bureau of Circulation

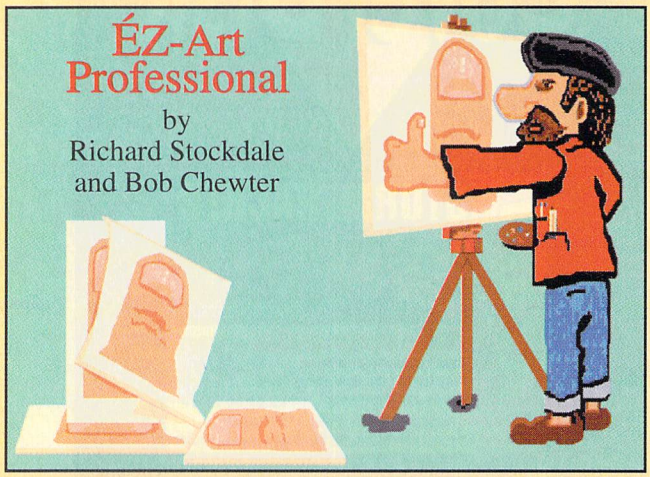
Atari ST User is an independent publication and Atari are not responsible for any of the articles in this issue or for any of the opinions expressed.

© 1994 Europress Publications Ltd.
No material may be reproduced in whole or in part without written permission.
While every care is taken, the publishers cannot be held legally responsible for any errors in articles, listings or advertisements.

Printed and bound by Duncan Webb Offset, Strawmill Hill, Tovil, Maidstone, Kent, ME15 6XA

And in the end God said buy ST Review

Floppyshop
PO Box 273,
Aberdeen, AB9 8SJ
Partners: Steve Delaney & Irene Lamb



Art Has Never Been So 'ÉZ'

EZ-Art Professional is an easy to use drawing package for all ages. In addition to creating your own original artwork using a vast range of custom written tools, digitised colour pictures can be retouched. Comes with an extensive fully illustrated 60 page manual. Here's just a few of its features:-

* Supports the STE's extended palette, even on an ST(FM)!
* Over 20 different types of shape are built into the package
* Over 20 different effects may be applied to blocks
* Range Editor creates pseudo ray traced effects with shapes
* Supports pictures bigger than the 320x200 screen size
* 256 colour pseudo palette available for most operations
* Extensive file support including Degas, NEO, Spectrum 512 and IFF (incl LBM and HAM)!
* Irregular blocks may be 'carved' out of your picture

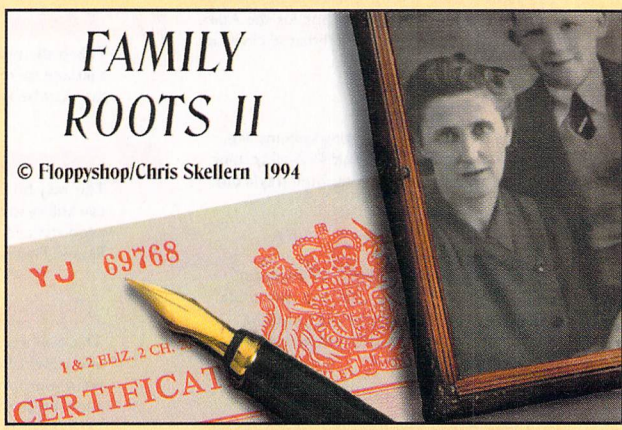
90% rating ST Review August 1994
83% rating ST Format September 1994

EZ-Art Professional costs only £29.95. Postage free in UK, £1.50 for Europe (inc Eire), £3.00 rest of world.
DEMO VERSION: We can supply a usable demo of EZ-Art Professional for only £1.00.

Family Roots II

Trace Your Blood Line with The Leading Genealogical Software

Family Roots is a program designed to assist those of us who indulge in the pursuit of tracing our ancestry or 'family tree'. Unlike similar products, Family Roots is not merely a customised database. It lets the user link each individual into the family tree graphically on the workscreen, whilst allowing easy access to its integrated database. Family Roots II is out now at a cost of £29.95 and comes complete with fully illustrated manual. Postage free in UK, add £1.50 for Europe (incl Eire), or £3.00 for rest of world. Existing users of Family Roots I should contact us for details of how to upgrade.
DEMO VERSION - A demo of Family Roots II is available for £1.00.



Cross Stitching On Your ST!

Easy Stich is a cross stitch generator program. Cross stitching is the art of creating pictures and patterns by means of sewing coloured threads onto a fabric base.

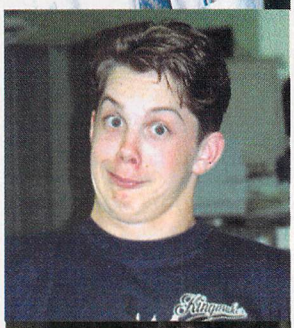
Easy Stitch is an adaptation on the traditional method of creating the cross stitch design on graph paper. With Easy Stitch, you can design your own patterns on screen in a way that is simply not possible using the traditional method. Blocks of the pattern may be selected for copying, rotating, reversing, enlarging or reducing, thus saving many long hours performing repetitive actions. Your grid may be any size up to a maximum of 1280x800 stitches, equivalent to a fabric size of 10 feet by 8 feet! What's more, you can move around it in seconds.

Easy Stitch allows pictures created by popular art packages to be used as the basis for your pattern. In addition, the program allows for the use of the more complicated back stitches and half stitches, something lacking in many other cross stitch programs. All popular dot matrix printers are supported including Epson 9 pin, Epson 24-pin, NEC 24-pin, Canon BJ10, Starjet SJ48, HP Laserjet and HP Deskjet. Easy Stitch is another quality product from Chris Skellern, author of our best selling genealogy program Family Roots. Easy Stitch costs only £19.95. Postage free in UK, add £1.50 for Europe (inc Eire), or £3.00 for Rest Of World.

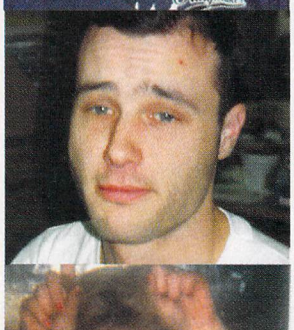
Bye bye everybody, bye bye

Yours truly, being annoyed by "Biff" and his roving camera during a particularly busy time laying out the magazine pages (his next picture was of the ceiling)

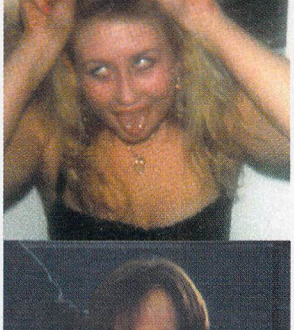
The former STU editor, John Butters. His only claim to fame was that Peter Walker of Atari once wanted to push him downstairs at a show



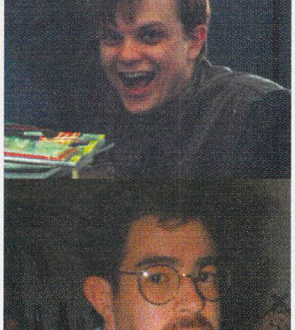
Jonathan "Biff" Maddock, ST Action games guru who has no conception of the term "copy deadline"



Simon "Larasso" Clays, ST Action staff writer, also rumoured to be the voiceover man on ITV's Movies Games and Videos



Tina Hackett, now games editor for STR showing that she can totally cope with the pressures of deadlines



Adam Philipps, our erstwhile news editor for the past few issues. Often referred to as Madman Phillips for reasons best kept under wraps

Terry Thiele, STU's artist extraordinaire. He could probably design and lay out three 100 page magazines in a week using a 1k ZX81

Yes, this is the very last issue of *Atari ST User*. After over eight and a half years and 106 issues, we are to merge with our sister mag – *Atari ST Review*, which keeps its name. The decision to merge the two mags was made because we felt that to continue publishing two Atari magazines within one publishing house and in today's Atari market, only weakens both titles.

The merger can only serve to provide you, the reader, with a much stronger and even better Atari magazine dedicated to bringing you the latest news, reviews and features.

Under the expert guidance of editor Vic Lennard, you can be sure that STR will be bigger and better after the merger, with more pages and even better CoverDisks brimming with excellent software. No doubt long-time loyal STU readers will be wondering why STU is the one to be absorbed, but, at the end of the day, what makes a magazine popular is its editorial content and the style in which it is written.

With this in mind, STU readers may well be happy to hear that many of our talented freelancers will be transferring to STR. So you can be sure that STR will boast some of the best Atari journalists in the business.

In fact, after the merger, STR will have over 24 writers, many of them being regulars. This is probably the largest pool of contributors for any magazine.

Joining the already talented STR crew will be STU Atari gurus, Günter Minnerup – regular Aspects column writer with excellent DTP knowledge – Richard Williams, business Aspects and Education software expert, and the multi-talented Andrew Wright, who has been the current disk editor since the September issue, and has been writing in STR for some time now.

Which neatly brings me on to a change which occurred in the September issue. This might have slipped your attention, unless you regularly keep track of the editorial team list (known as the flannel panel), printed in every issue.

After over two years of expert leadership and awesome enthusiasm, John Butters (known to all in the office as Mr Let's Compute) relinquished his command as editor to pursue a career in public relations.

I was unceremoniously stripped of my duties as technical / disk editor and suddenly found myself in the big editor's chair (and very comfortable it was too).

Well, I'm off to the big bad Multimedia PC world, and as for the rest of the in-house STU staff, they will also be moving on to other magazines within Europress.

I'd like to thank all the freelancers, both past and present, for their outstanding contributions to STU over the years, and wish them all the best in their roles on STR.

And a big thank you to all you readers out there who have supported us over these past eight years. It's been quite an experience, and great fun too.

Now, let's end on a light-hearted note by printing a few embarrassing pictures of some of the team responsible for bringing you STU over the past year.

Darren Evans
Editor

ATARI ST USER

An artist may lose his brushes but never his Cinquecento

R.I.P. David Larasso 1903-1994

Up and onwards

by Adam Phillips

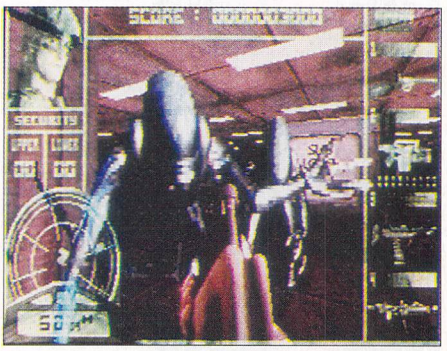
As Atari ST User closes its pages for the last time before vanishing from the shelves of all good newsagents, the Atari Corporation still moves on with a question mark visible over its head. The Jaguar is selling well, but the competition next year is looming, sharpening its multi-corporate claws and waiting to pounce on the young cat.

With high hopes resting on the "next generation" in gaming software, Alien Vs Predator, to be released October 20, and costing a hefty £60, Atari are continuing their publicity campaign. TV spots, magazine advertising, mall tours and radio competitions make up the main stock of PR efforts in the US, with similar plans being prepared for the UK.

Unfortunately, at the recent ECTS trade show in London, the presence of Atari's Jaguar was minimal. Indeed, Atari had no stand, and few developers were openly brandishing any titles being created for it.

On the positive side, Alien Vs Predator did receive its official trade release at the London Planetarium. Projected onto the overhead screen, the reaction of the 250 guests was extremely promising. The BBC were there to film the event, and the game reached an overall audience of four million viewers thanks to a four minute slot on Newsround on September 6.

In the meantime, Falcon owners will have to play the waiting game to see if anything will arise from the Jag's potential success. There are titles winging their way over from Germany at some point in the future, but for now, there are few details available, and the big bird's situation looks as grim as ever.



AVP: The game everyone has been waiting for

ELSPA step up pornography fight

Officially released at the recent ECTS show, ELSPA's white paper on the past, present and foreseeable future of pornography has been submitted to the government, bringing concerns of hardcore material finding its way into the floppy and hard drives of children.

The paper calls on the government to provide greater police resources, and increase police training in a bid to curb the ever increasing problem.

"The fight against pornography is not helped by a belief that it is difficult to obtain a conviction in court for all but the most obnoxious material", commented John Loader, chief investigator at ELSPA's Crime Unit.

"Because of the way that computer pornography is particularly accessible by children, we believe that the Home Office should issue guidelines advising courts to interpret the Obscene Publications Act when dealing with computer pornography, as if children were the intended audience."

Pornography: ELSPA want government to make changes

For further information and a copy of the white paper, contact Ben Hill at Firefly Communications on 071 381 4505.

Internet opened up

With the super information highway starting to take shape, CompuServe has begun the testing of a new service that allows members to participate in discussions on USENET. This access should allow the operator to enter thousands of discussion groups on a huge variety of differing subjects.

Once testing is complete, CompuServe members will be able to read and contribute to the USENET News groups. "CompuServe recognises our members want to augment the wide array of products and services available on CompuServe by expanding their information horizons on the Internet as well", said Charla Beaverson, Internet project manager at CompuServe.

Also recently introduced is the online support directory. According to CompuServe, with over 800 hardware and software companies available for consultation about anything from a printer and hard drive to a monitor and cable, the service provides a comprehensive and useful database.

"Support Directory makes it very easy for members to get help with their hardware and software problems, and make informed buying decisions", said Jim Hogan, director of product marketing.

For more information, contact CompuServe on 0800 289378.

CompuServe

CompuServe: Continuing to make the Internet more accessible

Shelving for sale

Premier Developments are set to release three sets of shelves for the ST market. The intention is to have a family of seven Desk-Top Workstations to match the requirements of users.

At present, the range includes two versions of a double-shelved unit and a single level version. With the double version, the monitor is mounted on top, with a shelf underneath for peripherals and a storage space below for either a computer or keyboard.

Prices for the Uni range cost from £31.29 up to £38.85 and they are available from a computer retailer near you. For further information, phone John Germany on 0487 823684.

Asta Sono Vista, baby

We've all seen those flashing, psychedelic computer graphics displays used extensively in night clubs, on television and at concerts. Chances are that the machinery used to produce some of these effects was an American-made product called the Sonovista.

Sister machine to the BitBOPPER, a £43,000 graphics generator, the Sonovista is a cut down version that is run via a modified Falcon with dongle.

It can be used for pop production, youth entertainment television, live concert backdrops, product launches and where video is used in discotheques and theme bars.

The manufacturers claim, "We calculated that the Sonovista can generate over 5000 billion different effect combinations from just the standard machine, with 10,000 locations for storing pre-defined sequences of effects and messages."

The hardware has been used by the likes of Prodigy, Culture Beat and MTV, and is now available to professionals in Europe with the arrival of the PAL version. Distributed by BCS, the base unit costs £3,400, and with added video capabilities such as genlocking, YC capabilities and a host of others, costs just under £4,000.

For further information, contact Duncan Latham at BCS on 0625 615379.

The Sonovista system (is it me, or is that a Falcon painted black – Ed

Crime unit cracks down on pirates

Following the recent discovery of pirated CD software valued at £10 million, ELSPA's crime unit, headed by John Loader, has recovered over 200 CD-ROM discs and writing equipment from two addresses in Manchester.

The software, worth £500,000, has been examined by both ELSPA investigators and the Greater Manchester Obscene Publications Department. Loader said, " Not only does illegal activity pose an enormous threat to the commercial interests of the UK's legitimate computer games software industry, but it highlights the increasing problem of production and distribution of illegal pornographic software throughout the UK."

This month also saw the conviction and imprisonment of two counterfeiters, Donald George Brown and David Doyle. Brown was recently found guilty of four offences relating to copyright infringement, and was sentenced to three months in prison. 5,600 disks containing copied software and copying equipment were uncovered at his premises by police and ELSPA officials.

David Doyle was found to be manufacturing counterfeit software, and received a six month sentence plus a £5000 bill for court costs.

If you have any information that should receive the attention of the crime unit, phone John Loader in confidence on 0386 833810.

What a stereoCAD

With the latest craze of studying scrambled computer generated images sweeping the country, JCA Europe have jumped on the bandwagon to bring us Stereo CAD, a program to generate such pictures on the ST.

Facilities include the ability to define three dimensional objects such as spheres , pyramids, tubes, stars and prisms. Also available is the opportunity to import and export PI1 format pictures for direct conversion to stereogram or as a backdrop to 3D object scenes. Text and freehand drawing options are included to create individual work.

Any final results can be printed or shown on screen, providing hours of staring and squinting to hunt out the pictures. Stereo CAD costs £29.95 including delivery, and JCA Europe can be reached on 01734 452416.

Multi-platforms

With 166 exhibitions under their belt, the All Formats Computer Fairs are continuing their regular tours round the country. Covering the latest in ST, Amiga, PC, and shareware games (even 8 bit products), a full rundown of shows can be obtained from Bruce Everiss on 0608 662212.

★ ★ ★

Help group

The Samaritans have been offering emotional support to the suicidal and depressed for over 40 years, but now, in a response to new technology, the charity has opened an E-mail service for Internet users. Called "Help By E-mail", the on-line service was test launched in July, and proved so successful that it has been set up indefinitely.

"During the test month we received over 200 messages. Many were from well wishers, journalists and academics, but there were around 15 from very desperate people as well. The need for a full launch of our service with the easier address was amply demonstrated", said Mike Haines, the Director.

To use the service, E-mail on: jo@samaritans.org and for anonymous mail, type: samaritans@anon.penet.fi. All messages will be handled in the strictest confidence.

★ ★ ★

Virtual VD

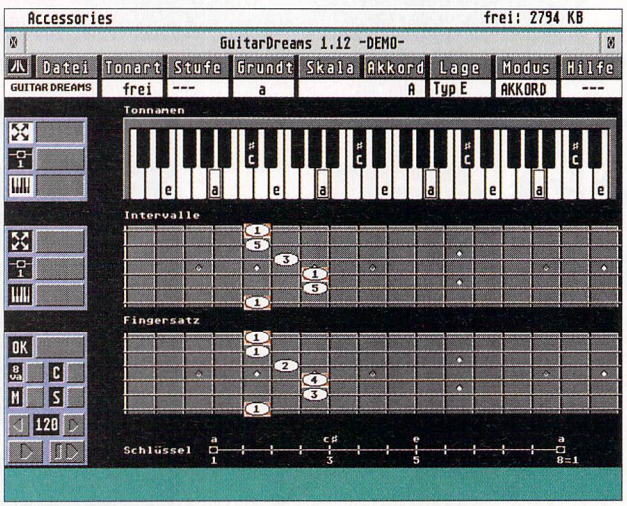
For avid "users" of computer pornography, a new threat is on the horizon which is not lead by ELSPA. It was recently discovered that "electronic VD" has infected certain parts of the Internet. When pornography is downloaded, the virus enters the files of the user and wreaks havoc.

Euro News

Don Maple reports from Europe on the latest releases for both the professional and amateur musician

Finding the lost chord

Guitar Dreams is an educational program to teach the guitar aimed at both the beginner and the experienced player. Comprising over 100 chords and 50 different scales, its interactive user interface finds the right chord very quickly. Chords are also displayed on a keyboard.



Additional features include various open tunings, and Guitar Dreams even has a built-in sequencer to help with arrangements. The program also has MIDI output, including standard MIDI file export, and will also print scores, scales, chords and fingering. During playback, the fingerboard display is being updated in real time.

Guitar Dreams runs in both colour and B/W, but needs a resolution of at least 640 x 400. In Germany the program sells for 298DM (about £120) and is available from SoundPool, Postfach 1112, 74373 Zaberfeld, Germany.

Also available from SoundPool is an eight-channel audio interface for the professional musician. Up to eight analog sound sources can be connected to the device which joins the Falcon's DSP port and the SPDIF interface. Bundled with the hardware is direct to disk software "Audio Tracker Lite". The program is tape orientated and works with both IDE and SCSI hard drives. In addition it contains a wave editor capable of working on multiple tracks simultaneously.

Eurotalk

● The publication of a new Atari magazine has been announced in Germany. Aimed at users of DTP software, it goes under the name of "Information ainz" which roughly translates into Information One.

The magazine will be very user-orientated, with many practical tips and typographical courses written by the programmers themselves. Naturally, new software and new fonts will also be covered. It is expected that the magazine will be issued on a monthly basis, but this is yet to be confirmed.

It only goes to show there is life in the Atari line when people are prepared to invest in a brand new magazine.

● The Chagall image processing program, introduced first here in EuroNews, has a new caretaker following the collapse of the original company. Development will continue, with a new version expected in September. The prices have been drastically cut, and now range between 499DM and 199DM (about £200 – £80).

The Chagall can be purchased from: Konfect Corp., Postfach 1113, 63797 Kleinostheim, Germany.

● GFA-Basic is not dead – yet. It was originally taken over by Richer Distributor to be rewritten and released as Basic 4.0, but unfortunately over the last 15 months, the programmers have quit and left the Atari market.

On the other hand, upgrade requests and enquiries keep flooding in, so Richter is urgently looking for people to finish the project which is now only about 300 hours from completion.

Interested parties should write to: Richter Distributor, Hagener Str. 65, 58285 Gevelsberg, Germany.

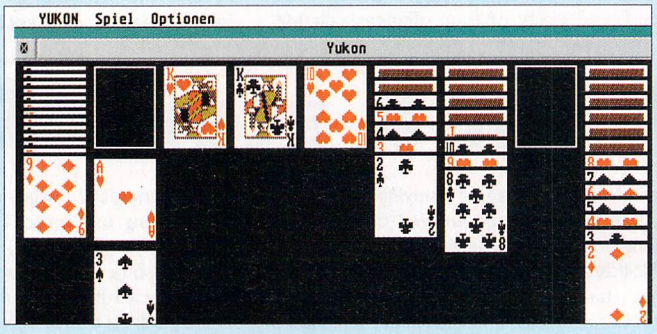
PD of the month

The idea behind Yukon, like the ideas behind most highly addictive games, is quite simple.

It's a card game, and it starts out by shuffling the cards and dealing a number of them. As they are being dealt, the cards are arranged in seven columns. while the remainder of the deck is placed face down. The goal of the game is to sort the deck back into four original suits starting with the ace and going all the way up to the king.

To help with this, the cards in the seven columns can be moved, but only if they keep alternating between black and red suits, and are in descending order. When no more ordering and moving to the sorted stack is possible, the player requests another card from the deck. If possible this card should be moved either to the sorted stacks, or the seven columns.

When all cards from the deck are dealt, the game is over. If the player has managed to sort all cards they win, otherwise the game starts all over again. Yukon runs on all Ataris in both colour and monochrome, but requires a resolution of at least 640 x 400. The author calls the program "fairware" and asks for a donation, leaving it up to the user to determine how much. Yukon can be obtained from Dirk Haun, Europastr. 8, 64569 Nauheim, Germany.



SENSIBLE SOCCER
10.99

CHAOS STRIKES BACK
3.99

S.O. MONKEY ISLAND
9.99

LEMMINGS 2
9.99

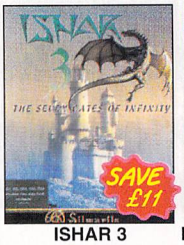
CANNON FODDER
20.99

ISHAR 2
8.99

CHAMP MANAGER
9.99

FORMULA 1 G. P.
13.99

ELITE 2
19.49



ISHAR 3
21.49

PREMIER MANAGER 2
16.99

CHAOS ENGINE
15.49

IMPORTANT PLEASE NOTE
1 MEG = requires at least 1 meg RAM
D/S = requires double sided disk drive
• = NEW item

ATARI ST GAMES

AIR BUCKS D/S (1 MEG) ... 20.49
ANOTHER WORLD ... 11.49
ARCHER MACLEAN'S POOL D/S ... 11.49
B17 FLYING FORTRESS D/S (1 MEG) ... 24.49
BART Vs THE WORLD ... 19.99
BLUES BROTHERS ... 7.99
CADAVER ... 11.49
CAESAR D/S (1 MEG) ... 19.99
CANNON FODDER D/S ... 20.99
CHAMPIONSHIP MANAGER 93/94 D/S (1 MEG) 9.99
CHAMPIONSHIP MANAGER 93/94 D/S (1 MEG) (END OF SEASON DATA DISK) ... 13.49
CHAMPIONSHIP MANAGER 93/94 (1 MEG) (UPDATE DISK) ... 8.99
CHAMPIONSHIP MANAGER COLLECTION (93/94 + UPDATE DISK) D/S (1 MEG) ... 13.99
CHAOS ENGINE D/S (1 MEG) ... 15.49
CHAOS STRIKES BACK ... 3.99
CIVILISATION D/S (1 MEG) ... 24.49
CORRUPTION (M/SCROLLS) ... 7.49
CRAZY CARS 3 ... 8.99
CRUISE FOR A CORPSE (1 MEG) ... 11.49
CRYSTAL KINGDOM DIZZY ... 14.99
DREAMLANDS (TRANSARCTICA, STORM MASTER, ISHAR) (1 MEG) ... 20.49
DYNA BLASTERS D/S ... 21.99
ELITE 2 (FRONTIER) D/S (1 MEG) ... 14.99
EUROPEAN CHAMPIONS (STE) ... 14.99
F1 (DOMARK) D/S ... 19.99
F15 STRIKE EAGLE 2 D/S (1 MEG) ... 9.99
F19 STEALTH FIGHTER D/S (1 MEG) ... 12.49
FINAL COMMAND ... 2.99
FIRST SAMURAI + MEGA LO MANIA D/S (1 MEG) ... 12.99
FLAMES OF FREEDOM D/S (1 MEG) ... 12.49
FORMULA 1 GRAND PRIX D/S (1 MEG) 13.99
FUTURE WARS D/S ... 9.99
GOAL (1 MEG) ... 7.99
GRAHAM GOOCH WORLD CLASS CRICKET D/S ... 20.99
HARLEQUIN ... 9.49
HEIMDALL (1 MEG) ... 14.49
IK+ ... 6.99
IMMORTAL D/S (1 MEG) ... 10.49
INDIANA JONES ACTION ... 4.99
INDIANA JONES ADVENTURE D/S ... 11.49
ISHAR 2 - LEGIONS OF CHAOS D/S (1 MEG) 8.99
ISHAR 3 D/S (1 MEG) ... 21.49
JIMMY WHITES SNOOKER D/S ... 11.49
JINXTER (M/SCROLLS) ... 4.49
KICK OFF 2 D/S ... 9.49
KILLING GAME SHOW ... 7.99
KINGMAKER D/S ... 24.99
KINGS QUEST 4 D/S ... 12.49
KNIGHTS OF THE SKY (1 MEG) ... 12.49
LASER SQUAD ... 8.99
LEISURE SUIT LARRY 2 (1 MEG) ... 10.49
LEISURE SUIT LARRY 3 ... 11.49
LEMMINGS 2 D/S (1 MEG) ... 9.99
LEMMINGS DATA DISK - OH NO! ... 9.99
LORDS OF CHAOS ... 8.99
LOTUS TURBO CHALLENGE 2 ... 7.99
LURE OF THE TEMPTRESS D/S (1 MEG) ... 11.49
M1 TANK PLATOON D/S ... 11.49
MANIAC MANSION D/S ... 10.49
NIGEL MANSELL'S WORLD CHAMPIONSHIP D/S ... 17.99
ONE STEP BEYOND D/S ... 9.99
PANG ... 6.99
PARASOL STARS D/S ... 8.99
PATRICIAN D/S (1 MEG) ... 14.99
PICK 'N' PILE ... 2.99
PIRATES D/S ... 10.49
POLICE QUEST 1 ... 12.49
POPULOUS & PROMISED LANDS D/S (1 MEG) ... 10.49
POWER UP (CHASE H.Q, TURRICAN, X-OUT, ALTERED BEAST, RAINBOW ISLANDS) D/S ... 14.99
POWERDRIFT ... 3.49
POWERMONGER + WW1 DATA DISK D/S 11.49
PREMIER MANAGER 2 (1 MEG) • ... 16.99
PREMIER MANAGER D/S ... 12.99
PRINCE OF PERSIA D/S (1 MEG) ... 6.99
PRO TENNIS TOUR 2 D/S ... 10.99
PUSH-OVER D/S ... 8.99
REACH FOR THE SKIES D/S (1 MEG) ... 11.99
REALMS ... 10.49
ROBINSONS REQUIEM (1 MEG) ... 21.99
ROBOCOP 2 ... 6.99
ROBOCOP 3 D/S (1 MEG) ... 7.99
RORKE'S DRIFT D/S ... 6.99
SABRE TEAM D/S (1 MEG) ... 10.49
SCRABBLE ... 9.99
SCRABBLE (US GOLD) ... 20.99
SECRET OF MONKEY ISLAND D/S (1 MEG) ... 9.99
SENSIBLE SOCCER ('92/93 SEASON) D/S 10.99
SENSIBLE SOCCER - INTERNATIONAL EDITION D/S (1 MEG) ... 15.49
SHADOW OF THE BEAST 2 ... 8.99
SHADOWGATE ... 3.99
SHADOWORLDS D/S (1 MEG) ... 5.99
SLEEPWALKER (STE) ... 8.99
SPACE QUEST 1 ... 12.49
SPECIAL FORCES D/S (1 MEG) ... 10.99
SPEEDBALL 2 ... 8.99
STREETFIGHTER 2 D/S (1 MEG) ... 11.49
TACTICAL MANAGER - ENGLISH LEAGUE D/S (1 MEG) ... 18.49

TROJAN LIGHT PHAZER GAMES
CYBER ASSAULT ... 4.99
FIRESTAR ... 4.99
THE ENFORCER ... 4.99
WIZ-KID D/S ... 10.49

ATARI ST EDUCATIONAL

FUN SCHOOL 4 (5-7 YRS) ... 16.49
MICRO GERMAN (BEGINNER TO GCSE AND BUSINESS LEVEL. CONFORMS TO NATIONAL CURRICULUM) ... 18.99
NODDY'S PLAYTIME SUPERB NODDY THEMED EDUCATIONAL ADVENTURE. SUITS AGES 3+. ... 17.49

BOOKS

CIVILISATION GUIDE BOOK BY SID MEIERS ... 18.49
CORISH COMPUTER GAMES GUIDE (HINTS, TIPS AND POKES FOR OVER 600 COMPUTER GAMES) ... 12.99
DUNGEON MASTER HINT BOOK ... 3.99
SECRET OF MONKEY ISLAND HINT BOOK ... 8.99

MEGADRIVE GAMES

PETE SAMPRAS TENNIS (4 PLAYER) ... 34.99
STREETS OF RAGE 3 ... 39.99
ROAD RASH 2 ... 19.99
VIRTUA RACING ... 58.99
EA SPORTS SOCCER (4 PLAYER) ... 36.49
CHAOS ENGINE ... 38.99
MORTAL KOMBAT 2 • ... 42.99
URBAN STRIKE ... 34.99
SENSIBLE SOCCER INT'L EDITION • ... 35.99
SUPER STREETFIGHTER 2 • ... 45.99
X-MEN ... 18.99
SUPER MONACO GP ... 12.99
DUNE 2 (BATTLE FOR ARRAKIS) ... 31.99
PGA EUROPEAN TOUR ... 32.99

SUPER NES GAMES

FIFA SOCCER ... 35.99
SIM CITY ... 19.99
PGA TOUR GOLF ... 14.99
SUPER METROID ... 41.99
MEGA MAN X ... 32.99
STARWING ... 19.99
STUNT RACER FX • ... 41.49
ROCK AND ROLL RACING ... 37.99
MORTAL KOMBAT 2 • ... 52.99
KEVIN KEEGAN PLAYER MANAGER ... 19.99
DESERT FIGHTER ... 39.99
STREETFIGHTER TURBO ... 32.99
SUPER MARIO KART ... 33.99
NBA JAM ... 49.99
JOHN MADDEN '93 ... 17.99
CHOPLIFTER 3 ... 34.99
SUPER BATTLETANK 2 ... 41.99
ALL OFFICIAL UK VERSIONS

FOR OUR FULL RANGE OF PRODUCTS PHONE OUR SALES LINES ON 0279 600204 AND REQUEST A FREE 16-PAGE COLOUR CATALOGUE

ATARI JAGUAR 64-BIT CONSOLE
WITH JOYPAD AND CYBERMORPH GAME. GENUINE UK VERSION
219.99

ATARI JAGUAR GAMES

ALIEN VS PREDATOR ... 50.99
BRUTAL SPORTS FOOTBALL ... 44.99
CRESCENT GALAXY (TREVOR MCFUR) ... 37.99
KASUMI NINJA ... 45.99
RAIDEN ... 37.99
REDLINE RACING ... 50.99
RISE OF THE ROBOTS • ... 45.99
STAR RAIDERS 2000 ... 45.99
TEMPEST 2000 ... 45.99
WOLFENSTEIN 3D ... 45.99

SPECIAL RESERVE DISKS WITH LABELS BRITISH MADE ERROR FREE
PACK OF 50
17.99

SONY KVM1400 14" FST COLOUR TV/MONITOR WITH REMOTE CONTROL.
60 CHANNEL TUNING, REAR SCART INPUT, HEADPHONE SOCKET, TWO POSITION TILT, BLACK TRINITRON SCREEN & LOOP AERIAL.
FREE SCART LEAD
(STATE AMIGA, ST, M/DRIVE SNES OR CD32).
SONY TV (GREY AS SHOWN) ... 194.99
SONY TV (WHITE) ... 194.99
SONY TV + FASTEXT ... 244.99

PRINTERS

CITIZEN ABC PRINTER WITH COLOUR KIT
24 PIN, 80 COLUMN, 192CPS/64NLQ, 5LQ/1 DRAFT FONTS, 2 YEAR WARRANTY, FREE PRINTER LEAD. EASY TO USE ... **159.99**

CANON BJ10-SX BUBBLE JET PRINTER.
64 NOZZLE, 80 COLUMN, 110LQ CPS 2LQ/3 DRAFT FONTS, 1 YEAR WARRANTY, FREE PRINTER LEAD. SMALL VERY QUIET PORTABLE PRINTER ... **185.99**

CITIZEN SWIFT 200C PRINTER WITH COLOUR KIT
24 PIN, 80 COLUMN, 216CPS/72LQ 6 LQ/1 DRAFT FONT, AUTO SET FACILITY, INPUT DATA BUFFER, AUTO PAPER LOADING, ENVELOPE PRINTING, 2 YEAR WARRANTY, FREE PRINTER LEAD. ... **189.99**

PRINTER LEAD (PARALLEL) 1.5 METRES ... **7.99**
PRINTER LEAD (PARALLEL) 5 METRES ... **10.99**
DUST COVER FOR 80 COLUMN PRINTER ... **4.99**

GOOD RANGE OF RIBBONS AND INK CARTRIDGES IN STOCK
PHONE 0279 600204 FOR OUR FREE 16-PAGE CATALOGUE

MICE

EKLIPSE MOUSE . 290 DPI RESOLUTION AND LONG CORD **10.99**

ALFA CRYSTAL TRACKBALL BALL LIGHTS UP WHEN MOVED OR BUTTONS CLICKED **29.99**

MOUSE MAT WITH SPONGE BACKING (shown - colours may vary) ... **4.99**
MOUSE MAT (JUNGLE SCENE) WITH SPONGE BACK AND COLOUR PRINT (not shown) ... **6.99**
MOUSE HOUSE (HANDY PLACE TO STORE YOUR MOUSE) ... **4.49**
PORT EXTENSION ADAPTOR (TWO) - EXTENDS MOUSE AND JOYSTICK PORTS BY 21CM ... **6.99**

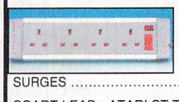
DISKS & ACCESSORIES

PACK OF 10 SPECIAL RESERVE DSDD 3.5" DISKS + CASE. WITH LABELS & FREE PLASTIC FLIP TOP DISK BOX ... **5.99**
PACK OF 50 SPECIAL RESERVE DSDD 3.5" DISKS + LABELS ... **17.99**
PACK OF 50 SPECIAL RESERVE HIGH DENSITY 3.5" DISKS WITH LABELS ... **25.99**
3.5" DISK HEAD CLEANER ... **4.49**
DISK BOX 3.5" PLASTIC FLIP TOP (10) ... **2.49**
DISK BOX 3.5" (120) LOCKABLE, DIVIDERS ... **9.99**

MEDIA LIFE DISK FILE DRAWER STACKABLEDESIGN (100 CAPACITY). ... **13.99**
(200 CAPACITY) ... **15.99**

DELUXE DISK BOX 3.5" (80) LOCKABLE, DIVIDERS **9.99**

EXTERNAL 3.5" DISK DRIVE FOR ANY ATARI ST WITH SONY/CITIZEN DRIVE MECHANISM. 800K FORMATTED CAPACITY, QUIET, HIGH QUALITY, SLIM LINE DESIGN, COLOUR MATCHED METAL CASE AND LONG REACH CONNECTION CABLE. ... **59.99**
MEDIA LIFE A4 COPY HOLDER. FREE STANDING, EASY SELF ASSEMBLY. HOLDS A4 PAGE FOR COPY TYPING INTO WORD PROCESSOR ... **6.99**
MEDIA LIFE CD FILE DRAWER (30 CAPACITY). STACKABLE DESIGN, EASY SELF ASSEMBLY ... **15.99**



ANTI-SURGE 4 WAY MULTIPLUG EXTENSION FOR ANY ELECTRICAL DEVICE. PROTECTS AGAINST ELECTRICAL SURGES ... **24.99**
SCART LEAD - ATARI ST TO SONY TV ... **9.99**
SCART LEAD - ATARI ST TO PHILIPS TV ... **9.99**
RF LEAD - TV TO CONSOLE OR COMPUTER ... **3.99**
RF SWITCH - AMIGA, ST OR CONSOLE. SWITCH BETWEEN TV AERIAL AND COMPUTER ... **3.99**

JOYSTICKS

CHEETAH BUG JOYSTICK MICROSWITCHED WITH AUTOFIRE. **13.99**

COMPETITION PRO EXTRA JOYSTICK CLEAR BASE, MICROSWITCHED WITH AUTOFIRE **11.99**

QUICKSHOT 128F MAVERICK 1 AUTOFIRE **11.99**

POWER PLAY CRUISER TURBO MICROSWITCHED WITH AUTOFIRE **12.99**

SAITEK MEGAGRIP 2 JOYSTICK WITH AUTOFIRE **11.99**

QUICKSHOT 137F PYTHON JOYSTICK FOR AMIGA/ST. WITH AUTOFIRE **9.99**

SLIKSTIK JOYSTICK FOR AMIGA/ST **5.99**

SUPER PRO ZIP STICK JOYSTICK MICROSWITCHED WITH AUTOFIRE **11.99**

SWIFT TP200 JOYPAD. TURBO FIRE AND AUTOFIRE **9.99**

JOYSTICK EXTENDER CABLE FOR AMIGA OR ST (3 METRES) ... **6.99**
PORT EXTENSION ADAPTOR FOR AMIGA OR ST (PACK OF TWO). EXTENDS JOYSTICK AND MOUSE PORTS BY 21CMS ... **6.99**
ROBOSHIFT INTERFACE FOR AMIGA OR ST (PLUGS MOUSE & JOYSTICK INTO ONE PORT) ... **13.99**
FOUR PLAYER JOYSTICK ADAPTOR FOR AMIGA OR ST ... **7.99**

JOIN now from just £4.00

Special Reserve
The Discount Club

READ Special Reserve Magazine
48 Page colour club magazine sent bi-monthly to members
CHOOSE from our Huge Selection
From leads to PC's and thousands of games for all formats
BUY at Best Possible Prices
Just one purchase will normally save you the cost of joining.
SAVE with our Special Deals
Always hundreds of Special Reserve Offers onTop products
SAVE MORE with our XS Coupons
Money-off coupons worth over £180 a year off classic games.
AND ENTER our FREE competitions

Six reasons why over 200,000 people have joined Special Reserve.
The biggest games club in the World!

We only supply members but you can order as you join. Just send in the form below or phone. There's no obligation to buy.

0279 600204

OPEN to 8pm DAILY or Fax 0279 726842
FREE 16-PAGE COLOUR CATALOGUE - JUST ASK

CLUB SHOPS
OPEN 10amTIL 8pm 7 DAYS A WEEK
CHELMSFORD
43 Broomfield Road
SAWBRIDGEWORTH
Riverside Way, The Maltings

MEMBERSHIP FEES	6 MONTHS MEMBERSHIP	ONE YEAR MEMBERSHIP
UK MEMBERS	**4.00**	**7.00**
OVERSEAS EC MEMBERS	6.00	9.00
OVERSEAS WORLD MEMBERS	7.00	11.00

WE ONLY SUPPLY MEMBERS BUT YOU CAN ORDER AS YOU JOIN. All prices include VAT and carriage to UK mainland. See base of order form for overseas surcharges. Hardware orders to UK mainland only.
(PLEASE PRINT IN BLOCK CAPITALS) **HAPL**

STJSER

Name_____
Address_____
_____
_____Postcode_____
Phone_____Machine_____
Enter membership number or MEMBERSHIP FEE (ANNUAL UK 7.00) _____
item _____ _____
item _____ _____
item _____ _____
PRICES INCLUDE UK POSTAGE & VAT £ _____
Cheque/P.O./Access/Mastercard/Switch/Visa (Switch Issue No_____)
Card expiry_____Signature_____
_____
Cheques payable to:
SPECIAL RESERVE
P.O. BOX 847, HARLOW, CM21 9PH

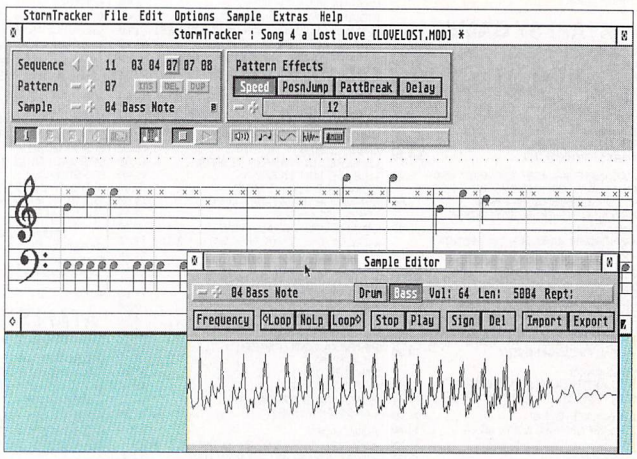
Overseas Orders Surcharge
(EC or World) **Software orders please add £2.00 per item. Non-software items please add 25%. Hardware items supplied to UK mainland only. *Overseas orders must be paid by credit card.***

Order/Confirmation/Receipt sent for every order.We only supply official UK products.Official suppliers of all leading brands.
We sell games and peripherals all at amazing prices for Megadrive, Mega CD, Master System, Game Gear, Super NES, Gameboy, NES, Lynx, Amiga, Atari ST, PC, CD ROM, CDi, CD32 & Apple Mac.
Inevitably some games listed may not yet be available. Please phone sales on 0279 600204 to check availability before ordering. We reserve the right to change prices and offers without prior notification. PRICES CORRECT AT TIME OF GOING TO PRESS. 7.9.94. E. & O.E.
Inter-Mediates Ltd, 2 South Block, The Maltings, Sawbridgeworth, Herts. CM21 9PG.

SAVE £2.00
• NEW MEMBERS •
THIS VOUCHER IS WORTH £2.00.
JUST DEDUCT £2.00 OFF THE PRICE OF ANY ONE ITEM ORDERED AS YOU JOIN FOR ONE YEAR OR MORE. USE BY POST OR AT OUR SHOPS OR BY PHONE ON 0279 600204.
Offer applies to Memberships of one year or over, bought between August 1st 1994 and October 30th 1994

It looks as though Christmas has come early this year - not only have we got an exclusive Stormtracker demo, but we've added three more top class fonts, an addictive arcade game, some stunning pictures and utilities, and a great little hard drive accessory too

COVER disk



A real stormer of a tracker

Stormtracker

A stormin' good demo of the best MOD editor ever seen on the Atari

A MOD player is a MOD player is a MOD player, right? Wrong! Stormtracker is completely different to other trackers. It casts aside cryptic convention and mind-boggling complexity in favour of a bright, GEM based interface and standard musical notation.

Now you can create your own music, using patterns and samples from almost any source. Simply add notes to the staves on the screen and play them back through your Atari's standard sound system.

Stormtracker works on any 1 Mb Atari, including the Falcon, and in any resolution except ST low – though monochrome is highly recommended. On the STFM series, playback is via the Yamaha sound chip at either 8 or 10 kHz (16 kHz is for accelerated machines only). On an STE things are a little better, with 8 bit sound. And on the Falcon they're better still, with 16 bit sound. Sound can be replayed at 12.5 or 25kHz (50kHz if accelerated or on Mega STE/TT/Falcon).

Stormtracker uses a similar approach to the definitive but ageing ProTracker, and even shares the same MOD file format first developed for use on the Amiga. Unlike MIDI sequencers, trackers work by storing sound samples in memory and playing them back at different pitches as instructed by the user. In this way a complete band or orchestra can be assembled in the comfort of your own living room!

Each song, or MOD, is built up using a number of sampled sounds (Stormtracker can load up to 31 different ones). Fifteen are supplied in the demo version, including guitar, electric guitar, saxophone, harpsichord, piano, strings, bass and several drums such as the snare, cymbal and bongo. Many more are included with the full version.

Special effects or electronic sounds can also be used to create music. The notes are arranged in anything up to 64 patterns , each repeating when and where necessary. Four voices are supported too, 1 and 4 for the left channel and 2 and 3 for the right.

Unlike many tracker programs, the notes can be entered directly onto the stave in standard musical notation (select Show as real notes under the Options menu). You get to hear the note play when you place it on the stave and you can even move it up or down to find the right pitch. Special effects can be added too, such as arpeggio and vibrato.

Samples can be imported or exported in AVR, Windows WAV, or signed/unsigned 8 bit formats (SPL/SAM), and they can be altered to some extent using the built-in editor.

The full version costs £24.95 from Goodman International and includes a second disk full of samples and MOD files, and a 100 page manual. Spend just a few minutes trying out Stormtracker and you'll probably agree that it stands head and shoulders above the rest. It is probably the best tracker on any platform.

What's on the disk

Program	By	Configuration	File/s	Disk space needed to extract
Calamus fonts	Advanced Graphics	Any Atari	X_CFN.TOS	133830
PostScript fonts	Advanced Graphics	Any Atari	X_AFMPFB.TOS	129041
Stormtracker demo	Astrasoft	Any 1 MB Atari	X_STORM.TOS	529728
Andromeda	Andromeda Shareware	STE/STFM only	X_ANDROM.TOS	65719
Clickies	Douglas Little	STE/Falcon	X_CLICKS.TOS	56799
Finder 2.0	Bill Aycock	Any Atari	X_FINDER.TOS	40586
JPEG maker	Andrew Younger	STE/STFM only	X_JPEG.TOS	79752

JPEG Converter

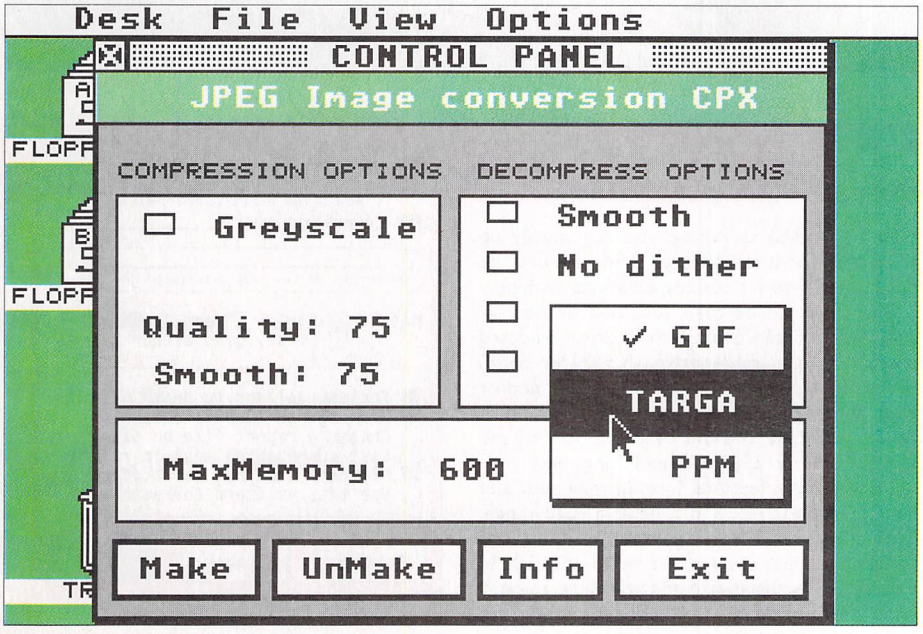
Compress and decompress your own JPEGs with this handy little converter in CPX format

The independent Joint Photographic Experts Group developed the JFIF/JPEG format to store photographic images in a portable, highly compact format. The resulting compression scheme is capable of extremely impressive results, despite a distinct trade-off between compression and quality due to what is called "lossy" compression.

The quality of a JPEG is usually given as a percentage, with the highest quality being over 90 per cent. High quality JPEGs are hard to tell apart from the originals, but they can take up between a sixth and a tenth of the disk space. Lower quality JPEGs tend to be relatively tiny, and the loss of detail is quite dramatic below 50 per cent.

This month's utility is a control panel extension, or CPX program, that needs the Atari Extensible Control Panel (XCONTROL). It should be copied into the CPX folder or whichever folder contains your CPXs, and then installed in the normal way. CPXs don't need to be stored in memory but can be loaded whenever they are needed. Once you open the control panel you will see an entry titled JPEG Make/Unmake. Double clicking on this slot will present you with an options menu. When compressing an image, you can opt for greyscale or colour, and specify the quality and smoothness of the resulting JPEG. When decompressing existing JPEGs, options exist for smoothing, switching dithering off, greyscale conversion or 256 colours. When you select make or unmake, a bar appears showing you how the job is progressing. Source or destination images can be GIF, Targa or portable bitmap format (PPM).

Also included on the cover disk (not archived) are three sample JPEG files which you can decompress to Targa format and view using CLICKTGA.TTP. These images are royalty free – you are free to make use of them.



This month's fonts in DA's Vector

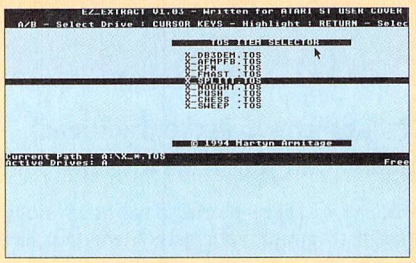
Using the CoverDisk

First things first. Write-protect your CoverDisk now by sliding the write protect tab, inside the small hole in one corner of the disk, so that you can actually see through the hole. Your data is now safe from accidental erasure.

In order to fill the disk with as many programs as possible, ST User employs disk compression techniques for the vast majority of the software. These files are called "archived" files and contain all the files relevant to a particular program squashed together into a single file using the LZH compression algorithm.

These archives are identified by having a name beginning with X_ and are actually self-extracting files. In other words a small program is attached to automatically extract them into their original form.

In the past, we expected you to copy the archives to blank disks and run the self-extracting programs – now we have a different method. Simply double click on the program file EXTRACT.TOS and follow the instructions!



The CoverDisk extraction program in operation

The extraction program will present you with a menu of all the archived files on the disk. Using the cursor keys, make sure the black bar highlights the archive you want and press Return. After the file has been copied into memory, you will be asked to remove the source disk (the CoverDisk) and put a new disk in.

The good thing about this program is that you can use whatever disks are handy. It will format brand new disks, reformat dodgy ones that you're not sure about or use space on half-filled ones. Just follow the program's instructions for the easiest CoverDisk ride you've ever had!

You will still need a formatting utility to make a backup of the CoverDisk because ST User has a rather unusual disk format to make more space. In fact it has 80 tracks and 10 sectors, so you'll need a program like Fastcopy 3 which can make direct copies or a formatting utility to format a similar disk and then file copy the archives and extraction program across.

If a fault turns up...

With thousands of disks being duplicated each month, a few will inevitably be faulty. Fortunately we can help you. Send the faulty disk to:
PC Wise, Dowlais Top Business Park, Merthyr Tydfil, Mid Glamorgan, CF48 2YY

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

Remember, the CoverDisk hotline is no longer available - with our easy to use extraction program there should be little need provided you are familiar with the basics of using your ST. On the other hand, if you do have an enquiry or a complaint, write to Atari ST User Customer Services, Europress Publications, Europa House, Adlington Park, Macclesfield SK10 4NP. Play fair with shareware

If it wasn't for some very talented shareware authors, the ST scene would be a lot duller. So, a big round of applause goes out to the authors of these great shareware games and utilities.

If you would like to see more shareware programs for the ST, be sure to support these people and send off the suggested registration fee. You know it makes sense.

Fonts

This is the final instalment in our great font give-away. Over the last two months we have given away five commercial quality fonts in both Calamus and PostScript formats for those of you who are involved in desktop publishing or word processing.

With the three we've added this month, you should have two complete typeface families, made up of three fonts from the Optical family (similar to Optima) and five from the Award family (similar to Souvenir). This includes three weights of Optical, Plain, Bold and Heavy, and five of Award, including Light, Light Italic, Demi Bold, Demi Bold Italic and Bold.

Optical is a modified sans serif font, characterised by slightly curved stems with gently flared ends. It is similar in overall appearance to a serif typeface. This makes it more legible than most sans serif fonts and means it can be used for body text as well as headlines and cross headings.

Two more high-grade fonts in both Calamus and PostScript formats

Award is a modern, friendly-looking serif font which will look good in almost any kind of document. With such a wide range of weights to choose from, you should be able to give your DTP documents a real edge.

The fonts are provided in both Calamus and PostScript formats. The Calamus format fonts can be used in all versions of Calamus from 1.09 to SL, DA's Vector and DA's Layout/Didot Professional. Alternatively, they can be converted to That's Write format using CFont, or to GDOS format (for Timeworks and similar programs) using the ST Club's excellent Fontkit Plus 4. The PostScript format fonts are for use with Pagestream.

Both formats can be edited and altered with the ST Club's useful Fonty utility. Although one or two non-essential characters are missing, there's a full set of alphanumeric characters and widely-used punctuation marks.

The fonts are in two separate archives – simply choose X_CFN.TOS for Calamus fonts and X_AFMPFB.TOS for the PostScript versions. This month we've provided Award Bold, Award Light Italic and Optical Plain.

Plenty of other good quality fonts are on offer from Advanced Graphics Ltd of 14 Lyefield Avenue, Wigan, Greater Manchester, WN1 3UL or telephone 0942 498174. Pack prices start from £15 for a pack of twenty fonts in either Calamus or PostScript Type 1 format. SpeedoGDOS 5.0 users can even order them in TrueType format if desired.

Andromeda

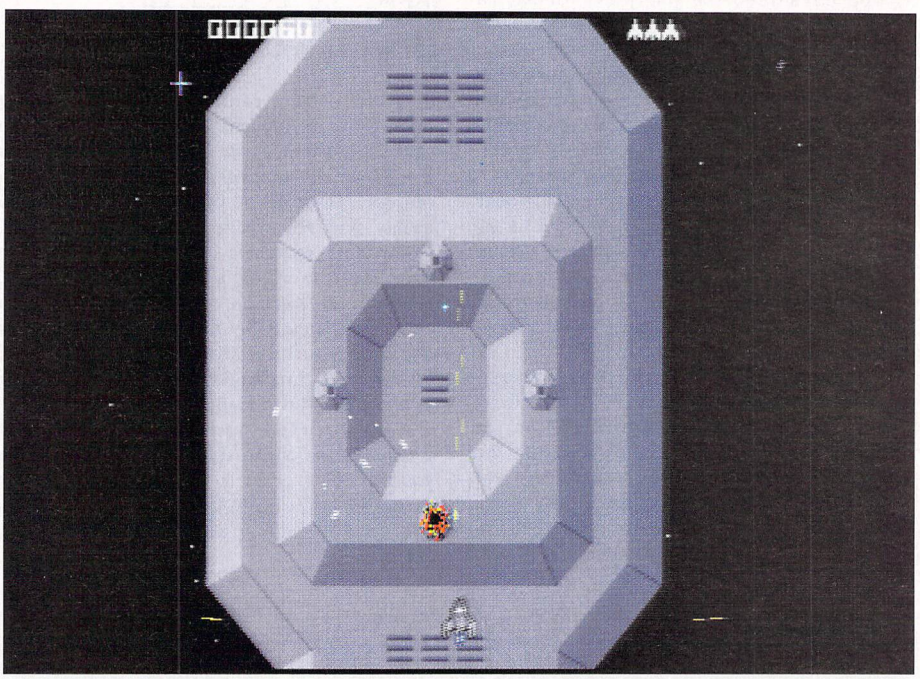
A shoot 'em-up in the traditional mould. Can you make it to the end?

A bunch of space pirates have been foolish enough to invade your galaxy, and you have bravely volunteered to rid the universe of their unwelcome attentions. You strap yourself into your lone fighter craft, Andromeda, and head into space...

Your craft is equipped with the standard issue front-firing laser, but you can improve your chances by shooting aliens and picking up the flashing power-ups they leave behind. These include a side-firing laser, an eight-way laser, homing missiles, a circular laser, an extra ship, a 30 second shield and smart bombs. More detailed instructions are contained in the readme file.

There are eight levels to wade through, and you'll need a joystick to control your craft, moving forwards, backwards and sideways to avoid enemy missiles.

Andromeda is shareware so be sure to send off a fiver to the author if you like the game. That way there might be another...



Finder

You'll never need to muddle around looking for that text file again – thanks to Finder

Hard disks can store an awful lot of information, but this in itself often creates problems. You can have folders and folders full of source code, articles or DTP documents, and be unable to find the file you need in a hurry. This is where Finder comes in. It's a handy utility that will search through a group of files in a folder (and folders within that folder) for a particular word, phrase or sequence of characters.

Finder runs as either a desk accessory or a standalone program, and uses less than 55k of memory. When searching, you can specify up to three words or phrases, and instruct the program to find various combinations of them.

Searches can be case sensitive or not, as required, and can contain the normal wildcard characters. You can specify what folder depth is searched, create a report file on disk and/or view the results online, see the surrounding text in context and increase the size of the search buffer to 256k to speed things up.

Other useful features include minimum and maximum file sizes, and a flexible date range. This allows you, for example, to limit the search to all files created this year under 50k in size. Finder is shareware and you must register with the author if you use the program regularly.

Finding things on a hard disk is easy – thanks to Finder

Picture viewers

Use these convenient viewing utilities to see full colour images on your Atari

Have you ever wanted to be able to look quickly at images stored on your hard drive or CD ROM without having to load dedicated programs? How about MOD files? Or FLI/FLC animations?

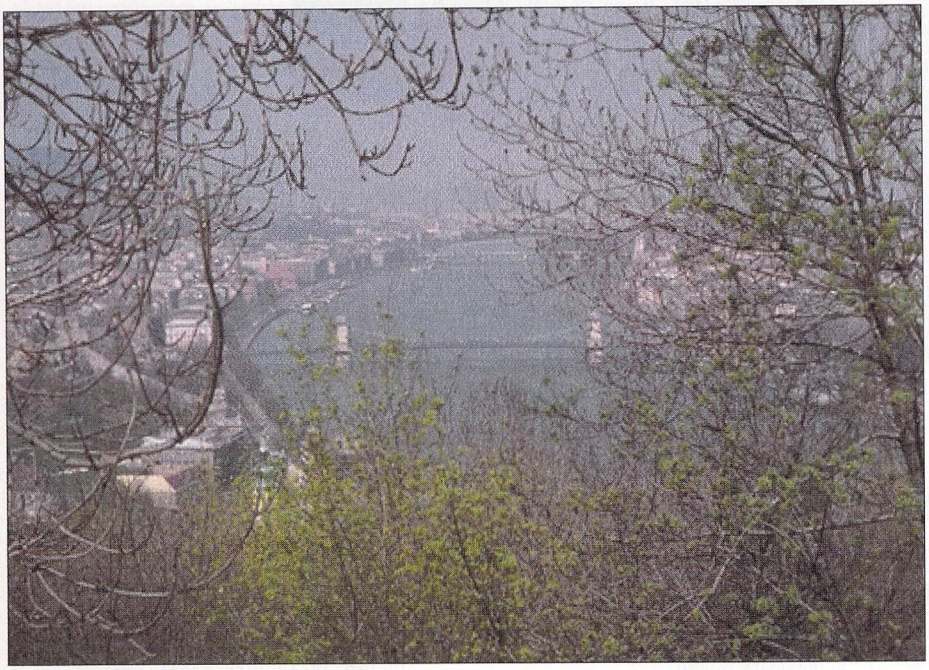
Well, if you have, this set of utilities, collectively known as clickies, will let you do just that. They come courtesy of Black Scorpion Software, a programming team at the forefront of Falcon and Jaguar development.

Four programs are provided, one for playing MOD files, another for FLI/FLC animations and two more for GIF and Targa images. The Targa viewer works on both the STE and Falcon, while the others work only on the Falcon.

The utilities are no-frills programs designed to carry out their allotted tasks as quickly as possible. Even so, the Targa viewer uses clever palette switching techniques to display images with many more colours than would normally be possible. Even on an STE the results are pretty spectacular.

The animation player plays direct from disk, so you can play industry standard FLC/FLI animations of almost any size. We even managed to play a 10 Mb animation direct from a CD!

If you have TOS 2.0x or later, you can drag and drop source files onto the program icons, either in windows or on the desktop. You can also install them as applications so that double clicking on the relevant file automatically launches the associated program.



A true colour image for you to enjoy

If a fault turns up..

With thousands of disk being duplicated each month, a few will inevitably be faulty. Fortunately we can help you. Send the faulty disk to:
PC Wise, Dowlais Top Business Park, Merthyr Tydfil, Mid Glamorgan, CF48 2YY

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

Remember, the CoverDisk hotline is no longer available – with our easy to use extraction program, there should be little need, provided you are familiar with the basics of your ST. On the other hand, if you do have an enquiry or a complaint, write to Atari ST User Customer Services, Europress Publications, Europa House, Adlington Park, Macclesfield SK10 4NP.

COVERdisk

DA'S Layout

Hints, tips and secrets on getting the most out of one of the most powerful DTP packages around

STANDFIRST

HEADING

COLUMN GUIDES

PICTURE CAPTION

Could this be the most powerful document processor for the Atari?

HiSoft's power processor reviewed

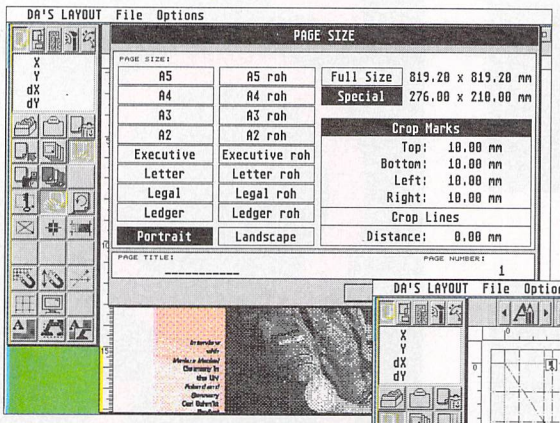
TEXT processors were one of the first programs available for the Atari when it was first released. They were however, fairly simple with minimal features.

Today however, the distinction between what is a text processor and what is a fully fledged word processor is fast becoming very blurred.

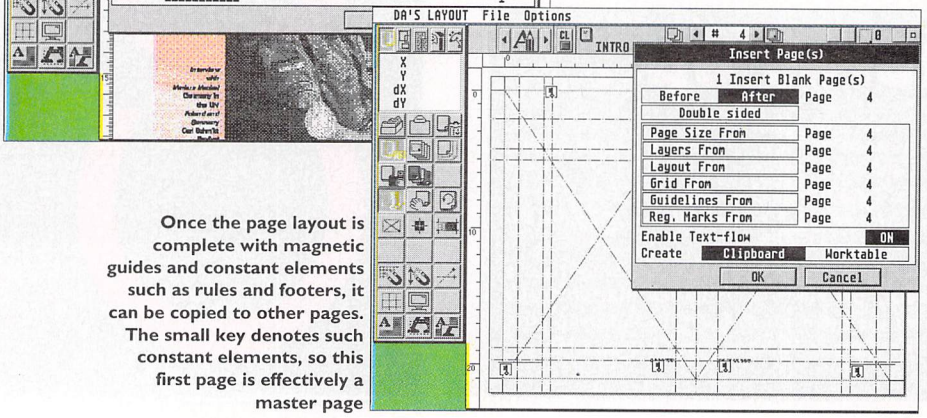
ANY desktop publishing project involves much more than the actual page layout software itself: the better packages may include a text editor, some drawing and picture retouching facilities and even, as DA's Layout does, a font editor, but the more demanding jobs require specialist software for preparing text copy and illustrations. Ideally all the different programs used should integrate into one harmonious working environment, with mutually compatible and consistent user interfaces and, above all, easy exchange of data between them. There is nothing more frustrating than to find that your DTP software doesn't like the vector files from your drawing program or that it has different ideas about the TIFF picture format from your image retouching program!

Who said the pace-setting DTP package DA's Layout was difficult to use? Günter Minnerup reveals the principles of a working method that is just a little bit different

Objects of



The format for the journal is a slightly narrow A5, like many small paperbacks. To get the most out of the A4 bromides from the imagesetter I have defined a custom double-page spread format



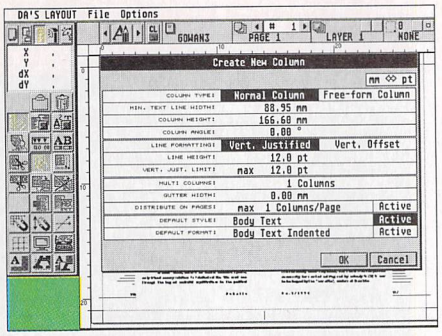
Once the page layout is complete with magnetic guides and constant elements such as rules and footers, it can be copied to other pages. The small key denotes such constant elements, so this first page is effectively a master page

The Digital Arts suite of graphics, retouching and page layout software has increasingly established itself alongside the old favourites Calamus, Timeworks DTP and PageStream as a major force in Atari desktop publishing.

There are some good reasons for this: used as an integrated system with compatible file formats and output drivers, as well as similar user interfaces, the combo of DA's Layout, DA's Vector, DA's Repro and DA's Picture is more powerful than any possible alternative arrangement. Its ability to use PostScript Type 1 fonts, drive PostScript printers and write PostScript files to disk, also offers a bridge into the "industry-standard" world of the PostScript page description language.

In contrast with some of its rivals, it also continues to develop vigorously, with new versions and upgrades arriving regularly from the Digital Arts team in Switzerland and Germany.

For some reason, DA's Layout, the hub of the system, has acquired the reputation of being difficult to use, and I



This is where all text columns begin: no drawing of frames, but a dialog. Multi-columns are ideal for flowing long text through multi-page documents automatically. Note the need for suitable default style and format macros – these can always be changed later

You've been framed

Objects are bits of text, photographs, drawings, rules, or anything else that might be used in a project. But there are no empty frames to set up. When you select an object, it does acquire a frame outline with handles, but this is only to signify selection and facilitate resizing. When a text or picture goes into the bin, the frame goes with it.

This is most confusing initially with column text. If you cannot draw up a frame, how do you import text into DA's Layout? It seems like a chicken-and-egg situation. The answer lies in the "Create a new text column" dialog.

Rather than draw an outline with the mouse, you fill in a number of details concerning the format of the column, and such an object will be attached to your mouse pointer for positioning on the page (or anywhere else in the work area), filled with dummy text. It is only at this stage that you can think of replacing the dummy with real text. Once again, you don't fill a frame, you replace the contents of an already existing text object.

One advantage of this is that the dummy text will already give an impression of the typographical effect of the final thing. The default text supplied with the program is a silly concoction of character patterns, so it makes sense to design a more meaningful one with a more realistic appearance, perhaps incorporating paragraph breaks and headings.

desire

have heard so-called "experts" advise prospective purchasers of DTP software to stick with the "easier" Calamus, PageStream or Timeworks.

Well, it isn't difficult at all, but I can understand where such perceptions come from. When you first make casual acquaintance with DA's Layout, perhaps browsing through the manual, or trying to set up a page when given a "hands-on" opportunity at a computer show, previous experience with the other packages can actually be an obstacle to quick assimilation of the principles. The fact is that DA's Layout works differently from other DTP programs, as it is not based on frames but on objects.

DA's Layout is not only said to be difficult, but also to be unsuitable for book production and other long documents. To some extent this is true, but we shall see that the difficulties are by no means insurmountable, and that the object-based working method has distinct advantages, even for book and brochure setting.

DEFINING

The normal starting procedure for a DTP job involves defining the pages. You then proceed to fill the pages with text and graphics frames which will initially be empty – actual text and pictures are imported later when everything has been set up tidily.

When you enter the very different world of DA's Layout, you may be shocked by what appears to be one extremely large page, with no obvious means of drawing frames for either text or illustrations. Calm down, for what you see is not a real page at all, but a work area.

You may have seen designers hunched over illuminated tables or "light boxes", shifting around bits of paper, applying rulers and sticking down items with glue spray. Well, the DA's Layout work area follows broadly the same approach.

As in the real world, this can be a recipe for chaos. You are quite free to scatter all kinds of objects on the work surface, place them on top of each other and lose half of them underneath the others – this has happened to me in DA's Layout more often than I care to admit. But, it also gives you freedom from the rigidity of DTP frames.

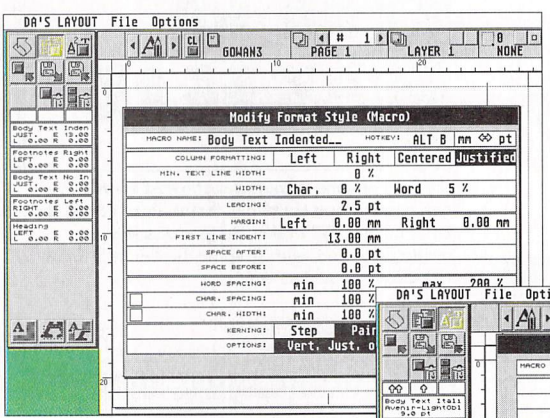
Take the necessary experimental phase in the design of a leaflet, for example: if it doesn't work in orthodox DTP software, you scrap your current document and start again. In DA's Layout, however, you just move the text and pictures to one side of the work area, define another page with perhaps different dimensions, and drag all or some of the objects back into position on that page.

WORK AREA

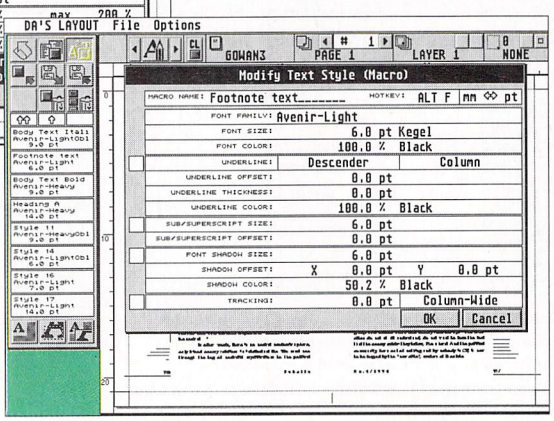
Sometimes the newly created text object will not appear on the page at all, but will instead lie in the work area, partly obscured by the page. In other situations, the column will be where you expect it, but you cannot find the remainder of the text because it didn't fit into the page column.

A mouse-click will quickly make it visible in the form of another long slab of text (rather like the traditional galley proofs)
somewhere in the work area outside the page. This "galley proof" can then be cut up and placed onto other pages – a very traditional concept indeed.

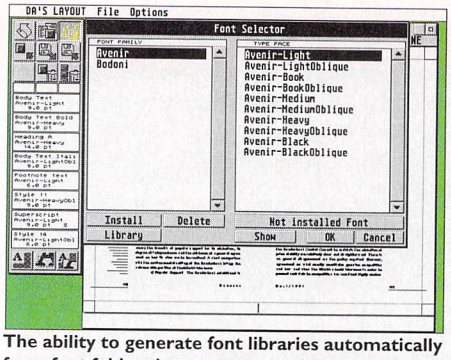
Multiple columns will be automatically ➤



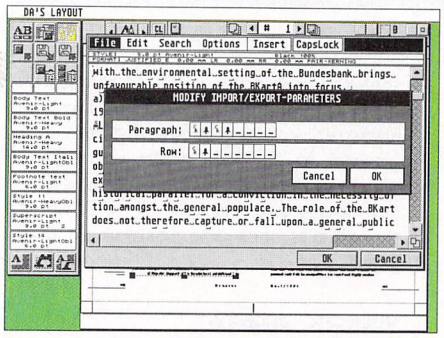
No text without format macros. With "hot key" shortcuts and meaningfully descriptive names, ringing the changes across a document is easy



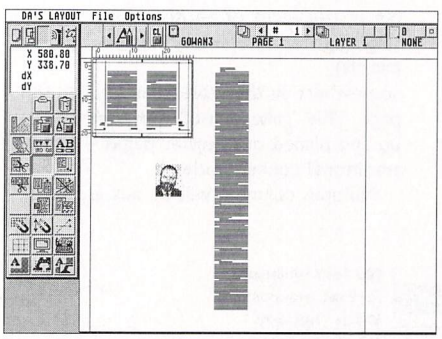
There is a clear division of labour between the style and format macros, and both can be modified independently. The style macro contains all the relevant typographical settings



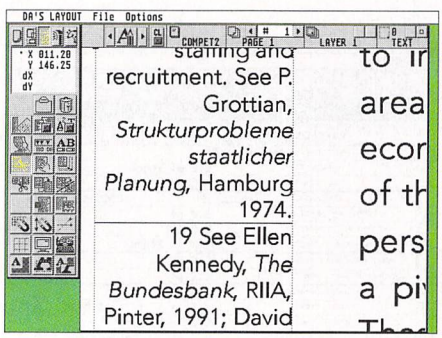
The ability to generate font libraries automatically from font folders is a most convenient method of installing both Calamus and PostScript fonts The arrangement into font families prevents the list from becoming too unwieldy



Text import into the editor is not one of the program's more impressive features. The ASCII file imported here had double CR/LFs to mark paragraphs and single CR/LF to mark a line break. Some import filters for popular wordprocessors like Protext, First Word Plus or That's Write, or at least an RTF filter, would be highly desirable



The work area with an actual page and a couple of objects lying about – a long "galley proof" text column and a scanned photo



The footnotes in my publication flow down the sides of the main body text columns, and are imported the same way as the main text as multi-columns. The scissors tool makes it easy to cut the resulting long footnote columns to size

➤

distributed over multiple pages, according to your specifications given in the dialog. If the document is too short to take all the text, the remainder will again be dropped in the work area for you to treat how you want – most likely create more pages for it.

It really is rather easier to cope with than it sounds, and is far more intuitive than other DTP programs once you grasp the analogy with traditional work methods.

Much the same applies to graphics. Scanned photographic images, vector drawings and so on do not require frames or even importing to the page. They can just be dropped in the work area.

Even when you place them on a page, they are not actually there. Well, they do not become part of the document itself, and are not saved with it. However, a coarse, screen-resolution bitmap is saved, along with the directory path leading to the original file.

INCREASES

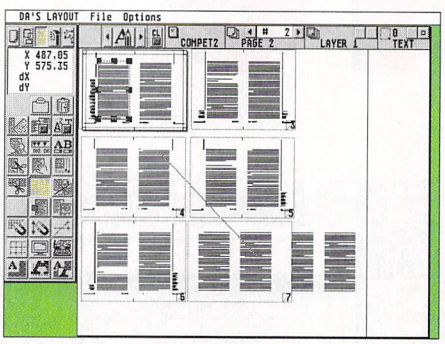
This makes DA's Layout files comparatively small, and increases editing speed. It also means that you must not forget to include the actual graphics file on any disks you send to an output bureau (PostScript files are an exception to this, as the graphic is converted to PostScript before leaving the computer).

Obviously, your work area can quickly become a real mess of various pages, text clippings and homeless graphics objects, just like designer desktops in the pre-computer age. Thanks to Digital Arts for the clipboards, I say.

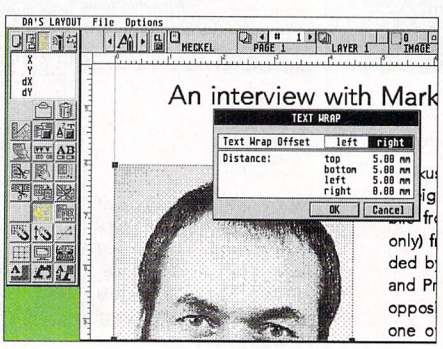
It is not necessary to leave the work area all cluttered up, because all objects – even complete pages and text columns – can be temporarily stored away in the multiple clipboards. They can then be easily retrieved with a couple of mouse-clicks. You can even tell the program to save the contents of your clipboards with the document for another day.

In addition, multiple object libraries for text, pictures, pages, paths and fonts can be kept on disk and installed at the beginning of a job to save rummaging around your directories for a particular item every time.

Those with strong nerves and no fears



Earlier versions sometimes showed erratic behaviour when text flow chains were edited, but DA's Layout TC makes the process more predictable and, with graphic display of the flow links, more transparent



To wrap text around graphics, you select both and click on the wrap-around icon. A double-click calls up this dialog to set the wrap parameters (gaps around the graphic)

Book publishing

There are no obstacles, in principle, to working with long documents in DA's Layout. But, if you plan to go into book publishing, you should be aware of some serious restrictions.

Worst of all is the virtual absence of proper text import filters. You can import almost any variety of ASCII text, but no formatted wordprocessor files. This is no problem with short text items, but can be a pain with long manuscripts. Text effects such as bold and italics, footnotes, quotation marks, ellipses and m- or n- dashes, all have to be handled inside DA's Layout. This is not quite as bad as it sounds because of the speed of the software, but it's bad enough.

I usually convert the formatting control codes into certain character combinations such as úúú or %%% before importing the ASCII file into DA's Layout. This allows me to use the built-in text editor's search-

and-replace to find the bits to be italicised or bolded relatively painlessly.

The other problem concerns page numbers. DA's Layout numbers pages internally for reference only, and there is no option to generate real folios from these automatically. The only answer is to manually insert each number, or to define a small text item as a constant page element (footer), and then import a prepared text file with the numbers in it, making its contents flow across the entire document. It can be done – I have managed it – but it is a bit tedious and will, of course, need to be repeated whenever you insert or delete a page.

Since really long documents are probably broken down into different files anyway, to save enough memory for printing, you must remember the right page number offsets at the beginning of each section, too.

about power cuts and crashes – and, to be truthful, the odd crash does happen – can even use the trashcan for short-term housekeeping purposes. The contents of the trashcan can be restored with a double-click, and appear like yet another clipboard.

Another useful method of keeping things tidy is to select single-page display. This means that only the currently edited page will be shown, while all others are ignored, even if you view the entire work area (which is only possible from the page menu). The unlimited zoom levels and the ease with which the "zoom focus" can be changed are a particular asset of DA's Layout.

Clicking on the zoom icon lets you draw up a rubber-band box to select the area to be displayed, and the magnification factor changes accordingly in a split second. A right mouse-click gives you the entire work area again with the zoom rectangle, to move into another area. All this becomes second nature with some practice, and allows you to zoom in and out of details much faster than with any other DTP or graphics program.

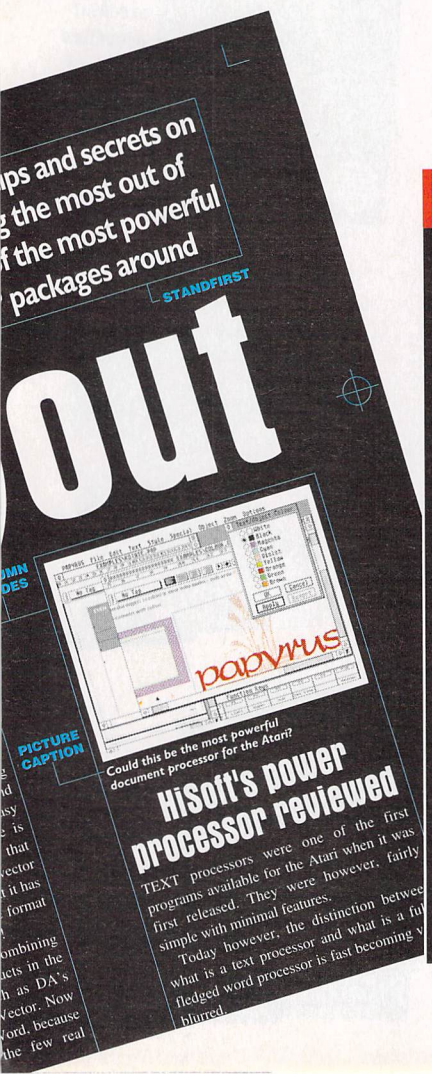
SUPERIMPOSED

Advanced users will soon discover the different "layers" available in DA's Layout documents. They are like transparencies superimposed on each other. Different parts of a job can exist on different layers, so working with one layer does not risk disturbing items on another.

Combined with the zoom levels, working in layers enables you to really concentrate on a fine detail without being distracted by other elements.

We have only scratched the surface of an extremely complex and powerful piece of software. But then again, exploring its more advanced features wasn't really the point.

If this introduction to the general working principles of DA's Layout has whetted your appetite and removed some of the obstacles which familiarity with other DTP packages can place in the way of intuitive understanding, go ahead and delve deeper into it. Your persistence will be richly rewarded.



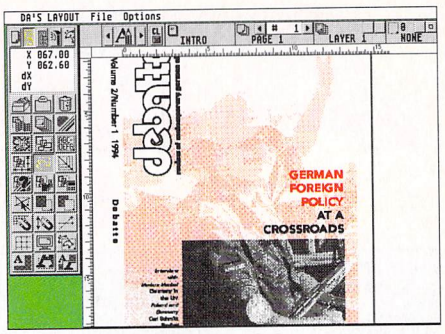
Advice bureau

Much of the DA's Layout interface bears an uncanny resemblance to Calamus, especially the icons and the print dialog. The big difference regarding the latter, is that DA's Layout is not confined to directly attached printers or Atari imagesetting bureaux for high-quality output.

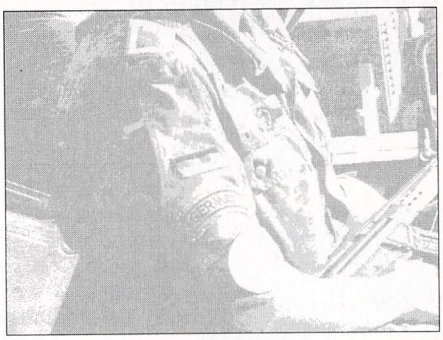
With the PostScript Export option, you can write disk files that can be taken to any of the majority of commercial bureaux that have never heard of any other Atari than the Jaguar. The beauty of this is that it also applies if you did not use PostScript fonts in the first place. Let me explain:

DA's Layout knows three different font formats: PostScript Type 1, Calamus and its own DFN format. The first two are converted internally into DFN, and this is sent to a directly connected printing device. If you choose PostScript output, the fonts outlines are either omitted altogether and the printer is simply told by the output file which fonts to load from its own library, or they are included as so-called Type 3s – complete vector descriptions of the character shapes.

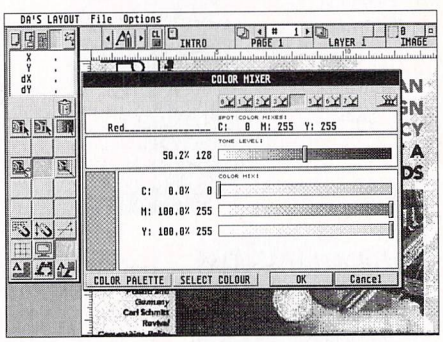
The first method is obviously only possible if you have used PS fonts in the first place, while the latter is applied to Calamus fonts. It means larger files, slower output and somewhat less quality as there are no "hints". But, it works. You can even mix and match the different formats.



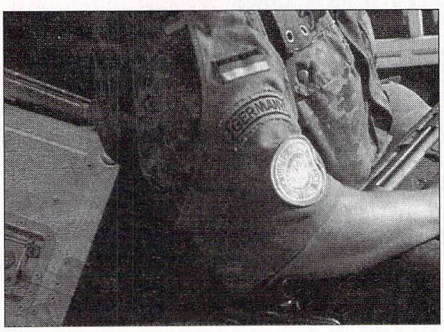
The cover design was a scanned image used as a background tint, with a section cut out and re-inserted in its original (though slightly retouched) appearance. This sort of trick is very effective as the full scan would have distracted from the text and logo



The backdrop to the cover picture required the intervention of DA's Repro – aka Retouche Professional – to soften the original scan and reduce the number of grey levels



Here the background image is assigned a red colour in relatively low intensity so that it will be effectively a pink tint



The inset picture on the cover is a block cut out from the original scan, touched up to improve contrast and lighten the dark areas in DA's Repro. It is then carefully positioned for a seamless fit back in DA's Layout

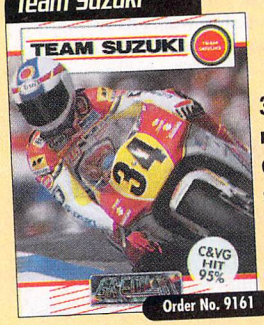
ATARI ST USER GAMES

This is a once in a lifetime opportunity to get your hands on some fantastic bargain price games. Hurry, we only have limited stocks.

Hurry while stocks last

Only £4.50 each or 3 for £11.00

Team Suzuki

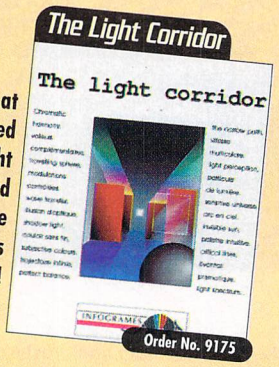


3D motorbike arcade simulation

Order No. 9161

The Light Corridor

Travel at the speed of light and illuminate the stars again!



Order No. 9175

Nigel Mansell's World Championship

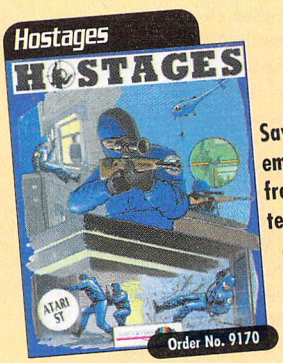
Motor racing for the brave

Order No. 9131

Toyota Celica

Order No. 9135

Hostages



Save the embassy from the terrorists

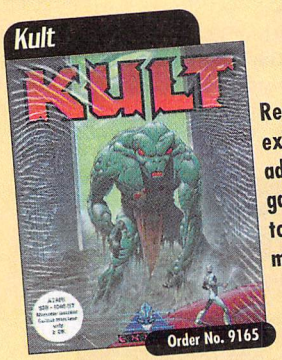
Order No. 9170

Switchblade

Save your fellow people in this great role playing game

Order No. 9160

Kult



Really excellent adventure game not to be missed

Order No. 9165

Chips Challenge

Order No. 9131

Premier Manager

For football fanatics

Order No. 9132

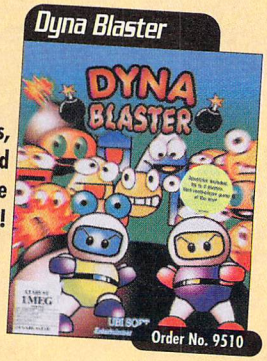
Sim City/Populous

Two brilliant games - control the world's destiny in Sim City, create and destroy worlds in Populous!

Order No. 9174

Dyna Blaster

Bombs, bombs and more bombs!



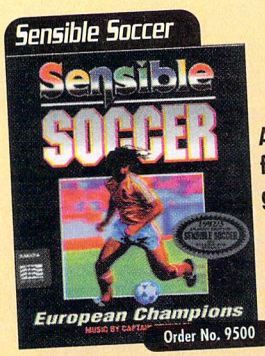
Order No. 9510

Lotus III - The Ultimate Challenge

The acclaimed racing game

Order No. 9134

Sensible Soccer

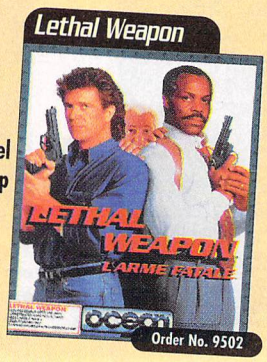


A great football game

Order No. 9500

Lethal Weapon

Multi-level shoot-'em-up



Order No. 9502

Tin Tin on the Moon

Order No. 9131

Dalek Attack

Pit your wits against the Daleks

Order No. 9511

Safari Guns

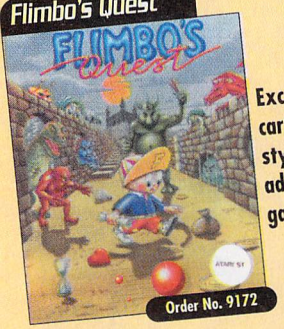
Order No. 9140

Skidz

Order No. 9150

ZONE SPECIAL OFFER

Flimbo's Quest



Order No. 9172

Excellent cartoon style adventure game

Switch Blade

Order No. 9152

Dragon Spirit

Order No. 9166

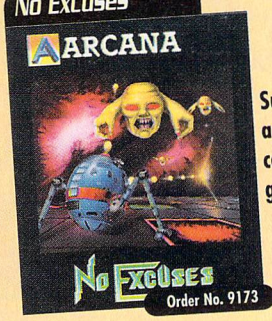
Coin-op conversion to bring the beast out in you

APB

Order No. 9170

Wacky game of cops and robbers

No Excuses



Order No. 9173

Superbly addictive construction game

K-Spread

Order No. 9177

Easy-to-use spreadsheet with mouse driven icon selection

Lombard Rally

Order No. 9154

Cyberball

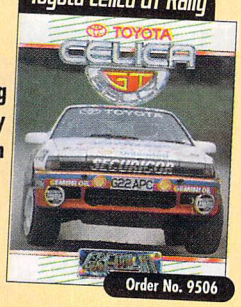
Order No. 9168

Football in the 21st century

Space Crusade Voyage Beyond

Order No. 9131

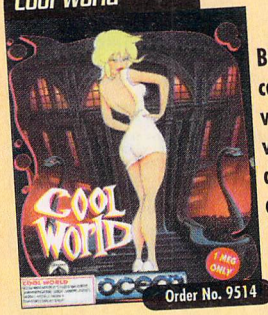
Toyota Celica GT Rally



Order No. 9506

Breathtaking rally simulation

Cool World

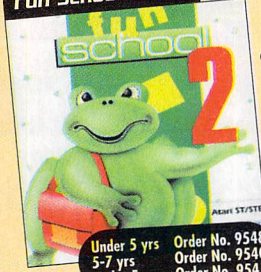


Order No. 9514

Brave the cartoon world where doodles are alive

Only £4.50 each or 3 for £11.00

Fun School 2



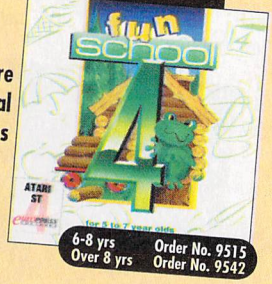
Under 5 yrs Order No. 9548
5-7 yrs Order No. 9540
Under 5 yrs Order No. 9541

Six stunning educational programs

Syncro Express

Order No. 9158

Fun School 4



6-8 yrs Order No. 9515
Over 8 yrs Order No. 9542

More educational programs

Bundle of Four Games

Order No. 9549

Chronicles of Omega, 9 Lives, Defender II and Badlands Pete

Games Glore

Order No. 9153

Buy any of this great selection at the incredible SPECIAL OFFER PRICE of £4.50 each or choose any three and pay only £11.00

TO ORDER, TURN TO THE FOLLOWING PAGE ➡ ➡ ➡ ➡

VIDI ST (12)

This offers a breakthrough in Multimedia Video. Jammed full of features that are suitable for almost any imaging application. Offering Animation, Image Processing, Image Capture and file support for no less than 3 computer platforms. Image capture is so simple, both colour and mono images are captured in less than 1 second. Images can be displayed in almost any resolution and colour mode up to 740x480 in true colour.

Main features include:-

- Both colour and mono image capture
- No separate RGB splitter or filters required
- Fully functional Animation Workstation
- Mix images to almost any resolution
- All Atari colour modes are supported
- Many Image Processing effects

NEW Offer

SPECIAL OFFER

ONLY £109.95

Product	Price	Order No.
Vidi ST (12)	£109.95 (RRP £149)	9488

DRAGON MOUSE

This easily-controlled mouse has 280 dpi resolution, is optically encoded, amazingly accurate and has a full warranty against button failure. (Atari ST/STE model)

ONLY £14.95

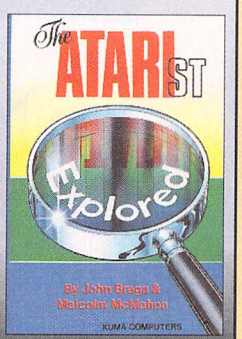
Product	Price	Order No.
Dragon Mouse	£14.95	9111

THE ATARI ST EXPLORED

This is probably the most comprehensive guide available to both new and experienced users of the Atari GEM operating system and the main ST/STE languages.

Over 240 pages cover topics including GEM, GEMDOS and the BIOS, detailed discussion on choosing a programming language with coverage of C, Basic and Assembly Code and useful information including details on system variables and operating calls to the BIOS is included. There are also sections on how to configure the keyboard and utilise the Serial interface to connect the ST to printers, electronic mail services and other computers.

Illustrations, diagrams and examples make this essential book easy to follow and understand.



ONLY £9.95

Product	Price	Order No.
The Atari ST Explored	£9.95	9226

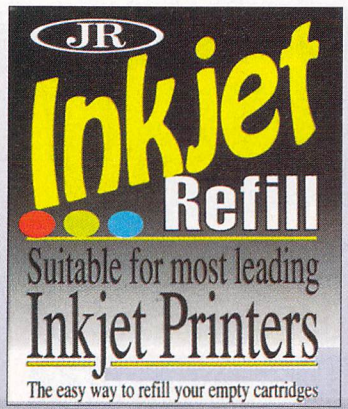
ATARI ST USER READER OFFERS

Order Hotline: 051-357 1275

Fax: 051-357 2813 General Enquiries: 051-357 2961

Order at any time of the day or night. Don't forget to give your name, address and credit card number

INKJET REFILL



This new product utilises the best thermal ink available and is suitable most leading inkjet/bublejet cartridges.

Each Kit contains a Step by Step instruction leaflet.

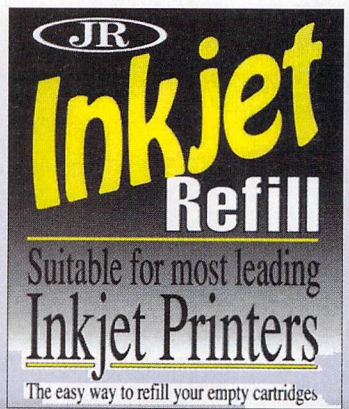
Filling Syringe with blunt needle.

Contents will fill most cartridges twice or more.

Gives High Quality, Extra Refined, High Density Black & Colour Ink.

This product is safe, Clean and Easy to use.

Available in both Black & Colour.



ONLY £11.99

NEW Offer

ONLY £7.99

Product	Price	Order No.
Inkjet Refill Black	£7.99	9113
Inkjet Refill Colour	£11.99	9114

REAL TIME 3D GRAPHICS

This accurate and up-to-date book, for ambitious Atari ST users, shows how to produce vivid 3D solid graphics in colour, in real-time. Contents include: assembler programming, screen mapping, colour palettes, real-time solid graphics, raster line drawing, solid 3D, rotations, translations and enlargements. Truly the ultimate ST reference book for the serious user.

ONLY £11.95

Product	Price	Order No.
Real Time 3D Graphics	£11.95	9146

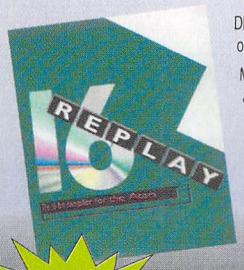
REPLAY 16

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...



DRUMBEAT – A 4 voice polyphonic Drum machine with full MIDI control. Up to 30 different samples can be loaded into a kit at once and 50 patterns can be programmed in either realtime or steptime. Samples can be up to 1Mb in length each.

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.

ONLY £99.95

Product	Price	Order No.
Replay 16	£99.95	9156

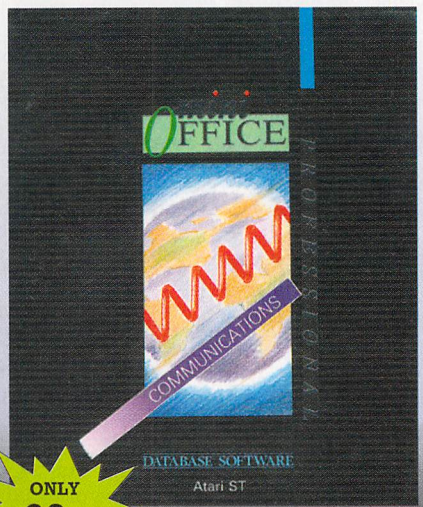
RE-INK SPRAY

Save money and the environment with Re-Ink Spray and bring back life to your exhausted printer ribbon. Simple and cost effective, it can save you up to 90% on ribbon costs and gives cleaner, blacker print with no blotches and it works for all fabric ribbons. Just open the ribbon case, spray Re-Ink onto the ribbon and hey presto!.

ONLY £12.95

Product	Price	Order No.
Re-Ink Spray	£12.95	9179

MINI OFFICE COMMUNICATIONS



Link your Atari ST to the outside world; to send fax, telex, telemessages and electronic mail. With a minimum of keystrokes you can connect to bulletin boards all over the world. This great program makes full use of Gem to bring all it's labour saving features to your fingertips.

There are also a number of invaluable desk accessories. There's an all-purpose text editor, a handy memo pad, a pocket-style calculator, and disk utilities to format, rename, erase, copy, show info and list directory to screen or printer... all without leaving the Communications module.

ONLY £3.50

Product	Price	Order No.
Mini Office Communications	£3.50	9281

PRO PUNTER 2 PLUS

DO YOU WANT TO INCREASE YOUR CHANCES OF WINNING ON THE HORSES? THEN LOOK NO FURTHER.

Pro-Punter 2 Plus

Independent comparative reviews confirm that Pro Punter is still the performance benchmark by which all others are judged.

The best racing software... available, The Racing Post.

Officially proven to the racing press and other magazines by sending time and date franked letters by Post Office mail, Pro-Punter has shown that it can predict winners with remarkable accuracy. Pro-Punter is also cautious with your money. If it thinks there is any doubt about the outcome of the race, it will advise you not to bet.

The NEW second generation Pro-Punter is written to professional standards and is attractive and easy to use, it features full editing and review of race data entered and also a unique low-maintenance database that does not need constant updating.

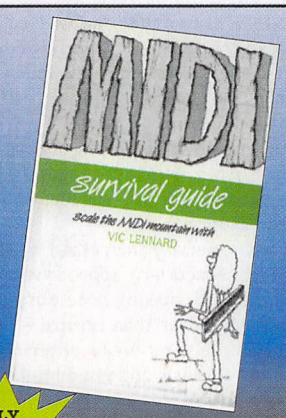
In addition to UK features, Pro Punter 2 contains unique course/going/class editors and will configure to metric weights/distances, thus allowing configuration for racing worldwide.

ONLY £49.95

Product	Price	Order No.
Pro Punter 2 + (1Mb req)	£49.95 (RRP £99.00)	9110

MIDI SURVIVAL GUIDE

Whether you're a beginner or a seasoned pro, the Midi Survival Guide shows you the way. No maths, no Midi theory, just practical advice on starting up and ending up with a working Midi system.



ONLY £6.95

Product	Price	Order No.
Midi Survival Guide	£6.95	9489

ATARI ST USER

READER OFFERS

Offers subject to availability,

All prices include UK postage, packing and VAT. For orders over £10 please add £5 for Eire/EEC, £10 for overseas unless specified above. Overseas orders despatched by Airmail.

Valid to October 31, 1994

PRODUCT	ORDER NO.	PRICE
Please add postage as detailed		

☐ Please tick if you do not wish to receive promotional material from other companies. TOTAL £

I wish to pay by:

☐ Cheque/Eurocheque made payable to Europress Direct

☐ Access/Mastercard/Eurocard/ Barclaycard/Visa/Connect Expiry Date /

Name _____ Signed _____

Address _____

_____

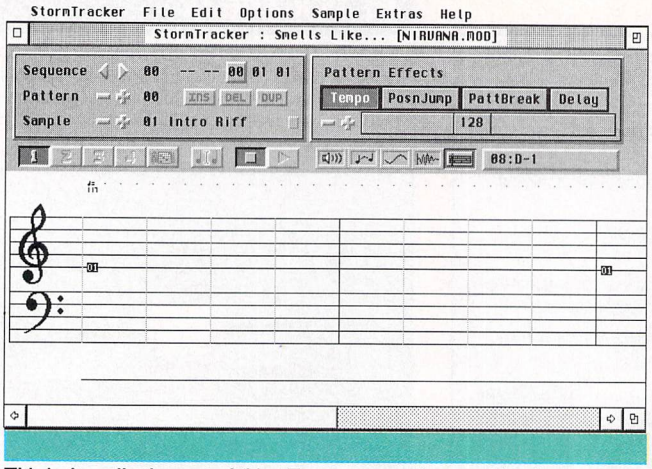
_____ Post Code _____

Daytime telephone number _____

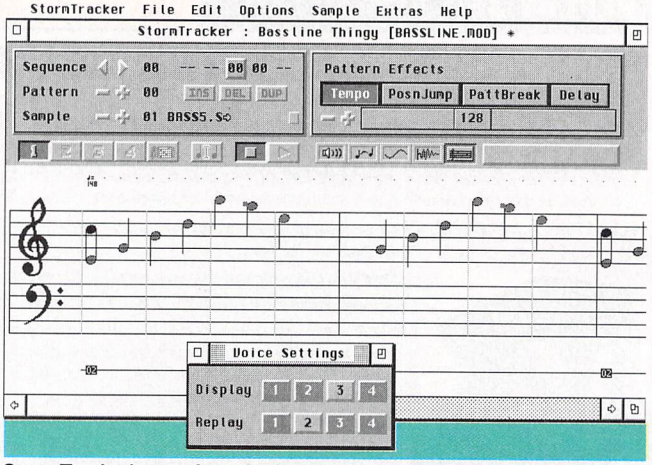
Send to: Europress Direct, FREEPOST, Ellesmere Port, South Wirral L65 3EB (No stamp needed if posted in UK)

Products are normally despatched within 48 hours of receipt but delivery of certain items could take up to 28 days

STU NOV.



This isn't really the sort of thing Trackers were invented for, but sampling Nirvana can be achieved fairly successfully



StormTracker's use of standard musical notation ensures it is far more user friendly than traditional tracker programs

On the right

Making MIDI music has always been easy on the ST, but until now good soundtrackers have been rare. Dave Cusick investigates the program that's about to change everything

Having made considerable use of such famous Amiga tracker programs as ProTracker and Octamed in the past, I had found myself becoming increasingly annoyed by the lack of a powerful and widely-compatible soundtracker on the Atari series of machines.

My personal favourite always used to be the ageing TCB Tracker, but this boasts a completely unique module format, making the transfer of files to and from other machines practically impossible. Noisetracker does use the standard ProTracker module format, but the sound quality is not exceptional and it is definitely not the most stable program in the world.

Fortunately all that is about to change with the release of StormTracker from ASTRAsoft. It is still able to read Amiga ProTracker modules with no difficulty, and is capable of far more than its public domain rivals.

The most outwardly visible difference is that StormTracker makes use of the standard GEM environment, which is definitely something of a departure for a tracker program. Functions are accessible either from buttons in the main window or from the usual drop-down menus. StormTracker also runs, albeit in non-protected mode, under MultiTOS, something its rivals are certainly not capable of doing.

Another notable feature is that the program will work on your machine no matter what model it is or what specifications it boasts. As long as there is at least one megabyte of memory, StormTracker will run happily on anything from a humble STFM to the powerful TT or Falcon computers.

FREQUENCIES

Sound output quality is obviously dependent entirely on the system. STFM owners can choose playback frequencies of 8kHz (although this sounds fairly dire) or 10kHz, whereas at the other end of the scale, the Falcon is capable of outputting sound at 50kHz, which is better than CD quality. Of course if your samples were recorded at 22kHz, you won't be achieving a lot by playing back at this frequency.

StormTracker also uses standard musical notation instead of scrolling lists of letters and numbers. In this respect it resembles Microdeal's Quartet, and consequently people with musical knowledge who would be horrified by traditional trackers, will find music creation much easier. It certainly helps if you have plenty of sheet music that you wish to transfer onto your machine.

Half of the currently selected pattern is shown on screen at any one time, and using the scroll bar it is a simple matter to view the other half. Notes are entered by clicking on the relevant stave with the left mouse button, and removed by clicking on the offending note with the right button.

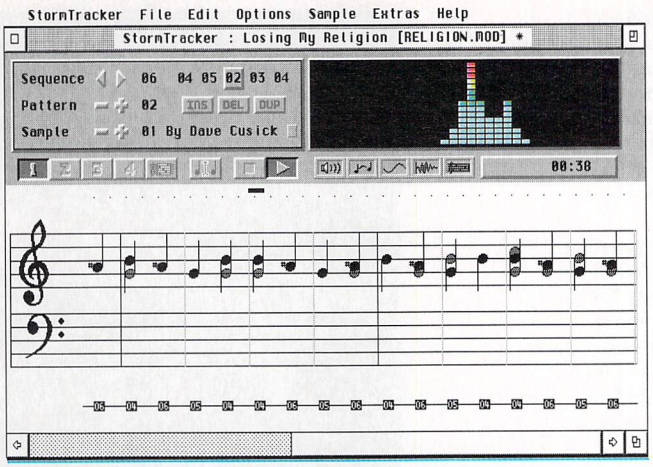
All the obvious editing functions are there, such as block copy, cut and paste, and patterns can be inserted, deleted or moved around easily.

I was especially impressed by the way in which effects are approached. Delays can be added, making note positions last that much longer than normal – handy if, for example, you were entering notes from sheet music and encountered some pause marks.

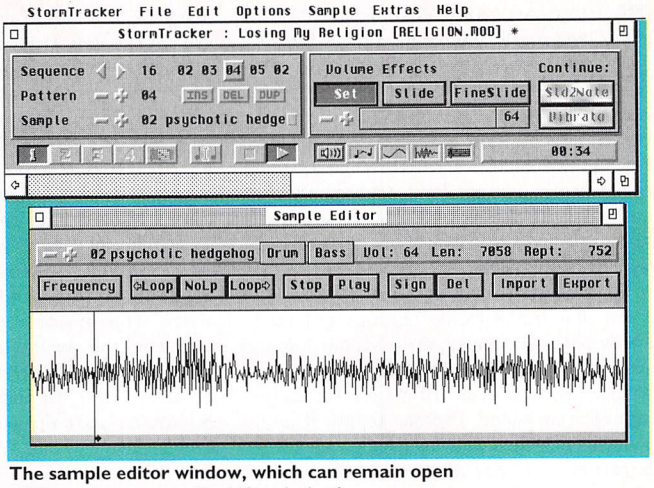
Pattern breaks are also possible, allowing you to end a pattern part way through and jump onto the next one. If a piece of music needed a section in an

Sampling your favourite tunes

Because the ProTracker compatible file format only allows for samples of a maximum length of 64k, any samples longer than this will have to be truncated (in other words, everything after this point is cut off). In practice though, unless you commonly produce really large sample files, for instance by sampling lengthy riffs instead of individual instrument sounds, this will not create problems. If you genuinely want to sample large portions of songs for stringing together, you might be better off with a program like TrakCom (available only for the Falcon). Still, despite the fact that StormTracker isn't really designed for that sort of thing, I did manage to produce a quite impressive version of Smells Like Teen Spirit by stringing together sampled chunks of about 60k each, which sounded quite passable at 25kHz.



Using a few samples it is possible to build up whole songs in files of only about 60-70k

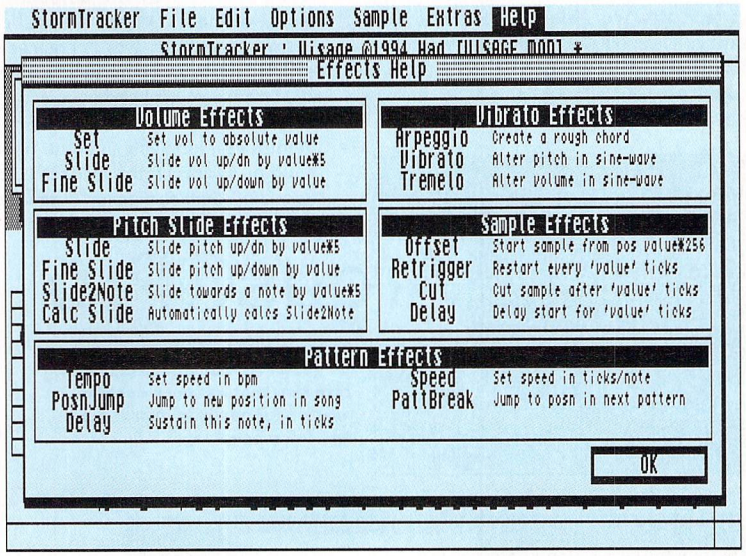


The sample editor window, which can remain open whilst patterns are edited if so desired

track

irregular time signature such as 3/4, then it could be easily inserted using this option. Pattern jump works similarly, allowing the user to leap instantly to the start of any pattern within the song, ideal for repeated sections.

Song tempo can be changed any number of times and at any point within a song – a powerful feature which is notable by its absence on the majority of tracker programs. The tempo in beats per minute is shown above the score.



If you get a little confused and can't be bothered consulting the manual, the on-line help is clear, concise and useful

SAMPLES

Samples can be imported in either AVR or popular PC-compatible WAV formats, or as signed or unsigned 8-bit samples. A disk featuring a selection of fairly high quality samples to get you going is included, although to be honest, apart from the drum sounds they probably won't be much practical use. However, if you don't own a sampler then there are plenty of samples in the public domain which can easily be used in StormTracker.

Of course, the real strength of trackers is that from a few instrument samples it is possible to compose all manner of four-channel masterpieces. A sample editor is included with StormTracker, which runs in a separate window. The user can flick between this and the main pattern window as if they were documents in First Word, even whilst the module is playing merrily away in the background.

Although the sample editor doesn't offer any of the more advanced features to be found in a dedicated program, it is capable of changing the pitch of a sample and setting loop points for woodwind and brass instruments. Highlighting a section of a sample allows blocks to be deleted, although curiously there is no cut and paste facility available here.

Effects such as vibrato, tremolo and arpeggio are included, although the manual admits that the latter sounds unimpressive and is only really included for full compatibility with the numerous ProTracker clones. Notes can also have pitch and volume slides, enabling stylish touches to be added.

I must confess to finding Storm Tracker something of a breath of fresh air. The score-based approach works well, and the intuitive interface makes the learning curve reassuringly shallow.

In addition, the 100-page manual is written in a friendly and helpful style, and although there are a few silly typing errors scattered about, it is an interesting and informative read.

To be honest it's hard not to be impressed by the range of powerful features which StormTracker boasts. It would benefit from the addition of a more sophisticated sample editor, but on the other hand, this is not an unforgivable omission as there are public domain programs which can fill this rift by offering a host of special effects such as echo, reverse and fade.

The fact that it is compatible with all the Atari machines makes it one of those programs which you can purchase safe in the knowledge that if you upgrade your machine, your favourite software will not be left lying redundant. StormTracker is capable, particularly when running on the Falcon, of producing extremely professional-sounding results.

BOTTOM LINE

FEATURES

Everything you'd expect plus a whole lot more. Versatile and powerful

Excellent
Good
Average
Bad
Appalling

EASE OF USE

Intelligently designed and supplied with a good manual

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY

Far more features than PD alternatives, and without a ridiculous price tag

Excellent
Good
Average
Bad
Appalling

Product: StormTracker
Supplier: Goodman International, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent. ST3 1SW
Telephone: 0782 335650
Price: £24.95
Configuration: Any ST/STE/Falcon/TT

In accordance with both their slogan and company name, TEAM Computer are headed by a team of three people. They all started out on their own but soon realised more could be achieved by teaming up. Klaus Kremer was an Atari dealer, albeit without a store, Harald Paul was mainly a software developer and Thomas Lüthy had a computer leasing business, again working from home.

Harald and Klaus knew each other from university while Thomas got to know Klaus by buying an ST from him. At the CeBIT 1992 show, Klaus managed to get a good deal on 10 Mega STes and immediately called Thomas to ask if he would be interested in buying the lot together. Thomas was very keen and that was their first venture as a team.

After that, the two decided to join up with Harald and get a store instead of working from home. The idea was to start a business by combining Atari hardware, software development and PC leasing. Thus, TEAM Computer was officially born on November 12 1992.

Interestingly enough, this was during the time when Atari computers were allegedly on the way out, and the general consensus was that it was not a good thing to get into the Atari computing business. By their own admission, the trio carried on with their plan mainly due to a measure of idealism, and in spite of all the hurdles they have faced, the success of TEAM Computer has obviously proven them right.

The current store (an ex-laundromat) was rented only a week after the founding of the company and was in pretty bad shape. This meant some heavy renovation from the ground up, but the relative cheapness of the premises did have its bonuses – the last thing they wanted to do was to start the business with heavy borrowing.

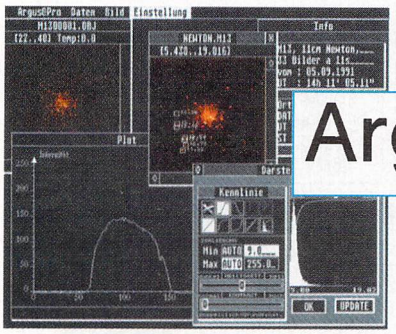
EXPANDING

Initially the store consisted of only a cellar for storage, but eventually TEAM Computer rented the adjoining apartment which is where the offices are today. The offices were required due to expanding business and the increasing importance of mail order.

Having renovated the store all by themselves, indulging in some heavy duty building work in the process, the trio also shared all the other duties between them. This included designing the company logo, letterhead, adverts and everything else. Naturally, all this was done using Calamus.

Once the company and the store were up and running, the three founders continued with their previous work. This meant that the store was an Atari Competence Centre and sold both Atari hardware and third party products. They also assembled and sold (or leased) PCs to supplement their income and draw in

Caption required



Argus@Prõ

Argus@Pro is an image processing program that has been custom written for handling microscope and telescope images

Team

In addition to selling Atari hardware, TEAM Computer also repackage Falcons in attractive tower cases

Klaus Kremer

The first computer Klaus bought was an Apple II during his studies in Aachen. He then joined AUGE (German for "eye") which stands for Apple User Group Europe. There he met Harald, another founder member of TEAM Computer.

During his studies, Klaus also got in touch with the "No" group of programmers and Compo. Both of these contacts remain to this day. The first professional product developed by Klaus was programmed in Pascal and was financial software for a woodworking shop.

Klaus bought an ST as soon as they became available, and uses it these days for word processing and book-keeping. Klaus also acts as conduit between customers and programmers and is actively involved in system design.

The son of a photo marketing specialist, Klaus grew up "with a camera around my neck", and photography and video remain his favourite hobbies. Today this is combined with computers and Klaus specialises in presentation video and genlock applications.

spirit

Don Maple meets up with a trio building their own Atari empire

new customers. At the same time their unique software was also being developed.

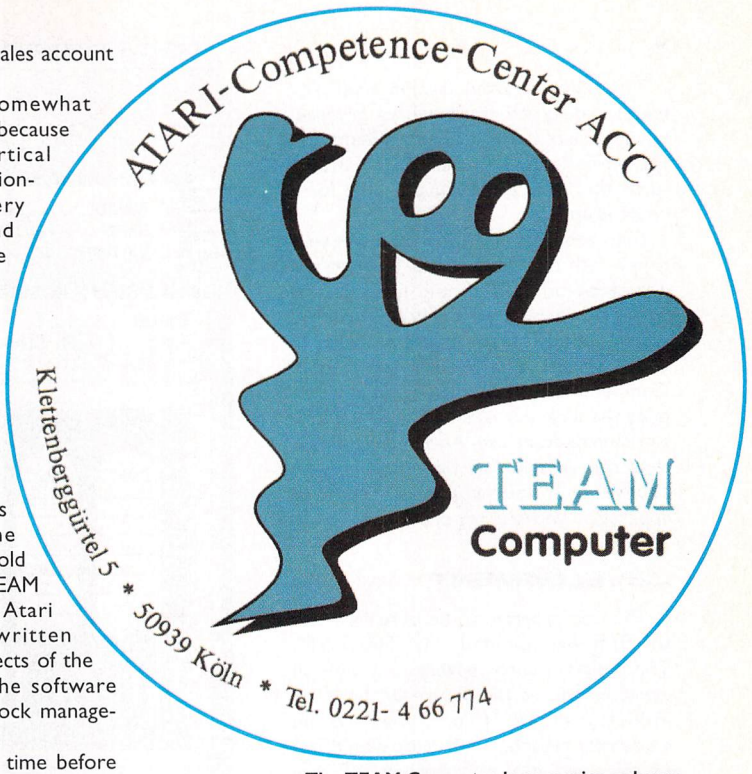
TEAM Computer did realise that because of their unique situation they could not live from Atari hardware sales alone. To supplement their incomes they are also in the PC sales and leasing business, providing complete PC setups (including projection equipment) for seminars. Additional income earned in this way finances the development of Atari products. Currently Atari hardware sales comprise 75% of overall income while PC hardware sales account for the remaining 25%.

TEAM Computer are somewhat unusual in the Atari world because they concentrate on vertical markets. They quite intentionally choose a few very specialised, niche areas and offer solutions nobody else has even considered They do this by supplying a complete solution and selling it as a package, together with Atari hardware. This has proven quite profitable, opening totally new areas for the Atari in the process.

The first such product was conceived even before the firm was founded, and was sold to a cabinet building shop. TEAM Computer provided both Atari hardware and custom written programs to manage all aspects of the carpentry business, with the software covering everything from stock management to invoicing.

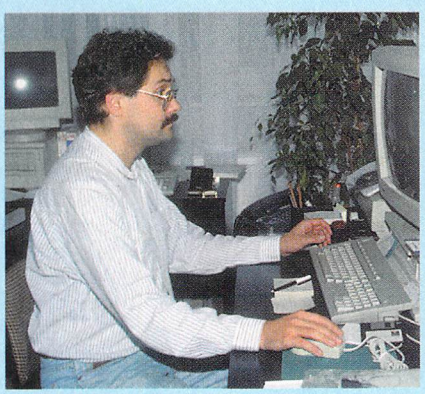
Another big hit from the time before TEAM came to be is the Phöbos Sun Timer system. This was developed for a sun tanning studio and involves an Atari sitting at the front desk and managing every aspect of the business, including tanning exposure.

When a customer calls for an appointment, the manager checks the Atari for availability. Having found a time slot the appointment is then made. When the customer turns, up they walk to the cabin and either press the button to start the tanning or simply lay down, leaving it to the Atari to turn the lamps on. In either case, after the scheduled time is up, the lamps are automatically turned off. In the meantime the customer is entertained by CDs they have chosen, again turned on automatically by the computer. At the end of the session the amount due is calculated based on the time of the exposure. The Atari also keeps all statistical information regarding lamp usage and other aspects.



The TEAM Computer logo carries a slogan which is a play on words in German, and as such it loses a little in translation. Basically, a single word in German can mean both a ghost and a spirit

Thomas Lüthy



Thomas bought his first 1040 ST from Klaus – who at the time sold Ataris from home – to be followed, first by a Mega ST, and then a TT.

Growing up in a large family, Thomas was anxious to stand on his own two feet, and eventually raised enough money to start a computer leasing business. He actually "invented" computer leasing in his home city of Cologne. Eventually Thomas ended up leasing 24 machines comprising all sorts of PCs, notebooks, printers, etc.

It was this which led him to writing software. Namely, he needed various forms to contain the multitude of information required to run a leasing business. He wrote an application in a database called ComBase, which took two years to develop and allowed for leasing, sales or a mixture of both.

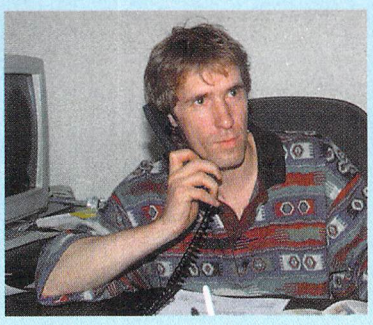
The system was constantly improved and is still in use today, running on a TT. In addition to the Atari, Thomas' specialities include leasing and PCs.

Harald Paul

In his own words, Harald only wanted to go to school "to learn to read". As it happens, it is writing, more specifically the writing of computer programs, which enables him to make his living these days.

He studied in Berlin but ended up in the electronic and technical university town of Aachen. In the beginning, Harald programmed his friend's Apple with a CP/M card in Turbo Pascal. But, when the ST 520 was launched in 1985, he got one of the first machines to arrive in Germany.

The Basic which came with the ST was not even finished, so he tried out Logo. Eventually he programmed in C, but settled on Modula-2 which is his programming language of choice today. He uses "Hänisch Modula-2" which is a complete development system.



What Harald likes about Modula the most, is type checking. He finds that C programs might be shorter and faster to write ,but they crash more often: "I almost never had a Modula program crash with bombs."

Today Harald programs all the custom and vertical market software at TEAM Computer, including "Hotel ST" and JOSEF.

The same system is also used for tennis and squash courts with a program taking care of both the appointments and the book-keeping. It also automatically turns the lights off when the time for a court is up!

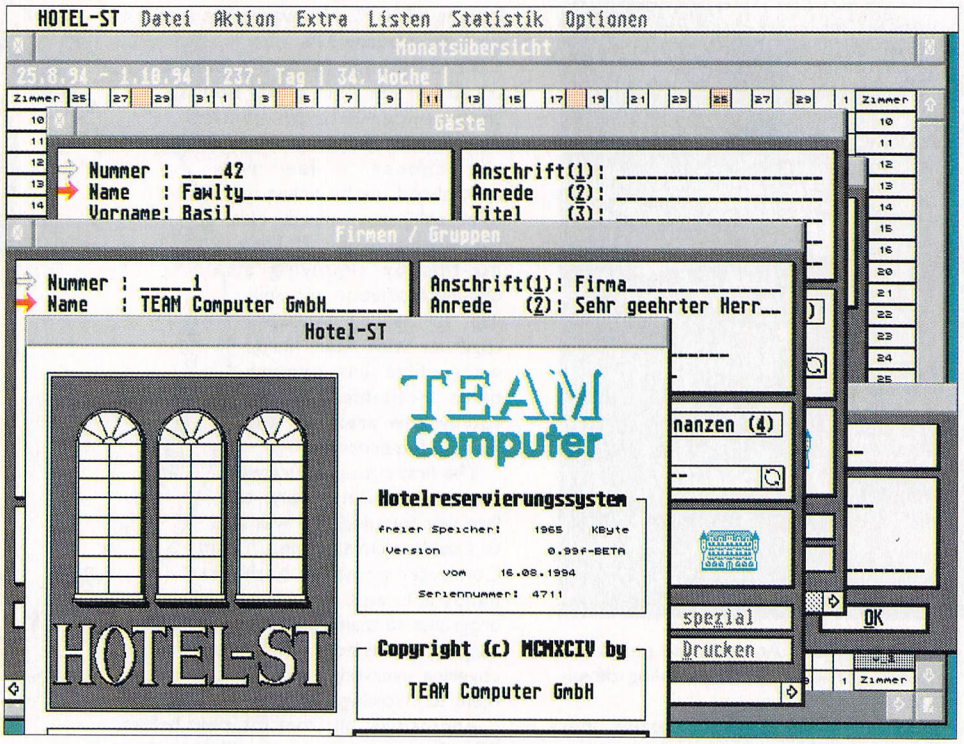
Even though the original studio is very happy with the whole setup, the idea did not catch on as it should have. It was thought to be too early for such a system, as most people were still alien to the idea of computers, so TEAM Computer are now planning to reintroduce the idea, perhaps equipping a whole sun tanning franchise. Another big plus is that the system has been thoroughly proven over four years as a real life application without any problems.

DEVELOPMENT

The first program to be launched after the firm was founded was "Hotel ST". The program spent a very long time in development, as the nature of the hotel industry meant that it had to be extremely reliable – mistakes would not be tolerated. Not only is Hotel ST very reliable, it is also technically very clean, being aware of all possible system extensions such as MultiTos or MagiC.

Another vertical market program by TEAM is Archibald. Written by an outside developer, the program is custom written for architects. In their line of business, architects submit tenders in response to invitations from possible clients. These documents are usually very exact and must follow special guidelines and contain special forms. There are also various cost considerations to take into account. Archibald automates this process by requesting some basic data and then producing the necessary paperwork.

The program is mainly aimed at self-employed architects and small shops that don't have the time or manpower to devote to such a process. By using Archibald they can cut through the bureaucracy and concentrate on design and other architectural tasks.



An integrated program containing everything you need to run a hotel, from reservations to book-keeping. This and an Atari are an ideal solution, especially for smaller hotels

Argus@Pro is another highly specialised program, this time in the image processing area. The program is not yet finished but will be customised to process images obtained from magnifying equipment such as an electronic microscope or a telescope. The program has all of the latest image processing routines and is aimed at biology and astronomy applications. It analyses and evaluates images, applies false colour and is capable of changing the brightness and contrast of an image.

JOSEF is a custom program currently being written for "Johanitaner", a Samaritans-like organisation in Germany, who need a system to manage their workload and keep track of various tasks. Currently, all work is recorded on numerous small pieces of paper which are collected and processed once per month. The program JOSEF runs on an Atari and will make the scheduling and other management tasks much simpler. It is scheduled for release in April 1995.

ORGANISATIONS

The program could also be used by other similar organisations such as the Samaritans, the Red Cross or any other private help organisation. It is being designed by a doctor at the University who is familiar with their requirements, and the result will be a program which even the various PC offerings can't touch! The idea is to make the program so attractive to these organisations that they don't care what platform it runs on. All to the delight of TEAM Computer as they would win another convert to the Atari.

In spite of these highly specialised products, TEAM Computer have not completely abandoned horizontal markets. Quite the contrary, they cover this area by working closely with the "No" group of programmers. (For more about "No" see July 1994 issue of ST User.) Jörg Tochtenhagen is a TEAM Computer in-house programmer working on "No" programs such as Arabesque II which is currently being developed.

TEAM Computer has also taken over some programs from other Atari companies which have decided to throw in the towel. One such case is "Shift", a firm which not so long ago decided to close its doors. TEAM took over almost all of Shift's product line by talking to the programmers directly – those who expressed interest are now under the wing of TEAM Computer. This is naturally good news for all Atari owners because these programs continue to be developed and upgraded.

Vertically challenged

Turning to the future, TEAM Computer are quite optimistic. There are many vertical applications where Atari can still make an impression, particularly in the areas of video and presentation software. One big advantage in this search for new applications is the store. This direct contact with users is not something a pure software company would be able to do easily. Whenever someone walks in to the store it is an opportunity for TEAM Computer to find out what that user wishes to do. Particularly so when a person buys a programming language.

The conversation soon turns to applications, and another potential "TEAM" member is found. "We had many pleasant surprises this way", said Harald. Often the customer never even thinks of marketing a program which they only wrote for themselves. "We found many people this way, many good people", said Harald, while Thomas added, "we try to sell a computer with a heart and try to have a more personal relationship with our customers." The words of a true enthusiast.

In the meantime, TEAM Computer has climbed to third place on the list of companies who have sold most Atari products Europe-wide! This shows that Ataris can be profitable even in the very narrow, targeted vertical markets. Normally these areas are an almost exclusive domain of the PC, because common wisdom holds that this is far too specific for a platform like Atari which is not in the mainstream. However, by providing superior software with inexpensive Atari hardware as well as a personal touch not found in the mass PC market, TEAM Computer has proved this to be wrong. Showing once again, that if it is only given a chance, an Atari computer can still be one of the most valuable members of any team.

Hard labour

Dave Cusick investigates the latest low-price, high capacity hard drive to grace the ST marketplace

The hard drive has to be one of the most important and valuable upgrades available for the home computer. It is possibly the only piece of hardware that has the potential to radically change the way you work. The sheer speed and convenience of having all your software stored on a fast-access, non-removable medium becomes apparent after only a few days of use.

Commonly used programs can be dragged onto the desktop if you have TOS 2.0 or an alternate desktop installed, and menu programs allow you to instantly run any program on the entire hard drive. Life becomes one long technicolour whirl of automatic timed saves and ridiculously full auto folders.

In the distant days of the late 1980s, a hard drive with maybe 20 or 30 megabytes would have set the buyer back anything up to five or six hundred pounds. Fortunately, since then, prices have tumbled and capacities have increased. As a result, it is possible to obtain a drive with plenty of storage space for a few hundred pounds.

Older drives tend to take up plenty of space despite their comparatively small storage capacity, but so long as they fit under the monitor, this is pretty excusable. These days, hard drives are much more compact and use nothing like the amount of desk space that their predecessors did. In fact, this particular unit measures just 225mm by 190mm, and will sit comfortably on a desk alongside the monitor.

It features a sleek and stylish design (a far cry from the unattractive appearance of many older drives), and a number of ventilation slots are positioned on the underside of the unit. The four small leg-like rubber stands raise it fractionally off the desk surface, enabling the unit to dissipate heat without risking the terrifyingly common "death by coffee" scenario.

SCSI devices such as this require an adaptor for use with an ST and included in the £339 price is ICD's Link 2 and ICD software.

In operation, the drive is impressively swift, achieving an access time of 17ms according to various drive rating utilities. It is also extremely quiet and does not heat up excessively. The model reviewed has a capacity of 234 megabytes, enough to keep even the most hard drive-hungry users happy for some considerable time. It is possible to link the drive up, even if you already have one installed, as the designers have thoughtfully provided a "through" socket. There is a drive ID number which can be easily adjusted using a little switch on the rear of the unit, so that the ST does not become seriously confused.

In short, this is a high quality piece of hardware which combines good looks with excellent performance. Some thought has obviously been put into the design, and it fulfils all the basic requirements of a modern hard drive, whilst not making too big a hole in the pocket.

The company also supply a variety of drive housing units, and sell several of the components of the finished drive individually, but it will doubtlessly be the finished unit which will interest most ST owners. This drive will certainly appeal to serious users with sufficient financial resources, and would be a worthwhile addition to any ST setup.

BOTTOM LINE

FEATURES

Everything you'd expect from a quality hard drive is included in the package

Excellent
Good
Average
Bad
Appalling

EASE OF USE

No problems presented themselves – the same as using any other drive

Excellent
Good
Average
Bad
Appalling

VALUE FOR MONEY

When you consider the megabytes you'll be getting, the price is quite attractive

Excellent
Good
Average
Bad
Appalling

Product: Series 9 (234Mb)
Supplier: The Upgrade Shop, 37 Crossal St, Macclesfield Cheshire
Telephone: 0625 503 448
Price: £339 (ST) £289 (Falcon)
Configuration: All STs and TT

Advice

Projection problems

I am trying to obtain some technical advice concerning the use of my Atari STFM. I wish to project directly from the computer using some sort of video projection system, so that the screen will be visible to an audience. I have had so many different opinions about this matter that I'm nearly at my wit's end.

John P. Wynne, London

I wonder who's been telling you all these stories, then? It's actually a fairly simple – if somewhat expensive – procedure. I presume that you require this for a short time, perhaps for some sort of presentation, rather than for a long-term display? If so, first check your Yellow Pages for Audio/Visual Hire Companies. There will be lots of them, especially in the London area. Any of these should be able to hire you a video projector, and set it up on site for you.

There are several types of projector available. The best are the three-tube variety, but these are often expensive and complicated to line up correctly. A cheaper alternative would be to use an LCD projector. This basically uses one of the small pocket television displays and projects that image onto a big screen, rather like a slide projector. Unfortunately, the resolution of these is rather poor, unless you go for the more expensive units. It is also possible, if you're only dealing with a fairly small audience, to obtain cabinet televisions up to about 50 inches.

Assuming you go for a three-tube Sony or Barco projector, expect to pay anything from £150-£200 (plus VAT) per day, plus another £30 for a high quality foldaway screen. Your STFM should be connected via the RGB wires for the highest quality. Tell the suppliers that your computer generates a 50 Hz RGB colour signal with a separate sync line.

If you plan to use the high resolution monochrome display, you will need to hire a more expensive Data Projector capable of handling the 71 Hz picture rate used in this mode. This should be possible with any projector which can display PC VGA images, but the hire company will probably need to make up a special cable for your ST.

This cable will use the horizontal and vertical sync lines, and will connect the Atari's monochrome output to each of the Red, Green and Blue inputs on the projector's input socket. They will also need to connect the 'monochrome detect' wire on the Atari to the ground pin. This will tell the computer which mode to use. (See our featured letter on the next page for more details on the connections required).

Colour conundrum

Could you please help solve a mystery which has been baffling me for quite some time? As the ST is only capable of displaying 16 colours at a time, how does the program Neoshow manage to show two pictures with different palettes scrolling simultaneously? And, is it possible to achieve this using STOS or any other BASIC programs?

Z. Seweryn, Harlow, Essex

You are right that the ST only has a range of 16 colours available from its palette of 512 (or 4,096) at any one time. What Neoshow, Neochrome and a great many other programs do, is cheat the system. This is done by changing those colours 'on the fly' while the TV picture is being made up. There are two ways to do this:

First, you can create two separate pictures, each with different palettes, and rapidly switch between the two of them. This is not an ideal solution, as it causes the image to flicker. However, if you first switch up to a 60Hz (American style) display speed, it may not look too bad.

The other method is much more complex, and far beyond the scope of a BASIC program. Since each of the 50 television pictures drawn to your screen every second uses a very regular timing system, it is possible to write a machine code routine which leaps in at exactly the right point on each screen update, and changes some or all of the palette entries.

The timing of such a routine is highly critical: you have just a few micro seconds to make the changes, and they must be made at precisely the right point for the effect to work. If you think that even a basic ST has 200 lines of video display, plus another 100 or so blank lines above and below the visible screen area, all being updated 50 times a second, you can imagine how critical that timing is. In order to make the trick work, you need a program accurate to well under 1/6000th of second!

This sort of display system is usually locked into the computer's Horizontal and Vertical synchronisation counters, and is so timing-critical that if you want to make a lot of colour changes (for example to show different palettes on every line), there really isn't much processor power left for the computer to do anything else at the same time.

Programmer's help

Mr F. Adams of York was asking for information on programming multi-computer games using the MIDI ports. I would suggest that his best course of action is to join the ICTARI Programmers User Group, who may be able to help.

The service is free, and open to anyone interested in programming in any language. Send an SAE for more information to:

ICTARI User Group
63 Woolsbridge Road
Ashley Heath
Ringwood
Hants
BH24 2LX.

Peter D. Hibbs, Ringwood, Hants

Thanks for that information, Peter. It does sound like your group might be the answer to Mr Adams' problems.

Peter also enclosed some further information about the group, which was started last year, and aims to link Atari programmers and allow them to share their knowledge. ICTARI issues a monthly disk of utilities, programming articles and hints and tips, all of which are written by members of the group.

All users are encouraged to submit material for this disk, which is then distributed freely to the whole group. All you need to do is send in a blank floppy disk and two second-class stamps for each issue that you require. Good luck with the venture, Peter.

Recent upgrade

I have just bought an Atari 1040 STE, and would like some advice on certain topics related to this machine. I already own a Spectrum 128, and would like to download some programs and related work from this machine to the Atari. My main question is what software and leads, etc will I need to perform this task?

Roy Parkington, Keighley, West Yorkshire

Your question is really two-fold, and I'm only going to be able to help you with one part of it, unfortunately. Transferring data files from your Spectrum to your new Atari ST is fairly simple, and requires the use of a comms program on both machines. There are plenty of these available as PD if you don't want to spend any money.

You must then link the two computers together via an RS232 lead known as a 'null-modem' cable. If your Spectrum does not already have an RS232 port on it, you may have to buy an add-on unit to give you this facility. You can then use the file transfer systems (e.g. Xmodem or Ymodem) on both comms programs to pass files from one machine to the other.

However, although you can transfer these files onto your ST, you will find there is little you can actually do with them. Pure data files, such as text from a word processor or an ASCII export from a spreadsheet or database, should be usable with equivalent ST programs – with a bit of work, anyway. However, the actual programs – word processors, databases, games, and so on – which you regularly used on the

SERVICE

Spectrum, will not work at all on the Atari because they use different CPUs and other support chips.

You may find that a Spectrum emulator solves some of your problems, but this is by no means an ideal solution. You would be better off getting ST equivalent programs and importing your text and data files into those.

Monitor mayhem

I wonder if you or any of your readers can help me? I would like to connect my Panasonic NICAM stereo TV to my Atari STFM, using the monitor socket on the ST and the SCART socket on the TV.

I thought this would be relatively easy: not so, it seems. I made a few enquiries using the mail order ads in your magazine, but couldn't find anybody to supply me with a suitable lead. The closest I came was when Silica Systems sent me a lead which I think was meant for a monitor rather than a TV. Anyway, it didn't work with my TV. Silica promptly returned my money, but I find myself back at square one.

Another problem with this lead was the length – a miserable one metre – no good to me whatsoever. So I not only need a lead that works, but also one that is about four or five metres long. I was told that a lead any longer than a metre would result in deterioration in picture quality. Is this so? In these days of ultra high-tech, the boffins can't stretch a cable a little?!

I also discovered that not all SCART sockets are the same! The plot thickens. Someone told me that these cables were made for Sony TVs, and that they won't work with my Panasonic. The mind boggles!

William Jackson, Leven, Fife, Scotland

This letter is typical of one of the most common enquiries that we receive at ST User. The simple act of connecting a TV or monitor to your Atari computers seems to cause endless amounts of hassle. Hopefully we can clear the issue up once and for all here, by explaining why most of the problems occur and what can be done to remedy them. If you're no good with a soldering iron, contact your local computer dealer. They should be able to make up a special lead to your own requirements if you give them the relevant details.

First, a bit of background. There are several ways to connect a computer to its display device. The simplest is to use the aerial wire, of course, but this results in very poor picture quality.

The next solution is to use what is called 'Composite Video'. This is the same sort of signal that your video recorder generates when you plug it into your TV via the SCART socket. While it's perfectly adequate for the 250-odd lines of resolution that a VHS video delivers, or the 320 lines used in Low resolution game screens, it is not a particularly suitable link if you want to display 640 lines in Medium resolution.

The final solution (as far as televisions are concerned) is to use the high-quality RGB pins on the SCART connector. This system separates the signals for each of the Red, Green and Blue segments of the picture, rather than blending them together into the mush that normally becomes Composite Video.

However, not all televisions support this mode on all of their SCART sockets. Normally a TV set with more than one SCART connector will have at least one of them fully wired for RGB. Sets with just one SCART (often found on smaller TVs) may be fully wired for RGB or they may not. Check your manual for details. In this case, Mr Jackson's Panasonic TV has one of the inputs, marked AV1, fully wired.

So, how do you go about creating the right cable to link your trusty ST to one of these newfangled SCART sockets? If you don't have RGB on your SCART, and are thus connecting via the Composite Video signal, wire the cable as follows:

Atari	SCART
1	2 and 6
2	20
8	8
13	4 and 17

Pin 8 is used to tell the television that there is an input signal currently available on the SCART, and many TVs can switch automatically into video mode when the computer is turned on.

If you are making up a full-spec RGB connection, use the following wiring:

Atari	SCART
1	2 and 6
2	20
6	11
7	15
8	8
8	16
	(probably best via a small resistor)
10	7
13	4 and 17

Technically, pin 13 on the Atari should also be connected to pins 5, 9 and 13 on the SCART. But, this is very rarely needed and you can probably skip these connections.

Pin 16 on the SCART is used to tell the TV that the signal is RGB, rather than Composite Video. Technically this pin is specified at just 3 volts, whereas the ST's output Pull-up line is 12 volts. Some TVs can cope with the higher voltage, but it would be best to connect this wire via a resistor to step the voltage down if you are at all unsure. Also, if you find the picture is too bright, and dark colours look mushy, try connecting the Red, Green and Blue wires via small resistors – perhaps 150 ohms.

If you want to hear the stereo audio output from an STE on your stereo TV, you will also need to connect the two phono connectors on the back of the STE to the TV set, since these signals are not present on the STE's monitor connector itself. Connect the centre pin of the Left output phono to pin 6 on the SCART, the Right output phono to pin 2, and the outer screens of both phonos to pin 4.

One final piece of advice. Several people have asked us whether they can connect their ST into a PC-style VGA monitor. The answer is a tentative, yes. First, though, you MUST ensure that your VGA monitor is capable of handling varying refresh rates (ie the number of pictures sent per second).

Most VGA monitors won't be able to handle the 50 Hz television rate used for Low and Medium resolutions, but they will cope quite happily with 71 Hz High resolution. If so, the trick is to connect the cable ➤

Got a problem?

As you may have gathered, this is our last issue of *Atari ST User*. But fret not, if you have a problem with any Atari hardware or software, you still have a place to go for information.

Our sister magazine *Atari ST Review* has some of the finest Atari journalists in the business writing for them with many years of knowledge and expertise in a wide range of topics between them.

So, if you find yourself with what appears to be an insurmountable problem with your Atari, write in to: Ask The Experts, Atari ST Review, Europress Publications, Europa House, Adlington Park, Macclesfield, SK10 4NP

Advice SERVICE

➤

so that the Monochrome output from your Atari is connected to each of the Red, Green and Blue Inputs on the monitor. You'll also need to connect the Atari's Monochrome Detect wire to Ground, to tell the Atari to switch into High Resolution mode. The other connections you'll need to make are for Horizontal Sync, Vertical Sync and Ground. There is usually no audio input.

To make an adaptor cable, first check your VGA monitor manual to find which pins are used for which signals. On most PC monitors with a 15-pin, 3- layer D-plug, you could try the following:

Atari	VGA
1	N/C (no audio)
4	5 (or back to pin 13 on Atari connector)
11	1, 2 and 3
9	13
12	14
13	5

(plus optional 6, 7 and 8, as per note for SCARTs)

As with any of these cables, the best advice is that if you are not 100% sure of what you are doing, get a professional to make up the lead for you.

SCART pin assignments:

1 .....Audio Output (Right)
2 .....Audio Input (Right)
3.....Audio Output (Left)
4.....Audio Ground
5.....Blue Video Ground
6.....Audio Input (Left)
7 .....Blue Video Input
8.....Function Switching (12V)
9 .....Green Video Ground
10 .....-
11 .....Green Video Input
12 .....-
13.....Red Video Ground
14 .....-
15.....Red Video Input
16 .....RGB Status (3V)
17 .....Composite Video Ground
18.....RGB Status Ground
19 .....Composite Video Output
20....Composite Video Input (also used for RGB sync)
21 .....Outer Screen

ST Monitor Port Pin Assignments:

1.....Audio Out (mono)
2.....Composite Video Output (and RGB composite sync)
3 .....General Purpose Output (ignore)
4 .....Monochrome Detect
5.....Audio Input
6.....Green Video Output
7 .....Red Video Output
8.....+12V Pull-up
9 .....Horizontal Sync
10 .....Blue Video Output
11 .....Monochrome Video Output
12 .....Vertical Sync
13.....Ground

Loudspeaker quandary

I have two car speakers, with bare leads which I'd like to use with my STE for stereo sound. Please could you tell me which leads I need? I do hope you can help.

Alec J. Woolford, Lickey, Rednal, Birmingham

Sorry, but you can't connect your speakers directly to the STE, since it does not have an amplified audio output capable of driving such a load. What it does have is two phono audio output connectors which are designed to be plugged into the line-level input on an amplifier or cassette deck.

The simplest solution would be to purchase a cheap amplifier from somewhere like Tandy. A basic unit should cost you no more than £20-£30, and you can connect your speakers directly to that amplifier. The STE then plugs into the line input sockets on the amplifier via a stereo phono-to-phono cable, which Tandy can also supply.

Second-hand modem

I recently purchased a second-hand GEC Datachat 1223 modem, complete with manual and cable. However, the cable is wired for the BBC Micro computer, and as such, I presume it is not wired correctly for my Atari.

I thought rewiring it would be easy, having the manuals for both the modem and the Atari, but the cable is fitted with a five-pin DIN plug at the modem end, and an RS232C at the other – but the cable has only four wires. How do I get four wires to connect to the nine pins used in the 25-pin RS232 on my Atari?

The wiring of the Datachat is as follows:

Pin	Name	Type
1	Trans/Data	INPUT
2	Req/to send	INPUT
3	Signal Ground	EARTH
4	Rec/Line Signal Generator	OUTPUT
5	Received Data	OUTPUT

Malcolm Francis, Wrexham, Clwyd

Although your ST has a 25-pin RS232 connector, as you rightly say, less than half of these pins are actually used. Even less are vital to allow a computer and a modem to communicate. In fact, at a push, you can get away with a three wire link – as I had to do when my main computer blew up last week, and I needed to whip up a temporary connection between an old computer and my modem. As my friends on CIX told me, Heath Robinson would have been proud – but I do hope your cable will be better than the three bits of bent wire that I used!

In your case, you need to connect the cable as follows:

Modem	Atari
1	2
2	4 (optional)
3	7
4	8
5	3
Outer Screen	1

Modem pin 1 carries the data flowing from the computer to the modem, while pin 5 sends data back from the modem to the computer. Pin 3 is the ground (earth) connection, and pin 4 is the Carrier Detect line which tells the ST whether the modem is currently online.

The connection for pin 2 on the modem is optional. It is normally part of a two-wire system known as CTS/RTS which is used to control the flow of data for fast modems. But, since the CTS part of the system is not present on your modem, it is of little value.

Once you get the modem working, you may find that it is rather slow and anti-quated – it won't even support auto-dialling, for example. This means that you'll have to dial up each number by hand on your telephone keypad. If you begin to get seriously involved with comms, I'd strongly suggest looking for a better modem. Even a second-hand 2400/MNP5 model would be a considerable improvement on the Datachat. Anyway, good luck – see you around online!

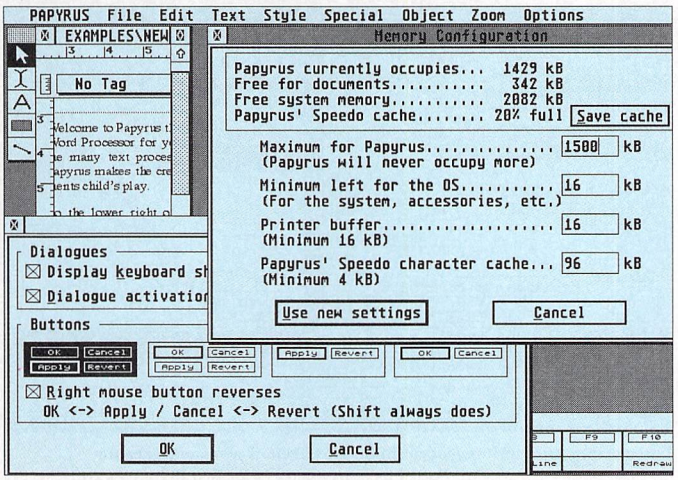
Page numbering for First Word

We use an Atari 1040STE, and for word processing use the First Word program which is fine for most of our needs. The problem is that we can't number the pages of the script that we're producing. However, on one of our letters, page numbering has occurred as if by magic! So, advice please: how do we turn the page numbering facility on and off?

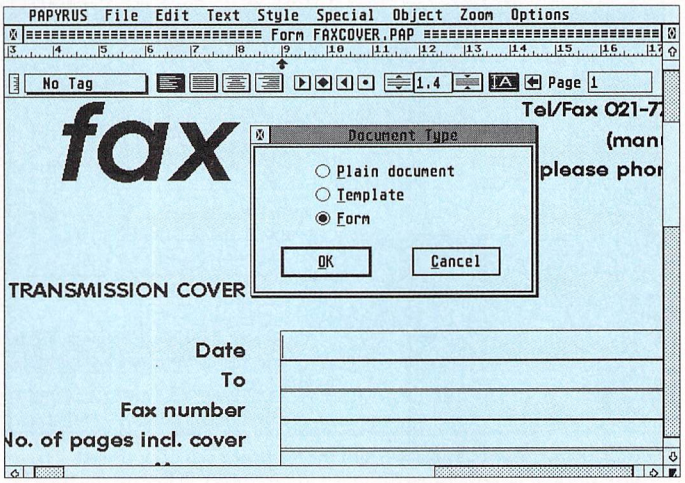
Darryl Foxwell, Morley, Leeds

The page numbering system in First Word and First Word Plus is tucked away in the Page Layout option in the Layout menu. This dialog contains the text which will be used for the left, right and centre sections of the headline at the top of the page, and of the footer at the bottom of the page. There are also a series of buttons which allow you to alter the number of lines between the main text and the headline, and between the headline and the edge of the paper.

To insert a page number into any of these six fields (left/right/centre at the top or bottom of the page), simply use the # character. Thus, if you wanted the legend "Page nnn" centred at the bottom of each page, you would enter the text "Page #" into Centre Footer field. To remove any existing headers or footers, simply delete the contents of all those fields.



Like all good programs, Papyrus offers many configuration options to tailor your own working environment and maximise efficiency. Memory configuration is particularly important for the font and character caches – some trial and error is needed to find the best settings.



Form documents are ideal for purposes such as invoices or, as in this screenshot, a fax cover sheet. Only the outlined text boxes are editable and can be quickly filled in, saved and printed. If you wish to amend the form, simply click on Plain Document to revert to the standard (fully editable) type

Papyrus Gold, the much-heralded new document processor from HiSoft, has finally been released to the masses. Does it live up to all the hype? Günter Minnerup investigates

Going for Gold

Wordprocessors started off as programmers' text editors, gradually sprouting newer, sophisticated features as more and more people discovered that computers made very good replacements for typewriters. The appearance of the final document on paper depended on the quality of printer attached, and bore little relation to what you saw on the screen. This was because printer fonts were fundamentally different from the computer's built-in screen fonts.

With improved screen resolutions and faster processors, desktop publishing became possible: the entire page could be displayed in graphics mode, complete with pictures and fonts that closely resembled the printer fonts. The much heralded "What you see is what you get" had finally arrived.

POWER

Since then, wordprocessors and desktop publishers have tended to work in tandem. The considerable processing power required for DTP slowed things down to such an extent that the job of text preparation was usually left to the specialists – dedicated wordprocessors.

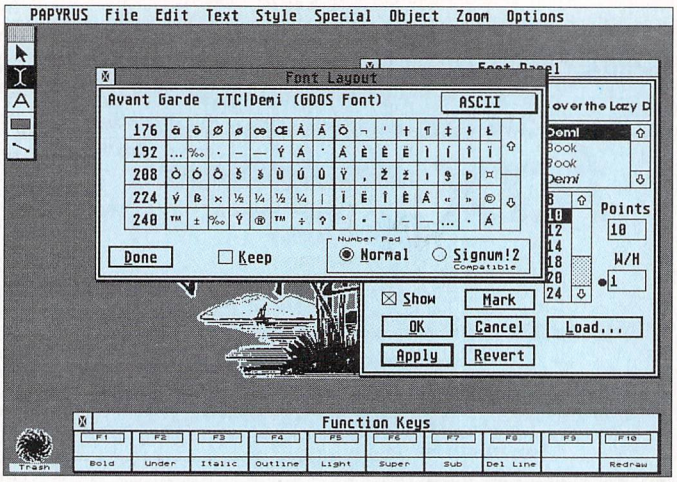
However, this division of labour creates its own problems when wordprocessor and DTP package do not understand the same document file format. In any case, it is inefficient to use two different applications to complete one job. The DTP revolution therefore soon began to inspire so-called "document processors": wordprocessors operating in graphics mode, capable of using a multitude of fonts, incorporating pictures and displaying the page exactly as it would appear in print. The gap between character-based wordprocessing and graphics-based page layout was closed.

Or so it seemed. For, in reality, these document processors could never quite deliver on their promises. Nature – or rather, technology – could not be cheated. Things were either slowed down unacceptably, especially with long documents, or speed had to be bought at the expense of editing power. On the ST, the limitations of GDOS did not help. Not only was it slow, but also difficult to configure properly. With all these compromises involved in "document processors", many users – myself included – preferred to continue with a straightforward wordprocessor for text crunching, and a full-scale DTP package for page layout.

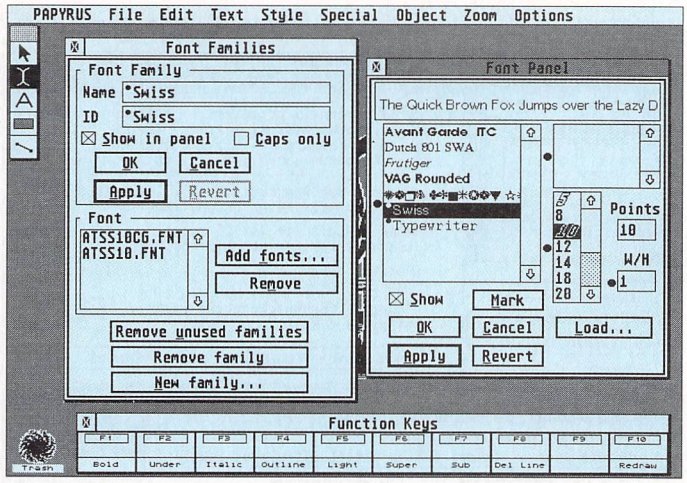
The advance publicity for Papyrus Gold promised to change all that: "The premier document processor for the Atari TOS range of computers gives you the power and flexibility to create all sorts of attractive documents, from a simple memo, though a multi-page brochure up to a complete, 400-page novel or manual.... the essential purchase for anyone who works with words, from the casual letter writer to the professional journalist and author."

So how well does it live up to such promises? Is this, at last, the missing link between text-based wordprocessing and graphics-based DTP?

The installation is about as simple as it could be. All you need to do is run the installation program and follow its instructions. It is at this stage that you notice Papyrus has no need for GDOS – well, not the old GDOS anyway. It can use bitmapped GDOS fonts without it ➤



Unusual characters not available from the keyboard can be accessed through the font layout dialog. Although the Avantgarde font shown here is described as a GDOS font in the dialog, it is actually PostScript. This is preferable to Speedo fonts because of the more complete character set (if you have SpeedoGDOS 5, of course)



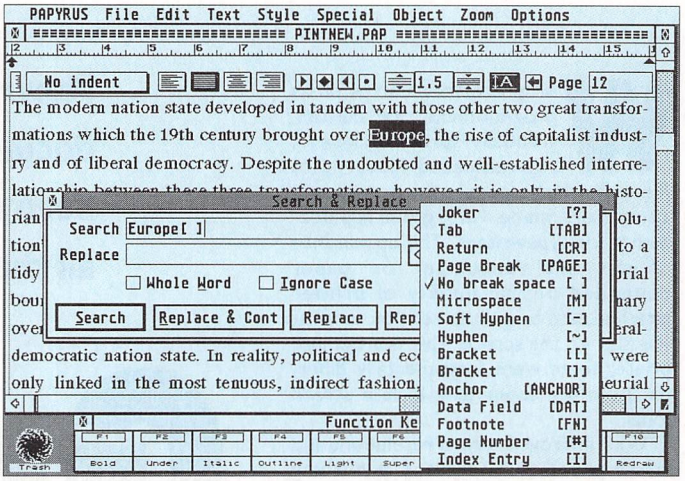
The combination of Papyrus and SpeedoGDOS 5 gives unbeatable font handling power. The Font Families dialog is for installing new, bit-mapped GDOS fonts – the familiar "Swiss" version of Helvetica in this example – to join the already-installed PostScript, TrueType and Bitstream Speedo fonts

➤

(as well as Signum fonts), and works at a commendable speed, much faster than anything that required GDOS in the AUTO folder.

However, for good results on screen and on paper, you still need to have the fonts available in various sizes and resolutions. Papyrus is quite intelligent at scaling bitmapped fonts, but there is only so much it can do before the output is marred by ugly distortions.

The ability to paste in a selected block as the search or replace string is a neat feature, as are the search items in the pop-up. Unfortunately, some of these cannot be used in the replace string – the Carriage Return, for example



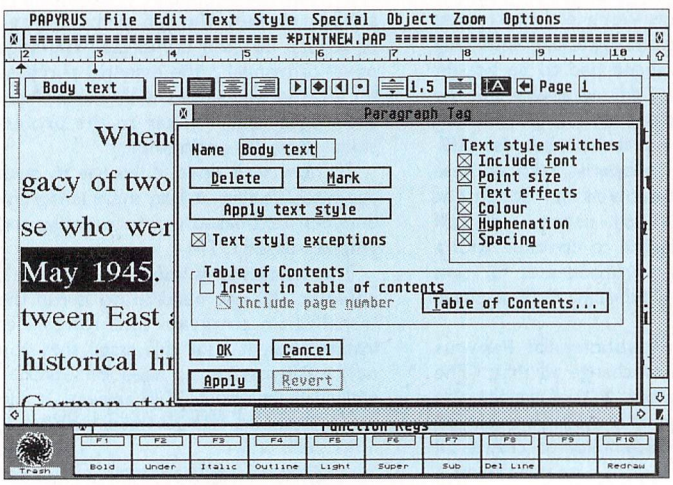
VECTOR

The answer, as anyone familiar with DTP knows, lies in the use of vector fonts. For Papyrus that means Atari's new SpeedoGDOS. Since the scaling of vector fonts makes considerable demands on the processor, this will initially give slightly slower screen output than with bitmapped fonts. But, once scaled to the required size, the fonts are held in memory caches. From then on, there is no real noticeable difference.

Version 4 of SpeedoGDOS is restricted to Bitstream's Speedo fonts, but I also tested Version 5 (developed by Compo under licence from Atari, and able to support PostScript Type 1 and TrueType fonts) to see how it would fare with Papyrus. There is a speed penalty with PostScript fonts in particular, but once again, the font cacheing reduced this progressively. Certainly, either with or without SpeedoGDOS, and whatever the font format used, Papyrus is incomparably faster than, for example, Calligrapher.

Speed is only one touchstone for the quality of a document processor. The other is its capabilities in the fields of both wordprocessing and page layout. To be fair, no program of this type can be expected to combine all the features of high-end DTP and writing packages at the same time. There has to be some compromise. If pushed, most of us would probably prefer to lose something on the DTP rather than the editing side of things.

Papyrus is extremely capable as a page layout program. It has multiple master pages, multiple columns, horizontal and vertical rulers, text flow around graphics (in GEM, IMG, STAD, Degas or Doodle formats), rudimentary line drawing and picture scaling facilities, virtually unlimited zoom levels, fine typographical



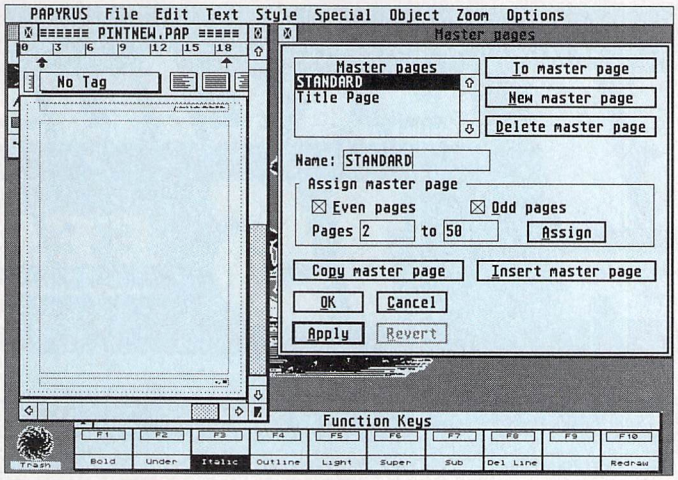
Text formatting is largely governed by paragraph style tags, although selected words and blocks can be reformatted individually. The tags make it easy to ring global changes when required, and the ability to select discontinuous blocks gives almost unlimited text styling power. The tags are also used for generating tables of contents, since headings and sub-headings will have different styles from each other and the body text

Competition

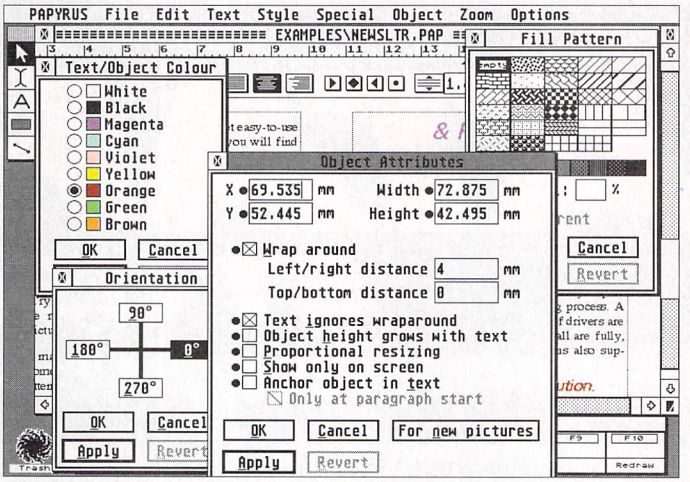
Will it take the crowded Atari wordprocessing market by storm? I think it should, if only because it is so well designed as a package. It deserves to establish itself as a model of user-friendliness and ergonomic elegance.

The developers are apparently already at work to act upon the feedback from users, and upgrades dealing with some of the weak spots mentioned above are expected very soon. Certainly, my own experience was encouraging in this respect. I reported to HiSoft that Papyrus would not handle PostScript and TrueType fonts under SpeedoGDOS 5, and received a new version fixing that problem within 48 hours.

Expect a hard fight for supremacy among the



Master pages are a very powerful and flexible, DTP-like tool. They contain the basic column layout plus the constant page elements such as headers and footers – even graphics. You can have as many as you like per document: for example, a cover page without header and page number, and other pages with different numbers of text columns



Papyrus goes much further than other document processors. You are offered DTP-style object attributes such as colours, wrap around, anchors and fill patterns for all objects on a page, as well as very precise control over their positioning and size. Rotation, however, is only supported in 90 degree increments at present, and it would be nice to have snap-to-guides

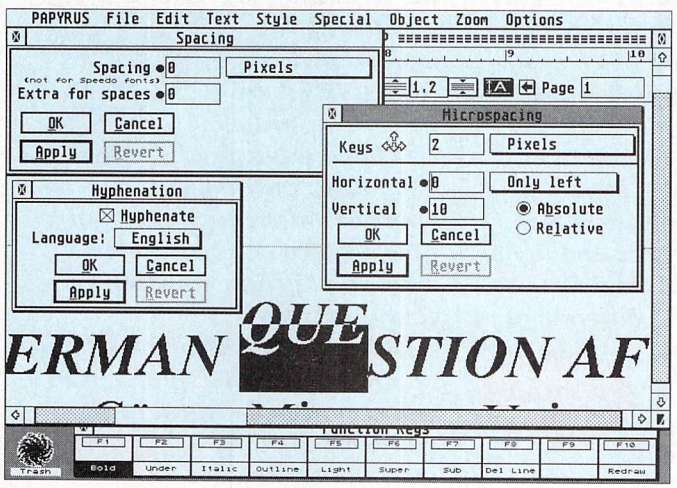
control and much more besides. The only notable omissions among basic DTP features are grids and magnetic guides.

On the text editing side, however, the picture is more mixed. Most of the standard features for top-end wordprocessors are present, but some of these are not without serious shortcomings. The spellchecker, for instance, cannot store capitalised words in its dictionary, and therefore will not spot, for example, England spelt as england.

LIMITED

The search-and-replace will only work from the cursor downwards rather than globally, and has rather limited options. I especially missed the ability to replace every nth occurrence of the search string. This is extremely useful for replacing single quotes with doubles or "typewriter quotes" with proper typographical quotes. Nor can you use the carriage return as a replace string, to eliminate blank lines between paragraphs for example.

The hyphenation is a bit of a disaster area too. Specifying English as the hyphenation language does not seem to make any difference, as Papyrus will steadfastly follow German algorithms. It would be nice to have endnotes as an alternative to footnotes too, as most publishers prefer to receive manuscripts in this format.



The typographical controls offered by Papyrus come close to a real DTP program in precision and flexibility. The hyphenation leaves something to be desired, however, as you end up with German-style breaks between syllables, whatever the language chosen

These are important niggles if Papyrus is really to establish itself as a serious writing tool, and they are amplified by some surprising omissions in the features list. There is no word-count, no Thesaurus and no keyboard macros.

That said, there is no doubt that Papyrus is the most successful attempt so far at the sort of document processor that the Atari series of computers has been crying out for. Its user interface is exemplary, almost beautiful, and a pleasure to work with. The non-modal "dialogs in windows", the keyboard shortcuts, pop-up selections and especially the well thought-out font and style management, put it way ahead of everything else on Atari computers in terms of elegance and functionality.

The "Intelliview" automatic spellchecking as-you-type has to be seen to be fully appreciated, and the ability to select discontinuous blocks for restyling or cut-and-paste is a uniquely powerful tool.

The manual is among the best I have seen with Atari software, and is written in a style that is accessible to non-techies without being patronising. It is ring-bound for easy use beside the keyboard, and even has a reasonable index (although with some strange entries: who'd look up "for new pictures" under F?)

The whole package oozes the sort of quality we have come to associate with HiSoft, from the installation utility right through to the documentation.

wordcrunchers over the next year or so. Calligrapher, which is sadly no longer supported, is left gasping for breath by Papyrus' speed, but That's Write and Protext will offer some stiff resistance to the stylish newcomer.

As a versatile all-rounder with more than a passing nod in the direction of desktop publishing, Papyrus is already well ahead of the competition. In terms of raw editing power, Protext still has a clear lead, but may lose ground because of its poor graphics support and incompatibility with multitasking environments on Atari computers. It should get very interesting, and Atari users will be the beneficiaries of this competition.

BOTTOM LINE

FEATURES
A real WP-DTP crossover, offering enormous flexibility and poweromissions
Excellent / **Good** / Average / Bad / Appalling

EASE OF USE
The best, most modern, most beautiful interface of any Atari program
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
Priced at the top end of the Atari range, but well worth it
Excellent / Good / **Average** / Bad / Appalling

Product: Papyrues Gold
Supplier: HiSoft, The Old School, Greenfield, Bedford MK45 5DE
Telephone: 0525 718181
Price: £129.95 (competitive upgrade offers available)
Configuration: ST/STe/TT/Falcon with at least 2Mb RAM, hi-res monitor and either 2 DD or one HD floppy drive. Hard disk highly recommended

ATARI ST USER exclus

15 £££-

Atari Joystick

This is an unbeatable offer for all gamers – an Atari joystick for just £2.99.

It's ideal for anyone, but especially for those who would like a second stick ready as a spare for visiting friends. With easy access Fire buttons on both sides of its small case, this model is suitable for left and right-handed players and fits comfortably into the hand.

ONLY £2.99

DataView monitor

This SVGA high resolution mono monitor has been specially modified to work on all STs and is ideal for such applications as DTP, music and word-processing.

It features a 14-inch FST screen for superb picture quality and has front mounted controls for power, brightness and contrast. Also featured is a swivel base and rear controls for picture size and positioning,

Also included is a cable adapter which has a small built-in speaker and an audio connector which allows you to connect it to a hi-fi system.

ONLY £104.99

Trackball

Ever fancied a mouse alternative, but been put off by poor trackball designs? Well, we've found the answer – the Legend Ball.

This 320 dots per inch trackball has been ergonomically built, putting all controls within easy reach of your fingers and featuring a smooth platform on which to rest your palm.

While the mouse pointer is controlled by your thumb, item selection can be made easily without removing your hand from the device.

ONLY £24.99

GREAT WAYS TO UPGRADE

External drive

An external floppy drive which plugs straight into the back of the ST can benefit every type of user – from games player to publisher.

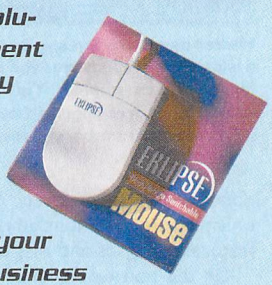
Disk copying is faster and easier once a drive has been fitted, and there's no need for inconvenient disk swapping when using powerful software.

The advantages of owning a second drive – and what better way is there of expanding your system than choosing this bargain-priced but high quality device?

ONLY £57.99

Mouse

This high resolution replacement for the chunky and sluggish Atari mouse is perfect for use alongside all your leisure and business applications.



Switchable between ST and Amiga use, the stylish Eklipse model features micro-switch technology to give smooth operation, easy use and durability.

ONLY £9.99

Memory

With more and more memory-hungry programs being launched for Atari computers, there's never been a better time to upgrade yours.

Extra memory will enble you to play the most exciting simulation games, use powerful graphics drawing programs or even design colourful pages with the latest publishing software.

We've put together options for all types of Atari enthusiast – and with the STFM boards you'll be able to extend the memory up to 4Mb of memory at a later date.

They're all at really competitive prices, with a service available for buyers who don't feel confident to fit the upgrade themselves.

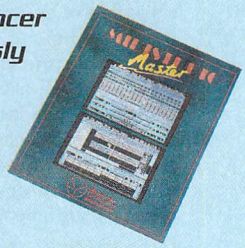
FROM £8.99

512k STE	£8.99
STE to 2Mb	£49.99
STE to 4Mb	£99.99
512k STFM	£29.99
STFM 2Mb	£74.99
STFM 4Mb	£129.99

ively presents

saving ways to stretch your ST's limits...

Midi Studio Master



This Midi sequencer – which previously sold for £99 – enables you to turn your ST into a fully-fledged music controller.

With this software and compatible synthesiser keyboard you can write, store and playback stunning compositions just like the professionals.

Its features include 100 track storage, 240 PPQ resolution, Midi standard file compatible, real-time mix-down via mouse, real-time scrolling arrange window and pipeline module system.

ONLY £9.99

Internal Drive

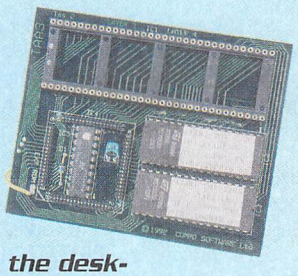
Imagine the advantages of upgrading a single-sided floppy disk drive to a double-sided version.

If you're still using the old style single-sided drive, then you'll have already found that most of the latest software doesn't work with your ST. Replace it with this internal model and you'll be able to run all programs, including your existing collection, and have double the storage capacity on every disk.

The drive is easy to fit but because official Atari drives are no longer available, some small alterations will be needed to the ST's case.

ONLY £39.99

TOS upgrade



Give your ST the extra features and improvements of the latest operating system but keep compatibility with all your existing programs.

With TOS 2.06 you'll be give your computer a brilliant new look, and have the ability to put frequently used folders and files onto the desktop for easy access.

Extra icons are available for folders and hard drives, keyboard shortcuts make control easier, the desktop's colour can be changed and GEM programs set to run automatically.

Its support for high density floppy drives is just another reason why this bargain upgrade is right for you. A fitting service is available.

ONLY £59.99

Fitting and return delivery

We realise that many ST owners would love the power offered by extra memory or the latest operating system but are put off by the prospect of fiddling about inside the computer.

This is why we've teamed up with a leading Atari dealer who for a small extra charge will be able to fit memory and TOS upgrades, and even arrange for your machine to be sent back.

If you choose this service please don't send you computer just yet – once we've received your order an Upgrade Centre representative will arrange a convenient appointment time.

UPGRADES ORDER FORM

Fill in this form and send it to Upgrade Centre, Europa House, Adlington Park, Macclesfield SK10 4NP

ATARI ST USER

❒	512k STE upgrade £8.99	❒	Mouse £9.99
❒	STE memory to 2Mb £49.99	❒	Trackball £24.99
❒	STE memory to 4Mb £99.99	❒	Midi Studio Master £9.99
❒	512k STFM upgrade £29.99	❒	Joystick £2.99
❒	STFM 2Mb £74.99	❒	TOS 2.06 (STE) £59.99
❒	STFM 4Mb £129.99	❒	TOS 2.06 (STFM) £59.99
❒	Internal floppy £39.99	❒	DataView Hi-res mono monitor ..£104.99
❒	External floppy £57.99	❒	Fitting and return delivery £19.99

Please add £1 per item for postage and packing within mainland UK – for overseas telephone the Upgrade Centre on +44 772 203166. All products only available while stocks last

I wish to pay by...

❒ Cheque/postal order payable to Europress Enterprise Ltd

❒ Credit Card No ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Expiry date __/__

Name .....

Address .....

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

Please do not send your ST to the above address. The Upgrade Centre will contact customers requesting the fitting service with full address and booking details.

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

Only a short while ago, one of the biggest criticisms of the Atari ST was that it did not have a multitasking operating system (OS). All other major platforms were boasting their multitasking capabilities even though many were quite flawed.

In the meantime, the ST has matured to the point that we are now swamped with multitasking OSs in all shapes and sizes. Joining the list – which until now comprised Atari's own MultiTOS, German MagiC and American Geneva – is a British company called Furst, with its new offering going under the name of SMS2.

SMS2 has a rich history and its pedigree can be traced to the now defunct Sinclair QL, although today it's a completely new entity.

SMS2 for the ST is a full blown preemptive, object-orientated OS with network capabilities built-in from the ground up. It also sports what can be termed a micro kernel.

The biggest difference between SMS2 and other ST multitasking OSs is that it abandons GEM and TOS completely, focusing instead on its own environment.

This means no PRG, TOS or TTP programs can run under SMS2. At this time the system will also not work on TTs and Falcons.

SMS2 runs in two graphic modes: ST mono and a special colour mode. The latter is possible only on a Mega STe equipped with QVME graphic card available from "Furst". The minimum hardware requirements for SMS2 are quite modest as it will run even on a plain vanilla 520 ST!

The system comes on a cartridge and the installation involves plugging in the cartridge and turning on the computer. That's all there is to it.

UPGRADES

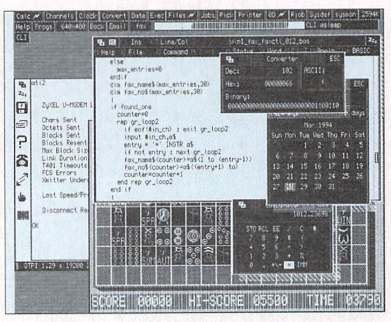
The cartridge contains one of those electrically erasable chips (EEPROMs) which means upgrades are as easy as getting a disk or downloading a new OS version.

A special program will then transfer the code to the cartridge in a matter of seconds. Because the OS is on ROM it also means the system boots in a very short time – about 10-15 seconds.

1KB of the non-volatile EEPROM is reserved for user's startup configuration data. This contains a list of instructions to be run at startup and/or a name of the file with further instructions.

To skip the execution of the startup file, the Return key is held down during booting. The system will then ignore the current startup file and come up in a Command Line Interface (CLI).

If at startup the Esc key is held down instead, the computer ignores the cartridge completely and comes up in GEM as usual.



It's not as pretty as MultiTOS but it's very powerful

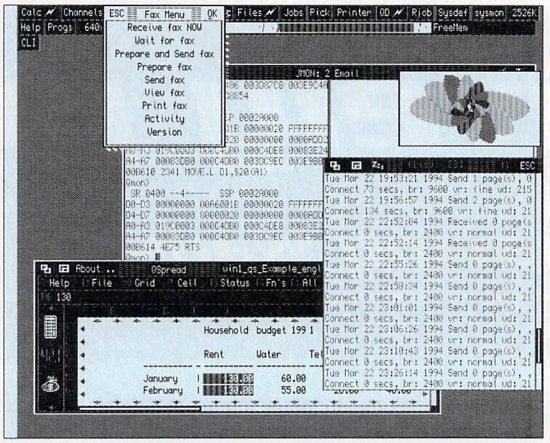
The complete SMS2 system with all drivers is very compact, using only about 150 KB of memory. Once the system is up and running it provides three ways of interfacing: its own Graphical User Interface (GUI), a hotkey system and a set of system utilities.

The GUI is windowed and mouse driven, although it differs quite a lot from GEM, both in appearance and functionality. All mouse actions can be duplicated with hotkeys which are fully flexible and can be customized by the user.

The multitasking in SMS2 is of the preemptive variety, that is to say "real" multitasking. Any task can be interrupted – or pre-empted – by a higher priority task at any time.

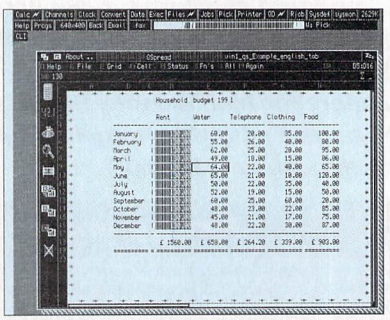
The cartridge also contains a number of applications implemented as executable objects. In SMS2 terminology these are called Things.

Other new names are Hit, which is equivalent to a selection (left mouse button or space bar) and Do, which is the equivalent of execute (right mouse button or Return key).



Run multiple programs with ease

The top of the screen contains a row of Buttons which are the current jobs. In default configuration, immediately below is a bar displaying system memory usage as a graphic and the current job name. The job names keep changing as the task scheduler cycles through them.



Traditional applications such as spreadsheets are available

HELP

There is a configurable online Help system. "Do"-ing the Help button (right mouse click or Return key) shows the list of currently available options you can get help on.

"Do"-ing the option then displays the text in a window. The standard configuration will automatically open a CLI window. In addition to standard commands, this can be extended to include any other the user writes or finds useful.

Keeping up with

The pros and cons

Breaking with the past, it has both benefits and drawbacks. On the one hand, normal PRG, TTP or TOS programs will not run under SMS2 at all and the new GUI takes getting used to.

On the other hand, having been programmed from scratch, SMS2 brings a slew of new powerful features and it's very clean and fast. It's about the only multitasking system to run on a 520 ST!

If your requirements fall within what SMS2 offers, it's highly recommended. It can also be viewed as a second operating system which would be used when applicable, although the ease of access to shared hardware on the network quickly becomes addictive.

The lack of GEM is not necessarily as bad as it may seem at first sight, but the lack of Falcon and TT support is unfortunate. Even more unfortunate is the lack of comprehensive documentation as standard instead of having to purchase it separately.

It would benefit SMS2 to have this information available right away to encourage further third-party development.

In spite of being relatively new, the number of

Joining the masses of operating systems for the ST is SMS2 , but this multi-tasking operating system has a difference. Don Maple reveals all

the OSs

Running batch files is, of course, also possible. Default commands can be grouped into: Maintenance, Button control, Hotkey and I/O control.

Commands are not case sensitive. SMS2 has it's own disk format which is incompatible with TOS formatted floppy disks. The same applies to any hard disk partitions.

To turn a TOS partition into an SMS2 partition it must first be formatted. You can also combine several successive TOS partitions into one SMS2 unit.

DYNAMIC

RAM disk support is an inherent part of the OS. There can be up to 8 RAM disks either dynamic – changing size depending on the files stored – or static – fixed size. The default being the dynamic RAM disk variety.

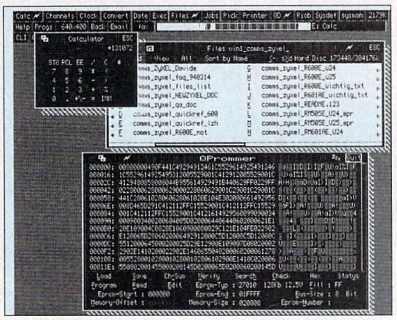
There is also support for up to eight floppies. File names in SMS2 can be up to 36 characters long.

Perhaps the most attractive aspect of SMS2 is its networking which is an inherent part of the OS. However, each machine on the network must have its own cartridge.

The machines are interconnected through the MIDI ports. Each node on the network must then be given a unique number between one and 50 by using the MNET command.

Once interfaced, the integration of all hardware including any peripherals in any of the computers on the network is total. This means any computer or peripheral can be controlled from any computer.

To share resources of any one node



Programming applications are also available for SMS2

the command MSHARE is used. However, files beginning with *H or *h will be treated as exclusively local.

Other levels of file protection are provided by naming files *R, which stands for read-only and *D, to prevent direct sector reading.

SMS2 provides full device independence which not only applies to hardware – printers, modems, etc – but also to virtual devices such as screens, etc. For example, this means that any screen output can easily be sent to a printer, RAM disk or some other computer's screen!

This sharing of resources on the networks extends to the software as well. This means multiple applications can share portions of program code, so there is no need to duplicate it.

This makes applications smaller, efficient and consistent. For example, instead of writing input for each program they can all use system provided input routines.

All input/output is automatically buffered in RAM so as soon as an action is performed the work can continue without having to wait for the hardware device.

There's no need for printer spoolers, for example. Together with the SMS2 cartridge the user gets a disk containing a number of utilities and a few PD programs.

The manual is on the thin side dealing only with a bare minimum. To do anything more useful – especially if you're interested in programming – a more comprehensive "Technical Reference Manual" is also available, although regrettably, this was not submitted for the review.

Related commercial products

QVME – VME graphics card for Mega STe	£195
SMS2 Technical Reference Manual	£35
Lbasic – Basic compiler	£95
Smac – Macro assembler	£95
QMENU – provides multi column menus	£18
FIFI – file finder	£20
QD – text editor	£49
Text87 – WYSIWYG word processor	TBA
QTYP – spelling checker	£35
QSPREAD – spreadsheet	£65
LineDesign vector drawing package	£95
DataDesign database	£60
Black Knight chess program	£48
The Lonely Joker patience game	£24
Brain Smasher game	£18

A selection of Furst's range of PD disks

QED – editor
MicroEmacs – editor
C68 – C compiler
REXX – popular process control language
Forth – computer language
DBAS – database
QTPI – terminal emulator
QFAX – fax software
ARC – arc/unarc compression utility
LHQ – LHA compression utility
ZIP – ZIP/UNZIP compression utility
Ghostscript – PS interpreter

alternative SMS2 applications is quite impressive. This comprises all of the favourites such as word processors, databases and spreadsheets, to name a few.

But what is even more exciting is that there are a number of programming tools such as assemblers, compilers, debuggers, REXX and other utilities.

These programming tools are very interesting because their availability is an essential prerequisite if SMS2 applications are to become even more plentiful.

And you needn't pay for all software either because there is already a healthy public domain pool of programs. It's too bad SMS2 did not show up in force earlier in the life of the ST because it would've been a major contender.

The decision to abandon GEM is understandable because to provide this backward compatibility would negate most of the positive aspects of SMS2, making it bulky and slow.

For a proof of this one need look no further than the obscene amount of baggage that today's PCs have to carry in order to maintain backward compatibility. Instead, SMS2 is quite lean and mean, and in spite of everything may yet find its niche.

BOTTOM LINE

FEATURES

The operating system is very flexible, especially the networking support.

Excellent / Good / Average / Bad / Appalling

EASE OF USE

Considering that SMS2 is a brand new operating system, it's easy to get used to.

Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY

Relatively expensive when the programmer's Technical Reference is extra.

Excellent / Good / Average / Bad / Appalling

Product: SMS2 cartridge
Supplier: Furst Limited, Delta House, Garfield Road, Bishop's Waltham, Southampton SO3 1AT
Telephone: 0489 894674
Price: £135
Configuration: Any ST except Falcon and TT, 520 KB of RAM, monochrome monitor or with special colour graphic card for Mega STe.

QUESTION

Which magazine has programs on its cover months?

EASY MONEY
ST DOODLE
PROSPERO C
FLAIR PAINT
EASYBASE
GEMBENCH
WINX
LET 'EM FLY
REPLAY STEREO
CALLIGRAPHER PROFESSIONAL

KANDINSKY
SELECTRIC
TERADESK
K-RESOURCE
EQUINOX
ORGANISER
GEMVIEW
HPCHROME
MASTERCAD
EVEREST
ECLIPSE

...plus lots of exclusive demos and utilities?

had these 20 major disks in the last 12

ANSWER

ATARI ST REVIEW

Continue you Atari ST reading with Atari ST User's sister magazine; ST Review

November issue out now

Make sure you have the latest information on new ST products, along with the best parts of Atari ST User as well; exciting features, unrivalled games coverage and many of Atari ST User's writers – as many of them work for ST Review as well! They're all vastly experienced, capable and enthusiastic about the ST as you'll already know.

Lowering

Günter Minnerup profiles one of the most senior members of the ST online community

I still remember my excitement when, nearly a decade ago, I acquired my first modem and finally got it to work. It was an extremely modest affair by today's standards, supplied free as part of a Micronet subscription deal promoted by some long-deceased computer magazine, but it worked.

All those colourful (in theory, my green Amstrad screen couldn't really cope), large pixels, and all that useful information, not to mention the witty repartee with other participants! I soon gave up on Micronet – or Micronet gave up on me, I can't remember which came first - but the comms bug had well and truly bitten. I was hooked.

The next step was a faster modem and extensive "boardwalking". For reasons not entirely unconnected with the quarterly arrival of phone bills, I soon struck up particularly close relations with a couple of local bulletin boards, and eventually got to know their sysops – systems operators – as friends.

Why, we would even meet in pubs sometimes, and talk over a pint or two without a telephone line between us.

Then I graduated to CIX and that took over my electronic communications life. Amateur bulletin boards disappeared from my horizon. Life's too short to spend all of it by the keyboard.

Yet all these years, I have always harboured plans to pay a return visit to the wonderful world of bulletin boards. Sysops, in particular, continue to hold a special place in my affections. Just think about it: they spend great chunks of their hard-earned cash on computers, modems and telephone bills, only to have their investment taken over by a bunch of total strangers phoning in at all hours of the day and night.

A true 24-hour BBS ties down the equipment completely, and apart from routine housekeeping and maintenance, the owner never gets to use it again. But that's not the end of the sysop's altruism – they also provide extensive collections of public domain and shareware programs for download, requiring ever larger storage media. Now who else would buy one or more hard drives for the exclusive use of often troublesome and ungrateful strangers?

The first WORM drive I ever saw, six or seven years ago, was owned by such a sysop who – you guessed it – dedicated it to his extensive file download area.

For my final article in this series of Atari user profiles, I therefore decided to renew acquaintances with this strange breed of the human species. It had to be an Atari sysop, of course, but even in my boardwalking days, the BBS scene had already been dominated by MSDOS-oriented and PC-based boards. Would it be difficult to find an Atari board?

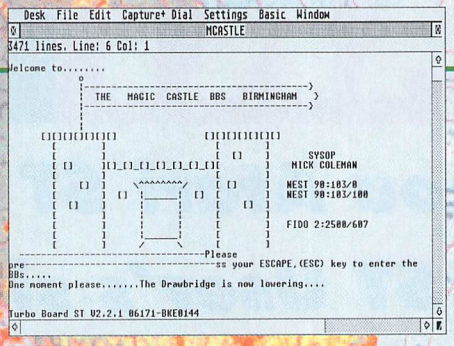
I need not have worried. There are plenty of Atari BBS in Britain, most of them linked to a worldwide network known as NeST.

Enter Mick Coleman. Mick must be one of the most senior sysops around, in both meanings of the word. Retired and well into his sixties, he doesn't conform to the popular image of the comms addict as a spotty youth hunting down pirated games and illicit porn, or a youngish, trendy techno-freak. Senior

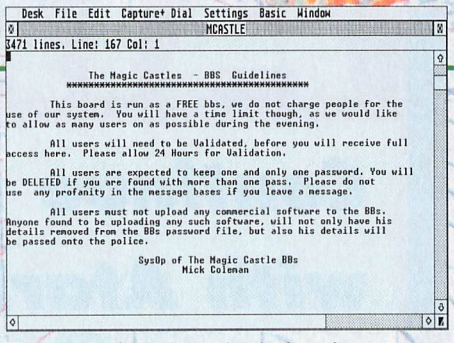
Magic Castle

The Magic Castle – for that is the name of Mick Coleman's bulletin board – can claim one of the longest ancestries of any UK board. It is perhaps also one of the "purest", in that it is almost exclusively inspired by the overriding interest of the retired telecom engineer in electronic mail. Mick hardly uses computers for any other purpose, and is therefore content to dedicate his ST entirely to the board.

His reputation as an e-mail specialist



The Magic Castle welcome screen. The drawbridge is lowered...



The opening message makes it clear that this is a sysop not to be trifled with!

CommUnity

Q. What is CommUnity?

A. CommUnity is the Computer Communicators' Association: a pressure group formed to represent the interests of the UK online community. It was initially founded in response to the threat – in late 1992/early 1993 – of BBS licensing posed by ELSPA (European Leisure Software Publishers Association) and FAST (Federation Against Software Theft), and out of widespread concern over growing press and media misrepresentation of the comms-using community in the UK.

Q. Where can I find CommUnity news, information and documentation?

A. The free-access host BBS for CommUnity is ARKHAM BBS: 071 738 5596/5557 – FidoNet 2:254/151 and 2:254/152.

Q. What is the UK.ORG.COMMUNITY newsgroup and the COMMUNITY echo?

A. These are the methods by which all matters connected with CommUnity are discussed. Both electronic conferences are linked via a gateway, thus providing a CROSS network conference. Networks currently connected are:- USENET, FIDONET, THENET/WILDNET and GTNET, NeST.

Q. What are CommUnity's aims?

A. The aims of CommUnity are to:
a) Maintain and connect a membership which shares a common concern that access to technology, information and communication should be as freely available as possible.
b) Raise public awareness about issues and opportunities arising from ongoing rapid advances in computer-based communications media.
c) Monitor and inform the press and media of computer-based communications, responding to misinformation or prejudice with a coherent voice.
d) Develop, among policy-makers, a better understanding of the issues underlying free and open telecommunications, and to support legal and structural approaches which ease the assimilation of new technologies by society, and maintain open access to them.
e) Support litigation in the public interest to preserve, protect and extend civil rights within the realm of computing and telecommunications technology.
f) Work with agencies and individuals who share our interest in the development of computer-based communications.
g) Extend our membership and organisation to

SWITCHED ON

the drawbridge

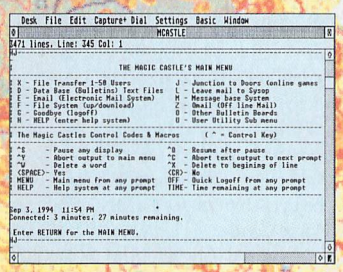
and ultra-reliable operator has now seen him elected by his fellow sysops to the position of Node Controller for the Midlands region in the FidoNet network. This is a key position as the smooth operation of such amateur e-mail networks depends entirely on the expertise and dedication of the enthusiasts filling in each of the crucial relay points (nodes) in the system.

FidoNet, of course, is not Atari-specific, but rather the standard e-mail network for bulletin boards.

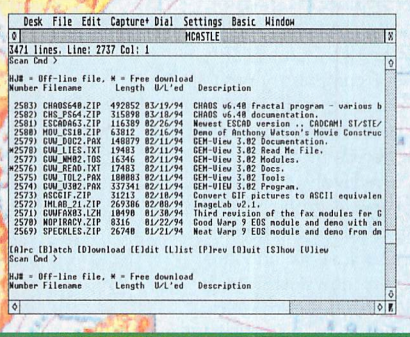
also in that he pioneered one of the very first BBS in Britain, certainly as far as Atari computers are concerned.

"That was in 1986", Mick reminisces. "The Birmingham User Group, BUG, gave me an 8-bit Atari 400 to set up a support board for members, and I became a sysop." The BUG was one of the biggest computer clubs in Britain – and computer clubs were very popular then.

The Central Birmingham Atari Bulletin Board System, affectionately known as CBABS (pronounced "kebabs"), quickly became popular. It lasted right up until 1989, and pioneered

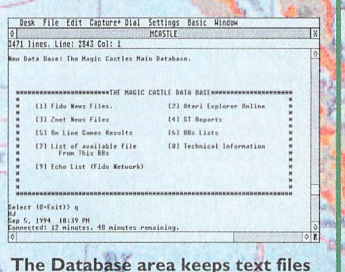


The Main Menu gives an overview of the many services on offer.



The heavy Atari bias of the Magic Castle is obvious from the overview of the file download areas, but users of lesser machines are also catered for.

You are expected to upload at least one file for every six downloaded – a very reasonable requirement, since in the final analysis, the quality of file download areas depends on the contributions of callers



The Database area keeps text files such as the various Atari-related on-line magazines

include wider Europe, or to assist there in the establishment and networking of independent groups sharing our aims.

h) Encourage and support educational activities and initiatives which increase popular understanding of the opportunities and challenges posed by developments in computing and telecommunications.

i) Encourage and support the development of new tools which ease access to computer-based telecommunications.

Q. Is CommUnity "cleaning up cyberspace"?

A. NO!!! CommUnity is simply interested in protecting and promoting computer-based communications, and preventing misrepresentation.

Q. How can I contact CommUnity?

A. Either via the newsgroup/echo or by Internet mail to community@arkham.demon.co.uk or FidoNet netmail to 2:254/151 or 2:254/152. By post, at 89 Mayfair Avenue, Worcester Park, Surrey KT4 7SJ.

Q. How much does it cost to join CommUnity – and why should I pay to be a member?

A. CommUnity is asking for five pounds together with a voluntary further five pounds from individuals in full employment for membership. Though CommUnity is being set up initially as a voluntary organisation, funds are obviously needed for the basic necessities of any formal group, eg postage, stationery, mailouts, and to cover excessive financial demands on any individual carrying out any task commissioned by the group, etc...

Beyond this, the lobbying and informing work the group has been set up to provide will cost money. Even with the goodwill of volunteers, effective work costs.

Q. How do I join CommUnity?

A. Your support is essential! Just send a cheque made out to 'CommUnity' to: CommUnity, 89 Mayfair Avenue, Worcester Park, Surrey, KT4 7SJ. Enclose a short, signed letter requesting membership, and include your name, postal address, main net/BBS address and any other information you think may be helpful. Please include a note giving consent for (or forbidding) the details to be stored on CommUnity's membership database.

Alternatively, download or file-request the membership form CUMEM.TXT from ARKHAM BBS (071 738 5596/5557 – Fido 2:254/151 and 2:254/152).

trans-Atlantic communications – by disk!

"I used to swap disks with a contact in Canada once every month or so, and the contents of the snail-mailed disks were then copied to the BBS", Mick recalls.

How did he become involved in computers and electronic communications?

"I have worked for British Telecom all my life. During national service I was stationed in Germany, and worked on the maintenance of a Royal Air Force telex machine used for the transmission of meteorological data. So, I suppose that an interest in communications is something I have lived with all my adult life."

Computers first came to Mick's attention when his then teenage son wanted one some time in the early 1980s. "I explained to the salesman at Lasky's that I wanted a versatile machine that could be used for more than games, and he recommended an Atari." This was the beginning of a long association between the BT engineer from Birmingham and the sign of the Fuji.

The brand loyalty inspired by the eight-bit machines must have been an important asset in the launch of the ST by an Atari Corporation reshaped by the Tramiel brothers. Mick Coleman, however, came to the ST quite late.

ACQUIRED

In 1989 he acquired a second-hand 520 from a fellow sysop who had decided to pack in the bulletin board business in order to become a priest. He still has that machine, although his board is now running on another 520STFM, expanded to 2 megabytes.

One additional factor which motivated his interest in the ST was his son's enthusiasm for MIDI music and keyboards, and although his son is now living in a house of his own and has in any case moved on to PCs, the extensive MIDI file section on the board is a result of that family interest.

I mention my own defection from the BBS scene to commercial conferencing systems like CIX, and ask Mick if this is a general pattern. Has their been a general decline in the number of callers to amateur boards?

> *"There was some talk of a £1000 registration fee for sysops, which would certainly kill off The Magic Castle"*

"Not really. Quite the reverse, in fact. This year has been the busiest so far." It seems that despite the attractions of the commercial networks, the rapid growth in modem ownership over recent years has helped to expand, rather than contract the number of "boardwalkers".

A good, well-run board will soon build a solid foundation of regular callers, and even a highly Atari-oriented one like Mike's Magic Castle receives many regular log-ins from PC and Amiga people.

Bulletin boards, their sysops and users, have been in the news recently with wild allegations of widespread software piracy, distribution of pornographic image files and illegal hacking into supposedly secure systems.

With a Home Affairs Select Committee looking into computers and pornography, sensationalist press coverage and equally irresponsible and exaggerated television "investigations", as well as software industry associations such as FAST and ELSPA demanding legislation for compulsory registration of bulletin boards, the traditional freedom to set up such communication networks seems under acute threat.

The Magic Castle actively supports CommUnity, a pressure group aiming to defend civil liberties in the field of electronic communication, and the latest CommUnity newsletters are always available on the board. Mick seems resigned to some form of control in the not-too-distant future, but hopes that any registration scheme will not be designed to effectively kill off the non-commercial systems.

The world map on the wall of the "computer room" is used to mark the location of very long distance callers to the Magic Castle. There have been many from North America and Australia, but he is still waiting for his first log-in from Africa...

"There was some talk of a £1000 registration fee for sysops, which would certainly kill off The Magic Castle", he sighs.

Any "investigative reporters" looking for lurid discoveries on Mick's board would certainly be disappointed. If there are some dodgy sysops, he is most definitely not amongst them. New callers are painstakingly verified before being granted full access, and sternly warned that they will be removed from the board and have their details passed on to the police if they attempt to use The Magic Castle for the dissemination of copyright software or other illegal or immoral purposes. There certainly isn't so much as a bare nipple in sight among the graphics files in his download area.

Scanning through the directories, I certainly felt that I had been appropriately punished for my desertion to commercial systems. I found many useful programs that I had downloaded with expensive long-distance calls and CIX usage charges, when they were available for free at local call rates on the Magic Castle!

Sorry Mick, lesson learned. From now on I'll definitely check out my local friendly BBS service first...

Running a BBS does not require a particularly high-powered set-up: a 520ST upgraded to 2Mb, two hard disks of 65Mb and 190Mb capacity, a Miracom HST Courier modem, a Philips colour monitor and an Oki dot-matrix printer do the job for Mick. Despite the continuous use, Mick is full of praise for the reliability of the equipment

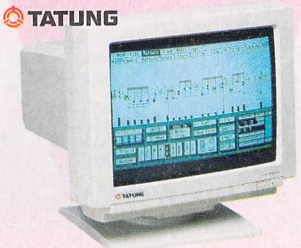
SILICA ARE NOW IN 18 BRANCHES OF DEBENHAMS
SEE BOTTOM PANEL FOR DETAILS

ST OWNER OFFERS

Great offers on a selected range of software, peripherals and accessories. Plus, if you are thinking of upgrading to a Falcon, these are the lowest prices ever seen from Silica!

14" HIGH RES MONO MONITOR FOR THE ATARI ST & FALCON

TATUNG



- *14" HI-RESOLUTION MONO MONITOR*
- *WORKS IN ST HI-RES MODE (640X400) WITH ATARI ST AND FALCON RANGES*
- *STEREO SOUND AVAILABLE THROUGH OPTIONAL SCREENBEAT SPEAKERS (REF: SPK 7260 - SILICA PRICE: £14.99)*
- *VLMF LOW RADIATION • SMALL FOOTPRINT*
- *SUPPLIED WITH TILT & SWIVEL BASE*
- *EASY ACCESS TO CONTROLS*
- *INCLUDES CABLE FOR ATARI ST-E - THE FALCON REQUIRES AN EXTRA ADAPTOR REF: CAB 5772 - £9*

SAVE £10! Previously ~~£129~~

£129 INC VAT - MON 3144

12" GREYSCALE MONITOR FOR THE ATARI ST & FALCON

- *12" GREYSCALE MONITOR*
- *UNLIMITED SHADES OF GREY*
- *RESOLUTIONS*

ST-FM & ST-E	FALCON
LOW (320 x 200)	LOW (320 x 200)
MEDIUM (640 x 200)	MEDIUM (640 x 200)
HIGH (640 x 400) WITH FREE SOFTWARE INCLUDED	TRUE COLOUR (440 x 400)

- *STEREO SPEAKERS BUILT-IN*
- *VOLUME, BRIGHTNESS, CONTRAST CONTROLS*
- *TILT & SWIVEL BASE AVAILABLE*

SAVE £20! Previously ~~£69~~

Requires cable - £9.95 each
Atari ST/FM - ref: CAB 5912
Atari ST-E/Falcon ref: CAB 5920
The Falcon requires an extra adaptor ref: CAB 5772 - £9

£49 INC VAT - MON 3012

FALCON FROM ONLY £399!

£100 OFF! PREVIOUS SILICA PRICE

14Mb POWER USER MODEL AVAILABLE

MONITOR OPTIONAL EXTRA

System Architecture:
- **CPU:** Motorola 68030 operating at 16MHz
- **BUS:** 32-bit data; 32-bit address
- **FPU:** Optional Motorola 68881/2 - 16MHz
- **RAM:** 1, 4, 14Mb configurations
- **ROM:** 512K

Digital Signal Processor:
- Motorola 56001 DSP running at 32MHz
- 16MIPS performance at 32MHz
- 32K 16-bit Static RAM

Interfaces, Ports & Expansion Slots:
- Internal direct processor slot
- SCSI-2 Port with Direct Memory Access
- High-speed LocalTalk/AppleTalk compatible LAN port
- Connector for VGA, composite video, RF (cable supplied), or broadcast analogue RGB (monitor output requires adaptor) - see below*
- Bi-directional parallel printer port
- Cartridge port (128K), MIDI - IN / MIDI - OUT
- Stereo mic. input/Stereo audio out - 35mm
- Two 9-pin joystick connectors
- Two 15-pin enhanced digital/analog connectors

Data Storage:
- 1.44Mb Floppy Disk Drive
- Internal IDE Hard Drive Option (127 or 209Mb HD versions available)
- MS-DOS format compatibility

Graphics:
- VGA: 640 x 480 256 colour
- True colour 16-bit mode: display up to 65,536 colours from a 262,144 palette
- Accepts ext. video sync signal for genlocking - up to 65,536 possible colours from a palette of 262,144
- Hardware-assisted horizontal fine scrolling
- BLiTTER graphics processor

Sound:
- Eight 16-bit digital audio DMA record and playback channels (up to 50KHz sampling)
- Stereo 16-bit DMA input & output
- SDMA sound/DMA co-processor

System Software:
- Multiple window user interface with icons and dropdown menus
- Icon-based graphics user interface with self-explanatory command functions
- Multi-tasking operating system with inter-process communication (MultiTOS)
- On-line help
- NewDesk desktop and extensible-control panel allows customisation

INCREDIBLE POWER

At the centre of the Falcon 030 lie two powerful hearts: the super fast 68030 processor which runs 4 million instructions per second and the Motorola DSP 5601 processor. Working together, they give processing speeds up to 10 times quicker than any other multimedia system at a comparable price. The Falcon 030 also boasts an impressive array of interfaces for linking peripherals.

THE IMPACT OF COLOUR

The Falcon 030 produces images indistinguishable from a real picture displayed on your TV. Every pixel on screen can be shown in a different colour and 65,536 colours can be displayed at once, from a palette of 262,144, producing a true colour display of the highest quality.

SUPERB VIDEO

The Falcon can be used to create special effects, overlay pictures, lighten any that are too dark, even get rid of the unfocussed bits. Video editing and special effect, techniques are both easy and affordable.

CD QUALITY AUDIO

The Falcon 030 comes complete with a stereo input into which can be plugged a microphone, a Walkman, or a hi-fi system. To reproduce the sound, a convertor mixes the eight 16-bit channels, then outputs crystal clear stereo sound at a sampling frequency of up to 50khz, better than CD quality. The Digital Signal Processor with direct-to-disk capability, means that the Falcon can store sound samples, including the human voice, on hard disk and play them back in real time.

2 PROCESSORS
Motorola 68030, 16MHz, 32-bit Processor + Unique 32MHz DSP (Digital Signal Processor)

CD QUALITY STEREO SOUND
8 x 16-bit Digital Audio DMA Channels
Stereo 16-bit DMA Audio Input/Output

BRILLIANT GRAPHICS LIKE REAL PICTURES ON TV
VGA Graphics & 16-bit Colour, 640 x 480 in 256 Colours

FULL RANGE OF INTERFACES
SCSI-2, LAN & MIDI Interfaces

1Mb RAM 0Mb HD	4Mb RAM 0Mb HD	4Mb RAM 127Mb HD	4Mb RAM 209Mb HD	14Mb RAM 209Mb HD
PREVIOUS PRICE ~~£499~~ VAT	PREVIOUS PRICE ~~£699~~ VAT	PREVIOUS PRICE ~~£899~~ VAT	PREVIOUS PRICE ~~£999~~ VAT	PREVIOUS PRICE ~~£1499~~ VAT
£399	**£599**	**£799**	**£899**	**£1399**
INCLUDING VAT STC7000	INCLUDING VAT STC7040	INCLUDING VAT STC7127	INCLUDING VAT STC7209	INCLUDING VAT STC7216

MONITOR CABLE ADAPTORS: • VGA CAB 5770 • ATARI CAB 5772 • COMPOSITE CAB 5774 • £9 INC VAT EACH

ST SOFTWARE + PERIPHERAL OFFERS!

		PREV PRICE	OFFER PRICE
LAA0900	**DRUM UNIT - ATARI SL804 LASER** *Replacement drum unit. Lasts approx. 8/9000 copies.*	~~£163.69~~	£139.00
SPA1074	**DMA IC - ST-FM/MEGA ST** *Controller chip for high speed hard drive port.*	~~£33.24~~	£19.95
SPA5432	**TOS 2.06 ROM INT. UPGRADE - ST** *Operating Systen Upgrade for any ST-e. Improves desktop.*	~~£39.00~~	£34.95
SPA5448	**T-BOARD 68 INC. TOS 2.06 - ST-E** *Internal TOS 2.06 upgrade. Inc socket for accelerators & emulators*	~~£99.99~~	£49.95
SSA0652	**4T/FX-MULTITRACK RECORDING S/W** *Falcon realtime mixer. Sequencer controllable. 4-track to hard drive.*	~~£299.00~~	£199.00
SSC0332	**CUBASE LITE** *Beginners' MIDI software. Realtime functions through graphic interface.*	~~£99.00~~	£69.00
SSC0412	**C-LAB COMPLETE PACKAGE** *Music presentation pack with Notator 3.1 , Unitor 2 & Mouse Mat.*	~~£549.00~~	£349.00
SSC8962	**CUBASE V3.0** *Flexible four track sequencer & MIDI manager. Inc sound editor.*	~~£399.00~~	£249.00
SSE4632	**EMAGIC NOTATOR SL** *MIDI sequencer, score edit & print out management system.*	~~£299.00~~	£199.00
SSF2672	**FASTCOM 2** - *when purchased with any other product* *Communications package. Integrated ASCII/Viewdata functions*	~~£4.95~~	£2.50
SSH9752	**HYPERCHART** *Presentation graphics system. Takes info direct from existing data.*	~~£24.00~~	£9.95
SSL2642	**LDW POWER SPREADSHEET V1** *Lotus 1-2-3 v2 compatible. GEM/Lotus interchangable interface.*	~~£24.95~~	£9.95
SST1222	**TECHNOBOX DRAFTER 2** *High precision drawing package. Colour at 640 x 400 pixel resolution.*	~~£49.95~~	£29.95
STM7400	**ST BASIC SOURCE BOOK** *For current ST BASIC programming language. Inc. all commands.*	~~£9.90~~	£2.50
RAM8100	**4Mb/14Mb RAM BOARD (NOT POPULATED) - FALCON** *Expansion board for Falcon 030. Max. addressable 14Mb.*	~~£49.95~~	£39.95
HAR7000	**HARD DISK BRACKET - FALCON** *Allows a 2½" hard disk to be fitted to the Atari Falcon.*	~~£19.95~~	£14.95

CALCULATORS

- *Large 8 character LCD display*
- *Up to 32 steps can be retraced and recontrolled*
- *Durable folding case*

A POCKET SIZE £4.95 INC VAT - XXX 1920

B CREDIT CARD SIZE £3.95 INC VAT - XXX 1800

SAVE £5

OFFICIAL ATARI MOUSE

- Quality 2 button mouse
- Official Atari model
- Fully ST + Falcon Compatible

Previously ~~£24.99~~

£19.99 INC VAT - MOU 5000

SAVE £5

LOGITECH PILOT MOUSE

- Quality 2 button mouse
- Fully ST + Falcon compatible
- Free Pipemania game (levels 1, 5 + 9)
- Free Accessories Disk

Previously ~~£14.95~~

£9.99 INC VAT - MOU 5015

1978 SILICA 1994 — 16 YEARS — SERVICE TO YOU

THE SILICA SERVICE

Before you decide when to buy your new computer equipment, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals and accessories or help and advice. And, will the company you buy from contact you with details of new products? At Silica, we ensure that you will have nothing to worry about. With our unrivalled experience and expertise, we can meet our customers' requirements with an understanding which is second to none. Complete and return the coupon now for our latest FREE literature and begin to experience the "Silica Service".

- ***FREE OVERNIGHT DELIVERY:*** On all hardware orders shipped in the UK mainland (there is a small charge for Saturday delivery).
- ***TECHNICAL SUPPORT HELPLINE:*** A team of technical experts will be at your service.
- ***PRICE MATCH:*** We match on a "Same product - Same price" basis.
- ***ESTABLISHED 16 YEARS:*** We have a proven track record in professional computer sales.
- ***PART OF A £50M A YEAR COMPANY:*** With over 300 staff - We are solid, reliable and profitable.
- ***BUSINESS + EDUCATION + GOVERNMENT:*** Volume discounts are available. **Tel: 081-308 0888.**

- ***SHOWROOMS:*** We have demonstration facilities in all our stores.
- ***THE FULL STOCK RANGE:*** All of your computer requirements from one supplier.
- ***FREE CATALOGUES:*** With special offers and product news.
- ***PAYMENT:*** We accept most major credit cards, cash, cheque or monthly terms (APR 29.8% - written quotes on request).

SILICA

NOW IN 18 BRANCHES OF DEBENHAMS STORES NATIONWIDE

SILICA IS A DIVISION OF MICRO PLC 12450709-4

MAIL ORDER 081-309 1111

PLUS TECHNICAL AND HEAD OFFICE

SILICA, HATHERLEY ROAD, SIDCUP, KENT, DA14 4DX

PLUS BRANCHES AT:

BRISTOL	Debenhams - (3rd Floor), St James Barton	0272 291021
CARDIFF	Debenhams - 46-50 St. David's Way	0222 399789
CHELMSFORD	Debenhams - (2nd Floor), 27 High Street	0245 355511
CROYDON	Debenhams - (2nd Floor), 11-31 North End	081-688 4455
GLASGOW	Debenhams - (6th Floor), 97 Argyle Street	041-221 0088
GUILDFORD	Debenhams - (3rd Floor), Millbrook	0483 301300
HARROW	Debenhams - Open Sept '94, Station Road	081-427 4300
HULL	Debenhams - (2nd Floor), Prospect Street	0482 25151
IPSWICH	Debenhams - (2nd Floor), Westgate Street	0473 221313
LONDON	52 Tottenham Court Road	071-580 4000
LONDON	Debenhams - (3rd Floor), 334 Oxford St	071-493 3735
LUTON	Debenhams - (1st Floor), Arndale Centre	0582 21201
MANCHESTER	Debenhams - (3rd Floor), Market Street	061-832 8666
PLYMOUTH	Debenhams - (3rd Floor), Royal Parade	0752 266666
ROMFORD	Debenhams - (3rd Floor), Market Place	0708 766066
SHEFFIELD	Debenhams (3rd Floor), The Moor	0742 768611
SHEFFIELD	Debenhams - Open Sept '94, Meadowhall Centre	0742 568555
SIDCUP	Hatherley Road	081-302 8811
SOUTHAMPTON	Debenhams - (1st Floor), Queensway	0703 223888
SOUTHEND	Keddies - (2nd Floor), High Street	0702 468039
THURROCK	Debenhams - (1st Floor), Lakeside Centre	0708 860066

To: Silica, ATSTR-1194-226, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND THE LATEST SILICA BROCHURE

Mr/Mrs/Miss/Ms: ..... Initials: .....

Surname: .....

Company (if applicable): .....

Address: .....

.....

.....

.....

..... Postcode: .....

Tel (Home): .....

Tel (Work): .....

Which computer(s), if any, do you own?

..... 226A

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.

HUGE

selection from the finest range of software and hardware for TOS computers

Atari STFM	£Call
Configured to your needs	
Atari MegaSTe and TT	£Call
Occasionally available	
BJ10e	£4.99
Driver for Write ON	
Blitter Chip	£Call
For most STFMs and Mega ST	
C-Font	£9.99
Calamus font convertor for WO and TW	
Power CD	£24.99
Demos of Commercial German software	
COMPO CD-ROM ROM	£Call
Coming soon to connect a Mitsumi CD-ROM to any ST	
Componium	£Call
New music software	
Dictionary Disks	£34.99
German, French, Spanish… for That's Write	
Digital Box	£Call
Digital interface for MUSiCOM and TrakCom	
Epson Stylus/570 fonts	£14.99
WO and TW fonts disk	
Epson Internal fonts	£12.99
Epson LQ850 and Canon BJ10ex support	
Fontkit	£Call
The bitmap font editor	
Hard Disks	from £199
Capacities from 40Mb to 2Gb available	
HP DeskJet 500	£14.99
WO and TW printer driver	
Hyper Chart	£14.99
Imagecopy 2	£19.99
Screen grabber, convertor and colour printing	
LDW Power spreadsheet	£14.99
Memory Upgrades	£Call
All kinds of memory stocked	
MUSiCOM 1	£49.00
Classic direct-to-disk recording	
MUSiCOM 1 to 2 upgrade	£29.99
NeoDesk 2 to 3 upgrade	£9.99
NeoDesk 3 to 4 upgrade	£29.99
Portfolio Modem	£49
Portfolio Chess	£14.99
Portfolio 256K card	£79.99
Portfolio Links card	£14.99
Repairs	from £20.00
Spares – Atari full range	£Call
SPEEDOGDOS Upgrade	£Call
Upgrade to the latest SPEEDOGDOS – coming soon	
ST Mono Monitors	from £129
Superbase Personal	£14.99
That's Write 1.5 to 2 upgrade	£29.99
That's Write 2 to 3 upgrade	£Call
Write ON to That's Write 1.5	£24.99
XACC Specification	Free
Send disk and sae to COMPO or on CIX	
Zoom	£Call
Colour ICON editor	

No-nonsense money back guarantee. If you are not completely satisfied with anything you buy from us, return it within 30 days for a full refund

£129

That's Write 3
Due out at the end of July. Probably the most powerful ST word processor produced.

£229

CompoScript
PostScript printing to non-PostScript printers. Great for previewing Pagestream documents before typesetting.

£79

TrakCom
The new standard tracker for the Falcon.

£249

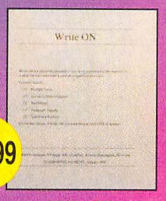
ScreenEye
Real-time video digitiser and screen grabber for Falcon.

£TBA

SpeedoGDOS New Release!
Features include:
Type 1 font support
TrueType font support
Colour enhanced

SPEEDOGDOS
New version with enhanced colour output, Type 1 and True Type font support available soon.

£29.99

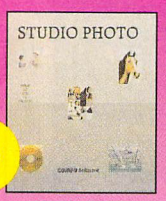


Write ON
Classic word processor for the novice/hobby user.

£79

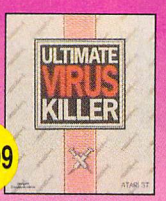
MUSiCOM 2
New version now available. Features include cut and paste, mixing and much more.

£49



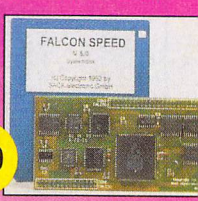
Studio Photo
24-bit Photo retouching and image editing for all STs and Falcons

£12.99



Ultimate Virus Killer
Essential for any ST owner. New version out now.

£199

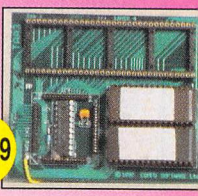


Falcon Speed
286 emulator for Falcon includi colour Windows driver.

£17.99

STeno
Text editing accessory for STalker.

£64.99

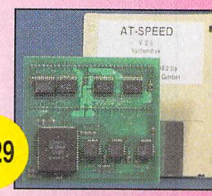


T-Board 68
Switchable TOS 2.06 upgrade for STe.

£99

Arabesque Pro
Powerful vector and bitmap graphics program.

£129



AT Speed
286-based emulator for STs.

ORDER BY PHONE, 9.30am to 7pm Mon-Fri, 10am to 5pm Sat

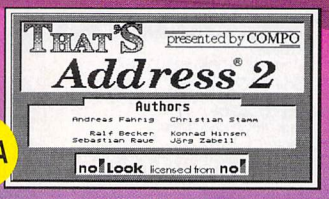
Atari FOR

Best Range, Best New Products, Unbeat

£129

Telephone Control
Advanced 'answering machine' system for Atari Falcon. Change messages at the click of a mouse.

£TBA

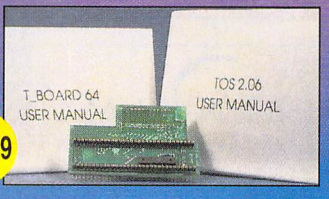


That's Address 2
Due later this year. That's Address 2 is a complete name and address management system.

£9.99

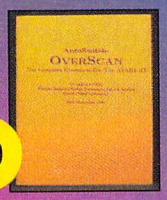
Studio Convert
Universal picture conversion tool includes JPEG and Photo CD

£64.99



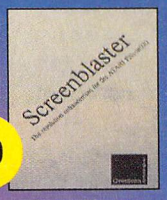
T-Board 64
Switchable TOS 2.06 upgrade for STFM.

ALL PRICES INCLUDE VAT AND DELIVERY TO UK MAINLAND. CALL OR POST THE COUPON FOR A FREE CATALOGUE



£49

Autoswitch Overscan
Enhanced screen display for any STFM or Mega ST. Essential for DTP and Music.



£79

Screenblaster
Now with new v2 software – fully configurable and comes with NVDI.

£39.99

TOS 2.06 ROMs
Replacement ROMs for STe computers only.

Lower price

29.99

NVDI
Blindingly fast software accelerator for all TOS computers. Essential for all STs, TTs and Falcons.

£59

Geneva
Multi-tasking for all STs. Includes full support for AES 4.0 – all STs get Falcon-like interface features.

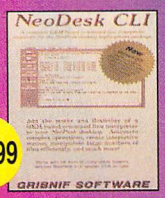
Maths Co-processor

68882-25 co-processor for the Falcon. Essential for Ray Tracing, morphing...

£29.99

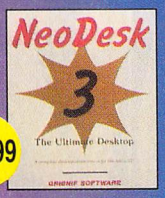
£59

NeoDesk 4
Available now. Lots of new features including multi-tasking support makes this the new standard for ST desktops



£19.99

NeoDesk CLI
Command line interface for NeoDesk.



£19.99

NeoDesk 3
The classic desktop replacement.

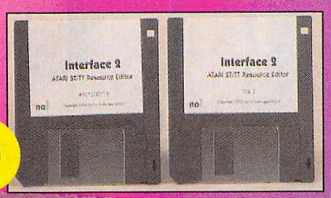
Lower price

£55

PC Speed
The best selling hardware emulator for the ST.

£39.99

STalker
Powerful commercial communications software packed with features including background Z-Modem file transfers.

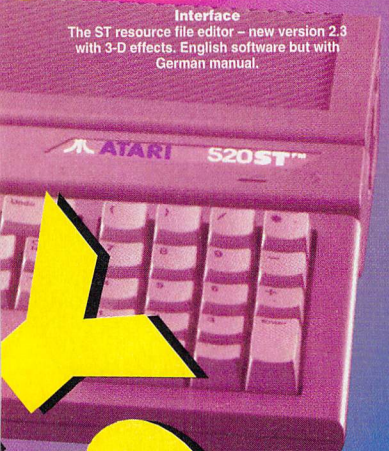


£49

Interface
The ST resource file editor – new version 2.3 with 3-D effects. English software but with German manual.

£79

Convector
Easy to use, fast autotrace program. Includes a special TT version that uses maths co-processor.



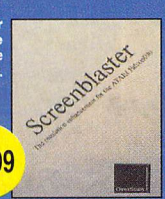
£59

Kobold
File management utility. Super fast copy, delete, format...

£299

ColorBurst
Falcon true-colour hand scanner.

Screenblaster Upgrade
Software upgrade for Screenblaster.



£9.99

YOU

Service!

COMPO

SEE US AT THE NOVEMBER EUROPRESS ATARI SHOWS - LEEDS AND GLASGOW

HUNDREDS OF PRODUCTS FOR THE ST, TT AND FALCON

FOR EVERYTHING TOS, COMPO SOFTWARE HAS OUTLETS IN GERMANY, HOLLAND, FRANCE, USA AND UK. A TOTAL SERVICE INCLUDING HARDWARE, SOFTWARE, FITTING & REPAIRS.

Buy from COMPO Software and reap the rewards!

- ★ Widest range of ST Hardware and Software listed in our free catalogue
- ★ FREE technical support when you want it – open 3pm to 8pm every weekday
- ★ Convenient ordering – 9:30 am to 7pm Monday to Friday, 10am to 5pm Saturday, or by 24 hour answering machine outside these hours. 24 hour fax orderline
- ★ Dedicated COMPO conference on the CIX bulletin board for modem owners
- ★ New Showroom dedicated to Atari computing now open. 'Drop in' Tue/Wed/Thur 10am to 7pm. Callers at other hours including Saturdays are very welcome by appointment
- ★ Stable and secure company. Over seven years in the Atari market (four years in the UK) with worldwide sales and marketing
- ★ 48 hour despatch for items in stock – check availability before ordering by post if you need this guarantee
- ★ Free delivery anywhere in the UK. Add £5 for guaranteed next day delivery in the UK, £51 for carriage to mainland Europe and £101 for Rest of World
- ★ Easy payment accepted
- ★ Additional charges may apply for bulky items such as computers and monitors – check when ordering these items

COMPO Presents That's Write 3 now available!

The major upgrade to That's Write is now available. Version 3 has a host of new features including SPEEDO font support without the need for SPEEDO GDOS giving you high quality scalable fonts. A wide variety of upgrade options exist from your existing word processor - call for details.

Just pick up the phone and you're on your way to talking to the Atari experts. Because all we sell is Atari hardware and software we like to think we know a bit about what we are talking about. We're happy to take time to understand what you want to achieve, and then recommend a solution. Choose from our wide range and have it delivered to your door in just a few days.

As well as our own product range COMPO Software is also exclusive UK agents for:
Gribnif, Atari UK (for TOS upgrades), Overscan

We also sell products from many other companies including:
Atari (complete product range), CGS, Titan Designs, System Solutions, Marpet Developments

COMPO

Sales and Enquiries UK:	04873 582
Sales and Enquiries USA:	415 355 0862
24 Hour Fax UK:	04873 581
24 Hour Fax USA:	415 355 0869
Technical Support UK:	04873 521

COMPO Software Ltd, Unit 3 Green Farm, Abbots Ripton, Huntingdon PE17 2PF

All prices include VAT and Carriage. All trademarks and Registered trademarks acknowledged. All prices subject to change – confirm prices when ordering. Products offered subject to availability.

SEND FOR YOUR FREE COPY OF THE COMPO SOFTWARE CATALOGUE.

Please rush me my FREE copy of the COMPO Software Catalogue.

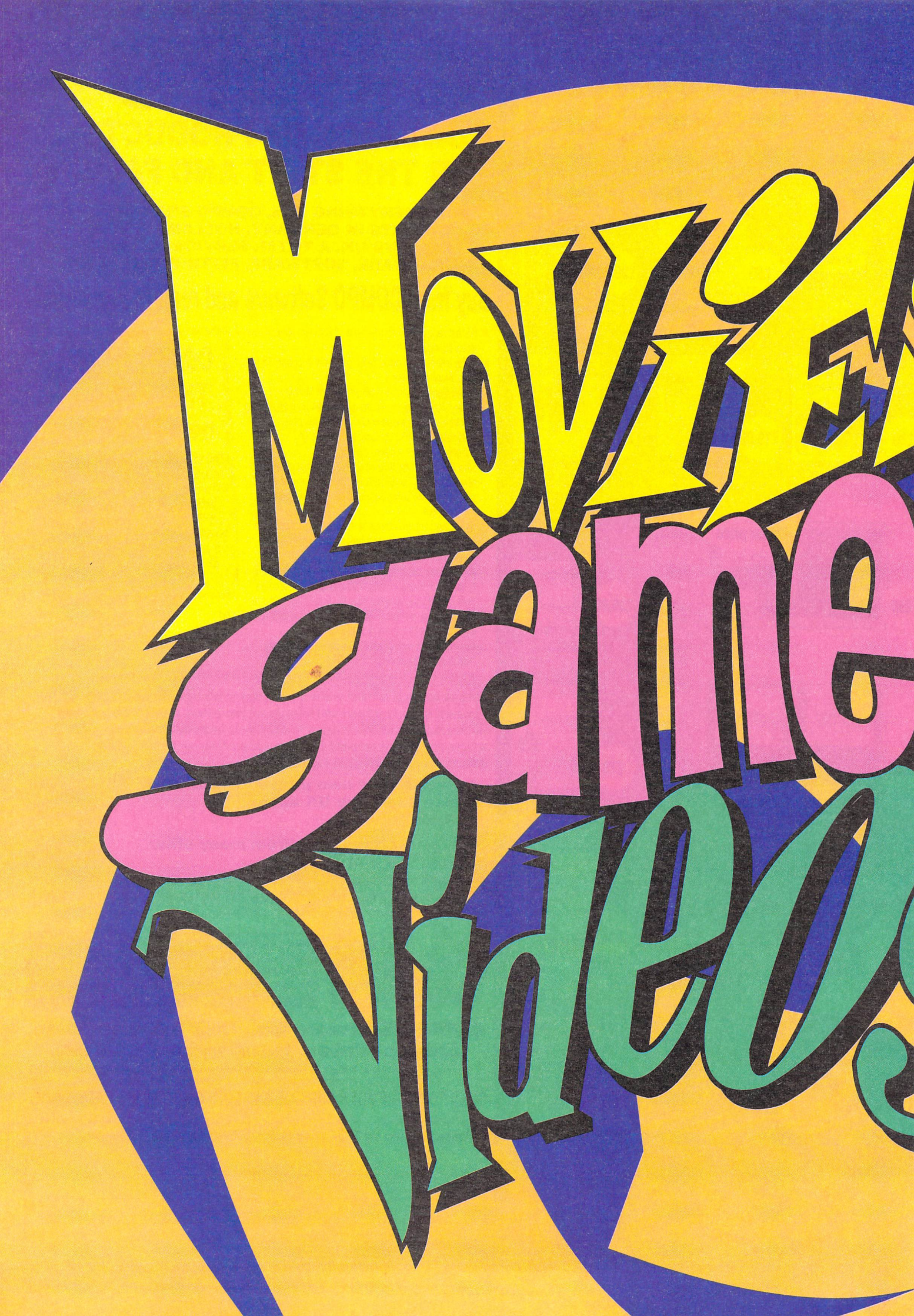
Name ..... Company .....

Address .....

..... Postcode .....

Telephone ..... Fax .....

Mail to COMPO Software Ltd, Unit 3 Green Farm, Abbots Ripton, Huntingdon PE17 2PF.

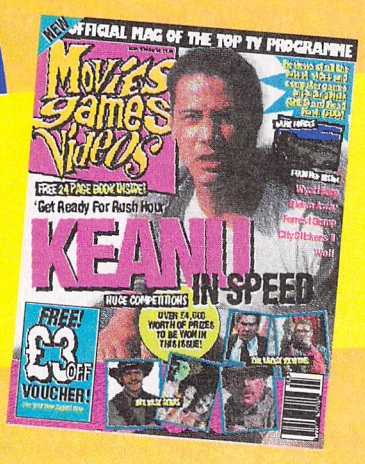

Movie
game
Video

LIGHTS.... CAMERAS.... ACTION!

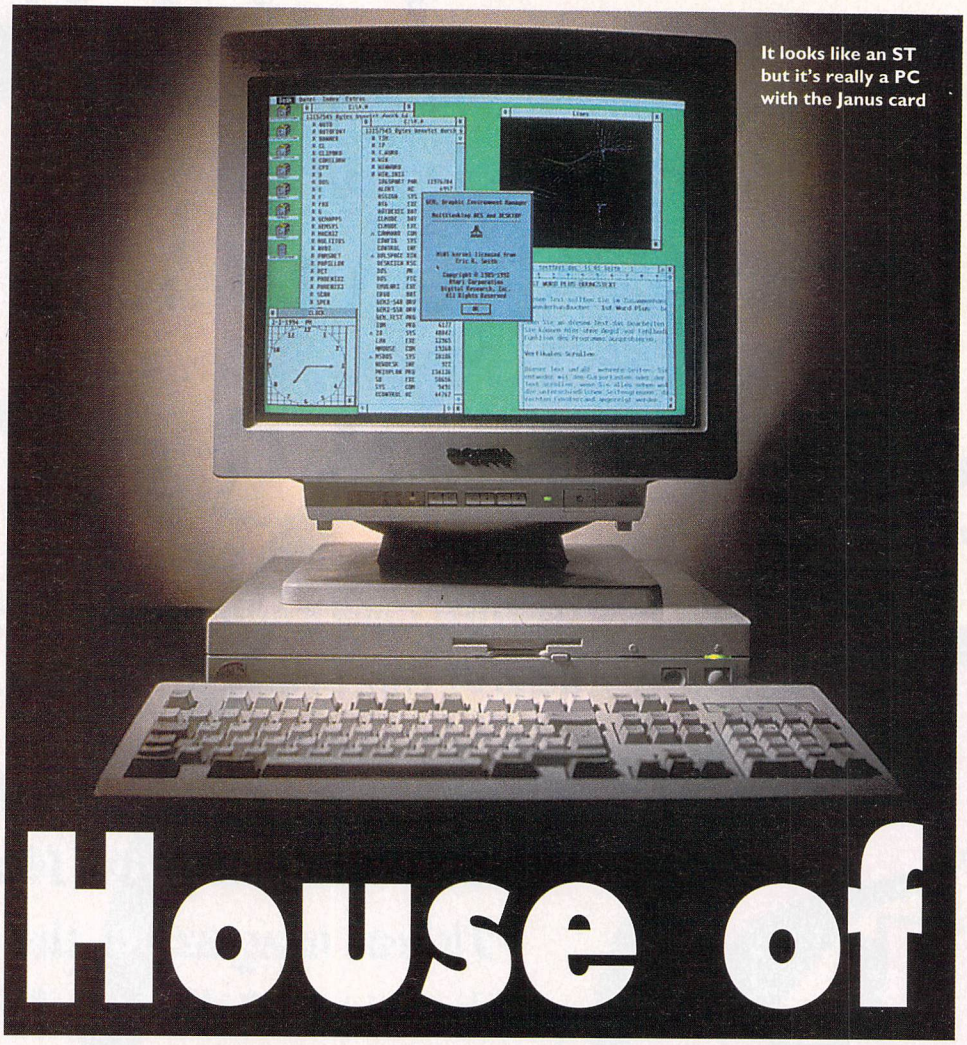
MOVIES, GAMES AND VIDEOS IS THE FAST - PACED TV SHOW SEEN BY THREE MILLION VIEWERS, 52 WEEKS A YEAR ON ITV.

Now Europress Publications presents that same audience with Movies, Games and Videos magazine, the official monthly publication of the top TV show presented in conjunction with Capricorn Programmes Ltd.

FEATURING 84 PAGES PACKED WITH:
REVIEWS OF THE LATEST MOVIES AT THE CINEMA AND ON VIDEO, NEWS ON ALL THE GENERAL INTEREST VIDEO RELEASES, MULTIFORMAT COVERAGE OF THE LATEST COMPUTER AND VIDEO GAMES, STAR INTERVIEWS, NEWS, TONS OF READER - RELATED COMPETITIONS AND MUCH MORE



£1.99 on sale
September 29



It looks like an ST but it's really a PC with the Janus card

House of

Don Maple reports on the latest attempt to satisfy all of those Atari fans who are doomed to staring at a PC screen

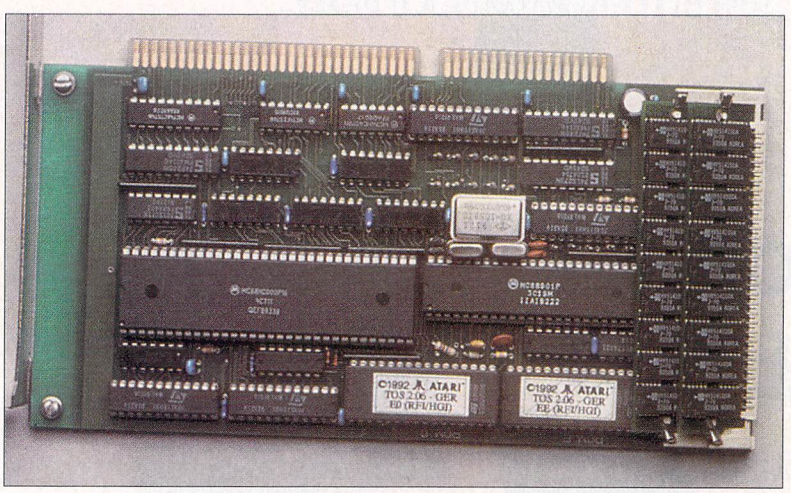
There were attempts in the past to bring the unwieldy PC to heel and run ST software. The most prominent among these was the GEMULATOR, which met with varying degrees of success. Janus is a brand new attempt to crack the same nut, and the first results are very encouraging indeed.

Janus is a quite simple, but very clever concept. Basically it is an ST on a 16-bit ISA card. The card contains a 68000 chip running at 16-MHz, and room for 2.06 TOS chips and SIMM slots for memory expansion. In other words, most PC resources such as keyboard, mouse, graphic cards, hard disks, floppies, I/O ports and almost everything else are utilised by Janus. The card contains only the bare minimum of additional hardware support required to run Atari software using the above mentioned PC resources. This also means that a large amount of work can be offloaded to the Intel processor in the PC.

The minimum requirement for Janus is a PC with a 386SX processor, 1 Mb of RAM, standard VGA graphic card and MS-DOS 4.00 or higher. Microsoft compatible mouse, MFII keyboard, and both hard and floppy disks drives are all pretty much standard these days. Naturally, the higher specifications the PC has, the better the performance of the Janus card. For this test, Janus was used in a 486 DX2 PS with 8 Mb of RAM and VLB graphic and AT hard disk cards. This is by no means top of the line PC, yet the speed of Janus was absolutely stunning.

The two SIMM slots on the card take 70 ns, 8 or 9 bit memory. Two of the following SIMMs can be used: 256 kb, 1 Mb, 4 Mb and 16 Mb. This means that somewhere between 512 kb and 32 Mb of RAM is possible. Obviously this is already a big plus when compared to the 4 Mb limit of a standard ST. Janus' memory is accessed at twice the speed of a comparable standard ST or STE, and it does not use PC memory for Atari programs because RAM access through an ISA slot is too slow.

Once TOS chips and memory have been installed on the card, implanting Janus into a PC is quite easy. All that's needed is an empty 16-bit ISA slot, and the card fits quite comfortably, even into a baby tower case. In the test machine this went on without a hitch, and Janus booted right away without problems.



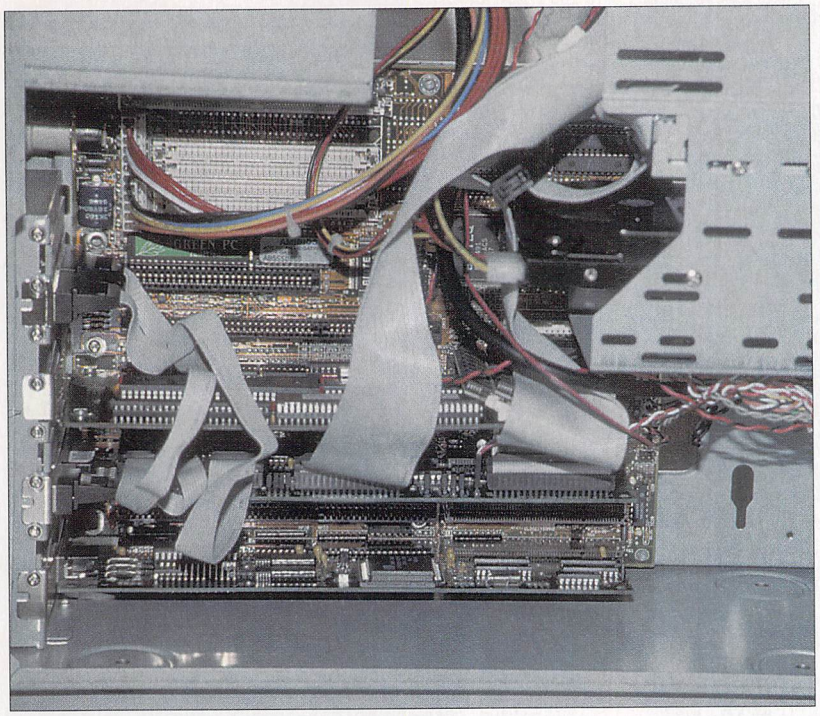
Janus is an ISA 16-bit PC card with a complete ST on board

However, as anyone with a PC knows, one of the "favourite" PC owner's past times is involuntary "playing" with the interrupts. Various PS cards just love to be in conflict with each other, so much so, that it almost seems to be done on purpose by evil PC manufacturers. Janus offers two possibilities in this area: either interrupt 10 or 11. If any other cards in the PC already use these, one would have to be changed.

When running, Janus uses PC port addresses 300 and 301 as well as PC memory between D000 and DFFF. These must not be mapped or cached. The PC system bus must run at 8 MHz, and RAM access should occur with 1 wait state. All of these are standard PC settings, it is likely that no setup change would be required.

Having finished the hardware installation, all that's left is to copy the JANUS.EXE driver program to the PC from the supplied disk and run it. Of course, you would also copy your Atari AUTO folder as well as all accessories to the boot drive on your PC.

Janus basically runs in two modes: local



Janus card (on top) rests comfortably, even in a baby tower case

cards

and dual. Local mode is the more compatible of the two, as everything runs locally on the card itself. No work is shared with the PC, so things do run slower. However, almost everything does run, including some programs which do "dirty" things and tickle the ST hardware directly. This mode currently only runs in ST mono resolution.

The "dual" mode is more interesting, as everything that could be offloaded to the PC has been given to a nominally faster PC host. This includes things like the graphic display, mouse and keyboard control, parallel and serial ports and so on. Access to all of these occurs at host PC speeds.

IMPROVEMENTS

This sometimes achieves quite amazing speed improvements over the ST, particularly in graphic display and hard disk access. In many instances, a PC with Janus is even faster than a TT! Dual mode is really multiprocessing. because there are two processors, the Intel and the Motorola, working simultaneously.

The Janus mode is determined by a parameter passed to JANUS.EXE. There is only one local mode which runs in the standard ST mono resolution. The dual mode is much more flexible, and the parameters currently range from 1 to 6 with, new modes constantly being added. At this time all dual modes run in 16 colours. To use resolutions of 800 x 600 pixels and up, the PC must have a Vesa Local Bus graphic card. For a complete list of supported resolutions, please refer to Table 1.

Since the PC keyboard is different from the ST layout, some keys have been remapped. Thankfully one quickly gets used to that. Alt/Ctrl/Del performs a warm start as usual, but there are two special Janus key combinations. Alt/Ctrl/Esc terminates JANUS.EXE and therefore Atari emulation, and returns to DOS or Windows. When run under Windows, Janus keeps an eye on Window's Alt/Tab key combination which is used by the Windows' Program Manager to cycle between different Windows applications. In practice this means Alt/Tab can be used to switch between Atari Desktop and Windows Program Manager!

Finally, by modifying AUTOEXEC.BAT. the PC can be made to automatically boot in Atari mode when it's turned on. This makes the PC almost indistinguishable from an ST in a tower case, which many Atari power users seem to like.

And so we come to the crux of the matter – compatibility – or, what does and doesn't run. Basically all "clean" programs run in dual mode without any problems. For some "slightly dirty" programs such as Calamus SL, there is a special screen driver on the Janus disk. This is necessary because Calamus is "naughty" and bypasses VDI for its screen output. The bottom line is that it is possible to run assorted ST programs in, until now unheard of, ST resolutions such as 1280 x 1024 pixels. Quite an eye opener.

In Britain, Janus will be carried by CGS Computerbild. At the time of writing, the British price is not yet known, but in Germany, Janus costs DM898 (about £350) for the base model without ROMs and memory. TOS 2.06 chips are available for about £35, and for the latest price of SIMM, check out your nearby PC store. If you have an upgraded STe you can simply use its TOS 2.06 and SIMMs.

Although new graphic modi are constantly being added, such as the imminent 256-colour mode, the following Janus resolutions are currently available:

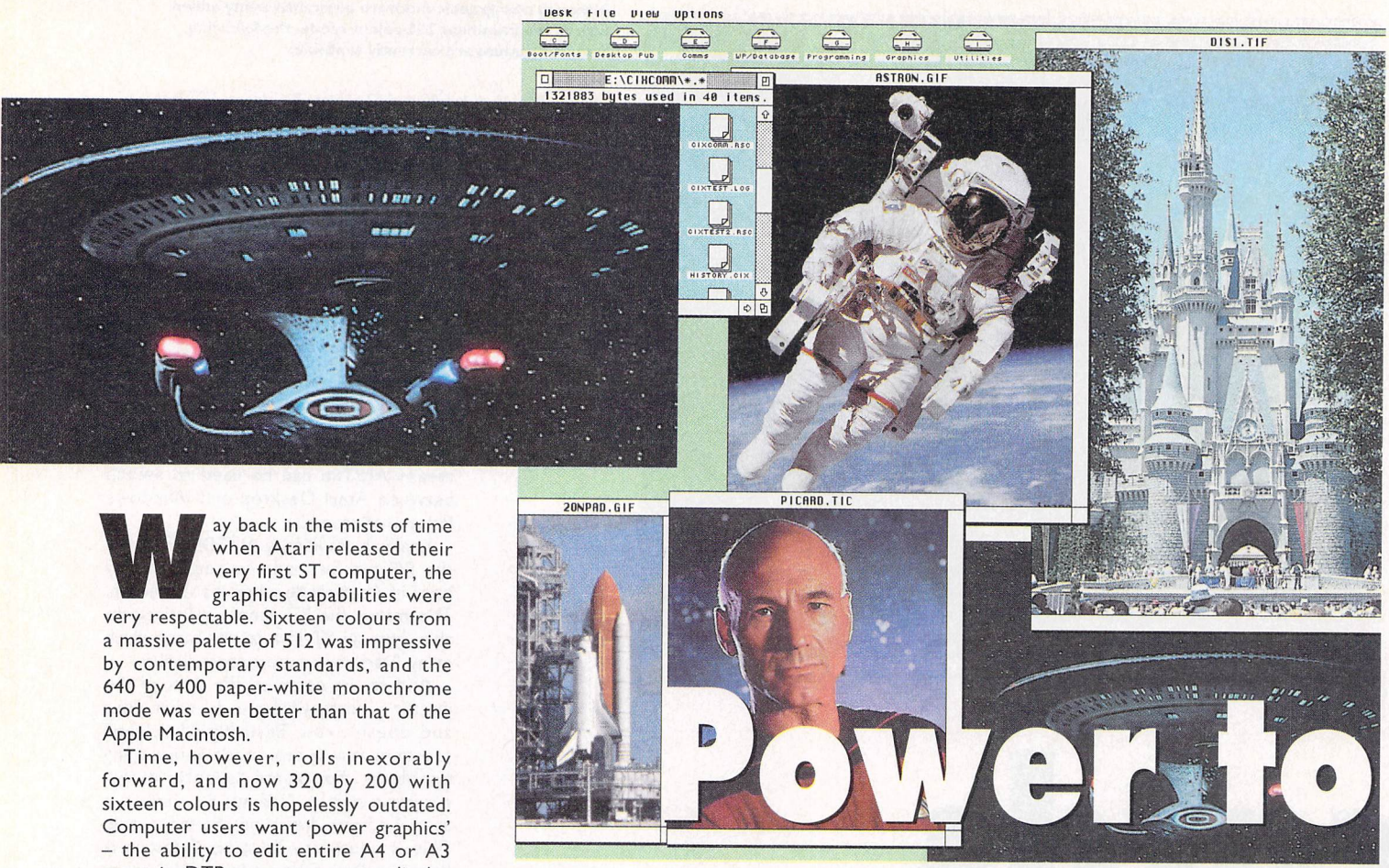
janus v=h - local, 640 x 400 pixels, 2 colours (ST mono)
janus v=1 - dual, 640 x 400 pixels, 16 colours
janus v=2 - dual, 640 x 480 pixels, 16 colours
janus v=3 - dual, 800 x 600 pixels, 16 colours
janus v=4 - dual, 1024 x 768 pixels, 16 colours
janus v=5 - dual, 1280 x 800 pixels, 16 colours
janus v=6 - dial, 1280 x 1024 pixels, 16 colours

Conclusion

Janus is a fantastic product which not only delivers, but offers very exciting promises for the future as well. The software for the card is being constantly upgraded to offer more new features. For example, 256 colour support will be with us soon, as it's just a matter of modifying the PC host program. Also in the works is Janus software which will run full ST emulation in a Windows' window and not just as a DOS application! And currently under development is a Janus card with both ROM and Midi ports aimed at the music market.

In spite of the lack of ROM and MIDI ports and Falcon specific hardware, Janus is a viable alternative for many ST owners. There are many pluses, such as graphic modes which on a standard ST could only be achieved with expensive graphic cards often costing more than Janus or a PC. Not to mention that the ST is still limited by design to 4 MB of RAM, while Janus can be equipped with up to 32 MB by using standard inexpensive SIMM cards.

With Atari currently concentrating almost exclusively on the Jaguar, and all but abandoning their computer line, it may very well turn out that the Janus series of cards are the real new STs we've all been waiting for. Not only has the wait been long, but it's been in vain as well. Janus and an inexpensive PC might soon be the cheapest way to upgrade your ST. Even today, when the cost of a new ST graphic card, custom ST RAM upgrade, SCSI adaptor, CPU accelerator and so on are added up, the price of Janus looks very reasonable, and its performance even more impressive. If Janus is as successful as it deserves to be, could a Falcon Janus be far behind?



Power to

André Willey compares the Nova graphics cards with their Matrix equivalent and lets you know the results

Way back in the mists of time when Atari released their very first ST computer, the graphics capabilities were very respectable. Sixteen colours from a massive palette of 512 was impressive by contemporary standards, and the 640 by 400 paper-white monochrome mode was even better than that of the Apple Macintosh.

Time, however, rolls inexorably forward, and now 320 by 200 with sixteen colours is hopelessly outdated. Computer users want 'power graphics' – the ability to edit entire A4 or A3 pages in DTP programs, or to display photographic quality images on large colour screens. One solution, albeit a rather expensive one, is to buy a Falcon, but even that lags some way behind the best Apple and PC-compatible machines on the market.

For some time it has been possible to upgrade the higher specified Atari machines with plug-in graphics cards – the expansion bus on the Mega ST and the VME slot on the Mega-STE and TT are ideal for this purpose. However, until now, the plain old STFM user has been left out in the cold.

Recently, 16/32 Systems started importing the Lexicor Nova graphics cards, and these will shortly be available with an adaptor card to fit any standard ST or STE – although having a tower case would be a definite advantage. For now, though, we've been putting the Nova card through its paces, plugged into our trusty TT. For comparison, we tested it alongside the latest top-of-the-line German Matrix card, kindly supplied by System Solutions.

The first and most obvious difference between the two products is that the engineering values of the Matrix are far superior to the Nova. The Matrix comes as a neat VME card which simply plugs into the rear panel of a TT or Mega-STE.

The Nova card, on the other hand, comes in a rather large and ungainly black

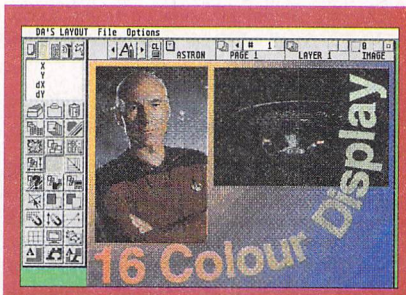
Colour vs. resolution

Video RAM is used to store the screen image, since without this extra memory you would need to allocate up to two megabytes of your ST's RAM for the display. The higher the resolution, and the greater the number of colours you desire, the more onboard RAM you will require. For example, a 640 by 480 display with sixteen million colours will use up 900 kilobytes of memory.

If you doubled that resolution in both directions to 1280 by 960, you would need a massive 3.6 megabytes of video RAM. Drop the resolution a little, and bring the colour range down to a mere 65,000, and you might just about fit the display into the two megabytes of RAM provided by the Matrix and SuperNova cards.

One alternative use of the onboard video memory is to create a large 'virtual' screen, even if your monitor is not up to handling that resolution, and view a 'window' onto that screen. The hardware scrolling facilities of the Matrix card are lightning fast, and while the Nova is a little slower, it's still quite usable.

The number of video frames you can display per second at different resolutions is controlled by the clock speed of the card. Throwing two megabytes of memory around at even fifty times a second takes a lot of processing power, and increasing to the 'flicker-free' rates of greater than 70 Hz needs even more power. Our table of specifications should give you a good idea of the display compromises that have to be made with which each graphics cards.

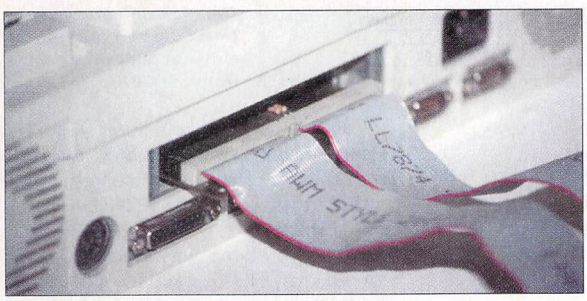


DA's Layout is used in standard 640x480 resolution to show the advantages of using a true-colour graphics card. The 16 colour TT-Medium display above, is almost unusable for any serious colour DTP purposes. The 256 colour display is a great improvement, with much better representation of colours – although there is still a lot of dithering required. Finally, in the true colour display (which still only uses 65,000 colours), the photos look virtually perfect. Every pixel's colour is mapped correctly, with no dithering required

Specifications	Nova 16M	SuperNova	Matrix TC1208E
RAM	1 Mb DRAM	2 Mb VRAM	2 Mb VRAM
Pixel Clock Rate	90 MHz	135 MHz	135 MHz
Max colour mode	16 million	4 billion	4 billion
Max 32 bit rez	n/a	800x600	832x624 88Hz
Max 24 bit rez	640x400	980x640	832x624 88Hz
Max 15/16 bit rez	768x512	1200x900	1152x896 77Hz
Max 8 bit rez	1024*768	1280x1024	1664x1200 72Hz
Max mono rez	-	-	1664x1200 72Hz
Gamma Correction	No	No	Yes
Virtual Screens	Yes	Yes	Yes
Hardware scroll	No	Yes	Yes
Auto-resolution switch	Yes	Yes	No
Digitiser option	No	No	Yes
Genlock option	No	No	TBA
Interface for STE/STFM	Yes	Yes	No
Mega-ST bus connection	Yes	Yes	No
VME card connection	External	External	Internal
Tested speed (256 col)	3571 (Ref. TT Medium)	7131 (NVDI) (Ref. TT Medium)	
Tested speed (16M col)	1431 (Ref. TT Medium)	4341 (NVDI) (Ref. TT Medium)	
Price	£419	£999	£999

your pixels

The Matrix TC1208 graphics card

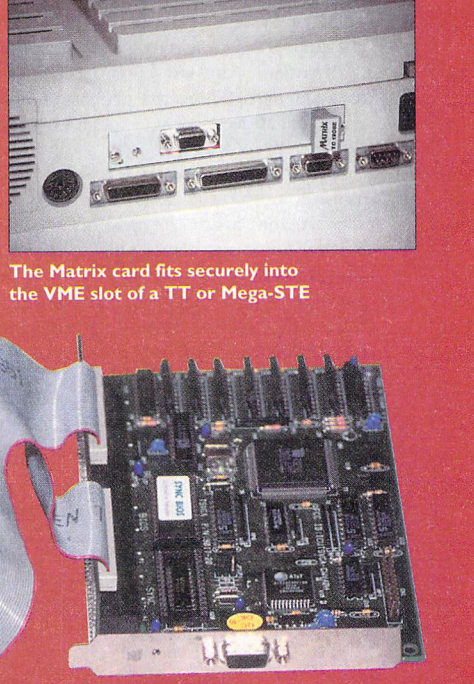


The Nova VME card is not screened, and a flimsy ribbon cable connects the VME interface to the rest of the hardware. Some extra electrical screening would be very helpful here

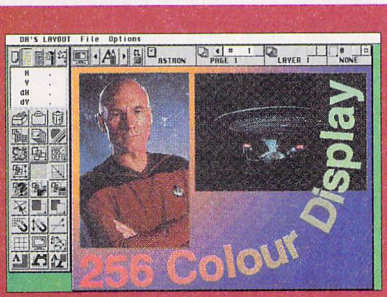
plastic box, complete with two ribbon cables. These terminate in a bare circuit board which must be plugged into the VME slot. We would strongly suggest using extra insulation between the Nova VME board and the metal VME cage in order to avoid short-circuiting the computer's power supply. This would be an expensive calamity, and one for which we can quote you the repair costs...

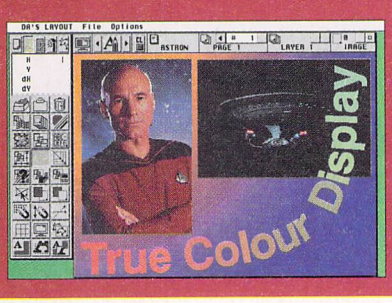
Once fitted, there is some fairly elaborate software installation to be undertaken. Both products come with drivers for a variety of monitor types which must be installed at an early stage in the AUTO folder, plus other support programs and accessories to adjust the day-to-day settings such as resolution and colour range.

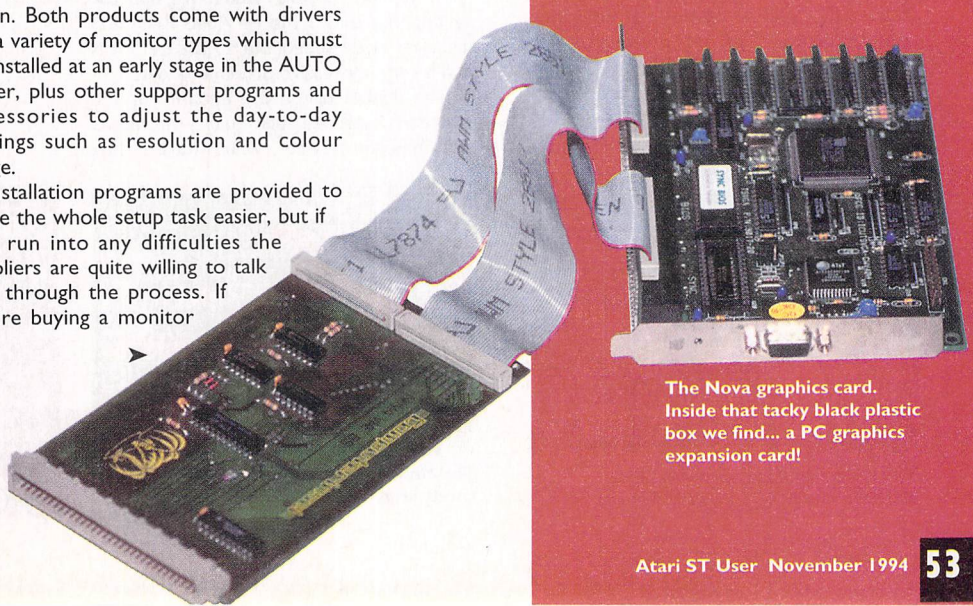
Installation programs are provided to make the whole setup task easier, but if you run into any difficulties the suppliers are quite willing to talk you through the process. If you're buying a monitor



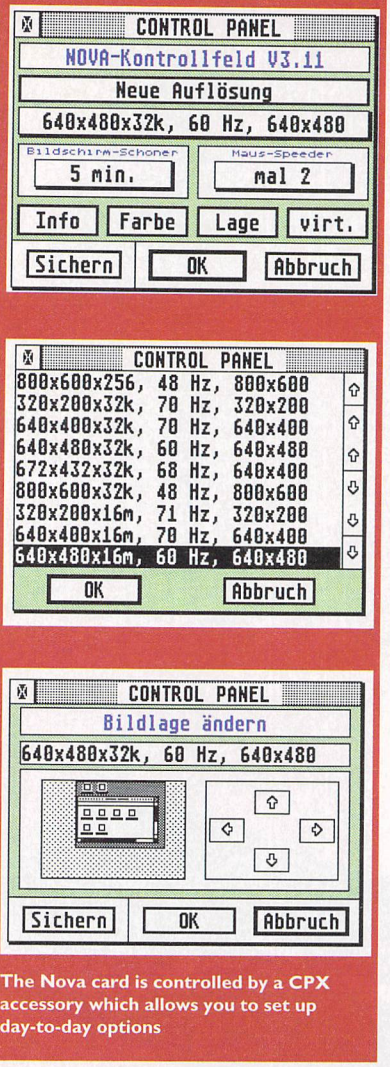
The Matrix card fits securely into the VME slot of a TT or Mega-STE







The Nova graphics card. Inside that tacky black plastic box we find... a PC graphics expansion card!



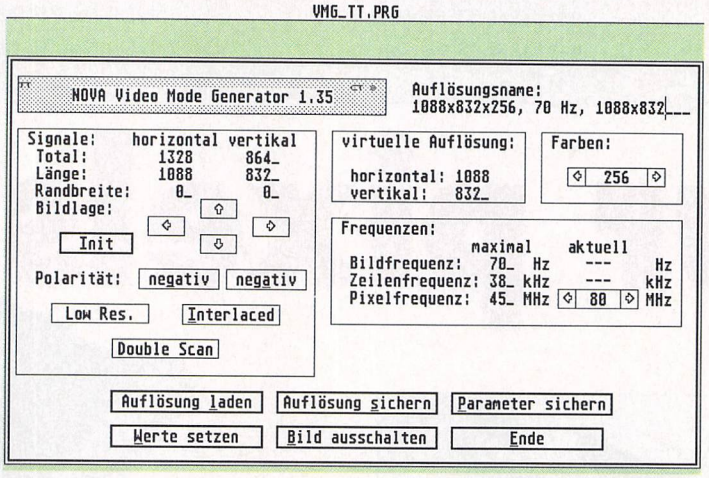
The Nova card is controlled by a CPX accessory which allows you to set up day-to-day options

Software

Of course, no amount of snazzy colours and resolutions are worth a bean if your software can't utilise them. Both cards come with drivers which allow the ST's TOS operating system to function in all the extra graphics modes, and any software which has been written to use the correct AES and VDI calls should work fine. 24-bit colour can be more of a problem for some programs, which is why the two top-of-the-line products also support a 32-bit mode. This allows each pixel on the screen to be stored in a single longword of memory – a much more processor-efficient approach than using three bytes per pixel.

Most serious programs now use the VDI to access the screen, but there are still a few which don't. The ones to watch out for are those which create their own interfaces, rather than using GEM. A good example of this is Arnor's Protext word processor, which writes directly to screen memory and, as such, dies quite spectacularly when the screen is not stored as it expects. Also, older programs which rely on specific resolutions – such as Degas Elite – won't work in any new modes.

Some programs will run quite happily in some modes and not others, often working better in higher resolutions with sixteen colours than they do when presented with massive colour palettes. The Nova software provides a unique facility to define ideal resolutions for each of your software packages. The RESWITCH program will then change to the appropriate resolution before running each program. However, even with that utility, it is still a good idea to confirm that all of your vital software will work with the graphics card you have chosen.



The Nova software allows you to create your own custom resolutions and colour settings, although its gamma correction facilities are far more limited than the Matrix. Once created, you can select the new modes either at boot time or from the CPX

➤

at the same time, the simplest solution would be to take your computer into 16/32 or System Solutions and have them fine-tune the whole system for you. This is essential if you wish to fit a Nova card to a standard ST, as the process is quite complex and requires expert engineer installation.

The Matrix software is considerably more colourful and flashy than the Nova, and provides a greater level of flexibility. System Solutions also supply a specially customised version of NVDI with the package, which increases the speed of text and graphical output considerably. Benchmarked against a normal TT Medium (16 colour) display, the Matrix card with NVDI installed achieved an astonishing 22001 text speed increase in 256 colour mode – yes, twenty-two times faster! Indeed, it only dropped to 12001 faster when run in 16 million colour mode. Scrolling an entire screen which is full of text is always a challenge for high colour displays, but even that managed to stay around the same speed as TT Medium.

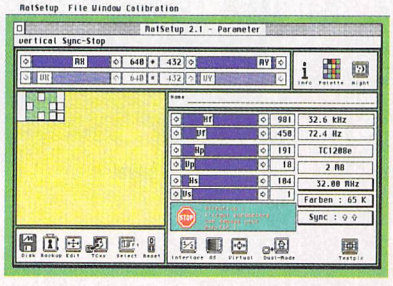
CONFIGURATIONS

Unlike the Matrix, the Nova card comes in two configurations. The full specification version is very similar to the Matrix, and at a few pennies under £1000 you'd certainly expect excellent results. The smaller version, which we had for testing, has only 1 Mb of Video RAM and a slower clock speed, but at just £419 it is still a very impressive product indeed.

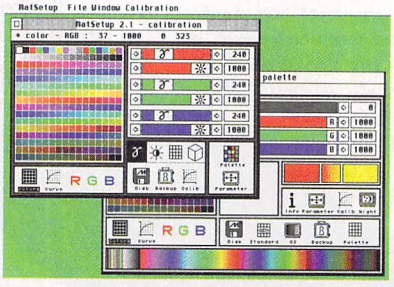
The final factor in the equation is the monitor itself. All high-quality monitors are analogue devices, which means they can display as many colours as you wish. However, only the better ones can cope with the very fast horizontal and vertical refresh rates needed for 1024 line screens at 70 or 80 Hz.

Unless you buy a very expensive monitor, you may find that 800 by 600 is about the limit to what you can display. Pushing a monitor beyond its limits is a dangerous occupation, and can result in permanent screen damage. The simple rule is that if the monitor loses sync, or starts to make strange noises, turn it off immediately and reset the display mode.

The best way to set up a system is to use two monitors. The standard ST monitor is used as your control screen, while your new high resolution monitor is connected to the graphics card and a test image displayed. You can now tweak away to your heart's content until you get the myriad settings just right.



The Matrix configuration software provides similar options to the Nova.



The Matrix card 's huge range of gamma curve, brightness and contrast settings

Suppliers:

Nova graphics cards

16/32 Systems, 173 High Street, Strood, Kent, ME2 4TW. Tel 0634 710788.

Matrix graphics card

System Solutions, The Desktop Centre, 17-19 Blackwater Street, London, SE22 8RS. Tel 081 693 3355.

ST ACTION

November 1994

INSIDE

PART 2 OF ISHAR 1 SOLUTION

FINAL CONFLICT

favourite ST games of all time

Biff's favourite ST games of all-time

Seeing as though it's the last issue of STA, the team thought it'd be quite nice to look back at the good times and remember those games which shone like bright lights in the ST sky

Rainbow Islands

This game deserves the title of "best cutesy platform game of all-time" without question. Rainbow Islands is now five years old, and although it's starting to show its age a little, it still contains all the elements (top graphics, playability, addiction) that first made Graftgold's platformer so great.

The game was the follow-up to the classic Bubble Bobble, and featured Bub and Bob on their quest through seven islands. The objective was to face and defeat the guardian, who I still haven't seen even after five years of playing time!

Bub and Bob used rainbows to kill the various enemies who inhabited the islands, and what made this so unique was that the rainbows could be used in so many different ways. The twins could use them for climbing on to get to the top of the level, or they could simply fire them at their prey killing them instantly. Other methods of rainbow killing involved a tricky process where, if a rainbow was fired at the right moment, the enemy would find itself trapped within it. If the rainbow was then jumped upon and broken, a power-up, a bonus such as extra rainbow power, or an all-important coloured diamond would appear.

Another worthy mention is the quality of the end-of-level guardians. These cutesy characters, at the time, were just about the biggest sprites I'd ever seen. Plus they were incredibly hard to defeat, which made the progression to the next level even more satisfying.

Just these few words don't seem to do Rainbow Islands any justice, and you really have to experience the game before you can understand just how good it is.

The graphics make the game look as though it's been aimed at the kids' market, but this platformer has a universal appeal and is perhaps one of the best constructed platform games you're ever likely to play.

A five year old game on the ST that hasn't been, and probably will never be, improved upon. A classic.

Cutesy platform fun of the highest order. Get to the top of the screen before something else gets you first

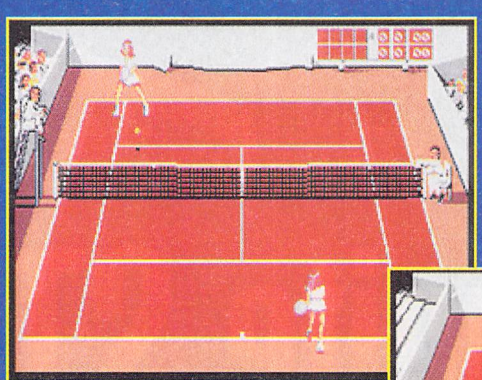
Pro Tennis Tour 2

Some of my favourite games of all-time have been football games. However, it looks like the best ones (Sensible Soccer) have already been picked by the rest of the team. Fortunately there is one sports game that not only captivated me, but had the rest of the office in raptures as well, and there wasn't a footy in sight.

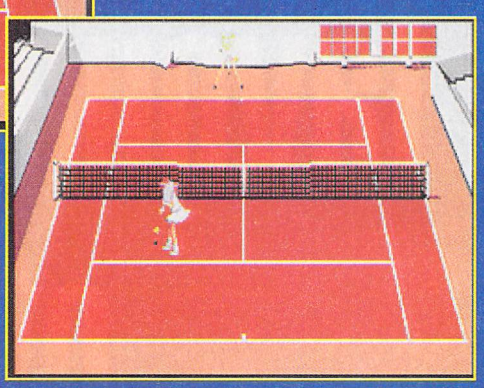
Pro Tennis Tour 2 is the best tennis game you can get for your ST, and I heartily recommend it to tennis and non-tennis fans alike. I'm not too keen on the actual sport, but this game, created by UBI-Soft, was an example of games creation genius.

It's quite easy to pick up and control the players, but it does take quite a while before you become a master of the court. It's not too bad playing against the various computer opponents, who are extremely hard to beat, but the game really comes into its own when you find a friend to play with (doubles) or against (singles).

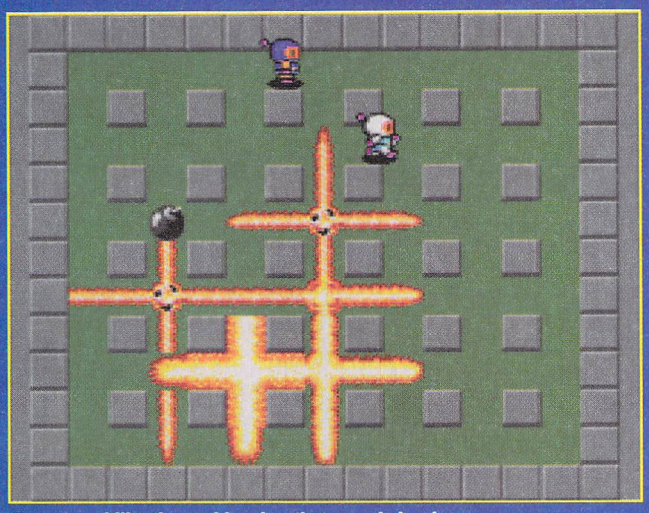
The graphics are really nice as well, and the characters move just as they should. The sound isn't too bad, but not spectacular. There are loads of options within the game to keep you interested, but what really makes the game shine is the sheer addiction. You'll find yourself always wanting "just one more go", and for that alone, I doff my tennis cap and racket to Pro Tennis Tour 2. A game that should have a place in everyone's games collection.



Grab your joystick and prepare to take part in some of the most enthralling games of tennis you've ever seen in your life



Keep those racket skills primed and ready with the ever-so-useful automatic tennis ball server. Handy if you've got no-one to play against



Run around like the mad bomber that you obviously are and kill all your friends. Ah, I've never had so much fun!

Dynablaster

I have always preferred to play games with a companion, rather than be a sad lonely individual staring at a glaring monitor with categorically no life whatsoever. Thankfully, most games are fit for consumption by two players, but some take matters even further.

Dynablaster, the hit game of 1992, was created by French software house UBI-Soft, and changed multi-player games virtually overnight. It was designed to give enjoyment to up to five players. Of all the games I've perused over the years, this was the only one which totally dominated my life for a precious few days. I know a few days doesn't sound long, but it is a hell of long time when you're supposed to be producing a magazine for the nation's news-stands! Dynablaster is, apart from Tetris and its clones, one of the most fiendishly simple games ever devised. You start off the game with four players in each corner of the screen (there is also one in the middle if you've chosen the five player option).

The players are surrounded by little brick walls, randomly spread across the screen. The idea is to use your skill and intelligence to blow up the walls with bombs. Thus you start to move closer to your various opponents. If you manage to put an end to their lives and remain the only one left standing, then you are declared the winner of that round and become the Dynablaster champion.

Behind several of the brick walls are bonuses which give you various power-ups. You can receive more bombs and also make them more powerful. Select the "skull" option and various wacky effects will happen to you when you pick up that particular icon. The enjoyment of seeing someone run around like mad because he/she can't stop laying bombs at high-speed is a sight which literally brings tears of laughter to your eyes. I guess that this is the key to what makes Dynablaster so special. It is an incredibly fun game which can be enjoyed by everyone and thoroughly deserves the title of "best multi-player game in the world". If you've got some chums, then club together and buy Dynablaster – you won't regret it. The best thing to come out of France since Eric Cantona.

The crap one player option is strictly Vauxhall Conference when compared to the Premier League-like multi-player extravaganza

International Karate +

The beat'em-up is one genre of gaming that everyone loves to play. Kids and extreme violence seem to go quite happily hand in hand these days. There was even a time when I was one of those "kids", but there was none of this "fireballs, lightning bolts and leaping 20 foot in the air" business which you see far too often in today's games.

The game that I fell in love with was a pure karate sim with believable characters who could do proper fighting manoeuvres. It was called International Karate +, and even today still manages to kick every other beat'em-ups' ass.

Archer Maclean, the man behind such classics as Jimmy White's Snooker and Pool, was responsible for creating and turning IK+ into the ST's first "proper" fighting simulation. The game featured three fighters, two of whom could be controlled by humans, thus making it one of, if not the first, two player beat'em-up.

The idea was to simply score points by knocking down your opponents. One point would be awarded for a simple move, whereas a full two points would be gained for a spectacular flying kick or a move of a similar (violent?) standard. The first player to reach six points would be declared the winner of that round, but manage to finish in last place and the game would be over.

Win two rounds on the trot and you get the chance to improve your score by playing one of the sub-games. The first involved the ability to defend yourself with a shield from an onslaught of metal bouncing balls, and the particularly chaotic second featured more exploding bombs than you could shake a stick at.

The idea was to simply kick the bombs away before they exploded. Clever players could even master the fine art of simply dodging the bomb blasts.

As you progressed within the game, your score naturally increased, and when it reached certain landmarks, the belt around your waist would change colour. You started at white and, if you were good enough, progressed through to the ultimate belt of all, the black belt.

The graphics, at the time, were praised by just about everyone that saw them. But, the real reason why the game appeared to be so good, was the inclusion of some Bruce Lee sound samples. The various yelps, smacks, kicks and grunts suited the game perfectly.

The controls of IK+ were so well designed that you could pick up your joystick and become a karate king. The manoeuvres also seemed to flow smoothly from one to the next. For instance, a punch to one opponent could be followed by a back-flip and then you could put the other opponent away with a scissors kick.

Various cheesy moments popped up when you stabbed at the ST's keyboard. Pacmen, birds and worms would appear, and you even had the opportunity to pull one of the three macho karate contenders pants down, leaving said character with a shocked and very embarrassed expression upon his face.

I can't recommend IK+ enough to you people. It was a damn fine product six years ago, and still is today. Just goes to show that only the really good games last the test of time.

Karate kick your way to victory in Archer Maclean's superb beat'em-up. A classic if ever I saw one

The pause mode even gets a mention because of the fighters' brilliant choreographic skills. Look not one of them is out of time!

Tina's favourite ST games of all-time

Jimmy White's Whirlwind Snooker

Admittedly I'm completely rubbish at games like Snooker and Pool. In fact there is a cry of horror if I even go near the Pool table down at my local. So, it came as a nice surprise to find that I could actually play their computer counterparts.

Not that this means they're not realistic, it just means you can actually play without having to worry about the dirty old men leering down your top, or having fights with enraged beer monsters about who's twenty pence was on the table first!

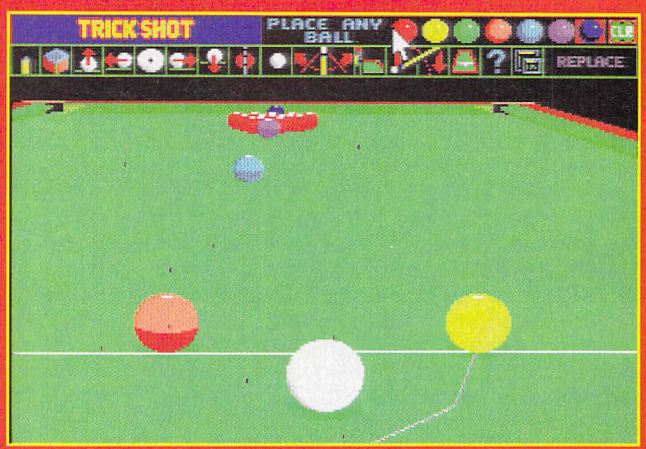
Jimmy White's Whirlwind Snooker is a great simulation which allows even the sport's novices to play a rewarding match as well as being a challenge for the experts amongst you. What has made Archer McLean's Snooker and Pool simulations so successful has been their sense of realism and easy control systems. This makes them great faves of mine.

'Whirlwind Snooker' has tons of options, and is like the real thing but without all the hassle. There's a great two-player mode (without the risk of an over-competitive opponent becoming threatening with a cue), there's a feature allowing you to set up and perform trick shots (no possibility of a nasty accident involving a snooker ball and a pint pot), and you can even have a full tournament against four computer controlled opponents (and without having to wear a dodgy flowered satin waistcoat). What more could you want? (Well, actually, a deluxe Strip Snooker edition featuring the Chippendales would be nice....)

The game also features eight different views of the table, so you can plan shots accurately. You take your shots via the icon panel, and have to decide everything from using side spin, to when to chalk the cue.

Hey, and if you take too long to take a shot, guess what? Flies appear on the screen and the balls stick their tongues out. It's true, honest they do!

It's a classic, and really has to be in this collection of my fave games.



Q. What do you call a woman who balances a pint on her head whilst playing snooker? A. Beertricks Potter!! Hargh, Hargh, ooh how funny!

Sensible Soccer

Between chants of "Ooh, Aah Cantona" and supporting the Premier League Champions (heh, heh, not wanting to gloat...) I found time to partake in a little football myself – well via the computer anyway. And what game found its way onto my computer time and time again? Well, Sensible Soccer of course.

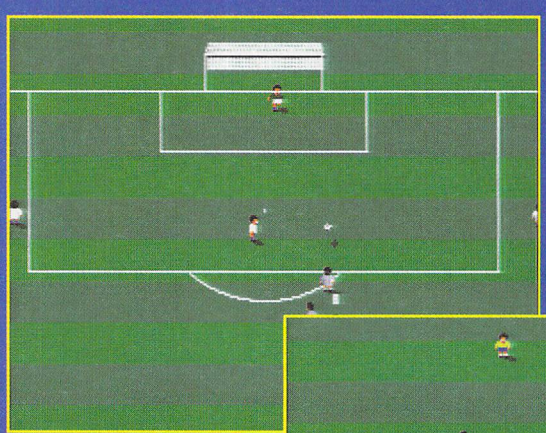
Being one of the most popular and acclaimed football games of all time, there isn't really a great deal left to say about it that hasn't already been said. 'Sensi' is a very playable and addictive game, and many a lunchtime I've sat down to a match, only to be swearing at the computer with words that I didn't even know were in my vocabulary! Such was the addictive power and competitive rivalry of the game, that it usually aroused passions of such ferocity that only United and City fans could know about them.

Sensible Software have certainly done well out of their miniature sprites, using them in their successful Cannon Fodder and Megalomania games. They all worked well in their releases, especially so in Sensible Soccer, making it very playable and rather different from the norm.

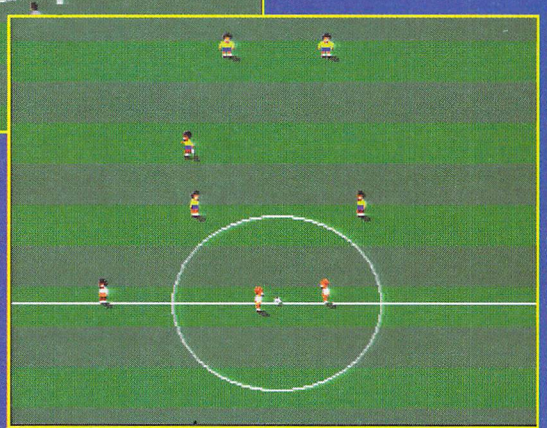
The control system works like a dream and the moves are exceptionally intuitive. Despite its cartoony feel, the game still plays realistically with all the moves close to the actual thing.

Two-player mode provides some of the most fantastic gameplay you're likely to find anywhere, and the crowd atmosphere is brilliantly created.

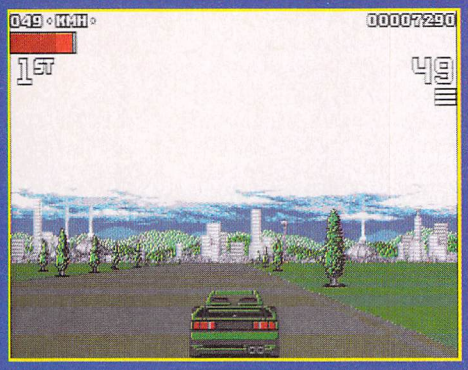
One of my all time faves of all time. Not half mate!



Tiny sprites and great gameplay



The intuitive controls make the game easy to get into



The Ultimate Challenge combines all the merits of the previous two Lotus games

My new car.....

Lotus 3, The Ultimate Challenge

Life in the fast lane, hey? There's nothing like it, cruising along the country lanes, roof down, music blaring and burning off all the boy racers at the lights. That's the life, or so I've been told. Because in fact, my own car, as those who know me will tell you, stubbornly refuses to go over sixty, and when you shut the door, the window handle falls off. But never mind, who knows one of these days... well, we can all dream can't we?

So it will probably come as no surprise when I tell you that another particular 'fave' of mine is Lotus 3. It is likely that this will be my only chance to get behind the wheel of a Lotus, and it is one of the slickest race'em-ups you will find on the ST.

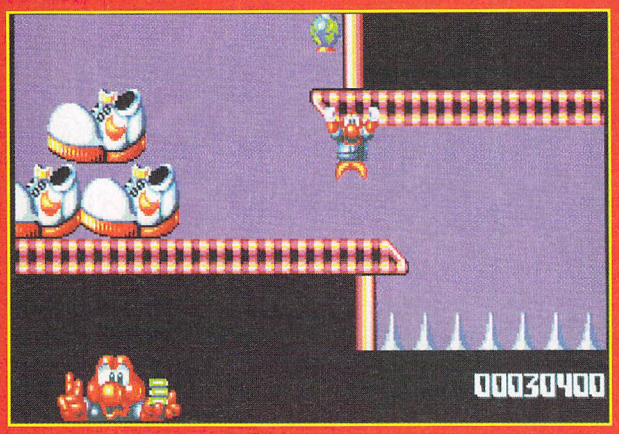
All the Lotus games are exceptionally good, but Lotus 3 combines all the qualities of the previous two, so you sort of get two for the price of one!

Lotus 3 is an absolute classic, containing new features such as weather that will affect the handling of your car, and the new track editor that allows you to create a track in minutes.

You can choose from the Arcade Mode, which puts you against the clock, and you have to complete the race in the allotted time to win points. This happens to be my personal favourite, but you can also play the Championship Mode where you aim to finish in the top ten drivers of each race.

It's a top game which contains tons of playability, smooth scrolling, fine graphics and fast, addictive action.

Two-player boy racer mode



Avoid the spikes by travelling across ceilings

James Pond 2: Robocod

Hey, it's a platformer, and an old one at that! But I don't mind admitting that this is one of my favourite games. In fact, this is just the sort of thing that keeps me going on dismal Monday mornings.

Millennium's Robocod is one of those bright, cheery games with a catchy tune, a jolly little sprite and colourful graphics. And no, it's not one of those twee efforts where everything plods along in a sweet and sickly fashion, No siree! It's a very playable and fun platformer.

Yes, there are loads of levels and all kinds of strange baddies to come across. There are flying cards and Liquorice Allsorts men to name but two, and there isn't a hallucinogenic in sight!

The story is a cute one, and it's the kind of Christmassy game that really gets you into the festive spirit. There are lots of corny James Bond type gags in there that would make even Corny Gags Anonymous whimper. But hey, I love it! It's fun and it doesn't take itself too seriously.

Actually, it's one of those games that makes me smile, yes even on a Monday morning. This is extremely rare because even the Milk Tray chap, climbing in through my window with a huge box of choccies, wouldn't make me smile on a Monday morning.

It's a game that looks great, sounds great, but most of all plays brilliantly.

Somebody forgot to tell Robocod the Signal Worker that the strike was over

The strange choice of baddies adds to the humour

Dave's favourite ST games of all-time

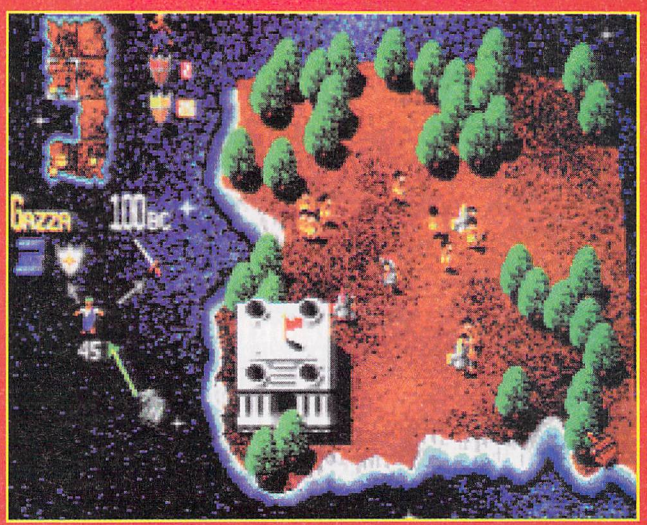
Megalomania

Sensible Software probably didn't realise what a good thing they were on to when they originally designed some cute people sprites about eight pixels high. Since then they have made appearances in every Sensible production.

But Megalomania had more to offer than simply nice graphics. It had some of the greatest sound effects ever to emanate from an ST monitor, with a multitude of actions accompanied by appropriate sampled speech. The camp Oberon with his softly posed question, "Do you want to come on my team?", took the biscuit, but there was close competition from the likes of the resident engineer, whose, "The design is weady", became as common a sound to my ears as Angus Deayton's voice on television ads.

The objective, for the uninitiated, was to guide your people through evolution from a primitive spear-wielding tribe to a highly advanced nuclear age civilisation. Protecting them from rival tribes whilst ultimately aiming to conquer the entire map was your official goal. A selection of increasingly large and difficult islands had to be conquered, and believe me, after the first dozen islands it really started to get tough.

Often fiendishly challenging, this was the sort of game which could quickly take over your entire life, interfering with your normal everyday actions such as eating and sleeping. Unfortunately it was published by the ill-fated ImageWorks, and so never really got a decent crack of the whip at full price. It was re-released bundled with popular platformer First Samurai, a bargain package in anybody's book. If you don't have it and you can lay your hands on it, then this is a timeless classic that should be in every games collection.



Which one of these four motley characters do you fancy becoming?

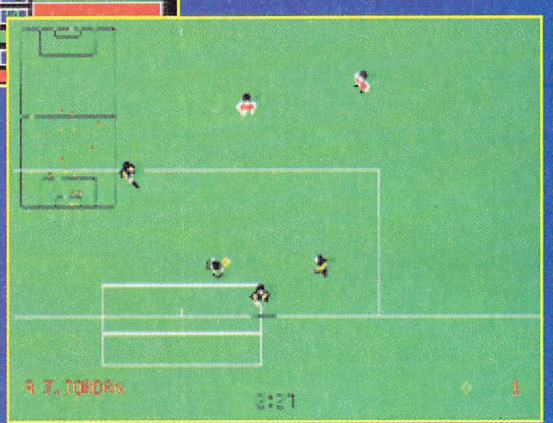
Kick Off 2

Football games, always a popular genre, shot very much to the fore with the arrival of KO2. Countless blissful hours were spent pummelling chums into submission, slotting skilful shots just past the outstretched hands of the computer goalie, or otherwise demonstrating my computerised footballing prowess. Bending the ball around the keeper with aftertouch became as natural a part of everyday life as getting up in the morning. And who could forget the silky smooth ability of that well known Dutch forward, M. Thomas?

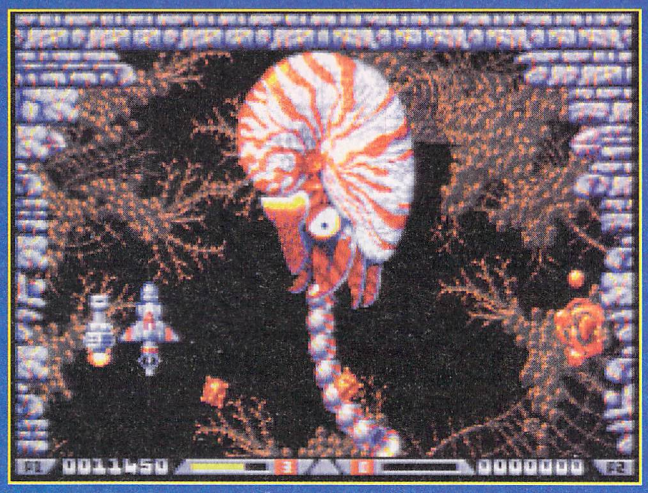
Actually, I'm going to bend the rules slightly and include the datadisk Final Whistle too. It enhanced the original considerably by adding a combination of aesthetically pleasing touches such as a referee and physio, and gameplay tweaks such as overhead kicks, deft flicks and more realistic team tactics. It also used proper footballers' names, so gone were the cryptically named heroes, replaced by talented world famous stars – and Jimmy Greaves too.

Until plucky young newcomer Sensible Soccer arrived on the scene, Kick Off 2 undisputedly ruled the roost in the soccer stakes, and what it lacked in presentation terms it made up for in sheer playability. It may have been superceded nowadays, but surely no football game can ever have the impact that this did when it first appeared in the ST's heyday. Oh, they were happy days...

Play the manager as you get to select which lucky souls will have a crack at the opposition



Frenetic goal-mouth action with the fast-paced Kick Off 2



Beefy end-of-level bosses are very much in evidence in Xenon 2

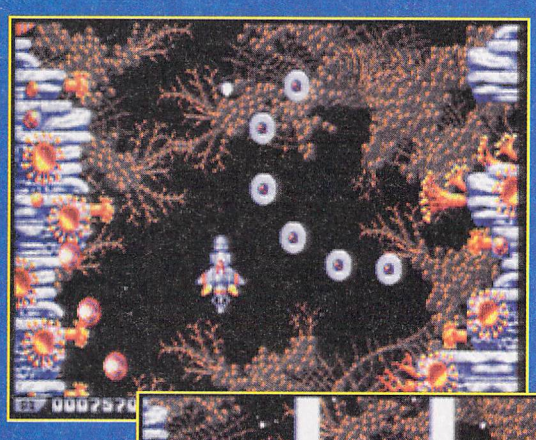
Xenon 2 Megablast

Hardly an original product, but a hit nontheless due to its highly enjoyable nature and stylish execution. Xenon 2 redefined the ST shoot'em-up. Lovely slick graphics, catchy tune, tough but fair gameplay... this had it all, in inordinately large amounts. It was so much fun and so supremely addictive that it probably should have been made illegal.

There was probably a storyline hidden somewhere within the manual, although I never bothered to find out. It probably concerned some evil alien empire threatening the universe, with only you being in a position to save it by single-handedly flying a small (but perfectly formed) ship into the heart of enemy territory. But having a good storyline is not a prime requisite for a shoot'em-up, and it mattered not that the plot had been rehashed thousands of times before.

What mattered was the fact that once seated in front of the computer, joystick in hand, an innocent gamer would have to be surgically removed later, often to shouts of "Happy new year" from casual observers. The next task involved cutting back the hair that by then has reached approximately knee height, followed by attending a three-hour debriefing session to bring the gamer back up to date with the real world. It was, it is fair to say, almost obsessive.

Further raised above the mundane mediocrity of the average game of this genre by the outstanding selection of purchasable weapons and beefy power-ups, no shoot'em-up has compared with Xenon 2, either before or since.



There's nothing like a bit of mindless blasting to relieve those feelings of boredom and frustration

Super Nashwan Power in full glory. Every imaginable power up is yours... but unfortunately only for ten seconds

Yes, it's Monaco in all its glory. And now you can experience all the thrills of a real GP without Murray Walker incessantly babbling like a brook

Formula One Grand Prix

To be honest, there's not a lot I can say about this that I haven't already said in an old Gamer Blast from the Past feature, where I admit to using the (potentially rather embarrassing) phrase, "If Formula One was a woman I'd want to marry it and have its babies." Since I'm not one to casually bandy about such words of praise then the average reader might assume that this game really is in a class of its own – and that's a valid conclusion to reach. Never in the field of ST gaming have so many owed so much to, erm, one bloke.

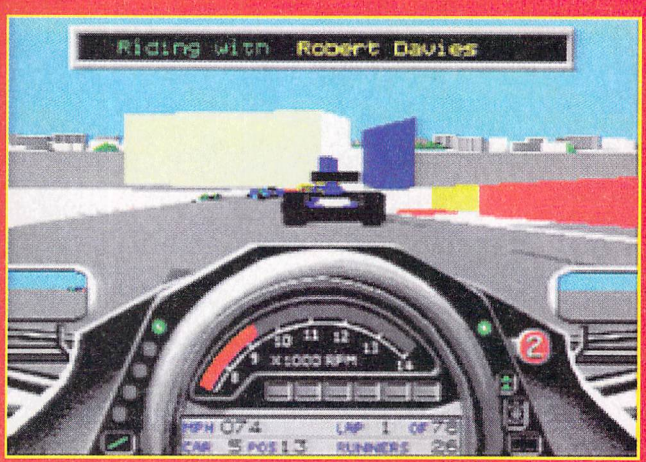
Admittedly, at first glance, the polygon graphics may appear unappealing and the 3D update slightly slow. You'd have to be a fool, though to dismiss this as just another driving game. No, "game" is too belittling a moniker to bestow upon this masterpiece, this latterday work of art. Leonardo da Vinci created the Mona Lisa, Michelangelo created David, Geoff Crammond created Formula One, its twentieth century magnificence being equalled only at the artistic height of the Renaissance.

In the decades to come I can envisage fascinated youngsters peering entranced at an ageing monitor, experiencing themselves, for the first time, that which previously had been confined to the nostalgic tales told by their parents.

Indeed, centuries from now, historians will chuckle at our obsession with video games, calling them primitive and perhaps slightly antisocial. Then they will discover F1GP and their eyes will be filled with awe, their hearts with warmth and their minds with understanding.

"What intimate knowledge of the joys and pleasures of the human species this Mister Crammond must have possessed", they shall declare. In the portion of their lives allocated to relaxation and personal fulfilment, they will scour the antique emporiums in search of an appropriately ancient computer input device with which they can attain that most desired rank, revered within their advanced society, of Formula One World Champion.

Sorry if I'm labouring the point, but to be blunt it would be a wasted ST that died without having run F1 at least once. If by some freak chance you are one of the unconverted and have no intention of investing in the greatest piece of leisure software ever written, then I must seriously question your sanity.

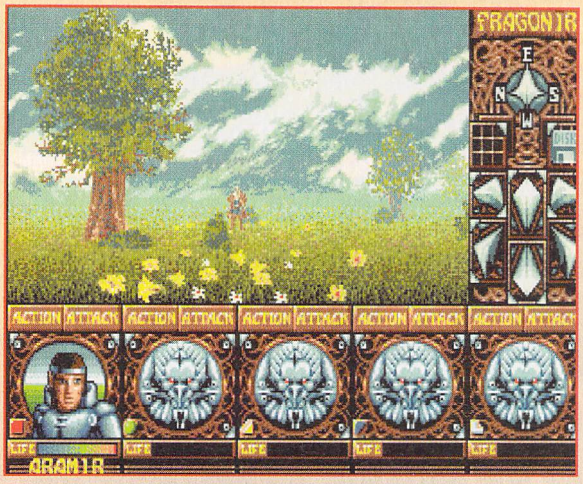


Aha mister computer driver, I have you now. Prepare to get to know that there wall

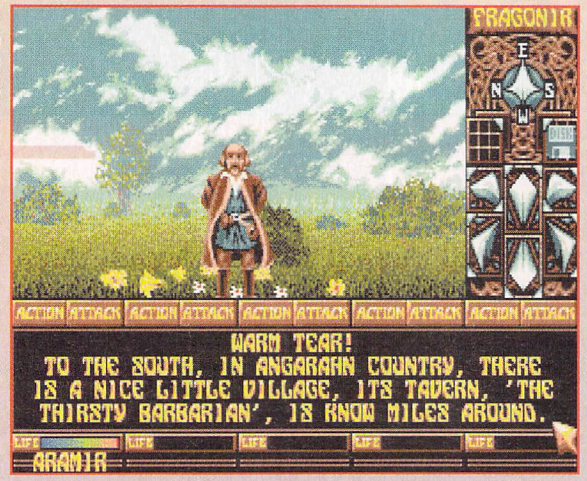
Ishar

Legend of the Fortress

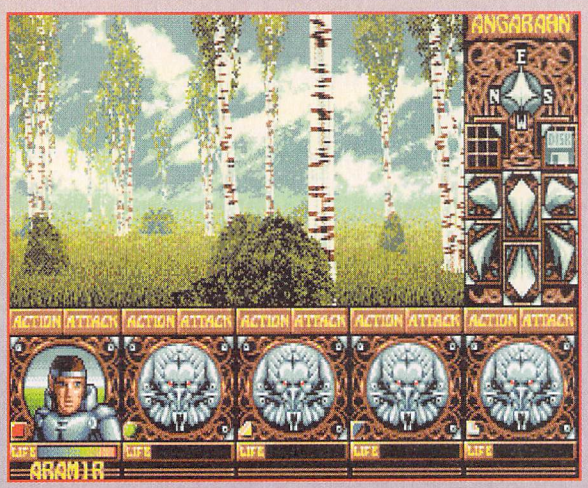
The second and final part to ST Action's complete guide to Silmarils' classic RPG adventure. The guide doesn't help you with battles, but it will tell you how to make your way around the land of Ishar



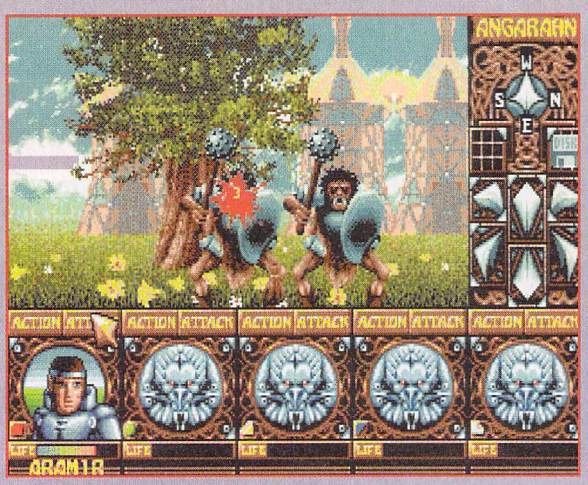
The start of the quest and the beginning of your battle with the evil Krogh



A few steps away from the start and you bump into Brominh. Bribe him and he will tell you which taverns to visit next



You find yourself in a forest of silver birch trees. Somewhere in here is the beautiful Kiriela who you must recruit



Your first fight of the day against a band of hungry orcs. A few quick slashes of your sword and you can be on your way

An impossible love

Visit the house of Irvan in the village of Halindor. He will tell you his daughter has been kidnapped and you'll find her in the city of Elwingl. If you rescue and return her to Irvan, he will give you a useful key in return.

You'll find her in the town square, but lose a team member to make sure she comes with you. Leave the town by the road opposite to the one which you used to enter the city. Also in the town of Elwingl, you will find Thom. He will give you five monks' robes which make for excellent disguises. Return north to the village of Halindor, and go back to the house of Irvan.

One of the companions falls in love with Deloria and is decidedly unwilling to go. The only solution is to make the love-stricken fool drink the anti-love potion (the essential ingredients of which are tortoise spittle). Enter Irvan's house and recover the key.

Before continuing you are advised to build a "wall" (ie four people in a line). Head westwards and keep an eye out for the wizard. Enter the teleporter.

The Dungeon of Valathar

From wherever you can find them, gather together different items (food, treasure, etc). Remember to search in every corner, every nook and every cranny. Numerous passages will open up to you thanks to the levers or keys you've collected along the way. Forward and backward movement between the towns might be necessary to strengthen or re-form your team of hardy adventurers.

Open the door with the key found at Irvan's house. At the first cross-roads turn left (you should be facing north) and you'll find the house of the living-dead brothers. It's a huge room with many nooks and crannies to investigate, and you should find yet another key.

Continue along your route to the east. Once at the cross-roads, turn south until you find a diamond-shaped room. Inside is the Dark Knight who you must do battle with. Continue southwards. There is a key to be found which is somewhere in the labyrinth of corridors.

Return to the Dark Knight's room and open the door facing east. You'll find yourself in a labyrinth. You must find the exit which is towards the east. Once at the crossing, turn north. Continue in that direction and collect the key from within the cul-de-sac.

The wild levers

Continue towards the east and you'll reach the labyrinth which consists of two parallel corridors. These are interspersed with doors which are controlled by several levers (each lever operates two doors simultaneously).

Take the compulsory passage south, then head eastwards. Ignore the lever, head left and operate the lever. Continue towards the left of the next room (to the west) and operate the lever. Return eastwards towards the aforementioned room, then head right (south) and then to the left (east).

Operate the lever and return towards the previous room. Then turn right, then left and operate the lever. You can exit from the labyrinth by continuing along this corridor towards the east. At the end, turn right and

cheat mode

then left. You'll arrive at a small labyrinth populated with blue ghouls. Move along the corridor in a southerly direction and you'll find a key and a teleporter.

Foul air

Face south and then turn left immediately. At the end, turn left and you'll arrive at a chamber with a lever. Make each member of your team drink the Worgaz potions, then operate the lever. The gas will filter into the chamber. Follow the corridors and you'll find a new chamber with a lever inside. Pull the lever and the gas will disappear.

You'll find yourself in a large room with two access routes. The southern route is not very long and is only relatively interesting. The east-facing access route is indispensable. After passing the skeletons, you'll find a key in a cul-de-sac. Return to the chamber, pass through the area of foul air and exit from the chamber.

Conjuring tricks

From the wide corridor you have to find an access point heading west. This leads into a huge diamond shaped chamber. In the centre is a demon casting spells in your direction. Try the doors to the north and west, then take the access route to the south.

At the end, continue in a westerly direction and you'll come out into a broad corridor. Just to the right is a lever. There is a passage to follow which leads east. Follow this and you'll see a door controlled by the aforementioned lever. The entrance is infested with spiders. Collect the runic tablet.

This room has magic walls which can be walked through. Try all the walls, collect the various items and then return to the lever in the corridor. There is a very large labyrinth to pass through heading west. Try and find the door facing south in a broad corridor.

This door opens into a small room guarded by a magician. Kill him, take the talisman and exit from the room. On one of the walls of the labyrinth you will find three levers. You have to operate these levers in order to open the way to the extreme south-east. This is where you must head next.

The killing of Krogh

Follow the corridor and you will face a Medusa, then a flame spitting dragon. At the end of these battles you will find a door at the end of the corridor. Dress everyone up as monks – if anyone isn't disguised then the door won't open.

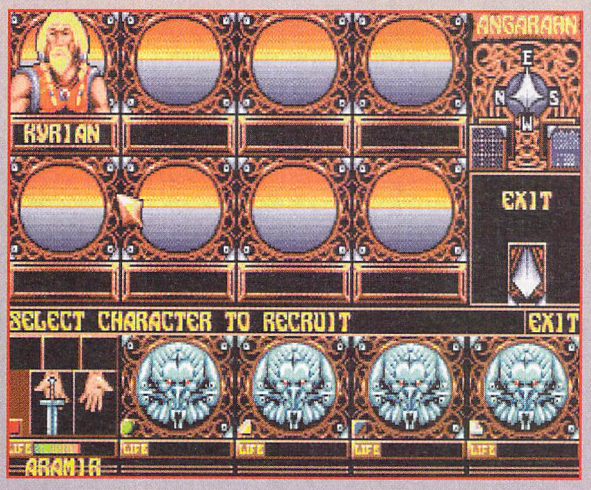
Go through the door, kill the monk, make a protective shield and take the teleporter. You will arrive at Ishar – a temple with a very long corridor. Before you see Krogh, you'll have to fight three monk-guards with fairly well developed psychic powers. Your psychic shelter will prove useful when the battle gets underway. Kill the monks and use your protective shield.

The final section now. The grand magician Krogh casts lightning in your direction, and will pursue you incessantly even if you manage to escape.

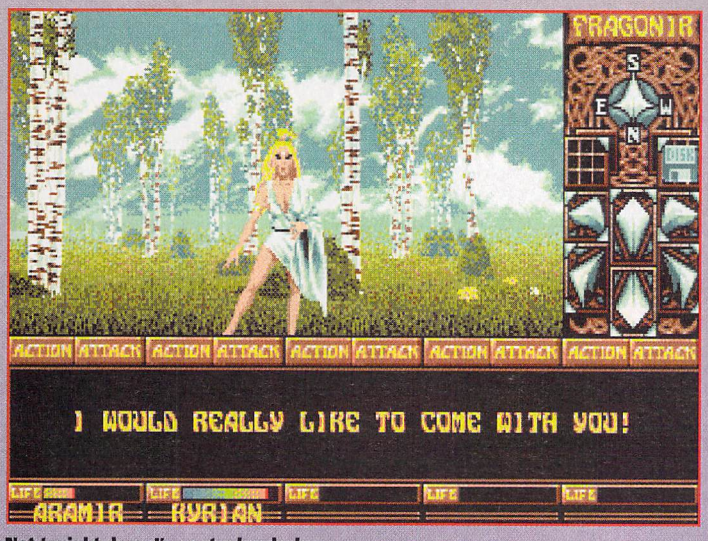
If everyone has a runic tablet, your magician has the talisman and if Morgula can cast "anti-Krogh" spells, you can then strike the villain down. Do so and you'll have completed the game.

Once in the village there are several things you can do, including enrolment on a strength improvement course

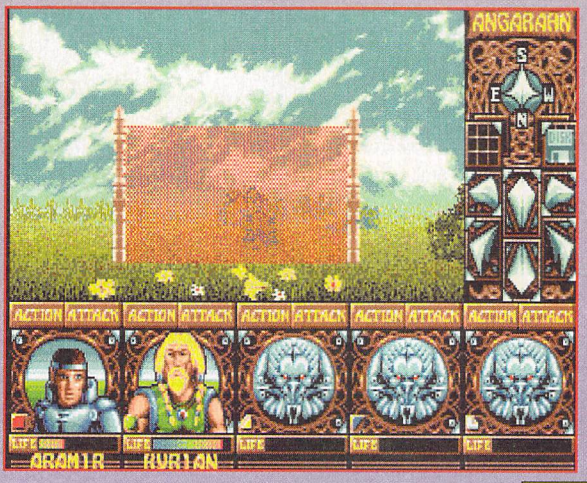
Inside the tavern you can listen in on a conversation for a vital piece of information, have a meal, or simply fall asleep



A good recruitment drive can always be held in ye olde local tavern. Kyrian joins the team for being able to drink 16 pints and then still perform well in a fight



Not tonight dear, I've got a headache...



A minor stroke of luck as our squad of adventurers stumble into a teleporter. Where it goes no-one knows!

Read these statistics. If you understand them, you'll probably stand a good chance of winning the Final Conflict

Russia decides it'd be a clever idea to strengthen its infantry and tank divisions. Maybe the rest of Europe will fall under its power

Click on one of the icons on the left hand side of the screen, and you get an overall report on how the war is going

It could be said that the release of a game involving the subject of nuclear war is just a tad insensitive. But, seeing as though most wars these days seem to be civil ones, a game like this becomes true fantasy rather than just a brutal, stark reality.

Final Conflict is a simulation of power politics and global warfare, set in a time that existed not so long ago. As the Premier of a country of your choice, you have to use diplomatic skills, armed forces, espionage and decision-making abilities to try to win the war.

Movement of all tanks, infantry and naval units is in your hands, as you bid to defeat your enemies by conventional means. The word "enemy" is used carefully, because as time and the war progresses, the remaining neutral countries of the world begin to take sides.

Rash decisions to make senseless killings will cause neutrals to take up arms against you, but these can be avoided if you put your diplomatic skills to good effect. Should you feel the need to push the button, there is plenty of opportunity to make use of missiles of the nuclear kind.

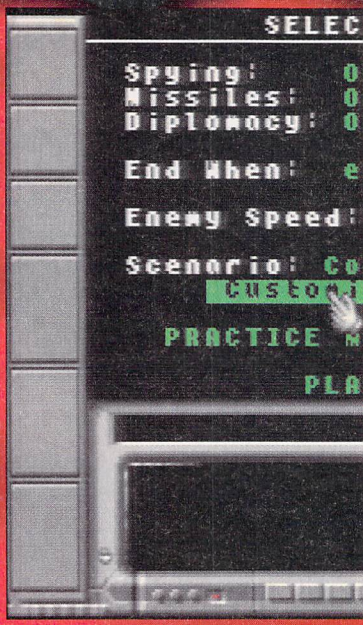
Not only are you on the warpath, but you must still be able to take care of your country's needs. People must still be fed, and you will need to deploy your resources into manufacturing factories, energy supply, food and armaments.

Should you get this important balance of priorities wrong, then your armies could find themselves stranded. This is not a good situation to find yourself in, no matter how good your military strong arm tactics.

There are various pre-set game scenarios, such as the Cold War, the Middle East, and the Far East. You can even play out the Falklands War if the fancy takes you. There is also an option to create your own scenarios. You can select up to eight countries for yourself, and then choose who you want to fight against. Implausible conflicts such as Russia against France are not recommended.

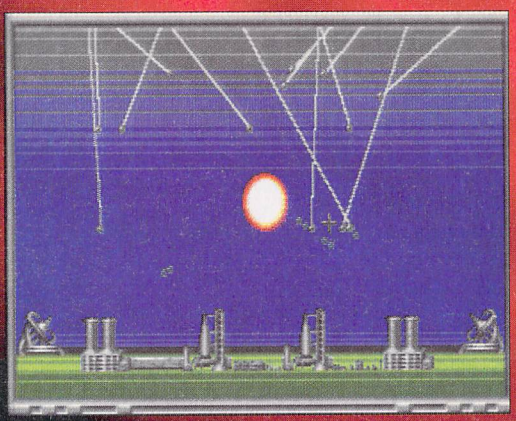
The game is played via a map of the world. This is divided into nine regional maps, which become highlighted when your mouse pointer wanders over them. A four-arrow icon at the side of the screen is used to move around the map.

Click on a specific country or body of water, and a selection of icons will appear on the right-hand side of the screen. From here you can control your missiles, factories, tank and infantry units.



The tank and infantry units are used for attacking enemy territory and defending your own borders. Once the units are moved into an unfriendly country, they cannot be moved until the country is captured or destroyed. Naval units can be moved around the various waters, as they act as a bridge for your land units.

Apart from all-out destruction, there is another side to Final Conflict. At first you start with very little knowledge of the enemy, so information must be discovered by your net-



The arcade section is a direct rip-off of Missile Command, but is nowhere near as good!

These days, 'peace' is a word prominent on every politician's agenda. So, I can only scratch my head and wonder why Impressions have re-released their simulation of power politics and global warfare

FINAL

Cuba has decided enough is enough and plans to chuck a couple of nuclear warheads at the United States. Blimey!

CONFLICT

work of spies, who always run the risk of being captured.

At the moment, you've only touched the surface of war, but the introduction of nuclear missiles shows you exactly what it's like to have control over such a vast amount of power.

The missiles are specifically designed to destroy certain targets in an enemy country. Targets such as power stations and launch sites are defended according to their importance, so there is no guarantee that a missile strike will completely destroy the target. Cue manic grin, because the more missiles you use, the greater chance of success you'll have in destroying the target. Apocalypse now, man!

Final Conflict does have that strategy element to it, but there is also an arcade section to the game. You have the chance to defend yourself when missiles are fired upon one of your countries. This section takes the form of a game very similar to the old classic, Missile Command, although in my opinion, it is a lot harder to defend your bases in this version.

As strategy games go, Final Conflict isn't too in-depth, and thus might appeal to the strategy beginner rather than the expert. The graphics are limited, and they're not likely to make your eyes pop out in amazement, but considering the type of game Final Conflict is, they were never likely to do so anyway.

The only pixels worth mentioning are the various leaders of the different countries, who pop up when you click on their piece of land. The arcade sequence of events isn't likely to impress you either, and unfortunately it doesn't run very fast. The level of excitement that you gained when playing a game of Missile Command is missing, which when all's said and done is a bit of a disappointment.

There is a distinct lack of decent sound effects, so there is no atmosphere to the product either. I was looking forward to playing Final Conflict because I find something strangely appealing about acting out a world nuclear war.

After only a couple of hours I started to tire of the game, simply because actually playing it was quite tedious and slow. I suppose that's what strategy games are meant to be like, but as a whole I don't think this would even appeal to the most ardent strategy buff.

In saying that, I know there are some fans of this type of game. Plus, you have to take into consideration the age of the product, and it's brand new budget price. I could recommend it to someone out there, wherever he/she is, but Final Conflict will not impress the majority of gamesplayers.

Jonathan Maddock

Stab at an icon and you get a map of the whole world. This gives you a larger perspective on just how the war is progressing

Click on a country and the map will zoom in.

Track the missiles using this high-tech computer.

Spies play a very important part in Final Conflict.

VISION ★★★★★★★★★★

AUDIO ★★★★★★★★★★

DIFFICULTY ★★★★★★★★★★

LASTABILITY ★★★★★★★★★★

40%

A good concept, but the game doesn't contain anything that's likely to make you want to run out and buy it. The gameplay teeters between uninteresting and downright tedium, and even the arcade section fails to change this fact.

Publisher ➤ Tactix
Developer ➤ Impressions
Disks ➤ 1
Price ➤ £7.99
HD Install ➤ No
Size ➤ ½ meg

THE UPGRADE SHOP
TEL 0625 503448

HARD DRIVE SYSTEMS

SERIES 9. High quality case with P.S.U., cooling fan, device selector and double SCSI plugs.

	TT/Falcon	STE/STFM with ICD Link II	STE/STFM with Toplink
234Mb	**£289.00**	**£339.00**	**£324.00**
270Mb	**£319.00**	**£369.00**	**£354.00**

SERIES 3. Tower case that takes two drives, with 65 watt P.S.U., cooling fan, double device selector and double SCSI plugs.

	TT/Falcon	STE/STFM with ICD Link II	STE/STFM with Toplink
234Mb	**£319.00**	**£369.00**	**£354.00**
270Mb	**£349.00**	**£399.00**	**£384.00**

HARD DRIVE PARTS

Bare Enclosures

Series 3 .....£115.00
Series 9 .....£85.00

Controllers

ICD Link II £84.99
Top Link Controller £75.00
Falcon SCSI Cable (1 metre) £30.00

Bare Drives

H.P. 234Mb SCSI II £199.00
Quantum 270Mb £239.00

TOS 2.06

TOS 2.06 STE SPECIAL (Switcher manual)
Solderless 'plug-in' installation. Complete with TOS 2.06 manual

ONLY £49.00

TOS 2.06 STFM (Switcher manual)
Fitted at **£59.00** because soldering required for a good installation (can be fitted even if accelerators/emulators already in your machine).

High Density Drive + Controller
Only **£55.00** if bought with a TOS 2.06 upgrade

MISCELLANEOUS

Quality 290DPI replacement mouse £9.99
Trackball.....£29.99
Joysticks from.....£7.99
Disks Box of 10 DSDD.....£5.99
Disks Box of 10 DSHD £9.99
Disks Boxes from £6.99

PC EMULATORS

For the ST and STE
PC SPEED ST, STE £55.00
ATSPEED ST.....£139.00
ATSPEED STE ADAPTOR£29.00

SPARES SHOP

SPARES PARTS SERVICE EXCHANGE

Parts available from stock. Fast delivery of exchange items. If a part is not listed that you require please ring. ALL SERVICE EXCHANGE PARTS COME WITH 4 MONTHS WARRANTY.

SERVICE EXCHANGE
STFM Motherboard.....£45.00
STE Motherboard.....£49.00
Power Supply.....£26.00
Keyboard.....£35.00
Individual Atari IC's.....£CALL

NEW PARTS

Full 12 months warranty. All parts are tested before dispatch.

INTERNAL REPLACEMENT DRIVE KIT

For any ST with INTERNAL drive. High quality mechanism, with standoffs for old STs if required.
1 or 2 Mb drive supplied....£39.99

POWER SUPPLIES

New PLUG IN replacement, includes power switch and mains connector, no soldering required £33.99

REPAIRS AND FITTINGS

Fully trained engineers for a reliable repair. All jobs quoted for individually (no fixed prices). 48 hour turnaround on most machines. Long 4 months warranty as standard. Courier collection and return available for £14.00.

We can fit any of the advertised products to your machine for a one off fitting charge of £15.00. This means that if you require say an upgrade and overscan fitted then the charge is only £15.00.

Please ring for an appointment before bringing your machine or call if courier collection is required. Please ensure all parcels collected are adequately packaged.

The UPGRADE SHOP holds the right to refuse any parts under the SERVICE EXCHANGE scheme where the parts have been damaged by mistreatment however caused. Please ring for details if unsure.

FITTING SERVICE AVAILABLE ON ALL UPGRADES FOR £15.00

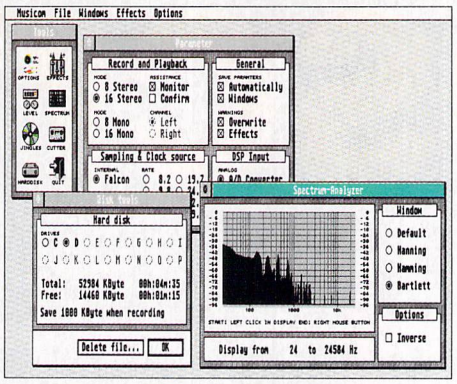
All prices include VAT @ 17.5% but exclude delivery (unless otherwise stated) please see below. Orders can be placed by TELEPHONE quoting credit card details or by MAIL ORDER, please make cheques and postal orders payable to "THE UPGRADE SHOP." 1 year warranty on all products (unless otherwise stated), 4 Months on repairs. Prices subject to change without notice.

Delivery charges: Small items under £50.00 please add£3.00 p&p. Large items and orders over £50.00 add £7.00 courier charge. Courier pickup for Upgrades and Repairs £7.00.

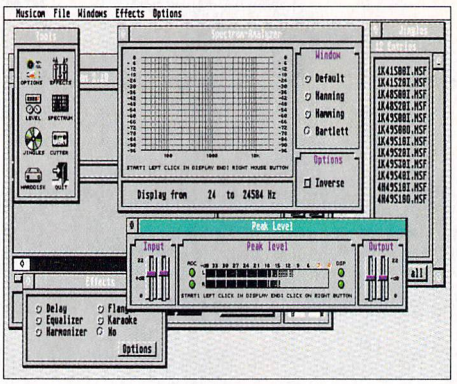
The Upgrade Shop
37 Crossall Street, Macclesfield, Cheshire SK11 6QF

Monday-Friday 9am-6pm. Saturday 9am-5pm.
Technical support: Tues, Wed, Thurs 6.30pm - 8pm
Same day service available for upgrades and most repairs. Please ring before you bring

Access VISA



Musicom's NoLook interface and non-modal dialogues make it a real head-turner



This particular part of the program is the spectrum analyser

Son of Musicom

Andrew Wright gets into home recording with version 2 of Compo's Falcon-only direct to disk sampler

Musicom 2 is billed as the complete sound sample management tool for the Falcon, and is aimed as much at home users as it is at recording studios and others using digital audio. What's more, it has a much enhanced user interface and some powerful features to prove it.

Musicom 2 can record 16 bit quality stereo music direct to hard disk at eight different sampling rates from 8.2 kHz to 49.2 kHz, using the existing Falcon hardware. For the pros it supports add-on hardware such as CD and DAT interfaces for direct digital input/output.

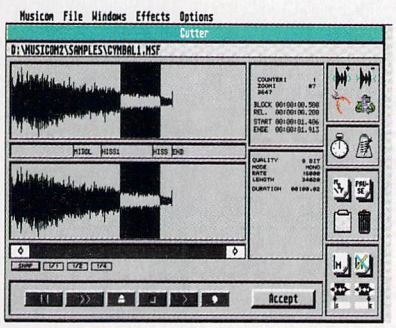
The amount of music you can record will depend entirely on your hard disk – with eight bit mono samples taken at 10 kHz, you can squeeze 100 seconds worth of sound into a megabyte of disk space. But, if you move up to 16 bit stereo sound done at close to 50 kHz, you will only get five seconds worth in the same space.

One nice touch in Musicom is the hard drive information box. This will scan your drive and tell you not only how much free space there is on each partition, but how long a sample you can record using the current settings.

Compo's new program requires very little else to get the most from it. The 40 page manual tells you all you need to get started, and while it is a little out-of-date with respect to the software, it is quite comprehensive, if lacking much in the way of tutorial.

Any sound source can be used, fed in via the Falcon's stereo input jack from a microphone, CD player, hifi or whatever, and played back through the internal speaker or via the output jack to headphones, amplified speakers or the very same hifi. Most music shops and electrical stores should be able to supply suitable leads.

A lot of work has gone into the interface, and the non-modal dialogues make it very easy to use. Basically you can open any or all the dialogues and keep them on screen for reference. Musicom also offers the option of using the Compo NoLook system, which alters the appearance of the dialogues and improves the 3D appearance.



The heart of the machine – the cutter tool

Musicom contains several elements, all of which can be accessed either from the menu bar or the tool dialogue. The options box lets you set up your Falcon's internal and optional external hardware, and select the sample rate, quality, and the number of channels. You can also enable or disable various warnings.

The effects box offers a choice of delay, equaliser, harmoniser, flanger or karaoke, each of which can be applied to sound being played through the Falcon or recorded earlier. Each effect can be tampered with to get the best setting for a variety of weird and wonderful sounds. I wasn't at all impressed with the karaoke, unfortunately, which simply seemed to dampen most of the tracks I tried.

PLAYBACK

At the heart of Musicom lies the excellent cutter facility. This is where you record and playback samples, cut and paste various elements together and construct sequences which can be played back at the touch of a button. Although it uses its own MSF format for sound files, they can be exported in AVR format for use with other programs.

Markers are used for conveniently locating parts of a sample, and they can even be inserted "on the fly" during recording or playback by pressing the space bar. Blocks can be moved around, saved to the clipboard and pasted into other samples with ridiculous ease, and the process is smooth and professional.

Each sample can have a specific tempo or beat assigned to it, and the start of a given marked block can be snapped to the nearest beat, half beat or quarter beat, giving very fine control over the creation of jingles and sound effects. Sequences can be put together and saved, not as a large block, but as an instruction file which allows the samples to be played back direct from the hard disk. Each sample can also be faded in or out, but unfortunately not renamed, which is a sad omission.

Talking of jingles, there is a separate box which allows you to click on a list of samples and play them instantly. This makes it ideal for use on radio or when creating tapes.

Other boxes exist to show the peak recording level, which can be finely adjusted using slider bars, and a spectrum analyser with four different settings. With the latter, you can zoom in on any part of the spectrum and watch the real time display.

Overall, Musicom 2 is certainly a superb looking direct to disk program, and is well worth considering if you want to experiment with sampling or put it to semi-professional use.

BOTTOM LINE

FEATURES
Some brilliant editing tools in a neat looking package
Excellent / Good / Average / Bad / Appalling

EASE OF USE
Superb interface and competent manual make it a joy to use
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
Very reasonable price which won't leave a hole in your pocket
Excellent / Good / Average / Bad / Appalling

Product: Musicom 2.10
Supplier: Compo, Unit 3, Green Farm, Abbots Ripton, Huntingdon PE17 2PF
Telephone: 0487 3582
Price: £79
Configuration: Any Falcon

Subscribe

Subscribing to Atari ST Review means you reap all the benefits of the exclusive treatment you'll receive as a subscriber, and now you can have 13 issues for the price of 12.

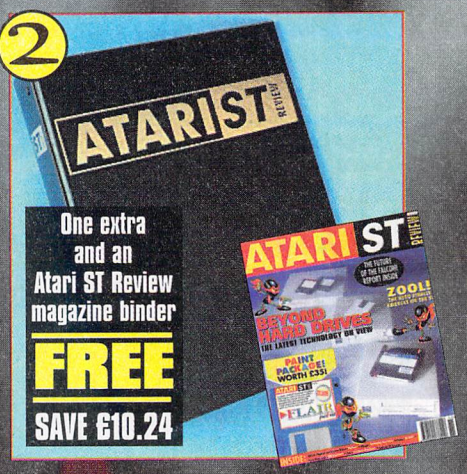
So, you're wondering, what exactly is this exclusive treatment? It's a whole range of things that ensure you get your copies of *Atari ST Review* without any fuss or effort. You can forget about worrying when the next issue is due on sale, as your copy of *Atari ST Review* is reserved and guaranteed. Before most people have even thought about trekking down to the newsagents you'll already have your copy, delivered direct to your home, postage free

As well as any one of the free gifts shown below, our special offer gives you 13 issues for the price of 12. You can spread payment by continuous quarterly direct debit, where you pay just £8.99 each quarter and still receive 13 issues over a year.

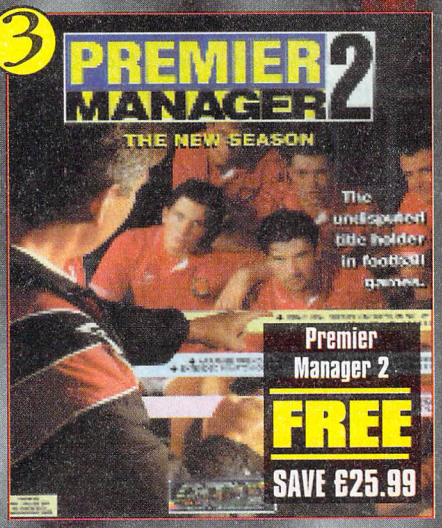
CHOOSE ANY ONE OF THESE FREE GIFTS

1

2



3



4

5

6

to the best value guide to your Atari ST

Continue you Atari ST reading with Atari ST User's sister magazine

ATARI ST REVIEW

For a good read all about ST computing look no further than *Atari ST Review*, where you'll find out about all the new products first. ST Review is hard to beat, especially when it comes to coverdisk exclusives. There've been 20 programs on its coverdisks in the last 12 months, plus lots of exclusive demos and utilities.

You'll find the best parts of Atari ST User there as well, exciting features, unrivalled games coverage and you'll be able to keep in touch with many of Atari ST User's writers as many of them work for ST Review as well! They're all vastly experienced, capable and enthusiastic about the ST as you'll already know.

ATARI ST REVIEW SUBSCRIPTION ORDER FORM

Complete this form and send it to:
Europress Direct, FREEPOST, South Wirral L65 3EB.
(No stamp needed if posted in UK)

Name (Mr/Mrs/Ms/Miss)_____

Address_____

_____

_____

Postcode_____ Daytime Phone_____

● Tick which subscription you want:

UK
- 9500 ☐ 13 issues at *£41.99* ★
- 9503 ☐ 6 issues at *£18.99*
- 9506 ☐ Continuous Quarterly Direct Debit at *£8.99* per quarter ★
  (Over a year you will receive the full 13 issues)

EU
- 9501 ☐ 13 issues at *£54.99* ★
- 9504 ☐ 6 issues at *£26.49*

WORLD
- 9502 ☐ 13 issues at *£54.99*
- 9505 ☐ 6 issues at *£26.49*

● If you have chosen a subscription with a ★ beside it now choose any one of the following *free gifts*:

- ☐ Mouse and Mat
- ☐ One extra issue and binder
- ☐ Premier Manager 2
- ☐ ImageCopy Colour
- ☐ Four free classic games
- ☐ Mortimer

● I wish to pay £_____ by:

- ☐ Direct Debit (Complete the form on the right. UK only)
- ☐ Credit Charge Card Authority (Complete the form on the right. UK only)
- ☐ Cheque/postal order payable to Europress Publications Ltd
- ☐ International Money Order
- ☐ Access/Visa Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiry Date_____ /_____

Complete this section if you have ticked the Direct Debit option.

Signature _____ Date _____

● AUTHORITY TO YOUR BANK/BUILDING SOCIETY TO PAY DIRECT DEBITS QUARTERLY

Name of bank/building society_____

Address _____

_____

_____

Name of account_____

Account No. ☐☐☐☐☐☐☐☐

Sort code ☐☐ ☐☐ ☐☐

Your instructions to the bank/building society/Europress:

I instruct you to pay Direct Debits from my account at the request of Europress Ltd. The amounts are variable and may be debited on various dates. No acknowledgement required. I understand that Europress may change the amounts and dates only after giving me prior notice. I will inform the bank/building society/Europress in writing if I wish to cancel this instruction.

I understand that if any Direct Debit is paid which breaks the terms of the instruction, the bank/building society/Europress will make a refund. Bank/building society/Europress may decline to accept instructions to pay Direct Debit from some types of accounts.

FOR OFFICE USE ONLY
Originator's identifications No. 8 5 1 4 1 2
REF NO. _____

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

Hit viruses for six

Dave Cusick disinfects a few disks with the latest update of the Universal Virus Killer

Over the last few years there has been growing recognition of the serious damage that viruses can cause if they are allowed to copy themselves into the boot sectors of disks, or attach themselves to valuable data files.

There are, according to the blurb on the packaging, over fifty types of virus prevalent on the Atari ST, and as a result most users now have at least one reliable virus killer which they regularly use to check through their disk collection.

By far the most popular ST virus killer, UVK is updated constantly, and this latest version adds a few more viruses to the impressive list that can be detected and eradicated. If by some chance you happen upon a new virus, sending it to the author usually results in the option to identify and remove it being incorporated into the next UVK release.

The most widespread type of virus on the ST is the boot sector virus. This stores itself in memory and infects the boot sector of any write-enabled disks inserted in the drive thereafter. Amongst the most common of these viruses is Ghost. Fortunately this is fairly harmless unless it interferes with commercial game boot sectors. There are those, however, which are much more serious and damaging. UVK can recognise over 70 different boot sector viruses.

SAFE

UVK can also immunise disks, so that once you've checked they are safe, you can ensure that certain viruses never again appear on that disk. If an anti-virus boot sector has been installed by another program, UVK will usually recognise this and not incorrectly identify it as a dangerous disk.

Generally virus killers should not be used on commercial games disks because they can mistake harmless copy protection routines in the boot sector for destructive viruses, and as a result can ruin the disk trying to put matters right.

Fortunately UVK is capable of recognising the boot sectors of literally scores of commercial games. So, if you do find that a commercial disk causes an alert, you can be fairly sure it really is a virus. If the original boot sector has been destroyed then it can often be restored by UVK.

A number of link viruses can also be dealt with. These are viruses which attach themselves to actual files, and can be potentially devastating if not recognised and removed.

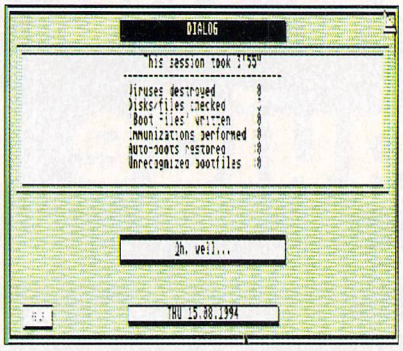
Many so-called "Special applications" can also be spotted. These are programs such as one of the many replacement file selectors, which remain resident in memory and can be mistaken for viruses. UVK can identify the majority of these (over 130 in total), and will not raise the alarm unless it comes across one which it does not recognise.

From the first appearance of UVK, the program has featured the option of operating as a desk accessory. This means that it can be called up from within any program to investigate suspicious disks. The interface is far more intuitive than in previous versions, making the whole program simpler to use.

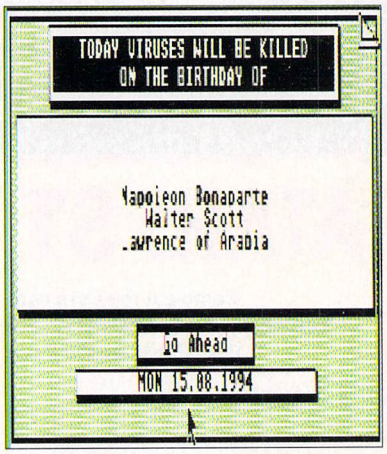
UVK has many tricks up its sleeve, from running on all the Atari machines to being, apparently, the only virus checker able to detect and deal with the Bellstein virus. This malicious fellow masquerades as a standard MS-DOS boot sector, normally indistinguishable from those on disks formatted under versions of TOS from 1.4 onwards. There's no doubt that UVK is the most comprehensive program of its type, and the asking price is fair considering the security and peace of mind that is on offer. Unfortunately however, Douglas Communications still see fit to include the manual in the form of an on-disk document which must be printed out.

There may be those who wish to make full use of UVK but find it somewhat confusing initially. Still, perhaps I am being a little unfair since the program's features are easily accessible and the author has paid considerable attention to producing a fast and effective product.

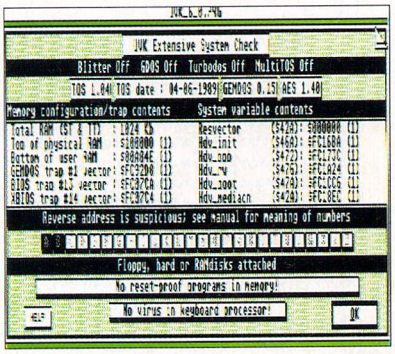
If you still don't own UVK in some recent incarnation then it certainly is what you'd call an essential purchase. By paying slightly more, it is possible to obtain the program plus the next few upgrades. Since one comes out every three or four months, this is an excellent offer which I would strongly advocate taking up.



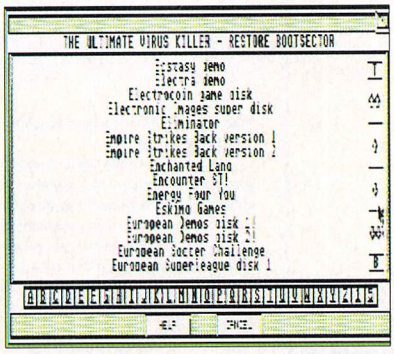
Statistics on everything - that's UVK for you



Just to show you how clever it is, UVK tells you exactly whose birthday it is



On loading, the first thing UVK does is perform a comprehensive set of system checks



UVK recognises a huge range of commercial game boot sectors

BOTTOM LINE

FEATURES
If a virus is out there you can bet that UVK can identify it
Excellent / Good / Average / Bad / Appalling

EASE OF USE
User friendly program interface, but a manual would be nice
Excellent / Good / Average / Bad / Appalling

VALUE FOR MONEY
Complete security, and for less than the price of a new game
Excellent / Good / Average / Bad / Appalling

Product: Ultimate Virus killer 6.0
Supplier: Douglas Communications, PO Box 119, Stockport, SK2 6HW
Telephone: 061 456 9587
Price: £12.99 (upgrade £6.49), or £21.99 to receive the next four upgrades
Configuration: Any Atari, medium or hi-res

APEX media

FOR THE FALCON 030

UNPARALLELED PERFORMANCE
UNRIVALLED FEATURES

© 1994 PCM

IMAGERY
Comprehensive drawing and filtering tools include a soft airbrush and analog masks for superb, fast retouching

VIDEO
Software interface allows the user to capture live video as stills or animation from hardware digitisers such as TITAN Designs' Exposé

ANIMATION
Extensive Deltafilm and direct-from-disk sequence and editing facilities

MORPHING
Simply the fastest and most versatile morphing engine available on a sub-workstation processor

£149.95 inc. VAT from

TITAN Designs Ltd
6 Witherford Way, Selly Oak
Birmingham B29 4AX. U.K.

Tel/Fax: +44 (0)21-414 1630
CIS: 100345,2350
Cheque, VISA, Access or Mastercard

APEX media is © 1994
BLACK SCORPION SOFTWARE

System Solutions

The Desktopper

NEW. A solid metal case to replace the plastic top of ST(FM/e) and Falcon computers. Only **£69.95**
FreeKeys - separates the keyboard from the computer **£39.95**
DeskTopper & FreeKeys **£99.95**

Please phone for more information.

NVDI v3

NEW FOR OCTOBER

NEW features: Enhanced Speedo Support, with the ability to use True Type fonts, Up to 9 times faster than Speedo GDOS v4. Works with all TOS versions on all Atari computers. Comes with 8 Speedo fonts.

Cubase and Notator compatible.

	with NVDI	Separate
NVDI v3		**£49.95**
100 TType Font Pk	**£39.95**	**£49.95**
500 Font CD-Rom	**£49.95**	**£69.95**
Update Price		**Phone**

ST Mono Monitors

The SM14 High Res. mono monitor replaces the Atari SM124/5.
The 14" FST display has a crisp, sharp image. A Tilt & Swivel stand is included. It is a plug-in-and-go unit. No adaptor is required!

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

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

CD-Rom Systems

Falcon System: Sony CD-300+ Drive, SCSI II Cable, & ExtenDOS **£289.00**
ST(FM/e) System: CD300+, Translator, & ExtenDOS **£339.00**
ExtenDOS (CD-Rom Driver) **£29.95**

CD Rom Disks
Lohrum Vol 1 (PD/Shareware) **£29.95**
" Vol 2 (PD/Shareware) **£29.95**
Gemini (Atari PD/Shareware) **£24.95**
Clip Master Pro (ClipArt) **£34.95**
NEW 1.9Gb Mega Archive PD&SW **£24.95**

MiniS - Hard Drive System

The MiniS Hard Drive System comes with drive capacities ranging from 40Mb up to 1800Mb. This full SCSI system is hardware compatible with all Atari computers, Amiga, Mac, PC etc. They are unrivalled in size, noise, speed, and style and come with a thru port for expansion.
It is the only Hard drive awarded an Essential Buy of 92% - **Atari ST Review Christmas '93, and a** Gold Award of 93% - **ST Format Feb. '94**

★ Quiet fan ★ Internal Power Supply 100-240v
★ 2 Year back to base Warranty ★ Small (2.5x6x8.5")
★ Dual SCSI Port ★ Device Number Switch
★ Now with FREE HD-Driver

		TT/Falcon	ST(FM/e)
40Mb	IBM	----	£199
127Mb	Quantum	£229	£269
170Mb	Quantum	£259	£299
270Mb	Quantum	£329	£369
340Mb	Quantum	£359	£399
540Mb	Quantum	£399	£439
1.0Gb AV	8ms	£859	£899
1.7Gb AV	10ms	£1099	£1139

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

Falcon Add-Ons

Falcon Wing 0Mb	**£49.95**
Falcon Wing 4Mb	**£179.00**
Falcon Wing 14Mb	**£ Call**
BlowUP 030 - Software	**£9.99**
BlowUP 030 - Hard 1	**£49.95**
BlowUP 030 - Hard 2	**£69.95**
14" Monitors from	**£99.95**
NEW 15" & 17"IDEK Monitors	**£ Call**
Clarity 16	**£99.95**
Cubase Audio (New V2)	**In Stock**
FDI - Falcon Digital Interface	**£229.95**
FA-8 Falcon Analog Out	**£349.95**

Falcon 030 Systems - 32Mhz

The Falcon is fast becoming the preferred choice for 8 track digital recording, with powerful programs such as Cubase Audio using it to its full potential. The DSP chip opens up a whole new world of Sound and Graphics. System Solutions now supply 32Mhz Falcon 030 computers from stock.
PowerUp2 is a brand new 32Mhz accelerator for the Falcon, available now. PowerUp2 doubles the CPU clock speed and does not take up the internal expansion slot. We supply systems for Music, Desk Top Publishing, Image Manipulation, Animation, Desk Top Video, fax & modem use etc. Please phone for your personal quotation of a tailor made Falcon 030 System.
PowerUp2 kit **£59.95**
PowerUp2 fitted **£99.95**
Falcon 030, 4Mb Memory £599.00
with PowerUp2 fitted £659.00

Communications

Comms Software
CoNnect v2.4x **£29.95**
Includes printed manual and registration

Fax Software (requires Fax Modem)
Straight Fax v2.10 **£79.95**
Straight Fax upgrade to v2.1 **£26.00**

NEW Exchangeable SyQuest Drives
105Mb, 14.5ms Drive, inc. cart **£399.00**
105Mb Cartridge **£59.95**
270Mb Drive inc. Cart. **£599.00**

MagiC - Multitasking Operating System

"It's like running an accelerator and getting the multitasking thrown in for free."
ST User, Feb. 1994

MagiC is a full TOS replacement, a very fast disk filing system; has accelerated serial, midi and printing routines, and is, of course, a true pre-emptive multitasking system.
MagiC Desk, a replacement Desktop and a powerful command shell have been included. **MagiC** runs on all ST, Mega and TT computers with 512Kb, but 2Mb is recommended for a useful working system. The Falcon version is expected later this year.

"If you want a multitasking system that works simply and realiably, then MagiC is for you."
ST Review, June 1994.

MagiC (Intro price)	**£59.95**
MagiC and NVDI v2.5	**£79.95**
MagiC and Kobold	**£99.95**

NB: Excellent with Calamus SL. Compatible with Notator Logic, but not with Notator SL and not yet compatible with Cubase.

Specials

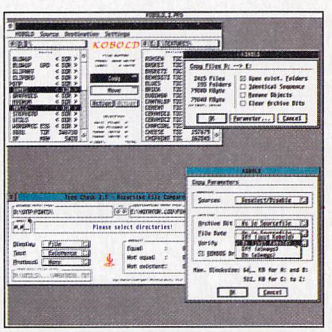
NEW **PC Keyboard** I/F	**£49.95**
T28 Mhz Accelerator	**£179.95**
T28 STe Accelerator	**£199.00**
1.44Mb Floppy Drive Kit	**£69.95**
The Translator	**£69.95**
HDDriver Software	**£19.95**
ICD Link II in Stock	**£89.95**
NVDI v2.5	**£29.95**
Falcon Tower Kit	**£159.95**
Falcon 4Mb, 32Mhz Tower	**£799.00**
Falcon 4Mb, 32Mhz Desktopper	
Ask for details	**£759.00**

Ease

The latest replacement desktop, developed to suit all requirements. It is aware of multitasking operating systems, giving you more control over running multiple programs. Working in colour? Ease lets you place a picture on the desktop, and comes with a colour Icon Editor. Ease integrates seamlessly with Kobold, NVDI and MagiC - Give your computer a powerful new look for 1994.
Ease v3.x **£49.95**

Kobold

Kobold is a high speed file manager. It's unique handling of the Atari file system gives unrivalled speed when copying, moving and deleting files. Copies 1000 files, (10Mb) in 45sec, (GEMDOS 5:35min) Use Kobold for Backups, Formatting Floppies, Move & Copying, Updates, Timed Jobs, etc. It also includes a script learn function to automate repetative tasks. Can be run as an .ACC or .PRG
Kobold 2.5 (Intro Price) **£49.95**



To order or for further information telephone or write to:

Mail Order Telephone
01753-832212

System Solutions,
Windsor Business Centre,
Vansittart Road, Windsor, SL4 1SE
Fax:01753-830344

or come to our London Showroom at:

The Desktop Centre,
17-19 Blackwater Street,
London, SE22 8RS
Tel: 0181-693 3355 Fax: 0181-693 6936

All prices include VAT
For small items, please add £3.50 P&P E&OE
Multiple or large items, please add £10 courier charge.

Repairs and Upgrades

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

Atari Workshop is Atari UK's preferred Service Centre.

Windsor Service Centre:
off Duke Street, Windsor, SL4 1SE.
Tel:01753-818816

London Service Centre:
17-19 Blackwater Street, East Dulwich, SE22 8RS. **Tel:0181-693 1919**

Call the professionals now for your personal quote.

ATARI WORKSHOP

Address your problems

Andrew Wright looks at some of the latest utilities to hit the ST scene

I've just come across a stunning new GEM based address manager that knocks its competitors into a cocked hat as far as looks and feel are concerned.

Address version 1.8e was written by Carsten Setje-Eilers but the manual has been translated by Joe Connor for the CIX Supported Shareware scheme that looks after the likes of GEM-View, Selectric and Everest.

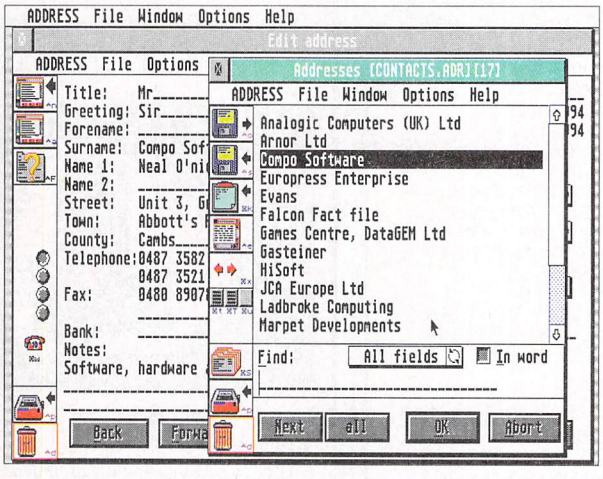
The unregistered version currently doing the rounds of UK BBSs - available from the FaST Club (0602 455250) and Goodmans PD library (0782 335650) - is limited to 50 addresses, and is certainly enough for you to get a feel of the program. Registration is a reasonable £15 for personal use (£22 for commercial use) and this entitles you to the full version and a hypertext manual in ST-GUIDE format.

Address runs as a standalone program or an accessory, and runs on any Atari. However, the maximum number of names and addresses will depend on how much RAM is installed.

The interface is highly intuitive and looks pretty wonderful on the Falcon, making full use of the colour modes. Most actions can be carried out using the icons or the pop-up lists, and it even supports drag and drop internal editing or external drag and drop export under a multitasking environment.

Direct dialling via modem is supported, and the program uses Firstword Plus format printer drivers. This is a sensible move which ensures that most printers are already covered. Import modules are included for several PD databases, including Adimens, Easybase and 1st Address.

This is one of the best address managers I've ever seen, and is well worth tracking down.



On the Falcon it looks even better

ExtenDOS upgrade

ExtenDOS is the definitive software for CD-ROM owners and works on any machine from a basic 520 ST to the Falcon and TT. All it needs is a host adapter such as the Translator or ICD's Link, and a SCSI-2 compatible CD-ROM drive. ExtenDOS is an extension of MetaDOS but it is much more reliable.

The main defects in release 1.1 were a lack of support for multi-session PhotoCD discs and some problems reading others. This has been fixed in version 1.3, and System Solutions, the UK distributors, will upgrade your master disks free of charge. Just send the original disk, a copy of the invoice and return postage.

ExtenDOS Pro should be available with audio CD support and a few other features by the time you read this .

Incidentally, System Solutions are also offering a CD-ROM bundle comprising the Apple CD300 twin speed drive, the latest version of ExtenDOS and Translator for £299. If you're looking for a painless way into the world of CD-ROM, this has to be a good buy.

PhotoCD on the STE

There's more good news for those of you who are thinking of getting into CD-ROM. It's All Relative have just announced a special version of Photo Show Pro, their PhotoCD viewer and converter, for the STE. Naturally true colour display isn't possible, and the images are displayed in 16 colour greyscale in low resolution. However, this is still good enough to get pleasure from watching your PhotoCD slideshow or presentation.

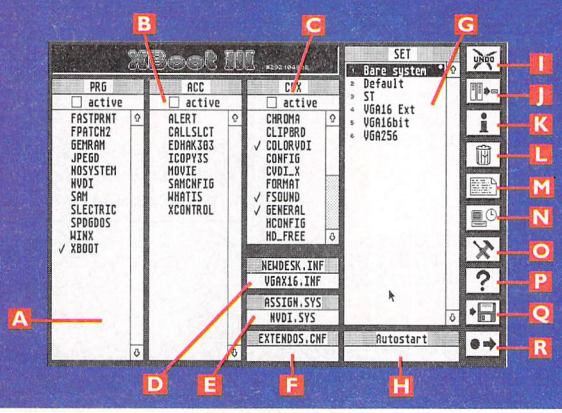
All the other features of the Falcon version are present, including playback of sampled sound, SpeedoGDOS titles on screen, and conversion to or from TIF, EPS and RAW image formats.

Photo Show Pro STE requires an STE/Mega STE with 2 Mb RAM or more, colour monitor/TV and ExtenDOS 1.1/1.3. It costs $39.99 from It's All Relative, 2233 Keeven Lane, Florissant, MO 63031, USA (telephone: 0101 314 831 9482).

XBoot 3

HiSoft's excellent boot manager, XBoot, is a vital utility for getting the most from your Atari. In fact, instead of dreading the thought of a reboot, with XBoot installed it becomes easier than chasing screen resolution!

Figure 1 shows our diagrammatic guide to XBoot, currently at version 3.10.

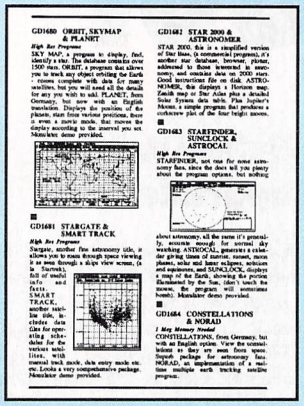


A ...AUTO folder programs (ticked ones are active)
B.....Desk accessories
C ....Control panel extensions
D ....DESKTOP/NEWDESK.INF file to use
E.....ASSIGN.SYS file to use
F.....User definable settings (this is set up for different ExtenDOS CNF files)
G ....User-definable sets
H ....Program to auto-load
I.....Undo last action
J.....Create a new set
K.....Information on a particular set (including name change)
L.....Delete set
M....Batch commands - XBoot has its own simple scripting language
N....System info (and set time and date)
O....Access to XBoot's own file selector and program sorting routine
P.....Help
Q....Save sets
R.....Quit XBoot and continue the boot process

GOODMAN'S Supplying Atari Users For Over Eight Years

Association of Shareware Professionals Approved

Our catalogue is not a simple ABC list of programs, but is over 220 pages of information, with screen shots and descriptions for hundreds of disks of the very best in ST/STE & Falcon P.D. and Shareware.



- **Loose Leaf Format For Easy Updating**
- **Divided Into 11 Main Reference Sections**
- **Complete With Card Index Dividers**
- **Subscription Available For Updates & Amendments**
- **Includes the STOS Source Code Selection**

Discover why thousands of ST users worldwide have, for over eight years, chosen Goodman's for all their Public Domain and Shareware needs.

Send for your copy today

Still Only

£2.95

Inclusive of UK Carriage

Order any 5 disks from the list below for only £9.95 inclusive, and receive a copy of our Shareware Guide FREE!!!

Offer limited to 1 free catalogue per household

GAMES
GD2170 DAVE MUNSIE GAMES
GD2178 TOWERS (2 Disks)
GD2256 WALLS OF ILLUSION
GD2253 TRIYAHOO
GD2267 BLOX
GD2276 SNACMAN
GD2275 DCS Compilation
GD2284 PACMAN ON 'E's
GD2290 MEDIEVAL CHESS
GD2315 STARBALL & PAINTER
GD2352 DARTS
GD2357 FRANTICK (2 Disks)

EDUCATION
GD1883 WEATHER TIME
GD1884 PLAYTIME
GD1888 ALGEBRA
GD2184 ADVANCED FRANGLAIS
GD2248 CLOCKTIME
GD2283 ST GLOBE
GD2176 PICTS TO PARL' 3
GD2293 PICTS TO PARL' 4
GD2296 ROMAN EMPIRE
GD2299 LABORANT PRO
GD2273 KV PHONIC

HOME & OFFICE
GD1601 IDEALIST
GD1672 DB WRITER
GD1673 DB WRITER EXTRAS
GD2064 ROUTE FINDER
GD2175 INVOICE MASTER
GD2255 RECIPE BOX
GD2198 MARCEL WORD PRO
GD2295 HEBREW WORD PRO
GD2291 CAL MUSIC FONT
GD2209 SUPERCARD 3
GD2254 O.C.R.
GD2318 GROCERY LISTER
GD2347 ADDRESS MANAGER
GD2317 EVEREST & GRAMMAR

STOS
STOSSER DISK MAGAZINE
ALL ISSUES TO 18 AVAILABLE

SPECIAL INTEREST
GD1380 MORSE CODE
GD1853 GERMAN TRANSLATE 3
GD2187 FAMILY TREE
GD2251 R.A.E. TUTOR DEMO
GD2271 BATTERY EXPERT
GD2203 ZX81 EMULATOR
GD2205 SPECTRUM EMULATOR
GD2331 ST NEWS 9.1
GD2355 ST NEWS 9.2
GD2250 DATACHESS 2 (2 Disks)
GD2278 CREATIVE TITLES 2
GD2338 BIORHYTHM

UTILITIES
GD2065 LET THEM FLY (English)
GD2120 TERRA DESK 1.40
GD2280 MASTER BROWSE 4.5
GD2129 TWO IN ONE (English)
GD2173 ST ZIP 2.6 & LZH 3.1
GD2188 MOUSE KA MANIA
GD2314 OMEN
GD2326 ICON JUGGLER

TRACKER
GD2259 STORMTRACKER DEMO
GD2286 OCTALYSER STE

GRAPHICS
GD1347 PRINTING PRESS (English)
GD1348 PRINTING PRESS Support
GD2020 CRACKART (English)
GD2035 GEMVIEW 3.05
GD2038 KOZMIC 4
GD2055 KADINSKY
GD2277 ART FOR KIDS DEMO
GD2308 MULTICAD
GD2309 SPEED OF LIGHT 3.5

FALCON
GF71 TOWERS
GF74 ICDRAW
GF79 BACKWARD 2.52 Etc
GF84 GSPOOL & SPEED OF LIGHT
GF82 LAZER 2 DEMO (2 Disks)
GF90 BOOM GAME DEMO

Hundreds of other disks available including Budgie UK

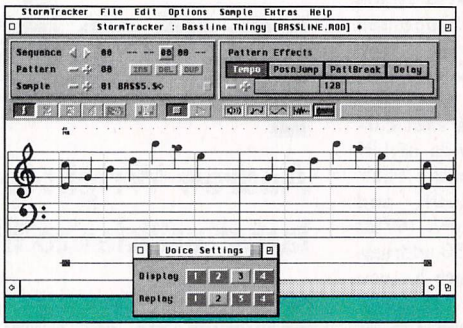
Programmers: For maximum circulation, forward your work direct to Goodman's for inclusion on future catalogue updates.

StormTracker

From ASTRAsoft

NEW

StormTracker is the first MOD editor on any computer to ditch the cryptic code method and allow you to get on with writing your music



- ★ Can use raw, AVR and WAV samples
- ★ Samples Disk Included
- ★ 100 Page Illustrated Manual

For the ST/STe TT & Falcon
(Min 1Mb Memory)

16 Bit sound on the Falcon

Available Now for ONLY

£24.95

Art For Kids

From Moving Pixels

NEW

Designed with the help of Children, Parents and Teachers. An Entertaining, Educational, and Productivity Tool all in one great package.

- ★ Crazy Sound Effects
- ★ Built-in range of Stamps
- ★ Hidden screens, and much, much more

For the ST/STe TT & Falcon
(Min 1Mb Memory)

Not compatible with STFM

Available Now for ONLY

£24.95

AVAILABLE NOW

The MODULATOR
The Commercial High Res Emulator for ST & STe
Only £9.95

AVAILABLE SOON

VIDEO SUPREME 2
The follow-up to the popular version 1, with more features and loads of new effects

TOWERS 2
For the Falcon only, with full screen scrolling, professionally produced sound and graphics

OTHER TITLES

Mobsters City, Degas Art 2, Club Dominoes, Video Supreme, Screen Maker, plus our own MicroMagic Budget Software Range

BLANK 3.5" DISKS

GOLDMASTER BULK
FULLY GUARANTEED

Qty	DD	HD
10	£4.95	£5.95
50	£19.00	£27.50
100	£36.00	£49.95

Labels Included

All Prices include UK carriage

Goodman's (Dept STU)
16 Conrad Close, Meir Hay Estate, Longton,
Stoke-on-Trent ST3 1SW.
Tel: 0782 335650 Fax: 0782 316132

Caught in the Net

Steve Gold brings glad tidings for Internet users

Demon Internet, the London-based Internet service provider, has reached the end of an exhausting summer which has seen it roll out its dial-up nodes across 11 Points of Presence (PoPs) throughout the UK.

The expansion means that many more areas now have local call access points for Demon. And it still costs just £10 a month for all the Internet services you can access.

According to Cliff Stanford, one of the co-founders of Demon, the service now has 270 access ports around the UK. These service the company's 9,000 (and growing) subscribers. Stanford told me that a further 1,000 subscribers are signing up every month, mainly due to the fixed price of its services.

LOW COST

"What we are offering is a low cost method of accessing the Internet using full SLIP services, and with prices starting from £10 per month. Unlike some of the competition, we remain committed to offering a ready supply of access ports for our subscribers."

Stanford admitted that in recent months, Demon has been clogged up with too many subscribers chasing too few access ports. That situation has now changed: "It was a problem, but one we have solved in recent months.

We have 192 ports in London and I have another 160 high speed modems on order for coping with demand in the coming months," he said.

Demon has now reached agreement on peering with the Joint Academic Network (JANET) in the UK, and has ordered a 38,000 bps leased line for access to the ULCC JANET system. Once implemented, the JANET link will allow rapid transfer (FTP/Gopher) of files directly from JANET, without having to route through Internet host networks. Meanwhile, down in Southampton, a new Internet service provider, Sonet, has been formed. Chris Cain, the co-founder of the service, explains: "Sonet was created to help people on the South Coast of England gain low-cost access to the Internet, without having to call London.

"One of the things I've found about living in Southampton is how incredibly London-oriented the Internet scene is, as far as direct (Slip) full Internet access is concerned. That's a trunk call from here, so opening a local Internet service provider makes sense."

Sonet has two 64,000 bps data channels into Eunet, one of the UK's main Internet network service providers.

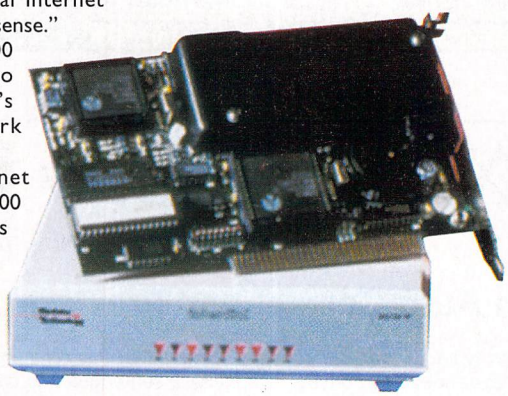
At the moment, Sonet has ten high-speed (28,800 bps) dial-up modems available for the public, but more will be added, including an ISDN connection, if and when required.

Sign-up to Sonet costs £25, plus £15 per month ongoing subscription. For that monthly fee, subscribers get 20 hours of free access. Extra time costs £1.00 per hour. Cain said, "We decided not to go for the 'all you can eat' flat rate contracts, as that can clog the ports up.

This tends to happen on some other UK Internet services. We think that 20 hours will cover 95 per cent of possible users' needs, and the remainder can pay as they incur extra usage." Cain added that he has no plans to offer regional Points of Presence for Sonet, owing to the high cost and the fact that such facilities are already available through other service providers.

"What we offer is full Slip access to the Internet on the South Coast at a sensible price," he confirmed.

Cain has ambitious plans for Sonet: "We're located around 300 yards from the university, and I'm hoping to establish a leased line allowing us high-speed access to their networks, including Janet. If I sit at a Sun workstation at the University, I can download several tens of megabytes in a few seconds. It's that fast.



ACCESS

"If I can extend such facilities to Sonet users, then this will mean extremely high speeds of access to all callers. They can then make full use of the very high bandwidth available on V.FC/28,800 bps modem links."

To get the most out of these Internet services you'll need a fast modem, and I'm happy to report that prices have been plummeting in recent months. Aldermaston-based Electronic Frontier appears to be the lowest-cost supplier of approved modems at the moment, but I stand to be corrected on this. Their new range of modems starts at just £58 for a 2,400 bps desktop unit, and rise to £299 for a 28,800 bps PC card or stand-alone affair.

"We think these prices are pretty impressive, especially since they're for approved products," explained David Bridson, PR spokesman for the company.

MODEM

Electronic Frontier has been quietly carving out a name for itself on the direct modem sales front. The company recently launched a 14,400 bps business audio modem at £179 from Zoom, although this unit was not approved.

The high-end modems in the new range support both V.42Bis and MNP Class 10 data compression, and error correction. The 28,800 bps modems, which work to the V.FC interim high speed modem standard will be upgradeable to the full International Telecoms Union (ITU) V.34 standard later this year.

More information

Aladdin Systems... 0703-397518, Modem... 0703-383799
Email on the Internet... chris@aladdin.co.uk or info@aladdin.co.uk

Electronic Frontier... 0734-810600

Demon Internet... 081-349-0063
Email on the Internet... demon@demon.net

Steve Gold... sgold@cix.compulink.co.uk
76004.3451@compuserve.com
Fax: 0742-686900

Demon service

Demon has a number of help files for its service. These will be of interest to Newsbytes readers, both at home and abroad, who may already be accessing the Internet across other systems. These files are accessible using FTP and/or Gopher facilities across the Internet as follows:
.../pub/doc/Services.txt... A list of Demon services and prices
.../pub/doc/Demon.txt... Background info to Demon and logging on instructions
.../pub/doc/POP3.txt... POP3 mail server information
.../pub/doc/WWW.txt... World Wide Web services

COLOUR KITS for MONO PRINTERS

Ever wished you'd bought a colour printer instead of a mono one? Wouldn't it be nice to print out pictures in colour? Now you can with Atari "FlexiKolor Kit". Each Atari FlexiKolor kit comes complete with everything you need to print in colour, including superb software. The colour kit is simple to use, the ribbons fit exactly the same way as your black ribbons so it will not affect your guarantee. Also on all models listed below paper alignment is automatic, you do not have to manually align. PRINTS AS GOOD AS COLOUR PRINTER. If your printer is not listed below please phone. Atari FlexiKolor kits for Star LC10, LC20, all Star 24 Pin. Panasonic 1080/81/1123/1124. Epson FX80, LQ100, LQ400, LQ800 etc. Citizen 120D+, NEC P6, P6+, Seikosha 1900+. Please note colour kits come complete with coloured ribbons and software. **COMPLETE KIT £39.95**

FLEXIDUMP PLUS 3

THE COLOUR SOFTWARE FOR YOUR COLOUR PRINTER

NO MORE BANDING!
NO MORE WHITE LINES!

Yes it's true the new Plus 3 will remove banding and white lines from dot matrix & bubblejet printers. Now you can have deskjet quality on dot matrix and bubblejet printers.

- ★ Balance control for picture enhancement
- ★ Select area to be printed
- ★ Select size to be printed
- ★ Page control
- ★ Colour sieve
- ★ Ink correction
- ★ Automatic poster mode for larger than A4
- ★ Gamma correction (fully adjustable and saveable)
- ★ Spooler for colour letterheads etc
- ★ Imports a large range of file types including (IMG) larger than screen size, tiny, Spectrum 512, IFF, Degas, Neo, IFF (Amiga), HAM (Amiga) yes you can even print Amiga pics.
- ★ Colour separation (Print colour on your Bubblejet/Deskjet)
- ★ Ideal for T-shirt printing
- ★ Now with anti aliasing, to get rid of those jagged edges
- ★ Large range of dithering (dot pattern) modes
- ★ Run in any resolution, view, manipulate and print in any other resolution
- ★ Colour catalogue function will print a miniature of each picture configurable between 1 to 8 across
- ★ Will drive 9 or 24 pin Star, Citizen Swift, Panasonic, NEC, Epson, Canon, HP Deskjet 500C, 550C, Laserjet etc

STILL ONLY £39.95 inc

UPGRADE FLEXIDUMP TO FLEXIDUMP PLUS 3, ONLY £14.95 inc. RETURN MASTER DISK

T-SHIRT PRINTING RIBBONS

PRINT ON NORMAL PAPER IRON ON T-SHIRT

4 Colour Citizen Swift	£29.95
4 Colour Citizen Swift (Reload)	£14.95
4 Colour Star LC10	£14.95
4 Colour Star LC200 9 Pin	£19.95
4 Colour Star LC200 9 Pin (Reload)	£12.95
4 Colour Star LC200 24 Pin	£29.95
4 Colour Star 24 Pin (Reload)	£14.95
4 Colour Seikosha SL95	£29.95
4 Colour Seikosha SL95 (Reload)	£14.95
1 Colour Citizen 120D/Swift	£11.95
1 Colour Star LC10	£11.95
1 Colour Star LC200 9 Pin	£11.95
1 Colour all Star 24 Pin	£11.95
1 Colour Epson FX80/LQ400/MX80	£11.95
1 Colour Epson LX80	£11.95
1 Colour Epson FX100	£11.95
1 Colour Panasonic KXP 1080	£11.95
1 Colour Taxan/Canon 1080A	£11.95
Heat transfer Pens 5 large red/orange/yellow/green/ blue, Large pens have a marker size nib	£14.95 a set
Heat transfer Pens 5 small red/orange/yellow/green/ blue, Small pens have a fine nib	£12.95 a set
"TRANSFERLAQ" for putting prints onto ceramic, glass, aluminium etc. (for use with T-Shirt ribbons and inks)	£14.95

This is only a small part of our range.
Please phone for other printer types

How to order: Enclose cheques/PO made payable to:
CARE ELECTRONICS or use Access/Visa
ALL PRICES INCLUDE VAT AND CARRIAGE
Order Line 0923 894064
CARE ELECTRONICS
Dept STU, 15 Holland Gardens, Garston, Watford, Herts, WD2 6JN.
Tel: 0923 894064 Fax: 0923 672102

PRINTER RIBBONS

Don't throw away your plastic printer ribbon cases when the ribbon wears out. Just take the top off, take out the old ribbon and reload it with a new one. It's simple. Full instructions supplied. Black reloads from as little as 99p each.

COLOUR PRINTER RIBBONS

Reloads for:-

Star LC200 9 Pin 4 Colour (Normal Ink)
1 Reload – £5.99.....5 Reloads – £23.95
Star 24 Pin 4 Colour (Normal Ink)
1 Reload – £6.99.....5 Reloads – £29.95
Citizen Swift ABC 4 Colour (Normal Ink)
1 Reload – £6.99.....5 Reloads – £29.95
Panasonic KXP2180/2123 4 Colour (Normal Ink)
1 Reload – £6.99.....5 Reloads – £29.95
Seikosha SL95 4 Colour (Normal Ink)
1 Reload – £6.99.....5 Reloads – £29.95

Ink ribbons also available in Gold, Silver, Magenta, Orange, Purple, Brown, Green, Blue, Red for a wide range of printers.
Special re-ink for Panasonic printers, Star LC200 9-pin, Epson LQ100, OKI 182-390, black bottle will re-ink 100+ ribbons..£9.95

NO MESS INK REFILLS FOR HP DESKJET PAINTJET AND CANON BUBBLEJETS

"CARE THREE PACK" will refill HP51608A Cartridge 3 times. The Canon BC-01/SJ48 Cartridge 3 times. Three Pack available in Yellow, Magenta, Cyan, Red, Blue, Green, Brown, Purple, Black **£14.98 each.**
"TRI-COLOUR PACK" 3 refills of Yellow, Magenta and Cyan **£17.95.**
"CARE SIX PACK" will refill HP51608A Cartridge 6 times. The Canon BC/01 Cartridge 6 times.
6 PURE BLACK REFILLS ONLY £24.95
Please state type when ordering
Print Head Recovery Fluid for unblocking inkjet/bubblejet cartridges, 18ml bottle £5.95

PROTEXT 6.5 at new Low Price £74.95

Professional Word Processing for your Atari

Now with Auto-Correct and Preview

Auto-Correct
* Learn from your typing errors and next time correct them automatically
* Abbreviations expanded as you type * Capitalises sentences and proper nouns

Preview
* Shows a full page just as it will appear * Works in any screen mode
* Shows different size fonts, bold, italic, underline, sub/superscript and graphics

Features
* Unrivalled printer support including PostScript (over 400 printers listed)
* Fast spelling checker and thesaurus * Graphics import and viewer
* Flexible find and replace function works across multiple files * Hyphenation
* Styles with scalable font and colour support (printer permitting)
* Index/contents * Footnotes * Indent tabs * File sort/conversion * Add column
* Multi-column printing * Up to 36 documents open * Programmable mail merge
* Compatible with Falcon 256 colour mode and graphics card

Value
* Last year Protext cost £152.75. Today, though it is better than ever, it can be yours for just **£74.95.** Upgrade prices are also down - see below.

"The most powerful word processor for the ST ... leaves the competition gasping" ATARI ST USER, Oct 1994
"Builds on its predecessor's impeccable reputation" ST REVIEW, Oct 1994 (90% overall)

Protext 6.5 £74.95

For Atari ST, TT, Falcon. 1Mb required. (Also Amiga, PC).

Do you have an earlier version of Protext to upgrade? Perhaps you originally tried a cover disk and now have version 4.3. You can take advantage now of the lowest ever upgrade prices. For these prices you get the full program and benefits as described above. Call 01733 68909.

Protext 6.5 Upgrades: From 6.0 **£29.95** 5.5 or 5.0 **£39.95** 4.3 or earlier **£49.95**

Exfile, the Magazine for Protext users

Exfile is now the essential read for all Protext owners. Relaunched and being edited by Arnor, Exfile includes:

* Authorative articles by the programmers of Protext
* Contributions by knowledgeable Protext enthusiasts
* Readers' technical queries answered
* Protext discussion forum
* Hints and tips about using Protext
* Programs and macros
* Ideas to help you make the most of your printer

6 issue subscription costs only **£16**

Back issues **£3** each.

"The Protext Companion"

New Protext tutorial book by Alan Bradley (Sigma Press) **£15.95**

ARNOR

Arnor Ltd (STU), 611 Lincoln Road, Peterborough, PE1 3HA. Tel: 01733 68909. Fax: 01733 67299

All prices include VAT, postage within U.K. (Europe add £5, elsewhere add £10). Access/Visa accepted. Cheques payable to Arnor Ltd.

Perfect curves

Günter Minnerup continues his introduction to scanning with a discussion of gamma curve greyscale correction and gives you the low-down on registration and crop marks

Scanners are often bundled with retouching software, but if you buy one without, your next purchase is bound to be something like DA's Picture, DA's Repro, Chagall or Studio Photo. These wonderful boxes of tricks allow you to turn your ST into a digital darkroom – editing photos to improve their quality, cutting out unwanted background, or entering the world of photomontage.

There is only one problem: how do you make sure that what you see on screen is what you get on paper; that the trickery you perform on your computer yields the desired results?

There are several important things to keep in mind here. The journey from the original scanned material to final printed output covers a number of stages where technical problems interfere with the reproduction process.

NEUTRAL

First of all, the scanner itself. You would have thought that neutral settings for brightness and contrast in the scanner software would give you the closest approximation to the original image. However, some models have built-in correction factors, meaning that you have to actually reduce brightness if you want the raw scan data. This is the case with the ever popular Epson GT scanners.

I always set the brightness on mine to – 1, because I like to take the raw data as the starting point of my own editing work. You can always turn on the brightness again in the retouching software of course, but the question then is by how much? This is where other problems come into play.

The printing process tends to darken pictures, and turning up your monitor brightness controls cannot properly compensate for this. The effect is always uneven, concentrated in particular on the mid-range grey tones between the very bright and the very dark areas of the picture.

On laser printers, it is the light areas that are darkened and the dark areas that are lightened.

GAMMA

The only answer to this lies in the input-output or gamma curves, which all good retouching programs provide and which let you automatically redistribute the grey densities when the file is saved or printed.

The precise curve needed has to be determined by a process of trial and error, but as a rule of thumb, the curve illustrated on this page provides a starting point for imagesetters and a typical 120lpi screen.

Another problem is the monitor, of course. Much has been written in the specialist press about monitor calibration, but for greyscale monitors and pictures, you can keep things simple by taking advantage of the fact that the monitor also displays an image darker than it actually is.

Unless you have very exacting quality requirements, it is therefore often sufficient to use the output correction curve for the screen display as well.

Load the picture and apply the correction curve, making sure that the modification of its tonal values becomes part of the actual data rather than just the display, and the appearance of the image should now be too light. Adjust the monitor controls so that the display resembles the original again, and start editing. This rough-and-ready calibration should at least insure you against really disastrous surprises when your bromides are returned from the output bureau.

All this of course applies only to owners of greyscale monitors processing greyscale pictures. Colour images present special challenges, about which more will be written next month.

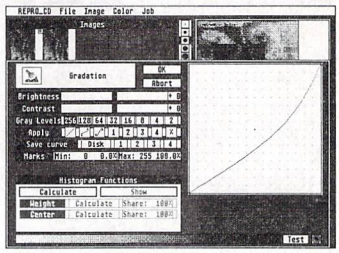
Most DTP software makes provision for including crop marks and registration marks in your documents. However, many users unfamiliar with the printing side of things make no use of this feature. These unassuming little symbols are rather useful though.

Registration marks help ensure that colour separations "register" or overlap accurately, but I usually include them even in monochrome work, as they can also double up as guides to the precise centre of a page.

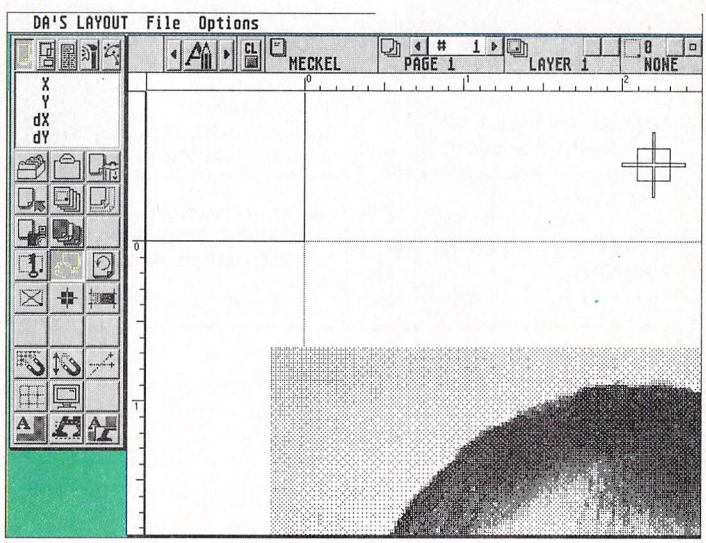
Crop marks, as the name suggests, indicate where the page should be cut by the printer. They are absolutely essential when you want your pictures to "bleed" over the margin – as cutting isn't always terribly accurate, it is advisable to position the images a few millimetres beyond the crop lines for safety.

If your software does not offer registration or crop marks, it is easy enough to knock up suitable vector drawings yourself. You can then place these on your master pages so that they are automatically reproduced on every actual page.

For obvious reasons, both types of marks must be positioned outside the page area, or you'll find that your page numbers have unexpected company!



A fairly typical gradation or "gamma" curve to correct grey tone values - especially in mid-range - to compensate for the differences between monitor and print media



DA's Layout is one of the DTP packages offering registration and crop marks. Note how the picture is carried slightly over the crop line to ensure a proper bleed, even with inaccurate cutting

Tip of the month

Pinching images from sources such as magazines and books, apart from inviting trouble with the laws of copyright, also has technical pitfalls. As these images have already been screened, they effectively consist of many small dots which, when going through the process of rasterisation again, often generate unpleasant patterns known as moirees – especially at higher imagesetter resolutions.

To minimise such problems, avoid sharpening the picture in your retouching software, as this will emphasise moirees. Also try scanning the image again at a slightly reduced scaling factor. This is often enough to eliminate the pattern resonances which cause the dreaded moirees.

£1.25 a disk MERLIN £1.25 a disk

TEL/FAX: 0453 882793

Merlin can now offer not only cut-price hardware but cut-price software to you – the ST public.

Jaguars at £225 inc p&p

Rock and Roll Clams £14.50 inc. p&p

Muzzy: £4.50 inc. p&p

UVK 6.0: £12.95 inc. p&p

Reflex Action: £6.50 inc. p&p

Stark Raving Bonkers: £9.50 inc. p&p

PHONE NOW FOR YOUR FREE DEMO OF THE GAME **OBSESSION.** ALREADY THE HOTTEST GAME ON THE STE.

Merlin can offer this game for only **£24.95 inc. p&p.** The first 100 orders receive a free three disk PD pack, especially for the STE.

Remember: This game pushes back the frontiers of STE gaming. Not for those who need their sleep, this game is addictive.

We stock the popular **STOSSER** disk magazine. Issue 18 available now.....**£1.25**

ST Handbook, the popular printed magazine for all PD enthusiasts. Contact us for the latest issue .**£2.50**

AUTHORS - Send us your programs for review and possible inclusion in our catalogue. All disks will be acknowledged and tested.

Catalogue:- Available for only £1.00, a disk with screen shots or a 44-page paper version crammed full of information.

PLEASE USE COUPON BELOW TO ORDER

DISKS OF THE MONTH

LICENCEWARE:-

LS001 - **Mini C-a-B Merlin Exclusive.** A programmable database similar to dBase on the PC. Highly Recommended - 2 disk set only .**£6.00**

FF001 - **STORM** This well reviewed shoot-'em-up is available from Merlin. State STE or ST.....**£3.00**

MM001 - **SOLAR WAR** - This is Exclusive to MERLIN and is an excellent shoot-'em-up **£3.00**

Public Domain and Shareware:

MPD1914 - **Towers** - The successor to the Dungeon Master crown, combines sound and graphics....**£2.50**

MPD2118 - **Starball** - The PD Pinball sim, not as good as OBSESSION though.....**£1.25**

MPD2120 - **ST Beermat** - An excellent disk magazine with lots of articles **£1.25**

LICENCEWARE:-

OCL1 - **DEAD OR ALIVE.** A humorous text and graphic adventure game.....**£3.00**

OCL4 - **STONE COLD SOBER.** A text and graphic drinking adventure game with witty interludes relaunched at the cheaper price of **£4.00**

RE002 - **CONQUEST 1 MEG ONLY** Variation of Populous **£3.00**

SS003 - **GAMES PACK** - A compilation of three games which are amusingly funny **£3.00**

ART - **Artist Freehand.** A good art package.....**£2.50**

NB011 - **Ziggy.** An excellent strategy game for 1 or 2 players.....**£3.00**

SES05 - **All Blocked Up** - Tetris grid to introduce maths to youngsters. For children, V.Good.....**£2.95**

We also stock the full **Shoestring Educational Software** ranges of licenceware at £2.95 each.

Public Domain and Shareware £1.25 each

MPD1911 - **Marcel** - A powerful text editor which has lots of features.

MPD1902 -**Walls of Illusion** - Great Dungeon Master clone. Great graphics and gameplay. **1 Meg**

MPD1508 - **Aliens** - A strategy game in which no-one can hear you scream.

MPD1862 - **Utopos 1.5** - Shoot-'em-up. BRILLIANT.

MPD0988 - **StarTrek** - Yes back again. This 25th anniversary diskmag is so popular we can't stop it.

MPD2037 - **Octalyser** - 4-8 track sound studio in the PD. Both Falcon and STE. Great for Musicians.

FALCON SOFTWARE • FALCON SOFTWARE

MPD2024 - **Plastik Vibrations.** The mega demo for the Falcon. One disk onto FIVE disks.

MPD2034 - **PhotoChrome v4.0.** The ultimate in graphic manipulation.

FALCON PD IS SUPPLIED ON DD NOT HD DISKS.

Please send me the following disks:

No. ..... No. ..... Name.....

No. ..... No. ..... Address.....

No. ..... No. .....

No. ..... No. .....

Disk/Paper Catalogue Yes/No .....

(please send £1) ..... Postcode .....

I enclose cheque/P.O. for £.....

Merlin PD, PO Box 77, Stroud, Glos. GL6 9YD

EVERGLADE

68 Telford Street, Inverness, Scotland IV3 5LS

Tel/Fax: 0463 240168

ATARI ST BUDGET SOFTWARE

1943 .....£6.99
3D Pool D/S £8.75
Action Fighter £6.99
Addams Family £8.75
Another World D/S (1Mb) £12.95
Battlehawks 1942 D/S £12.95
Beyond the Ice Palace £3.99
BSS Jane Seymour £6.95
Bubble Dizzy £6.99
Bully's Sporting Darts £8.75
Cadaver/Play Off D/S (512k) £12.95
California Games 1 .....£6.99
Skateboarding / Foot Bag / BMX Bike Racing / Surfing / Roller Skating / Flying Disk
California Games 2 D/S £8.75
Bodyboarding / Hand Gliding / Jet Surfing / Snowboarding / Skateboarding
Captain Dynamo £6.99
Carrier Command £8.99
Chuck Rock £11.69
Commando £3.99
Conqueror £6.99
Continental Circus D/S £4.99
Crackdown £6.95
Cruise for a Corpse D/S (512k) ...£12.95
Cybercon 3 D/S (1Mb) £10.95
Dizzy Panic £6.99
Dizzy Prince of The Yolk Folk £6.99
Dogs of War £3.99
Dragon Spirit £4.99
Dragons of Flame D/S £6.99
F-15 Strike Eagle II D/S (1Mb) £14.95
F-16 Combat Pilot £8.75
F-19 Stealth Fighter £14.95
F-29 Retaliator £11.40
Face-Off Ice Hockey £8.75
Falcon £8.99
Falcon: Operation Firefight £8.95
Fantasy World Dizzy £6.99
Fernandez Must Die £4.99
Fighting Soccer £4.99
Final Assault £4.99
Finale: 4 Games £7.95
Fire & Brimstone £8.75
Fire & Forget £8.99
First Division Manager £6.95
Flimbo's Quest £8.79
Forgotten Worlds £6.99
Fun School 2 6-8, -6, +8 yrs £6.99
Future Wars D/S £11.79
Gauntlet II £6.99
Gemini Wing £4.99
Ghouls & Ghosts £6.99
Go For Gold £8.75
Graham Taylor £8.75
Gremlins 2 .....£5.99
Gunship (512k) £11.40
Hard Drivin 2 .....£8.75
Heroquest £8.75
Hoyle's Book Of Games Vol 1 & 2 .....£11.29
Ikari Warriors £3.99
Impossible Mission 2 .....£6.95
Indiana Jones & Last Crusade (Arcade game) £6.95
Indiana Jones & Last Crusade (Graphic Adventure) D/S £12.95
International Soccer Challenge £8.75
Italy 1990 .....£6.95
Jack Nicklaus Golf £6.99
James Pond £6.99
Kids Rule OK £12.95
King's Quest 1 .....£12.95
King's Quest 2 .....£11.39
King's Quest 3 .....£13.95
King's Quest 4 .....£14.95
Kixx Triple Pack 1 (Sports) £19.95
Kixx Triple Pack 2 (Action) D/S £19.95
Street Fighter / Indy Jones & Last Crusade / Rick Dangerous 2
Knight of the Sky (XL) D/S (1Mb) .£14.95
Last Ninja 3 .....£8.79
Led Storm £6.99
Legend - Classic £8.99
Leisure Suit Larry 1 .....£12.95
Leisure Suit Larry 2 D/S £12.95
Leisure Suit Larry 3 .....£11.95
Lethal Weapon £8.75
Locomotion £4.99
Loom (XL) £12.95
Lotus 2 - Turbo Challenge £8.75
Lotus 3 .....£8.99
Lotus Esprit £8.99
Lure of the Temptress £12.95
M1 Tank Platoon £12.95
Magic Boy £21.95
Magicland Dizzy £6.99
Manchester United £8.79
Manchester - Europe Champions ..£8.99
Maniac Mansions £11.95
Matrix Marauders £4.99
Mega Twins £8.75
Mercs £8.75
Microprose Soccer £6.95
Midwinter £11.49
Midwinter 2 Flames of Fire £14.95
Mig-29 .....£11.39
Millenium 2.2 .....£4.99
Moonwalker £6.95
Murder £8.75
Night Shift £11.29
Ninja Remix £8.79
Operation Harrier £8.75
Operation Stealth £12.95
Oriental Games £8.79
Outrun Europa £8.79
Panza Kick Boxing £8.79
Parasol Stars £8.79
Pinball Magic £8.79
Pirates (XL) £11.95
Pixie & Dixie £8.75
Police Quest 1 .....£14.95
Populous - Promised Land £11.95
Powermonger £12.95
Prehistorik £8.79
Prince of Persia £6.99
Pro Tennis Tour £6.99
Pushover £8.79
Putty £8.99
RBI 2 .....£6.99
Rick Dangerous £6.99
Rick Dangerous 2 .....£8.79
Risky Woods £11.49
Robin Hood £11.29
Robin Hood - Legend Quest £6.99
Robocod £8.79
Robocop 3 .....£11.29
Rodland £8.79
Saint & Greavsie £4.99
Savage £8.79
SCI (Chase HQ II) £8.79
Scramble Spirits £4.99
Secret of Monkey Island D/S (1Mb) £14.95
Seven Gates of Jambala £4.99
Shadow Dancer £8.95
Shadowlands £8.79
Shoot 'em up Construction Kit £8.79
Simulcra £8.79
Skidz £6.99
Space Crusade £8.79
Space Quest £11.79
Speedball II D/S (512k) £8.79
Spellbound Dizzy £6.95
Spitfire 40 .....£4.99
ST Dragon £6.99
Starglider 2 D/S £8.79
Streetfighter £8.79
Streetfighter 2 D/S (1Mb) £12.95
Strider £6.95
Strider 2 .....£8.79
Strike Fleet (Platinum Edition) £11.95
Striker £8.79
Stunt Car Racer £6.95
Super Monaco G.P £8.79
Super Space Invaders £8.79
Supercars II £8.95
Switch Blade II £6.95
Swiv £8.79
Tennis Cup 2 D/S (512k) £8.75
Terminator 2 .....£6.99
Test Drive 2 - The Duel £6.99
The Immortal £11.39
The Simpsons £8.95
The Story So Far £7.99
Beyond the Ice Palace / Buggy Boy / Battleships / Ikari Warriors
Thomas the Tank Engine 2 .....£11.79
Toki £8.79
Treasure Island Dizzy £4.95
Trivial Pursuit £6.95
Turbo Cup (with FREE Porche model car) £6.99
Turbo Outrun £6.95
Turrican £6.95
Turrican 2 .....£6.95
Tusker £6.95
Ultimate Darts £6.95
Utopia £8.95
Weird Dreams £8.95
Windwalker £4.99
Winter Gold £12.95
Winter Olympiad £4.99
Ski Jumping / Bobsleigh / Biathalon / Slalom / Downhill Racing
Wizkid £10.95
Works Team Rally £6.95
World Class Leaderboard £8.79
WWF £9.79
WWF 2 .....£8.79
X-Out £6.95
Xenon II £8.79
Z-Out £6.95
Zak McKraken & Alien Mindbenders D/S £11.49
Zool £8.95

Items subject to availability. Prices subject to change without notice. P&P is Free. Europe add £2 per title. Rest of the World £3.50 per title. D/S Double-sided Disks

Back catalogue. Please state ST when ordering

ATARI JAGUAR with Cybermore controller.....£229.00
Present Galaxy.....£39.00
Evolution - Dino Dudes.....£39.00
Raiden.....£39.00
Tempest 2000.....£49.00
Wolfenstein 3D.....£49.00
Alien vs Predator.....£54.00
Rise of the Robots.....£49.00
Doom.....TBC
Brutal Sports Football.....£54.00

ATARI ST SOFTWARE

A320 Airbus-N American Edition £23.99
Airbus (A320) £22.99
Alien Storm £19.99
Ancient Art of War in the Skies ...£25.99
B-17 Flying Fortress £24.99
Bart Vs The World £20.99
Batman Returns £18.99
Bonanza Brothers £20.99
Campaign £27.99
Cannon Fodder £21.99
Champ. Manager '94 (End of Season) £10.79
Championship Manager 92/93 ....£19.99
Championship Manager Italia £19.99
Chaos Engine £20.95
Civilisation £27.99
Cool World £20.99
Crystal Kingdom Dizzy £16.79
Curse of the Azure Bonds £24.99
D-Day £21.95
Dizzy Collection £20.95
Dizzy's Excellent Adventure £19.99
Dogfight £27.99
Elite II £23.95
Eswat £20.99
European Champions (STE only) £19.99
F1 .....£20.99
Final Fight £20.99
Fire & Ice £20.99
G-Loc £14.99
Gauntlet 3 .....£20.99
Goal! £20.99
Golf £27.99
Graham Gooch World Class Cricket £23.99
Grand Prix £27.99
International Rugby Challenge £20.99
Ishar 3 .....£27.49
Kingmaker £28.99
Legend of Kyrandia £28.99
Legends of Valour £31.95
Lemmings £20.99
Lemmings (Double Pack) £23.99
Lemmings 2 .....£23.99
The Lineker Collection £16.99
Italy 1990 / Hot Shots / Footballer of the Year 2 / Int. Soccer Challenge
Lotus Trilogy £23.95
Magic Boy £20.99
Max Pack Compilation £23.99
Nigel Mansell's World Championship £23.99
The Patrician £26.99
Premier Manager II £21.95
Quest for Adventure Series £27.99
Reach for the Skies £24.99
Robinson's Requiem £27.49
Rugby League Coach £24.95
Scrabble £22.49
Sensible Soccer 92/93 .....£20.99
Sim City/Populous £23.99
Super League Manager (STE Only) £20.99
Super Monaco G.P £20.99
Tactical Manger £21.95
The Godfather £24.99
Twilight 2000 .....£27.95
Utopia Twin Pack £23.99
War in the Gulf £23.95

Tel: 0463 240168

We have lift off..

Your new product "launch rocket" may have several stages. Make sure none of them fail to ignite by following Richard Williams' action point guide

Every firm seems to be delighted when it launches a new product or service, and let's face it, there is good reason for the apparent glee. Months, maybe years, of hard work including research, manufacture of prototypes and testing on trade and public have come to an end, and the firm is about to cash in on its investment.

Or is it? Probably not, actually. Figures reported recently by the Chartered Institute of Marketing show that of every ten new products launched, eight are doomed.

So here is the ST User guide to getting it right, and quite possibly saving you and your firm, however large or small, a fortune. Notes on how you can improve your chances by making use of your ST and any peripherals you may have are included where appropriate.

Note that although the term "product" is used throughout, most points apply equally to proposed new services.

Will it pay its way?

The first thing you must do is determine whether or not it is going to be economically viable to produce the new product. Ask, and fully answer, the following questions:

1. Can it be made at existing premises, or provided through the same means as existing products?
2. Can it be distributed/sold through the same distributor/agents?
3. If appropriate, can the same packaging machinery be utilised?
4. Will retailers/agents be pleased to add it to their range?
5. Can it be marketed by the same sales force – and will it improve their earnings potential?
6. Will it be bought by people who buy the firm's existing products (important for cross-promotion)?
7. Can existing sources of raw materials be used?

There will be several other factors affecting the economics of your proposed new product, some of which will be unique to your business. Make sure you consider them all. Remember, a product which sells does not necessarily make a profit. It pays to get your sums right first.

Job for the ST: Dust down your spreadsheet and build a "what if..." scenario based on all available figures. Only using this technique will you arrive at a realistic price for your new product. If you feel the price is too high, think again.

Market testing:

Put a toe in the water first. Product pre-testing and test-marketing are essential – be sure about which kind you are carrying out at each stage.

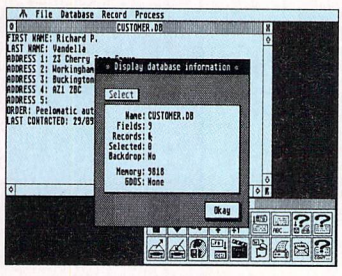
Pre-testing is very useful for the kind of "revolutionary" product no one has seen before. You may need to make extensive changes to it, or work very hard on educating the public about its benefits, before it becomes a success.

You can also use pre-testing with more conventional new products, to establish people's preference when it comes to a choice between your product and those of your competitors.

INSURANCE

Test-marketing, on the other hand, comes much further down the line - a kind of final insurance before launching the new item. You should still have a chance to change at least some aspects, like packaging and product name, if test-marketing brings a cool response.

You can conduct tests in street surveys, send the product (and any others which it is to be compared with) to a cross section of your market in their homes, or even advertise for people who are willing to give their honest reactions to some free products.



Use the mailmerge facility of a wordprocessor like 1st Word Plus to write to potential customers seeking their level of interest in your proposed launch

Telephone surveys and discussion groups, where people are invited to an informal gathering to discuss a product or product range, are other means of gaining valuable insights into the public's preferences.

Job for the ST: produce forms that your "guinea pigs" can fill in, detailing their preferences, and such vital information as why they prefer one product to another; why they do/don't like a product name; what they would do to improve a product; and what they think of proposed pricing.

Other ways of finding out if there really is a market for your new product include:

Trade shows/exhibitions:

Here you will get direct feedback from the people you meet – whether from the trade or the general public - possibly both. There's no waiting for forms or questionnaires to be returned.

Job for the ST: produce questionnaires which you can hand out at the show, perhaps offering a prize as an incentive for people to fill them in. Make them look as professional as you possibly can.

Mailshots:

Write to potential customers asking them to indicate their interest in your product or service. Provide them with an easy means of replying – a form and a pre-paid or stamped envelope is best.

Job for the ST: put your mailing list into a database if it's not already there; use the mailmerge facilities of your wordprocessor/database to produce the personalised letters.

Leaflets:

You can distribute these in places where you know that the people in your target market meet, as loose inserts in magazines or newspapers for example, or post them through letterboxes yourself. Again, it is vital that people respond, so make it easy for them to do so.

Job for the ST: load your DTP package and hit your market with some eye-catching material. Print to PostScript file and send it to a commercial printer for really professional looking results.

Advertising:

You can advertise your product even if it's not quite available yet, in order to measure the response of the public.

Ask people to return a form, write to your business address or telephone for more information. You will get an idea of the response, and some (possibly many) of those who reply may become customers if you proceed to full production.

Job for the ST: if you can produce your own advertisement to camera-ready stage, you can save a great deal of money. However, depending on the size of the launch and the budget, it may be better to use a professional agency for best results.

Samples:

Sample products are often taken or sent to the trade before full production commences. Try them out on private customers too, even if you supply exclusively to the trade – if it's a consumer product it will be the general public who ultimately determine its fate in any event.

Job for the ST: monitor all results in a database and analyse them fully. Definite patterns will begin to emerge, and these should point you in the right direction.

Following the above techniques, ST users can be at the forefront of a movement aimed at improving the abysmal record of failure British companies have had in the area of new product launches.

The Chartered Institute of Marketing has recently joined forces with the Department of Trade and Industry to develop an initiative which will show UK businesses how to improve the odds of success.

The key factor in separating winners from losers is that the former follow market-led processes and maintain strong customer focus throughout their organisations.

● *Further information on the CIM/DTI initiative is available by calling the Chartered Institute of Marketing on 0628 524922.*

Atari ST User back issues and binder

Have you missed one of our past issues? Well now's your chance to bring your collection up to date – but hurry stocks are limited!

FEATURES: Ray-tracing for Atari computers, music on the Thames, printer round-up and DTP guide pt2
REVIEWS: Atari Works, HP Portable printer, Microvitec Cub-Scan monitor and Supermon
ON DISK: Prodata VALUED AT £80

FEATURES: Genlocking, home accounting, how software reaches the shop floor and jargon buster
REVIEWS: Protext 6, Chagall, Sweet Sixteen and Ultimate Virus Killer 5.9
FREE: 32-page ST Action games supplement
ON TWO DISKS: Demos of Protext 6 word processor and MicroProse's Dogfight air battle

FEATURES: Best software and hardware recommendations and hardware buyers' guide
REVIEWS: Omega II, Tabby, Studio Photo, Raystart and Vidi ST (12)
FREE: 64-page booklet
ON DISK: Prism Paint II demo

FEATURES: Transform images using morphing techniques
REVIEWS: Harlekin 3, Easy Text Vector, Chroma 24, Mortimer and Geneva
ON DISK: Vidi ST (12) software

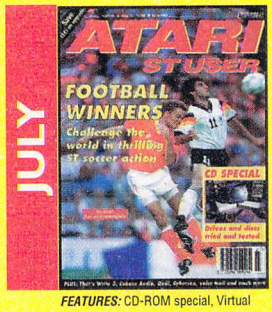
FEATURES: Memory upgrades, information transfer, how to avoid mail order misery
REVIEWS: Jaguar, Digitape, UVK 6, Video Master Falcon, DA Vector Pro, EdHak 3, Mag!x 2
ON DISK: Tempus 2 VALUED AT £40

FEATURES: Desktop Publishing guide,Virtual Reality, Data Compression
REVIEWS: Audio Master, DA's Picture, Clarity 16, Thought!, CP-GEN, Digit
ON DISK: Easy Text Plus VALUED AT £20

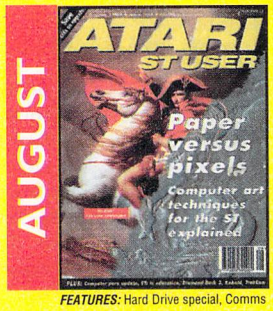
FEATURES: 25 Essential Utilities, Education, Atari Computers at Birmingham University
REVIEWS: Copyist DTP, GEM-View, Pixart
ON DISK: DA vector demo, Photochrome v4

FEATURES: Video Vitals, Frankfurt Music Show, CeBIT, Education round-up
REVIEWS: Breakthru 2, True Images, Papyrus
ON DISK: GIP Image Processing, Violence

FEATURES: Speed, Noise Tracker guide, education software, Digital Arts profile
REVIEWS: SJ144 printer, fax modems
ON DISK: Walls of Illusion, Noise Tracker



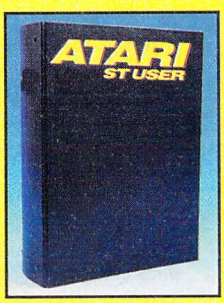
FEATURES: CD-ROM special, Virtual Reality, Cybersex report
REVIEWS: That's Write 3, Cubase Audio, Quill, Perfect Keys, Oracle
ON DISK: Marcel Wordprocessor and three great games



FEATURES: Hard Drive special, Comms for beginners, Porn update
REVIEWS: Diamond Back 3, Imagecopy 3, Kobold, TrakCom, T'Phone & Voicemail
ON DISK: Video Supreme, Utopos, STart-it and more besides

FEATURES: Desktop Basics, Patch programs, Piracy crackdown, Diamond Back 3 tutorial
REVIEWS: DA's Layout, Audio CD Master, Deep Thought, MF-5315 monitor
ON DISK: Diamond Back 3, Deep Thought, Fonts, Splitter and much more

FEATURES: Power Falcon, ROM interview, Patch programs
REVIEWS: SpeedGDOS 5, Protext 6.5, Art for Kids, Edith
ON DISK: Art for Kids demo, Combat, TOS patches, Fonts and much more



Store your magazines in top condition with this high quality ***Atari ST User*** binder

	Price	Order No.
November 1993 + disk	£3.50	9265
December 1993 + 2 disks	£3.50	9266
Christmas 1993 + disk	£3.50	9267
January 1994 + disk	£3.50	9268
February 1994 + disk	£3.50	9269
March 1994 + disk	£3.50	9270
April 1994 + disk	£3.50	9271
May 1994 + disk	£3.50	9272
June 1994 + disk	£3.50	9273
July 1994 + disk	£3.50	9274
August 1994 + disk	£3.50	9275
September 1994 + disk	£3.50	9280
October 1994 + disk	£3.50	9281
Binder	£5.95	9478

All prices include VAT.
Please place your orders using the Readers' Offers form on page 23

Beat the system

John Hetherington reaps the rewards of updating his operating system

I'm gob-smacked. Having just recently upgraded to the release version of Compo's flagship word processor, That's Write 3, I started noticing all kinds of horrible bugs, mainly involving the way the windows and dialogues worked – or rather didn't. A telephone call to Compo's technical support line produced a very puzzled reaction that clearly indicated our respective Falcons weren't behaving the same way.

The only possible explanation was that I was still struggling along with TOS 4.01 while Compo were clearly a little closer to the sharp end with TOS 4.04. But surely all the horrible bugs I was experiencing couldn't be put down to the operating system alone?

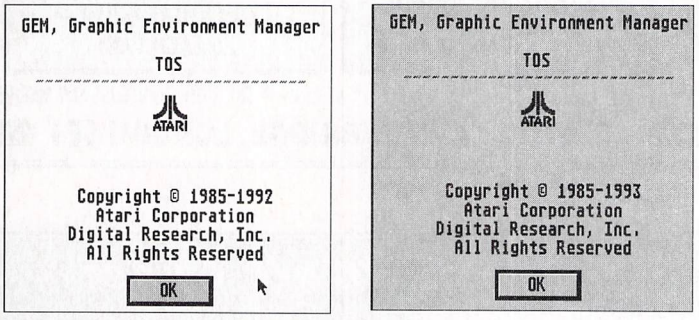
Well, to cut a long story short, the new TOS ROM arrived in the post the next day, and I was able to judge for myself.

REMOVE

Fitting it was easy. All I had to do was remove the lid of the case (seven screws), lift out the keyboard and then take out the shielding that covers the power supply. The memory card is near the centre of the motherboard and can be removed quite easily as it is plugged and not soldered into the board. Underneath you will find a small square chip sitting in a socket.

Now Falcons come with two types of ROMs, the non-volatile chips in which the operating system is stored. Early models tend to have EPROMs, while later ones have PROMs. If you carefully peel away the sticker on the ROM chip, there may be a window (EPROM) or not (PROM).

As the former are erasable chips, they can be re-programmed. So, you can send your Falcon to Compo and they will carry out the process for £35 including return by courier. For those of you with PROMs, you will have to add the cost of a new one (presently £25).



Desktop Info... before and after

As Atari have authorised the work this won't invalidate your warranty, but clearly if you do it yourself, ordering just the PROM itself from Compo, it could leave you in a bad position if things go wrong later. On the other hand it will only cost you 25 notes and half an hour's tinkering about. Compo can be contacted on 0487 3582.

The small square chip can be removed without too much difficulty, although you should be careful to follow the usual anti-static precautions such as touching earthed metal before you try and touch the chip itself. Then all that remains is to replace it with the new one.

BOOTED

I had some difficulty here as the two chips didn't look the least bit similar – even the marker dots were on different corners. I got it wrong the first time – when I booted up nothing happened, so I quickly powered down and changed the chip around. I'd like to stress that if you're in any doubt about what to do, let the professionals do it for you. If I hadn't been so excited, I might have noticed that one corner is different and that I'd actually forced the new chip home the wrong way. If this gives you an idea of my technical skill level, then at least it should give you the confidence to do the upgrade yourself. If I can do it, you can.

The big shock came after I got the case back on and started to boot up. For those of you who might still be sceptical about the differences, don't be! TOS 4.04 opened up a whole new world for me. Not only did the bugs go away, but the ordinary desktop dialogues and those within programs changed completely. I didn't know they were grey – honest! TOS 4.04 even fixed the problems with the extensible control panel, which never worked properly in my version of TOS 4.01.

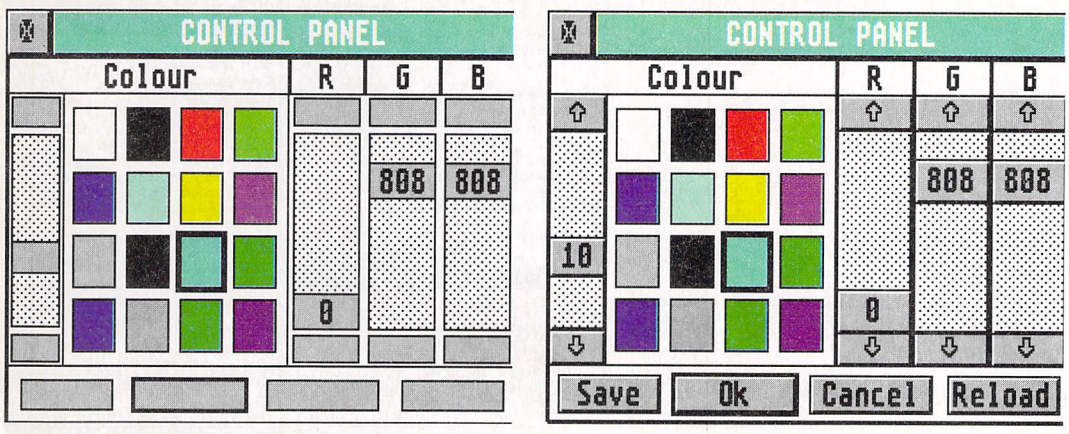
PROBLEMS

Interestingly enough, other users I've come across with TOS 4.01 haven't had the same problems. It appears that there are different versions of TOS 4.01, perhaps mixed with a different AES version. This is backed up by the fact that with the old TOS chip I couldn't see, let alone access That's Write's sub-menus, and this a function controlled by the AES part of the code.

For what it's worth, Mark Baines' Profile program shows that TOS 4.01 (dated October 2 1992) has AES version 3.31 and GEMDOS version 0.30, while the new chip has TOS 4.04 (dated March 8 1993) with AES 3.40 and the same GEMDOS.

Another interesting gain is that the new version of TOS uses up 11,836 bytes less memory. It might not sound a lot, but on a memory hungry Falcon, it can make a big difference.

By far the biggest advantage for me is the fact that programs like Diamond Edge look so much better, and the greyed in dialogues look much more polished. But, even if you happen to have a later AES version and TOS 4.01, you can bet your bottom dollar it's worth the cost of the upgrade.



XControl, before and after the upgrade

STellar Atari ST Club

Newholme, Aston Road, Chipping Campden, Gloucestershire GL55 6HR. Tel: 0386 840737

FREE monthly diskmag and public domain catalogue

PD from 99p per disk!

Join Britain's brightest ST Club
Just send an SAE and blank disk
for your FREE diskzine now!

PUBLIC DOMAIN KEY P.D. PUBLIC DOMAIN

We offer a comprehensive and varied selection of quality Public Domain/Shareware software for the ATARI ST/STE range of computers.

DISK PRICES……£1.70 per Disk.
……£1.50 each when ordering 5 or more.
(Includes postage within the U.K.)

For a Disk-based catalogue send your Name, Address & 3 25p stamps to:-

KEY P.D. 121 Carnoustie Crescent KEY P.D.
Greenhills
East Kilbride
G75 8TF
Telephone (03552) 42365

FAST ATARI REPAIRS

FAULTY TROUBLESOME COMPUTER??

Send or deliver to the experts for fast reliable repair of your beloved Atari ST

FOR ONLY £44.00 INC,* DRIVE OR KEYBOARD REPLACEMENT + £10

WE ALSO REPAIR STE, Mega ST and Stacey
★ FREE QUOTATION ★

COLLECTION SERVICE AVAILABLE DOOR TO DOOR ANYWHERE IN U.K. £5 EACH WAY

EXCHANGE SERVICE
PSU…£24.99 K/BOARDS…£25.50
D/DRIVES…£25.50
UPGRADES
STFM 1Mb…£39.99
STE 1Mb Simms…£25 POS 2.06…POA

* WE RESERVE THE RIGHT TO REFUSE ANY MACHINE

FAST COMPUTER SERVICES, TOWER BRIDGE, LONDON SE1 2HG. TEL: 071 252 3553

Premier Mail Order

Please send cheque / PO (made out to Premier Mail Order) / Access / Visa No. and expiry date to:

Dept STU104, 9-10 The Capricorn Centre, Cranes Farm Road, Basildon, Essex SS14 3JJ. Tel: 0268-271172 Fax: 0268-271173

Telephone orders: Mon-Fri 9am-7 pm and Sat & Sun 10am-4pm, We Are Open 364 Days A Year

P&P and VAT is included for all UK orders. Please add £2 P&P for Europe and £3.50 for Rest of the World

Next day delivery service available £4 per item. Some titles may not be released at the time of going to press. Most titles are despatched same day, but can take up to 28 days (E&OE)

3D Construction Kit	9.99
A320 Airbus Europa Edition	22.99
A320 Airbus USA	**22.99**
Addams Family	8.99
Alien 3	19.99
Another World	12.99
Awesome	9.99
B17 Flying Fortress	**22.99**
Battlehawks 1942	10.99
Bart vs the Space Mutants	8.99
Blue Angels	8.99
Battle of Britain	**12.99**
Board Genius	12.99
Boston Bomb Club	8.99
Bully's Sporting Darts	8.99
Cadaver/The Payoff	12.99
Caesar	19.99
California Games 2	16.99
Cannon Fodder	**19.99**
Championship Manager 93	16.99
Championship Manager 94 Season Disk	8.99
Championship Manager End of Season	**9.99**
Championship Manager Italia	17.99
Chaos Engine	**16.99**
Civilisation	**22.99**
Cohort 2	19.99
Colonels Bequest	12.99
Crime City	6.99
Cruise for a Corpse	12.99
Cybercon III	10.99
Cyberspace	22.99
Discovery	6.99
Dizzy Collection	16.99
Dizzy's Excellent Adventure	16.99
Elite 2 (Frontier)	**19.99**
Elvira The Arcade Game	16.99
European Football Championship	10.99
European Super Soccer	16.99
F1	17.99
F15 Strike Eagle 2	14.99
F16 Combat Pilot	8.99
F29	10.99
Face Off Hockey	8.99
Falcon	8.99
Falcon Operation Counterstrike (Data Disk)	6.99
Falcon Operation Firefight (Data Disk)	6.99
Fantasy World Dizzy	6.99
Fast Food Dizzy	6.99
Flight of the Intruder	**8.99**
Flight Sim 2 Great Britain Scenery	26.99
Flight Sim 2 Hawaiian Scenery	13.99
Flight Sim 2 Japan Scenery	13.99
Flight Sim 2 USA No 9 Chicago	13.99
Flight Sim 2 USA No 12 New York	13.99
Flight Sim 2 USA No. 7 Washington	13.99
Flight Sim 2 USANo 11 Detroit	13.99
Flight Sim 2 Western Europe Scenery	13.99
Flight Simulator 2	**22.99**
Footballer of the Year 2	5.99
Formula One Grand Prix	22.99
Fort Apache	6.99
Future Wars	10.99
Ghostbusters 2	7.99
Goal	**20.99**
Graham Gooch (1 Meg)	**19.99**
Graham Gooch Second Innings	11.99
Graham Taylors Soccer Challenge	8.99
Gunship	10.99
Hard Drivin 2	8.99
Hard Nova	8.99
Heroquest	7.99
Hill Street Blues	8.99
Hook	8.99
Huckleberry Hound in Hollywood	8.99
Indiana Jones - Last Crusade	12.99
Int. 3D Tennis	5.99
Int. Rugby Challenge	17.99
Int. Sports Challenge (512K)	19.99
Jahangir Khan Squash	6.99
James Pond	6.99
Jimmy White's Snooker	12.99
Kids Rule OK	12.99
Killing Game Show	9.99
Kingmaker	22.99
Kings Quest 1 or 2	**10.99**
Knights of the Sky	14.99
Laser Squad	8.99
Leisure Suit Larry 1, 2 or 3	**12.99**
Lemmings 2 (The Tribes)	**17.99**
Lemmings Double Pack	19.99
Lethal Weapon	8.99
Loom	12.99
Lords of Chaos	8.99
Lotus Esprit Turbo Challenge	7.99
Lotus Trilogy	**19.99**
Lure of the Temptress	12.99
M1 Tank Platoon	12.99
Manchester United Europe	7.99
Manhunter San Francisco	10.99
Maniac Mansion	**10.99**
Megatwins	8.99
Merchant Colony	8.99
Metal Mutant	8.99
Midwinter	10.99
Midwinter 2	14.99
Mig 29	10.99
Nigel Mansell World Champ	19.99
Night Shift	10.99
No Second Prize	**17.99**
Noddy's Playtime	**16.99**
North & South	6.99
Operation Harrier	8.99
Operation Stealth	11.99
Parasol Stars	8.99
Pinball Magic	8.99
Pirates	10.99
Police Quest 1 or 2	**12.99**
Populous 2	12.99
Populous & Promised Lands	12.99
Postman Pat	6.99
Postman Pat 3	6.99
Powermonger & WW1 Data Disk	12.99
Premier Manager 2	17.99
Prince of Persia	6.99
Pro Tennis Tour 2	16.99
Pro-Tennis Tour	8.99
Pushover	8.99
RBI Baseball 2	7.99
Reach for the Skies	19.99
Realms	10.99
Rick Dangerous	7.99
Risky Woods	8.99
Robin Hood	10.99
Robinsons Requiem	19.99
Robocop 3	10.99
Robocop	6.99
Rorke's Drift	6.99
Scrabble	20.99
Secret of Monkey Island	**12.99**
Sensible Soccer ('92/'93)	**16.99**
Sensible Soccer International	13.99
Sensible World of Soccer	19.99
Shadow Lands	8.99
Shinobi	7.99
Shuttle	(see The Greatest)
Sleepwalker	8.99
Slicks	14.99
Space Crusade	8.99
Space Quest 1 or 3	**12.99**
Space Quest 2	**10.99**
Spellbound Dizzy	6.99
Starblade	8.99
Storm Master	8.99
Streetfighter 2	12.99
Strider	7.99
Striker	8.99
Strip Poker 2 + Datadisk	6.99
Supercars	8.99
Super Space Invaders	8.99
Superfighter	17.99
Superski 2	8.99
Supremacy	10.99
Switchblade 2	8.99
Tactical Manager - English	**19.99**
Tennis Cup 2	8.99
Tetris	14.99
The Adventures of Robin Hood	12.99
The Final Conflict	6.99
The Games	10.99
The Greatest	**21.99**
Their Finest Hour – Battle of Britain	12.99
Their Finest Mission	9.99
Thomas the Tank Engine	6.99
Thomas the Tank Engine 2	10.99
Thunderstrike	7.99
Toki	8.99
Tracksuit Manager	6.99
Trivial Pusuit	6.99
Ultimate Golf	8.99
Utopia	8.99
Winter Gold	12.99
Winter Supersports	16.99
Wizkid	10.99
World Class Leaderboard	**10.99**
WWF1	8.99
Zak McKraken	10.99
Zool	**8.99**

SPECIAL OFFERS

Breach 2	5.99
Chaos Strikes Back	5.99
Charge of the Light Brigade	5.99
Kick Off 2 Final Whistle	5.99
Kick Off 2 Winning Tactics	5.99
Psycho Selection Soccer	9.99
Sabre Team	9.99
Shadoworlds	9.99
World Class Rugby (5 Nations)	9.99

JOYSTICKS/ACCESSORIES

10 Capacity 3.5" Disk Box	1.99
40 Capacity 3.5" Disk Box	4.99
50 Capacity 3.5" Disk Box	5.99
80 Capacity 3.5" Disk Box	6.99
100 Capacity 3.5" Disk Box	7.99
Cheetah 125+	7.99
Cheetah Bug	11.99
Competition Pro Extra	14.99
Freewheel Steering Wheel	24.99
Gravis Adv. Switch Joystick	22.99
Gravis Gamepad	15.99
Mouse Mat	1.99
Quick Joy Top Star	17.99
Quick Joy 2 Turbo	10.99
Quick Joy Jet Fighter	10.99
Quick Joy Pedals	17.99
Suncom Tac 2	7.99
Suncom Slik Stick	5.99
Wico "Q" Stick	4.99

EDUCATIONAL

Better Maths (12-16 GCSE)	13.99
Better Spelling (8+)	13.99
Cave Maze (8-12)	9.99
Fraction Goblins (8-13)	9.99
Junior Typist (5-10)	10.99
Magic Maths (4-8)	13.99
Maths Dragons (6-13)	9.99
Maths Mania (8-12)	13.99
Noddy's Play Time (3-7)	16.99
Picture Fractions (7-10)	9.99
Reasoning with Trolls (5-12)	9.99
The Three Bears	13.99
Tidy The House (6-10)	9.99

3.5 BLANK DISKS

	TDK VERBATIM	PRECISION	UNBRANDED	RECYCLED
10	7.99	6.49	5.99	4.50
20	14.50	11.99	10.99	8.50
30	21.99	17.49	15.99	12.00
40	28.49	21.99	20.49	15.00
50	35.00	26.00	23.99	17.50
100	65.00	49.99	44.99	35.00

Ladbroke Computing

33 Ormskirk Rd,
Preston, Lancs,
PR1 2QP

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

All prices are correct at copy date 7/9/94 (while stocks last), and are subject to change without prior notice. All prices include VAT but exclude delivery.

How to Pay
You can order by mail Cheques/Postal Orders made payable to Ladbroke Computing. Or give your credit card details over the phone.

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

Open Mon-Sat 9.30am to 5.00pm.
Ladbroke Computing Ltd trading as
Ladbroke Computing International.

Fax: (0772) 561071
Tel: 9.00am-5.30pm (5 Lines)
(0772) 203166

Star SJ144 **£369.99**
The Star SJ144 is a Colour/Mono thermal wax transfer printer which gives glossy colour output on normal paper.
- 360 dpi resolution
- Emulates Epson LQ 860, IBM Proprinter & NEC graphics

Star

Star LC100 Colour	£119.99
Star LC24/30 Colour	£209.99
Starjet SJ48 Bubblejet	£210
SJ48 Ink Cartridge	£19

Citizen

Citizen ABC 24pin Colour	£179.99
Citizen Swift 240 Colour	£250

Hewlett Packard

HP Deskjet 310	£229.99
HP Deskjet 520	£259.99
Hp DJ500 Colour ink cart	£26

Lasers

Ricoh LP1200	£599
Panasonic KX-P4400 Laser	£499.99
Seikosha OP104	£479.99
New Star Laser (phone for details)	£459.99

Add £3 for cable. Add £7 for delivery

DataPulse Plus

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

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

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

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

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

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

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

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

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

Datapulse +260Mb	£260
Datapulse +353Mb	£310
Datapulse +532Mb	£420
Datapulse 1Gb	£670
D/P +230Mb R/W Optical	£890

Phone for further details on CD ROM

Please note all prices quoted are for main drive unit only. Add ICD LINK for use with ST or SCSI cable for use with FALCON

ICD LINK 2	£89.99
SCSI Cable (Falcon)	£29.99
230Mb Optical disk	£39.99
ICD PRO Utilities	£39.99

Monitors/TV's

Dataview Mono ST **£109.99**
Quality Mono monitor with Sound * Limited Offer
The Dataview Monochrome monitor comes complete with our custom designed adaptor. The adaptor incorporates a small beeper and also a 2.5mm output for better sound reproduction. The monitor/adaptor combination is fully compatible with all ST high resolution programmes and includes a tilt/swivel stand.

Screen Beat Speakers **£12.99**

Multisync Monitor

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

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

Dataview .28 SVGA **£209.99**
This high quality SVGA colour monitor comes complete with Falcon adaptor. The .28 dot pitch gives the highest quality picture (Falcon will only display 256 colours in high resolutions).

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

Modems

14400 Baud Trust Fax Modem **£169.99**
14400 Baud Modem, Auto Dial, Auto answer, 5 yr. fully BT approved warranty, MNP 2-4 error correction, MNP 5 data compression, S/R Class 1 & Class 2 commands, Group 3 S/R fax modem (compatible with Straight FAX™)
"With reduced call rates there's never been a better time to invest in Communications"

Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
- 1.44Mb 3.5" Floppy, up to 14Mb RAM. Displays 65536 colours from 262144 palette at 768 x 480 resolution
- 8 Channel 16 bit, high quality. Stereo sound sampling

FALCON 1Mb RAM No HD	£499
FALCON 4Mb No HD	£699
FALCON 4Mb 64Mb HD	£799
FALCON 4Mb 127Mb HD	£899
FALCON 4Mb 209Mb HD	£999

Legend Trakball

Ergonomically designed Trak Ball. 320Dpi resolution, 2 microswitched buttons. The Legend Trak Ball is very easy to use. Unlike normal Trak balls the LEGEND is operated with the thumb freeing the fingers to click buttons **ONLY £24.99**

3.5" External Drive

Zydec 3.5" External Floppy drive. Includes own external power supply.

£57.99

ST Mouse

High quality 290 dpi mouse with microswitched buttons ST/AM.

£9.99

Marpet Upgrades

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

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

Forget Me Clock II	£13.99
512K SIMM'S	£7.99
2MB SIMM'S	£54.99
4MB SIMM'S	£109.99

Midistudio Master

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

£9.99

Atari STE Packs

1040STE Curriculum	£199.99
2Mb 1040STE	£254.99
4Mb 1040STE	£309.99

Atari Jaguar Console

Jaguar with Cybermorph **£249.99**
Phone for games cartridges

Repair Services

The Only ATARI Authorised Repair Centre in the UK

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

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

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

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

PC Emulators

- Check configuration before ordering

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

Analogic Computers (U.K.) Ltd

Unit 6, Ashway Centre,
Elm Crescent,
Kingston-Upon-Thames, Surrey KT2 6HH

Mon-Fri. 9am to 6.30pm Sat 9am to 5pm
TEL: 081-546-9575
FAX/TEL: 081-541-4671

ANALOGIC
ANALOGIC
ANALOGIC

OFFICIAL ATARI REPAIR CENTRE

• COMPUTERS • MONITORS •
REPAIRS WITHOUT DIAGNOSTIC FEES

520/1040 ST/STM/STF/STFM/STE £59.95
Monochrome, Colour Monitors excluding CRT, L.O.P.T. £59.95

including delivery back by courier service

★ We pick up computers for repairs and memory upgrades for Next Day delivery to us by Courier Service for only £6.00 + VAT

MEMORY UPGRADES
MARPET DEVELOPMENTS OFFICIAL XTRA-RAM DELUXE INSTALLERS

520 STF/STFM to 1 Meg ..... * £59.95
520 ST/STM/STF/STFM to 2.5 Meg ..... * Free Fitting £79.95
520 ST/STM/STF/STFM to 4 Meg £129.95

520 STE to 1 Meg ..... * £17.95
520 STE to 2 Meg ..... * Free Fitting ..... * £59.95
520 STE to 4 Meg ..... * £114.95

PROTAR PROFILE SERIES II HARD DRIVES
QUANTUM/MAXTOR MECHANISM WITH CACHE

Compatible with all ST/STF/STFM/STE/Mega ST/Mega STE/Falcon

Profile 50DC & 85DC ..... £POA
Profile 120DC £269.95
Profile 170DC £309.95
Profile 270DC £369.95

● POA for Higher Range of Profile Series II and SCSI Bare Drive

GOLD AWARD WINNER PROTAR PROFILE SERIES II HARD DRIVES have features such as:
● Auto-Booting ● Auto-Parking ● Read/Write Access ● Password Privileges ● Selectable Boot Partition ● DMA Thru Port ● Quiet Fan ● Device Number Switch ● Hard Disk Management Software package ● Full Utilities package and De-bugging Software ● 45 Watt PSU and all necessary wiring in place to mount another Bare Hard Drive in elegant housing.

SCSI BARE QUANTUM HARD DRIVES
WITH CACHE

50Mb & 85Mb ..... £POA
120Mb £179.95
170Mb £199.95
270Mb £249.95

STFM, STE, FALCON 030 COMPUTERS

We shall try to beat any genuine advertised Falcon prices P.O.A.

STE/STFM 2.06 TOS SWITCHERS
with Hardware Switch

The only Solderless DIY Kits available

STE TOS 2.06 Roms £39.95
STE TOS Switcher £39.95
STE/STFM/STF/ST TOS Switcher inc. 2.06 Roms £59.95

MONITORS

AMITAR £129.95
High Resolution Monochrome Monitor

ACCESSORIES

STE/STFM Scart Lead	£14.95	Dust Cover	£4.95
STE/STFM Lead to Philips CM8833 II	£14.95	Mouse Mat	£4.95
Philips CM8833 Dust Cover	£6.95	10 Blank Branded Disks	£9.95
Twin Joystick/Mouse Port ext Lead	£5.95	10 Blank Unbranded Disks	
290 Dpi mouse	£14.95	Forget Me Clock	
Blitterchip + socket			

POWER SUPPLIES

STFM/STE Power Supplies (Service Exchange) ....£
NEW STFM/STE Power supplies £49.95

DISK DR

1 M
...rnal Drive .....
Density 3.5" Internal Drive + Module .....
* New low price for limited period

PRINTERS – HP320 / 510 / 560 Colour – POA

- All prices include VAT
- Fixed charge for repair does not include Disk Drive Replacement & Keyboard
- All prices subject to change without notice
- We reserve the right to refuse any ST Repair
- Please allow 5 working days for cheque clearance

Access VISA

JAGUAR HARDWARE & GAMES AVAILABLE NOW

ED SAME DAY DISPATCH (subject to availability)

FREE TOS 2. SWITCHER FITTING WITH ANY
REP /MEMORY UPGRADE

Professional Se with no surcharge
WHILE-U-WAIT!!!

MEMORY UPGRADES ◆ TOS UPGRADES ◆ K DRIVE UPGRADES ◆ many REPAIRS

GUA SPEC OFF