

The top-selling

ATARI ST USER

Vol. 5 No. 4 June 1990 £2.95

REVIEWS

APL, Morse Code tutor,
Star XB24, Microtext,
Gem Utility Package,
Guide to the Solar
System, Multidrive

FEATURES

Live longer in Drakkhen
CD-Rom – boon or boob?
Frankfurt show report

GAMES

Escape from the Planet
of the Robot Monsters,
Resolution 101, Stryx,
Xenomorph, Starflight,
Skidoo, Thunderstrike
and many more titles

BUYER'S GUIDE TO BEAT-'EM-UPS

ATARI
ST
USER

June 1990

Switch on with the disc in
drive A. Then double click
on README.PRG.

Full instructions are in the June issue of *Atari ST User*.
Disc format by Rob Northern Computing

- Two superb demos –
Damocles & Début
- Install DEFSEL, a
new file selector
- Repair corrupt
discs with DLII
- Edit text files
with Pro-Ed
- Print directories
with DirPrint

ISSN 0952-3006



9 770952 300008



Music to your ears
Rock'n'Roll
is back
in town!

In a deluge of colour and music, save the Earth from a classical catastrophe. Classical music (yuk!) in its most torturous form has overrun the world. With monsters so hideously hideous, so exaggaratingly evil, so barbarously bad, it's slowly destroying the last traces of the only great music... Rock'n'Roll. JUMPING JACK SON is our only hope.



As quick as a flash, find out the "timeless classic", the "golden oldie", the records which made Rock'n'Roll. And, of course, the first 45 cut by the King himself, Elvis Presley. All these records must be placed where they belong... THE JUKE BOX.

JJS is the fulfilment of technical performances. More than 27 colours on the main game screen (on both Amiga and

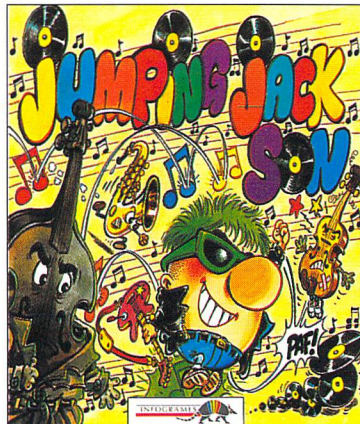


Atari!), and up to 100 colours on the other screens. And don't turn a deaf ear! JJS also has 400 kb of Rock'n'Roll and FX sounds.

JUMPING JACK SON is a Magical, Musical, Visual, Mystery Tour... An ear splitting, eye popping adventure. JUMP at the opportunity and JIVE into the action.



SATISFACTION GUARANTEED!



AVAILABLE ON ATARI ST, STE, AMIGA.

INFO GRAMES



OVERSEAS MEDIA DISTRIBUTORS LTD



OM HOUSE, 139-141 DOMINION ROAD, GLENFIELD, LEICESTER LE3 8JB

MINIMUM ORDER VALUE

£12.50

VISA

TELEPHONE: [0533] 877733

FACSIMILE: [0533] 873999

**OMD
DISKS**

- TOP QUALITY • CERTIFIED
- GUARANTEED • 100% ERROR FREE
- LABELS SUPPLIED

		25	50	100	200
D6010	3 1/2" DSDD 135 TPI	£19.50	£33.50	£59.50	£115.00
D6020	5 1/4" DSDD 48 TPI	-	£21.90	£39.50	£72.50

GET £2.50 OFF ANY OTHER PRODUCT WHEN YOU ORDER OMD DISKS

**3 1/2"
BRANDED
DISKS**

CHOOSE FROM
**SONY OR
Verbatim**



1 BOX	3 BOXES
£13.90	£12.90
5 BOXES	10 BOXES
£11.90	£10.90

Price per box of 10 disks

3 1/2" DISK STORAGE SYSTEMS

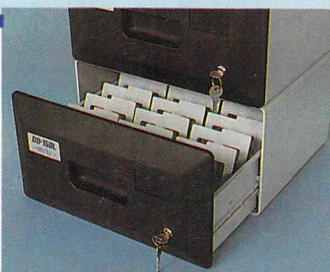
3 1/2" x 50	A0023	£7.90
3 1/2" x 100	A0053	£9.90
3 1/2" x 120	A0063	£10.90

- LOCKABLE
- STACKABLE
- IMPACT RESISTANT

Holds 150 disks

£24.50

Ref. A0084



ATARI EXTERNAL DISK DRIVES

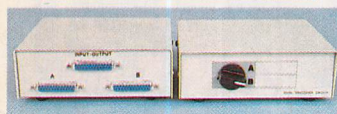
(All drives have their own power supply)

X1100 3 1/2" Double Sided 720k (Cumana)	£85.00
X1101 3 1/2" Double Sided 720k (Nec)	£79.00
X1102 5 1/4" Double Sided 40/80 track (Cumana)	£125.00



★ 12 MONTHS WARRANTY
ON ALL
DISK DRIVES

MANUAL DATA SWITCHES



All metal case with rotary switches.

	Ref.	36pin.	Ref.	25pin
2 way	X0001	£17.50	X0011	£16.50
4 way	X0003	£22.50	X0013	£21.50
X way	X0004	£24.50	X0014	£23.50

CABLES

A0801 25pin Male/36pin Male	2m	£7.50
A0804 25pin Male/25pin Male	2m	£8.50
A0805 25pin Male/25pin Female	2m	£8.50
A0806 36pin Male/36pin Male	2m	£8.50

COMPATIBLE PRINTER RIBBONS

AMSTRAD 8256	R7410	£3.90
AMSTRAD DMP2000/3160	R4820	£2.75
AMSTRAD DMP4000	R4260	£4.50
CANON PW1080	R2230	£4.25
CITIZEN 120D	R4880	£4.25
EPSON LQ800	R4370	£3.90
EPSON LX 80/56	R4540	£2.90
EPSON MX/FX/RX80/FX/LX800	R2730	£2.90
NEC P2200	R8440	£4.50
PANASONIC KXP1081	R2280	£4.50
PANASONIC KXP1124	R9040	£4.90
SHINWA CP80	R6981	£4.50
STAR NL10	R7610	£3.90
STAR LC10	R8610	£3.90
STAR LC10 (Colour)	R8696	£7.90
STAR LC24-10	R8680	£4.50

BUY 10 GET 1 FREE

MANY OTHERS AVAILABLE - PLEASE CALL

MICE

X2005 Atari High Resolution Replacement Mouse	£24.50
X2006 Amiga High Resolution Replacement Mouse	£24.50
X2010 Naksha Mouse Suitable for Amiga & Atari	£39.00

PRINTERS

CITIZEN



H0100 120D	£139.00
H0101 SWIFT 24	£320.00
X0900 SWIFT 24 COLOUR KIT	£38.00
H0102 PRODOT 9	£375.00
H0110 OVERTURE 106 LASER	£1295.00

Panasonic



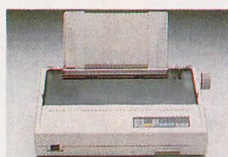
H0200 KXP 1081	£155.00
H0201 KXP 1180	£170.00
H0202 KXP 1124	£250.00
H0203 KXP 1592	£320.00
H0210 KXP 4450i LASER	£1599.00

NEC



H0300 P2+	£299.00
H0301 P6+	£469.00
H0302 P7+	£585.00

star



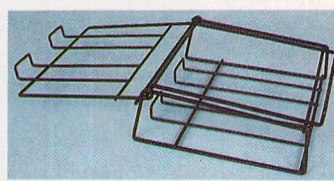
H0000 LC10	£165.00
H0009 LC 10 II	£195.00
H0001 LC 10 COLOUR	£205.00
H0002 LC 24-10	£245.00
H0003 FR10	£370.00
H0020 LP-8 LASER	£1650.00

SPECIAL OFFER

PARALLEL CABLE IS INCLUDED WITH EVERY PRINTER

WHEN YOU ORDER A PRINTER BUY A BOX OF PAPER 11" x 9.5" 60gsm AT £11.50 (INC VAT)

PRINTER STANDS



WIRE Ref. A0202
Made of safety plastic coated steel wire £12.50

SPACE
SAVER

Made of moulded plastic. Feeds and refolds paper underneath the printer. Takes up hardly more space than the printer itself.



YUS-25A for 80 col. printer. Ref. A0203 £27.90
YUS-25B for 130 col. printer. Ref. A0204 £32.50

COMPUTER PAPER

11x9 1/2" 60GSM	
Ref. P0101 Box of 2000	£15.90
PERFECT A4 85GSM	
Ref. P0301 Box of 1000	£13.90

COMPUTER LABELS

- SELF ADHESIVE • TRACTOR FED
- | | |
|------------------------------|--------|
| Packed 2000 3 1/2" x 17/16" | £11.90 |
| 1, 2 or 3 across 4" x 17/16" | £12.90 |

COPY HOLDERS



Desk Top Ref. A0301 £7.90
With adjustable arm 80 Column Ref. A0302 £13.50
132 Column Ref. A0303 £19.50

MONITOR STAND



HOLDS 14" MONITOR £14.50
Ref. A0701 All monitor stands revolve 360° and tilt up to 25°

DUST COVERS

Amiga A500	1PC	C0102	£5.50
Atari 1040 STFM	1PC	C0108	£5.50
Printers 80 Col*	1PC		£4.50
Printers 132 Col*	1PC		£5.50

*Please specify printer

HOW TO ORDER

*Cheque: Please make cheques payable to OMD Ltd. and send them to the address shown above.

*Credit Card: We accept Access & Visa. Please telephone on (0533) 877733 (24 hours).

All orders received by 12 noon are despatched on the same day.

Overnight delivery available £7.50 extra.

ALL PRICES ARE
INCLUSIVE OF VAT AND
DELIVERY (UK MAINLAND ONLY)

INSIDE

Managing Editor
Derek Meakin

Features Editor
Roland Waddilove

Production Editor
Peter Glover

News Editor
Don Lewis

Advertisement Manager
John Snowden

Advertisement Sales
Andrea Fawkes

Reviews coordinator
Pam Turnbull

Contributors:
Nic Outterside, Phil Lawson, Ian Waugh, Pat Winstanley, Nic Veitch, John Kennedy, Phil Armstrong

Published by:
**Interactive Publishing Ltd,
Europa House, Adlington Park,
Adlington, Macclesfield SK10 4NP**

Tel: 0625 878888 (All depts)
0625 859555 (Advertising)
051-357 2961 (Subs)

Telex: 94081191 DATAB

MicroLink: MAG001

Prestel Mailbox: 614568383

**interactive
publishing**

Chairman
Derek Meakin

Managing Director
Hugh Gollner

Commercial Director
David Hirst

ABC

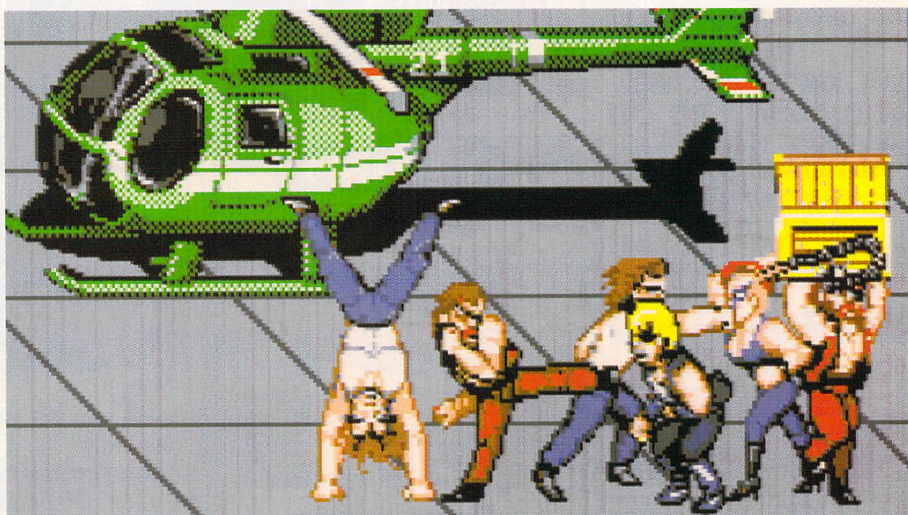
35,833 July-December 1989
ISSN 0952-3006

Writing for Atari ST User. Articles and programs relating to the Atari ST are welcome. Articles should preferably be typed or computer-printed using double spacing. Unsolicited manuscripts, discs etc, should be accompanied by a self addressed stamped envelope, otherwise their return cannot be guaranteed. Unless agreed otherwise, material is accepted on an all rights basis.

© 1990 Interactive Publishing 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 or listings.

Atari ST User is an independent publication. Atari Corp (UK) is not responsible for any of the articles in this issue or for any of the opinions expressed.

News trade distributors: Comag Magazine Marketing, Tavistock Road, West Drayton, Middlesex UB7 7QE. Tel: 0895 444 055.

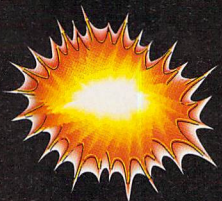


**There's an
explosion of
popularity in
combat games.
We survey the
market and
pick the best
of the bunch.
Turn to Page 18**



On this month's disc you'll find demonstrations of two superb new games – Debut and Damocles – plus a powerful text editor, a disc editor, a flexible file selector and directory printer.

● Turn to Page 42.



News	7
Latest info on the Atari ST	
Buyer's Guide	18
Best beat-'em-ups to buy	
Music Fair	21
Latest news from Frankfurt	
Games	22
Top arcade action on test	
Fire Brigade	37
Superb WW2 tank simulation	
Adventures	48
Top tips for fantasy fans	
STOS	52
Games programmers' helpline	
Solar System	56
Tour around the Milky Way	
Microtext	59
Make an ST into a telex TV	
Arcade Corner	63
Hints and tips for Drakkhen	
Star XB24	67
New 24 pin printer on test	
APL	71
Program using maths symbols	
Morse Code	75
Dah, dit, dit, dit, dah, dah	
Gallery	80
Top micro art on display	
Multidrive	85
Dual drive + PC Ditto II tried	
Public Domain	86
Superb software going cheap	
Midi	90
Making music on a budget	
Hardware	97
Make a quiz box for your ST	
GUP	101
Gem utility package on trial	
CD-Rom	104
Past, present and future	
Mailbag	110
Full list of readers' writes	

"ARE YOU IN COMMAND?"



► **ELIMINATOR**

(THE MACHINE THAT KILLS - BUT CANNOT BE KILLED)

► **STRIKE FORCE HARRIER**

(A FULL FLIGHT AND COMBAT SIMULATION IN ONE OF BRITAIN'S MOST EXCITING FIGHTER AIRCRAFT)

► **SKYCHASE**

(FIND OUT WHAT COULD HAPPEN WHEN THE SPEED OF A MIG 31 FOX HOUND MEETS THE AGILITY OF AN F16 FALCON)

► **LANCASTER**

(ALL ACTION SIMULATION OF THE FAMOUS BOMBER AND IT'S MISSIONS DURING WORLS WAR II)

► **SKYFOX II**

(BLAST THE FEDERATION ENEMIES OUT OF THE GALAXY - CARRY ON THE SKYFOX LEGEND!)

ATARI ST(STE)
only £29.99

AMIGA
only £29.99



THE NAME BEHIND THE GREAT GAMES

ST package picks winner

WHEN your main product is a computer-based betting program, it takes a lot of bottle to put your money on a runner which is generally branded as a carthorse.

Staff at TAM (0392 215485) did just that when their ST package The Tipster threw up rank outsider Norton's Coin for the Cheltenham Gold Cup. The horse romped home at 100-1 and they took the bookies for £1,000.

The program was also right with Toby Tobias which came in second. It tipped the third-placed Desert Orchid to come in fifth.

Its winning streak was repeated with the 33-1 outsider Evic Star in The Lincoln.

Run by the Marriott family, Exeter-based TAM offers betting advice to registered owners of The Tipsters.

Steve admits that neither he nor his family have any expertise in the horse world.

He is an electronics technician and wrote The Tipster in November last year applying pure statistics to data on the winners from 800 races. He built in eight special points which include the often discounted "beaten favourites" and the number of days since a horse ran.

"On the Gold Cup, a lot of people had been hyping Desert Orchid but The Tipster gave him only 131 points", he told *Atari ST User*. "It gave Norton's Coin and Toby Tobias 162 points each.

"When people started ringing in for tips my sister was giving out Norton's Coin, not realising that it was virtually a carthorse.

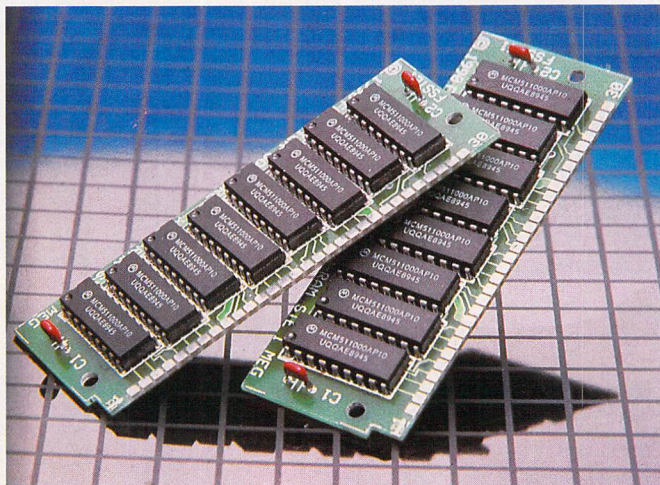
Our publicity says that the program tips winners not zebras, and it gave me a shock when I realised we were tipping this zebra for the Gold Cup, considered by many to be the top race of the year.

I thought we should call it just a fun bet, but it turned out to be more serious".

Thrilled by their success, the staff at TAM now have a regular betting pool but admit that the proof of their program will be if it is still turning up winners a year from now. The Tipster costs £29.95.

In the pipeline from TAM are a pools predictor program and a program called The Breeder which is due out later this year and will allow fanciers to trace the lineage of their pets or show animals and birds.

Massive STE ram extensions rapped



Frontier Software's Xtra-Ram

FRONTIER Software (0423 567140) has fired a broadside at companies which it claims are misleading Atari STE owners. Marketing manager Martin Walsh says some ram expansions being offered for the STE are just impossible.

"The market for ram upgrades for the STE seems to be very confused at the moment, with several companies offering 2.5Mb and 3Mb ram options for the STE. Both of these are impossible", he told *Atari ST User*.

"I find it disturbing that companies which purport to supply STE upgrades can make such fundamental mistakes and I have even heard reports that Atari UK's own helpline is suggesting that such ram options are possible."

His comments are backed by Frontier boss Andrew Bennett and follow the launch of Frontier's Xtra-Ram STE solder-free upgrade which is offered in 0.5Mb and 2Mb forms.

"We have discovered from discussion with STE designer centres at Atari US and Atari Japan that the STE is designed to be upgraded in the way we recommend", he added.

"I hope that the STE ram expansion market will settle down during the next few months with either these mistaken ram supply companies dropping out of the market altogether or at least not confusing users by supplying

incorrect information".

The STE has four slots for memory boards and since each space is eight bits wide, the slots must be used in pairs to give the STE its required 16 bits of memory therefore an odd number of slots cannot be used.

Only two types of memory boards can be used in the STE slots - 256k and 1Mb. For example, two 256k boards give a 512 STE and two 1Mb boards give a 2Mb STE", explained Martin Walsh. "The STE designers have decided that you cannot mix the memory board types. This means that an STE cannot have two 256k boards and two 1Mb boards which would give the impossible sizes of 2.5Mb".

It is claimed that the only available upgrade options are 512k, 1, 2 and 4Mb.

Frontier's Xtra-RAM STE 0.5Mb package contains two 256k memory boards and the 2Mb version contains two 1Mb boards. Users wanting to upgrade to 4Mb have to buy two 2Mb packages. Xtra-RAM STE also comes with an adaptor allowing the boards to be used with both Simm and Sip connectors.

With full fitting manual testing software, 10 day money-back offer and 12 months guarantee the 0.5Mb version costs £89.99 and the 2Mb version costs £199.99.

Cheaper data

ELECTRIC Distribution (0480 496666) has cut the price of Data Manager Professional by more than 40 per cent from £69.95 to £39.95. The relational database works under Gem with pull-down menus, icons and dialogue boxes.



The best bit is that they only cost £3.00 each!
For our free catalogue of
Public Domain & Shareware software, send an SAE to:

**Public Dominator
1 Bartholemew Road,
Bishop's Stortford,
Hertfordshire,
CM23 3TP**

CD-rom shows its paces

ATARI'S aspirations in the CD-rom market were dusted off for more than 100 software developers who attended the company's two day developers' conference at the Williams racing headquarters, Didcot.

Guests saw the ST controlling an audio CD player and also used as an information retrieval system."

We have had this technology in the warehouse for a couple of years", said a spokesman. "We decided to show it at the conference and everyone was

very impressed with it. When the software starts coming through, we will certainly be going ahead with it".

Guests were also shown the way ahead with the STE and Lynx and on the first day received a marketing and business presentation from Atari UK boss Bob Gleadow.

The PC-compatible Portfolio was also on the agenda and Atari is now rumoured to be bringing out an ST-based version of the hand-held machine.

New Mug game goes on line

A NEW multi-user game from David Mager of Willesden Green, London has hit the ST scene.

He wrote Future Life using GFA Basic 3 and a compiler. It is now online on his Lap of the Gods system (01-994 9119) run with an upgraded 520STFM.

Future Life joins David's existing games Gods and Zone and places the player at the controls of "seven stone weakling" Marcia who pursues her love for Eric the Fabulous while fighting off a cat which thinks it's a dog and a manic warbling telephone - among other things.

"The £11.50 subscription to the system covers unlimited usage of all three MUGs and the attached BBS for one month", said David who can be contacted at 9 Jeymer Avenue, Willesden Green, London NW2 4PJ. Tel: 01-452 3061.

Accent on the arcades

CONVINCED that the home arcade is the ultimate aim of the dedicated games player, arcade machine specialist Electrocoin has launched its own software label, Electrocoin Software (01-961 8705).

Initially, it will concentrate on 16 bit arcade conversions and hopes to add theme licences and original products to its range later this year.

First release is Time Soldier, which has been converted from the SNK arcade success and incorporates all the features of the arcade original.

It tracks the adventures of Yohan and Ben who are two of seven Earth Commandos briefed to destroy the evil Gylend. The game allows the player to control one of the Earth Commandos through six eras before confronting Gylend.



DOMARK partners Dominic Wheatley and Mark Strachan have been indulging in their own off-beat brand of promotions again. They teamed up with Incentive's Ian Andrew to bring a touch of the 16th century to Fulham Palace Church to plug latest release Castle Master.

Sir Dominic and Knight of the Realm Ian battled over the fair hand of Princess Mark in costumes which were used in Monty Python and the Holy Grail. Action adventure Castle Master costs £19.99.

Walkabout joysticks

REMOTE control gameplay is now on offer from Spectravideo (01-900 0024) with its new infra red joystick.

Doing away with leads and plugs, players can walk around the room and still play their favourite game on the ST. The joystick can send infra red rays from as far away as 30 feet, the signals being picked up by a control box which plugs into the back of the computer.

SOFTWARE HOTLINE



RIDDING future worlds of rogue killer insects is the aim of Venus, the latest offering from Gremlin (0742 753423).

Main ally is a new breed of fly capable of seeking out and destroying the enemies. The multi-world, five level, horizontally scrolling shoot-'em-up has five icons, three of which control how the insect can jump, one loses time and the fifth reverses gravity.

There are six weapon strengths picked up by shooting various pods. Price, £19.99.

★ ★ ★

FANS of the questionable comic strip Bloody Kids will soon have a computer version which goes by the same name.

On the £4.99 budget label



Smash 16 from Interceptor Group (0734 817421), the game features a skateboard assault course then various jobs for the kids to undertake. These include a paper round, poster-ing for a record shop, a milk round and glass collection for the local pub.

★ ★ ★

A NEW compilation for the ST is now on sale from Impressions (01-384 2701). It features StarRay from Logotron, Hell Bent from Novagen, Ringside from German firm EAS, Brickbusta from Impressions and costs £24.99.



SK MARKETING

COMPUTER SUPPLIES

10 Fulham Broadway, London SW6 1AA

LONDON'S LEADING

ATARI
DEALER

ATARI HARDWARE

NEW STE POWER PACK

- ★ 520STE + 1Mb Drive
- ★ 20 Top Games ★ Hisoft Basic
- ★ Organiser Software
- ★ Music Package ★ Joystick + Mouse Plus
- ★ Free Dust Cover ★ Free Mouse Mat

**All Only
£359**

ATARI 520STFM DISCOVERY PACK

- ★ 520 STFM + Mouse
- ★ ST Tour - tutorial
- ★ Discover the Atari ST-Book
- ★ Neochrome Art Package
- ★ STOS Game Creator
- ★ Bombjack, Carrier Command, Outrun, Space Harrier
- ★ Control & Emulator Software

£289.99

ATARI SYSTEMS

1040STE	440
1040STE + SM124	530
1040STE + Philips 8833	629
520STE Power Pack + SM124	459
Vortex 40 Mb Hardrive	519
520STFM Discovery Pack + SM124	379
520STFM Discovery Pack + Philips 8833	539
1040STE Power Pack	475
520STE Power Pack + Philips 8833	629

DISK DRIVES

Cumana CSA354 1Mb 3.5" Drive	£94.95
Cumana 5.25" ST Drive	£125.00

1040STE

Hyper Pack

- ★ 1040STFM + Modulator
- ★ Free Hyperdraw
- ★ Free Hyperpaint
- ★ Free Borodino
- ★ Free ST Basic

SKM SPECIAL £445

ATARI MEGAS

Mega ST1	529
Mega ST1 + SM124	579
Mega ST1 + SC1224	729
Mega ST2	789
Mega ST2 + SM124	879
Mega ST2 + SC1224	1035
Mega ST4	1029
Mega ST4 + SM124	1129
Mega ST4 + SC1224	1259

DOT MATRIX PRINTERS

THE
Star
COMPUTER PRINTERS

Star LX10 Multifont Printer	187.00
Star LC10 Colour Printer	213.00
Star NX15 120cps 30ml1 146col	329.00
Star LC24-10	
Latest 24 Pin Machine	329.00

PANASONIC PRINTERS

Panasonic KX-P1124	
Draft - 160 cps, NLQ - 63 cps	295.00
Panasonic KX-P1180	
Draft - 132 cps, NLQ - 38 cps	179.00

Amstrad LQ5000	375.00
Amstrad DMP4000	229.00
Amstrad LQ3500	265.00
Amstrad DMP3250	150.00

MONITORS

Atari SM124 (Mono Monitor)	£110.00
Atari SC1224 (Colour Monitor)	£285.00
Philips CM-8833 High Res Colour	£269.95

BOOKS ST

1001 Things to do with Atari ST	10.00
Atari ST 3D Graphic Prog	18.95
Atari ST BASIC to C	18.95
Atari ST Basic Training Guide	14.95
Atari ST Explored	8.95
Atari ST Graphics Sound Prog	11.60
Atari ST Internals	16.95
Atari ST Intro to Midi Prog	16.95
Atari ST Logo Users Guide	16.95
Atari ST Machine Lange 68000	16.95
Atari ST Programmers Guide	16.95
Atari ST Programmers Guide	18.45
Atari ST Trick & Tips	16.95
Atari ST for Beginners	14.95
Computes Atari ST machine Lang	18.95
Concise Atari ST PRG Rev. ed	17.95
Elementary ST Basic	14.95
GEM Programmers Reference Gde	16.95
GFA BASIC Advanced Programming	15.95
GFA BASIC Quick Program Ref ST	13.95
Graphic Applications Atari ST	9.95
Kids and the Atari ST	16.95
Learning C on the Atari ST	18.45
Midi & Sound Book for Atari ST	16.95
Musical Applications Atari ST	5.95
Practical Logo for Atari ST	6.95
Program in GFA BASIC	9.95
Presenting the Atari ST	15.95
ST App. Guide Programming in C	19.95
ST Applications	16.95
ST Artist	16.95
ST Disk Drives Inside & Out	18.95
Tech Ref Gd Atari ST Vol 1	19.95
Tech Ref Gd Atari ST Vol 2	19.95
Understanding Atari ST Basic	16.95
Using ST Basic Atari ST 2nd ed	9.95

PROFESSIONAL ATARI SOFTWARE

1st Mail	£14.95
CAD 3D V.1	£19.99
Quest for the Timebird	18.95
Cyber 3D Developers	£15.90
Cyber Architecture Design	£15.90
Cyber Cartoon Designs	£20.00
Cyber Control	£30.95
Cyber Future Designs	£15.90
Cyber G.I.S.T. (Sound Ed.)	£15.90
Cyber Human Designs	£15.90
Cyber Paint	£39.95

PROFESSIONAL ATARI SOFTWARE

Cyber Sculpt	£59.95
Cyber Star Struck	£17.99
Cyber Studio	£39.95
Cyber Texture	£34.95
Cyber Video Tiling	£17.24
Data Manager Pro	£30.95
Data Scan by Kempston	£245.00
Degas Elite	£20.95
Devpac 2.0	£41.00
Easy Draw 2	£39.95
Easy Draw 2 Supercharged	£59.95
Easy tools	£29.95
First Word Plus V.3 (new)	£59.00
Flair Paint	£27.95
Fleet St. Publisher	£87.00
GFA Basic Interpreter V.3	£32.00
GFA Basic Compiler	£24.95
GFA Draft Plus	£98.00
GST Compiler	£19.95
GST Macro Assembler	£19.95
Hisoft Power Basic	£35.00
Hisoft Basic	£55.00
Home Accounts	£23.00
K-Data	£36.00
K-Graph 3 (new)	£35.00
K-Spread 3 (new)	£65.00
K-Word 2	£40.00
Mailshot	£24.95
Mailshot +	£34.95
Mark Williams C.V.3	£115.00
Mastersound	£33.95
Mini Office Communications	£18.90
Mini Office Presentation Graphics	£18.90
Mini Office Spreadsheet	£18.90
Modula 2 Standard	£73.00
Modula 2 Developers	£113.00
Prospero C	£99.95
Prospero Fortran	£99.95
Prospero Pascal	£79.95
Protect V.4	£69.00
Sage Accountant	£136.85
Sage Accountant Plus	£210.45
Sage Bookkeeper	£84.00
Sage Financial Controller	£305.00
Scan Art & Draw Art	£54.95
Spectrum 512	£29.95
Superbase Personal	£45.00
Superbase Personal 2	£69.00
Tampus 2 Editor	£29.95
Timeworks DTP	£75.00
Timeworks Partner	£35.00

Afterburner	15.95
Arche Age 4	15.95
Achilles	15.95
Aquanaut	19.99
Adv. Rugby Sim	9.95
African Raiders	13.90
Altered Beast	14.90
APB	14.90
Armada	15.90
Asterix	15.90
Axel's Magic Hammer	14.90
Baal	13.90
Balance of Power 1990	19.90
Ballistik	13.90
Barbarian Pygmalion	15.90
Barbarian 2 (Palace)	17.45
Batman The Movie	15.90
Battle Chess	17.45
Battlehawks	17.45
Battlechess	17.45
Beam	16.90
Bermuda Project	15.95
Bionic Command	15.90
Blastoids	14.90
Blood Money	14.90
Blood Wych	16.90
Borodino	19.95
Breach	15.90
Bridge Player 2150	19.90
Beverly Hills Cop	15.90
Chambers of Shaolin	13.90
Chaos Strikes Back	16.90
Chariots of Wrath	17.45
Circus Attractions	15.90
Colossus Chess X	15.90
Conflict Europe	17.45
Crazy Cars 2	15.95
Custodian	16.95
Chase HQ	14.90
Captain Fizz Meets Blastoids	12.95
Deja Vu	15.90
Dominator	15.90
Double Dragon II	14.90
Dogs of War	14.90
Dungeon Master	16.95
Dungeon Master Editor	7.95
Demon's Tomb	17.45
Dragons of Flame	17.45
Dr Dooms Revenge	15.90

Elite	15.90
Empire Strikes Back	14.90
Eye of Horus	17.45
Exterminator	17.45
F15 Strike Eagle	15.95
F16 Combat Pilot	15.90
Falcon	17.45
Falcon Mission Disk	14.90
Ferrari Formula 1	16.90
Flight Simulator 2	36.80
Football Manager 2 Expansion	13.95
Football Director 2	13.95
Foundation's Waste	9.95
Forgotten Worlds	15.90
Fun School II (8 years)	14.90
Fun School II (6-8 years)	14.90
Fun School II (under 6 years)	14.90
Fusion	17.45
Fallen Angel	13.90
Fast Lane	13.90
Fiendish Freddy	15.90
Fighter Bomber	20.90
Future Wars	15.90
Gary Linekar	9.95
Gauntlet II	9.95
Gemini Wing	15.90
Ghosts n' Ghosts	14.90
Ghosts n' Ghosts II	14.90
H.A.T.E.	14.90
Hawkeye	15.90
Hell Raiser	17.45
Honda RVF	16.90
Hyperdrome	14.95
Hard Drivin	14.90
Hound of Shadow	17.45
Indiana Jones/Adventure	15.90
Indiana Jones/Arcade	14.90
Iron Tracker	13.90
Interphase	16.90
Iron Lord	17.45
Japan Scenery Disk FS2	13.95
Jack Nicklaus Golf	16.90
Kennedy Approach	17.95
Kick Off	13.90

Kings Quest Triple Pack	24.95
Kings Quest 4	20.90
Kick Off Kite Time	9.95
Laser Squad	17.45
Leisure Suit Larry	14.90
Leisure Suit Larry 2	20.90
Leonardo	16.90
Licence to Kill	14.90
Lombard RAC Rally	15.90
Light Force	17.45
Mr Hell	15.90
Manhunter	19.90
Masters of Universe	13.95
May Day Squad	13.90
Mickey Mouse	13.95
Microleague Wrestling	15.95
Microscope Soccer	15.90
Milennium 2.2	17.45
Mind Fighter	14.95
Munsters	14.95
Magnum 4	21.95
Maniac Mansion	16.90
Mega Pack Vol II	15.90
Mindbender	14.90
Moonwalker	17.45
Mystery of the Mummy	14.90
Never Mind	13.90
New Zealand Story	14.90
Night Rider	14.90
North & South	15.90
North Star	13.95
Offshore Warrior	14.95
Oil Imperium	15.90
Operation Wolf	14.90
Onslaught	16.90
Outlands	13.90
Pac Land	13.90
Passing Shot	14.90
Personal Nightmare	19.90
Peter Dinklage Soccer	13.90
Police Quest	14.95
Police Quest II	17.45
Populous	17.45
Populus Datedisk	9.95
Powerdrome	17.45
Precious Metal	17.45
Premier Collection	20.90
Paperboy	13.90
Powerdirt	16.90

Premier Collection II	20.90
Quartz	15.90
Quest for the Timebird	18.95
Rainbow Islands	15.90
Ultima 4	16.95
UIMS	18.90
UIMS Scenario 1	9.95
UIMS Scenario 2	9.95
Untouchables	14.90
Victory Road	14.90
Virus	13.90
Virus Killer	10.95
War in Middle Earth	13.90
War Zone	16.95
Waterloo	17.45
Winners	20.90
Xenon II Megaplast	17.45
Yakbols	14.90
Zak McKracken	17.45

Toobin	14.90
Turbo Outrun	14.90
Twin World	15.90
Ultima 4	16.95
UIMS	18.90
UIMS Scenario 1	9.95
UIMS Scenario 2	9.95
Untouchables	14.90
Victory Road	14.90

LATEST RELEASES

American Dreams	17.90
Black Tiger	14.90
Chess Player 2150	17.90
Conqueror	17.90
Drakshen	20.90
Fire	15.90
Future Dreams	17.90
Future Wars	17.45
Full Metal Planet	17.45
Ghouls n' Ghosts	14.90
Gold of the Realm	13.90
Hot Rod	17.90
Hyperaction	17.90
Last Dutchmans Mine	13.90
Leaving Terram	14.90
Manchester Utd	14.90
Midwinter	21.90
Operation Thunderbolt	14.90
Pinball Magic	16.90
Pipermania	14.90
Player Manager	13.90
Pro Tennis Tour	17.45
Pursuit to Earth	14.90
Rotor	14.90
Space Ace	32.95
Space Harrier II	14.90
Starlight	17.90
Star Wreck	13.90
Street Fighter	9.99
Stryx	14.90
Supreme Challenge	21.90
Table Tennis Simulation	14.90
Ultimate V	20.90
Wayne Gretzky's Hockey	17.90
World Class Leaderboard	9.99
X-OUT	13.90

SECOND SHOWROOM ACQUIRED



Fulham Broadway -
opposite station, District Line
Rickmansworth Station -
5 minutes walk,



South London:
13 Fulham Broadway
London SW6 1AA
Tel: 01 381 6618
Fax: 01 381 0528

North London:
13 Moneyhill Parade
Uxbridge Road
Rickmansworth
Herts WD3 2BE
Tel: 0923 896969
Fax: 0923 771058

PERSONAL CALLERS WELCOME AT
BOTH SHOWROOMS

MONDAY-SATURDAY 9.30am - 5.00pm

SALES HOTLINE
0923 896969

To order: Please send cheque/PO/Access or Visa details to SK Marketing Ltd,
13 Moneyhill Parade, Uxbridge Road, Rickmansworth, Herts, WD3 2BE.

All prices include VAT and carriage is free (UK mainland)

24 hour hotline for
credit card orders



All prices subject to change
without notice

All goods subject to availability

New fonts for PageStream

A NEW line of professional, high quality fonts for PageStream on the Atari ST has been developed in New York by Dennis Palumbo (0101 516 352 5605).

Using 36 point screen fonts, the new line is designed to improve screen resolution. It features Gallya Ornamented, Kooper Black and Plaebill typefaces including upper and lower case letters, numbers, punctuation plus foreign and special characters.

"The 36 point screen fonts are unique in that no other producer includes them as a regular part of their complete line", claims Dennis Palumbo. "A bonus included with this disc is the public domain 36 point Helvetica screen font".

Each font contains a minimum of 184 characters and comes with a 90 day warranty. Until June 1, there is a special introductory price of \$29.95, with \$2 for shipping. Contact Dennis Palumbo at 104 Barrymore Boulevard, Dept B, Franklin Square, New York 11010.

Speed the easy way

GASTEINER Technologies (01-365 1151) has produced Mega ST and STE versions of PC emulator PC Speed, and the good news is that both can be installed without soldering.

Called SpeedBridge, the Mega version plugs into the system bus directly behind the 68000 CPU. On the STE it plugs into the same socket as the CPU. Price £49; upgrade free.

Since PC Speed was reviewed in the May issue of *Atari ST User* a new upgrade has been produced. Version 1.4 gives access to 24 partitions on the hard disc by using the Add Part Sys driver. It also allows more than one hard disc to be used and in CGA mode, Tandy 1000 resolution can be displayed with 320 x 200 pixels in 16 colours. Using the Pcs Opt Cm program, compatibility is increased.

Deadline extended

ACTIVE Distribution (01-384 2701) has extended the entry deadline for its Paris-Dakar 90 competition which gives game players the chance to win a Peugeot 205 Junior car.

The Tomahawk game recreates one of the world's toughest car rallies and to enter the competition, players must send in their highest score with the verification code by the new date of June 15.

Five highest scorers from the UK and Ireland will play off in London on October 28 and at the same time play-offs will be held in France, Germany, Spain and Italy. Top scorer of the 25 Euro-finalists will win the car.

Little laser with a lot

BILLED as the most competitive dual bin laser printer to hit the ST market, the Dataproducts LZR 650 is now on offer from Mekom Computer Products (021-766 6886) for £1,625.

Measuring 1.3 feet square, it is claimed to have the smallest footprint of any laser printer. The LZR prints six pages a minute, has a 4.5Mb memory and five emulations as standard - HP Laserjet Series II, Diablo 630, Epson FX-80, IBM Proprinter and IBM Graphics.

"I believe this to be the most fully featured, user friendly and cost effective laser printer in the up to 8 page per minute market sector", said Mecom sales director John Spencer. "It should lead that market by the middle to end of this year".



Midi sounds of your own

MIDI musicians can now create their own unique library of sounds with the help of CMpanion, the latest in the Gajits range of professional sound development programs from Roland (01-568 4578).

Designed to help users get the most from their Roland CM module or MT-32, it allows them to modify the inter-

nal sounds and instrumental arrangements.

The instrument, connected to the computer via Midi and CMpanion, shows the contents of the module as full screen graphics displays. Parameters can be altered at the click of a mouse to develop individual sounds. Price, £99.

More packs converted

KOSMOS Software (05255 3942) has now released ST conversions of its six most popular educational packages.

Four titles aim to suite the needs of beginners, GCSE and advanced language students. They are The French Mistress, The German Master, The Spanish Tutor and The Italian Tutor. Including large vocabularies, they allow students to choose from a range of learning and test modes and also to create their own special lessons such as homework or revision lists. These can be easily stored on disc for recall at exam time.

For ease of use, the vocabulary is

arranged under 32 separate headings such as the family, dwelling, vehicles, substances, parts of the body and food and drink. There are more than 2,500 items of vocabulary. Price, £19.95.

Rounding off the new ST conversions are two educational quiz programs - Answer Back Junior and Answer Back Senior. They combine databases of general knowledge questions with simple games. Each program contains 750 questions spread over 15 topics.

Junior subjects include nature, music, nursery rhymes, books, poetry, sums and spelling. Senior questions include science, history, geography, literature, astronomy, music, art and sport.

Answer Back also costs £19.95 and extra quiz questions called Factfile 500 can be bought for £9.95.

Atari on show

ATARI products will have a strong showing at the second 16 Bit Computer Fair to be held at the Royal Horticultural Halls, London from June 28 to July 1. A follow-up to the inaugural show held in January, it is again organised by Westminster Exhibitions (01-549 3444).

Go back for chess

SERIOUS games players have three new offerings for the ST from CP Software (0993 823463).

The Oxford Softworks Chess Champion 2175 is an updated and improved version of best-selling Chess Player 2150. It combines the power of the original program with expanded features including opening book control and greatly improved playing strength. Price, £29.95.

Backgammon Player Professional is a fully featured computer version of the ancient oriental game. It includes dice and doubling cube, variable playing speed and full scoring. Price, £19.95.

Go Play Professional for the ST features Go, the oriental equivalent of chess which is so complex it was considered unprogrammable. Price, £29.95. Each of these games is available in French, German and Spanish as well as English.

Hi-res link for monitors

ALLOWING up to eight monitors to be connected to a single computer, the new multitat RGB distribution amplifier from Interactive Media Resources (0902 25444) is the latest product to put the ST at the centre of professional video applications.

Making a whole new range of facilities possible, Multitat uses RGB instead of video so graphics can be distributed down long lengths of cable without the degrading effects associated with video. This means that high resolution screens retain their clarity and colour detail.

The distribution amplifier is aimed at such applications as public information, advertising systems in shops and shopping arcades, bus stations, exhibitions and for teaching in both classrooms and lecture theatres.

There are two models, the basic Multitat with four outputs costing £175 plus £5 carriage and Multitat Plus with eight outputs and costing £300 plus £6 carriage. Scart output leads cost £5 each.

SOFTWARE HOTLINE

EGGS are at the centre of *Infestation*, the latest ST release from Psygnosis (051-709 5755). They are incubating alien eggs, the contents of which threaten the future of mankind.

The player takes the role of Kal Solar, agent for the Interplanetary Federation, whose mission is to eliminate threats from hostile lifeforms. Along the way there are running battles with alien eggs which can release deadly nerve gas. The player is equipped with a sophisticated pressurised body suit, oxygen pack, battery pack and cartridge pulse rifle.

Infestation costs £24.95.

★ ★ ★

FUTURISTIC graphics plunge players into a strange and frightening world in *Final Command*, the new offering from French software house Ubisoft (010 33 148 98 99 00).

The space adventure maps world wars through to 2025 when the superpowers create a confederation - The United State of Earth - to combat the Horgants. The player takes the role of agent YG 30 who is sent to unknown planet Ipsos III to



find the information banks of a teletransporter, equipped with a B138 laser pistol, a miniature computer and a telepathic headset.

★ ★ ★

ACCOLADE (01-738 1376) has launched the first compilation of some of its most popular titles.

Driving simulation *Test Drive*, golf games *Mean 18* and *Famous Courses I and II* are teamed with baseball simulation *Hardball* for a price of £29.99.

Getting down to molecules

ATARI ST owners who need to illustrate molecular structures or want to animate them for lectures have been provided with the right tool by The ST Club (0602 410241).

Molgraph is a molecular graphics program which includes display, rotate and scale models supporting vector, sphere and two types of ballstick displays.

The build features provides a versatile method of combining 3D fragments of molecules into new structures. Displays can be printed directly from Molgraph or saved to disc for use in word

processor or DTP packages. Frames can also be saved for use in Molgraph's movie feature, which present short movie sequences showing molecular rotation.

Fully Gem driven, the package makes use of drop-down menus and instruction boxes, runs in high resolution mono or low resolution colour and costs £12.95.

The ST Club has also produced a manual to help guide ST owners through the pitfalls of desktop publishing. For use with Timeworks, it costs £9.95.

Stealthy investigations

AS a successor to *Future Wars*, Palace Software (01-278 0751) has announced *Operation Stealth* from Delphine/Cinematique.

Put together by the same team as *Future Wars*, it features an enhanced Cynematique system and a complex plot. The player becomes CIA agent John Glames briefed to investigate the disappearance of a top secret Stealth bomber from a US airforce base. Price, £24.99.

Also new from Palace is *Colorado* which follows the fortunes of David O'Brien, a penniless trapper who comes across a dying Cheyenne

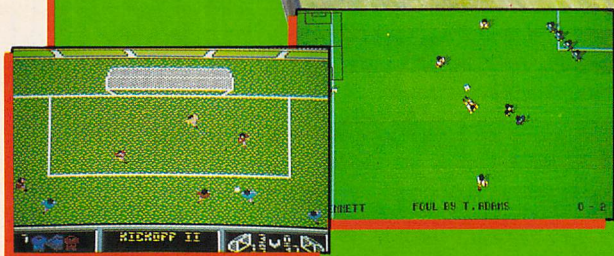


Colorado... action in the wilds

indian in the American wilderness.

Vowing to bury him in the style of a warrior, O'Brien is rewarded with an ancient map showing the way to the legendary lost gold mine of Pocahontas but to get there he must travel through alien Pawnee territory, across wolf-infested lands and down the deadly rapids of the Colorado River. With 100 screens of 3D arcade action, *Colorado* costs £24.99.

KICK OFF 2



ANCO

ANCO SOFTWARE LTD., UNIT 10, BURNHAM TRADING ESTATE ROAD,
DARTFORD, KENT. Telephone No.: 0322 92513/92518. FAX No.: 0322 93422.

MAY RELEASE
AMIGA - ATARI ST - IBM PC
CBM64 - SPECTRUM - AMSTRAD

ATARI ST and C- AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!

520 STE Power Pack £359.00

Inc. VAT and Next Day Delivery

**NEW
STE**

Power Pack Includes:

- ★ 520 STE 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
 - ★ 4096 Colour Palette
 - ★ 8 Channel digital stereo sound
 - ★ 4 Joystick Ports
 - ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
 - ★ Organiser Business Software including WORDPROCESSOR, SPREAD-SHEET and DATABASE.
 - ★ First BASIC and First Music Utility Software.
 - ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95.
 - ★ All leads, manuals PLUS MOUSE and free mains plug!
- REMEMBER!** Many ST's do not come with BASIC – ours come with ST BASIC REV D by Metacomco.

AMIGA A500 BAT GAMES PACK £399.00

Inc. VAT and Next Day Delivery



BAT Games Pack Includes:

- ★ Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV
- ★ DELUXE PAINT II GRAPHIC PACKAGES
- ★ PHOTON PAINT II graphics package with animation worth £70.00.
- ★ FREE, only-just-released BATMAN-THE MOVIE games software.
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16-INTERCEPTOR – amazing 3D flight simulator software.
- ★ A further £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ FREE MOUSE MAT, JOYSTICK and 10 BLANK DISKS
- ★ Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Step by Step Tutorial
- ★ All leads, manuals PLUS MOUSE and mains plug!

520 STE Explorer Pack £279.00

**NEW
STE**

- ★ Explorer Pack includes 520 STE 512K Keyboard with built-in 1 Megabyte Disk Drive and TV modulator
- ★ 1 FREE Game, ST Tutorial and METACOMCO Basic worth £25.00
- ★ All Leads, Manuals PLUS MOUSE and FREE Mains Plug!
- ★ Free mouse mat worth £4.95

AMIGA 1 MEG BAT GAME PACK £529.00



1 Meg Bat Games Pack Includes:

- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
- ★ Everything listed for the A500 Bat Game Pack
- ★ DRAGON'S LAIR 1 MEG MEGAGAME!

1040 STE BUSINESS PACK £479.00

- ★ Includes the new 1 megabyte 1040 STE keyboard plus over £200 worth of business software including WORD UP wordprocessing software, featuring glossary and mail merge, K-Spread 3.0 spread sheet and SUPERBASE PERSONAL Database software. Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.
- ★ 1040 STE Keyboard without Software £439.00

MEGA 1 BUSINESS PACK £549.00

Features:

- ★ Separate Keyboard and System Unit
 - ★ Inc. all software supplied with 1040 STE Business Pack
 - ★ Blitter chip installed for faster graphics
- Inc SM124 Mono Monitor £628.00

AMIGA A500 CLASS OF THE 1990's BUSINESS & EDUCATIONAL PACK £549.00

FEATURES:

- ★ Amiga A500 & TV Modulator
- ★ Midi Interface & Software
- ★ Kind Words II word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxiplan 500 Spreadsheet
- ★ Amiga Logo, BBC Emulator, Deluxe Paint II
- ★ Mouse Mat, 10 blank disks and disk wallet

ACCESSORIES

- | | |
|--|--|
| Quickshot II Turbo Joystick £9.95 | Branded Memorex 3.5" DS DD Disks |
| Competition Pro 5000 Joystick £13.95 | Box of 10 £13.95 |
| Competition Pro with Autofire £14.95 | Memorex Disk Box |
| Konix Speedking Joystick £11.95 | For 40 3.5" Disks £8.95 |
| Red Mouse Mat with Amiga logo... £5.95 | Amiga 1/2 Meg Expansion £119.95 |
| Plain blue Mouse Mat £4.95 | Control Centre Atari or Amiga £44.95 |
| Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95 | |

PRINTERS

- | | |
|--|---------|
| Star LC24-10 24 pin incl. lead ST/Amiga | £249.00 |
| Star LC10 including interface lead for ST/Amiga | £169.00 |
| Star LC10 colour including interface lead for ST/Amiga | £219.00 |
| Citizen 120D including interface lead for ST/Amiga | £139.00 |
- SEIKOSHA 80 COLUMN PRINTERS – AMAZING PRICES**
- | | |
|--|---------|
| Seikosha 9 pin NLQ including interface lead for ST/Amiga | £139.00 |
| Seikosha 24 pin LQ including interface lead for ST/Amiga | £239.00 |

EXTERNAL DISK DRIVES

- | | |
|---|---------|
| Atari SF314 1 Megabyte | £139.00 |
| Amiga A1010 1 Megabyte | £109.00 |
| Cumana 1 Megabyte Atari or Amiga | £89.95 |
| NEC 1 Megabyte Atari or Amiga | £79.95 |
| Atari Megafile 30 Hard Disk | £439.00 |
| New! Commodore A590 20 meg hard disk | £369.00 |
| A590 Hard Disk & Memory Upgrade installed | Phone |

MONITORS

- | | |
|--|---------|
| Commodore Amiga A1084 Stereo colour Monitor inc. lead | £269.00 |
| Atari SC1224 Colour Monitor inc. lead | £259.00 |
| Atari SM124 Mono Monitor including lead | £119.00 |
| Philips CM8833 stereo colour monitor inc. lead for ST or Amiga | £259.00 |

CREDIT CARD ORDERLINE 0908 378008 (Mon-Sat 9am-6pm)

To order: either call the orderline above with your credit card details OR make a cheque/PO payable to: Digicom Computer Services and send it with your order to the address below. Callers are also most welcome at the address below

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES MK2 2AZ

All prices include VAT and day delivery by courier.
Written details on request APR 34.5% variable



GALLUP

software chart

This month	Last month	Title (Software House)	Price	Month reviewed in Atari ST User	Comments	Marks from 10
1	8	RAINBOW ISLANDS <i>Ocean</i>	24.99	June 1990	Bubble Bobble heroes return to a New Zealand Story-type setting. Chase rainbows and stun your enemies with them.	8
2	NEW	MIDWINTER <i>Microprose</i>	24.99	June 1990	Atmospheric with very nice graphics. The setting is beautiful and gameplay and animation superb. Definitely not to be missed.	9
3	NEW	ITALIA 1990 <i>CodeMasters</i>	4.99	May 1990	Quite good with nice animation and scrolling. Small sprites, but very clear. An inexpensive way to enjoy the World Cup.	7
4	11	CAPTAIN BLOOD <i>Smash 16</i>	4.99	April 1988	French styling, effects and graphics at their best. Jean-Michel Jarre's music and a plot line which is different. An absolute must.	10
5	2	OPERATION THUNDERBOLT <i>Ocean</i>	19.99	May 1990	Arcade conversion time again with the sequel to Operation Wolf. Rescue hostages while dodging jets, tanks and helicopters.	8
6	4	ADVANCED SKI SIMULATOR <i>CodeMasters</i>	4.99	*	Budget releases make their mark this month. Not a re-vamp and if you feel in need of snow, this is your chance to catch up on the piste.	7
7	7	PLAYER MANAGER <i>Anco</i>	19.99	May 1990	Strategy version of Kick Off. The interactive match highlights make up for strategic deficiencies. Basically an excellent game.	7
8	NEW	MANCHESTER UNITED <i>Krisalis</i>	19.99	May 1990	Management and match with superb digitised pictures of the team. Not just for those with the red and white scarves. A fine game.	9
9	5	CHASE HQ <i>Ocean</i>	19.99	March 1990	Out Run in a new suit, but far better. Similar in graphics and style, your Porsche chases the villains across America.	9
10	6	BATMAN – THE MOVIE <i>Ocean</i>	19.99	Feb 1990	Beautiful graphics and superb use of linking screens. Certainly one of the best film conversions ever. Atmospheric, brilliant.	8
11	1	CHAOS STRIKES BACK <i>Mirrorsoft</i>	24.99	April 1990	So you thought you had mastered the dungeon? Well FTL has a few surprises in store for you. Well worth the sleepless nights.	9
12	NEW	SAS COMBAT <i>Code Masters</i>	4.99	June 1990	Who Dares Wins – and who doesn't when all you have to lose is £5. So don the beret and hand grenade and get stuck in.	8
13	9	GHOULS AND GHOSTS <i>US Gold</i>	19.99	Feb 1990	Manages to capture the balance of addictive, unusual and extremely tough gameplay found in the original coin-op. One to look out for.	9
14	3	BOMBER <i>Activision</i>	29.99	Oct 1989	Vektor Grafix's much vaunted multiple polygon simulator. The zoom and alternative views of your aircraft make it special.	9
15	12	EXTRA TIME <i>Anco</i>	9.95	May 1990	If you've already bought Kick Off you might now need a new challenge. So go into extra time with some new playing surfaces.	8
16	NEW	NINJA WARRIORS <i>Virgin</i>	19.99	Feb 1990	You can now stop waiting for a good martial arts game on the ST. A superb arcade game conversion to return to again and again.	8
17	10	HARD DRIVIN' <i>Domark</i>	19.99	Jan 1990	Will meld itself to your abilities. The harder you drive, the greater the thrill, and the simulator makes for exciting driving.	9
18	20	TREASURE ISLAND DIZZY <i>CodeMasters</i>	4.99	*	Remember Dizzy? If so and you would like to renew your acquaintance, here's your chance. He's had a recent facelift, too.	6
19	NEW	SUPERCARS <i>Gremlin</i>	19.99	*	Another working of an old theme. Nicely done and if you are smitten by the driving bug you won't be disappointed.	7
20	NEW	PROHIBITION <i>Smash 16</i>	4.99	June 1987	Set in '20s America, you must shoot the hoods before they get you. Quick responses and a good eye needed.	9

PC

ALL PRICES
ON THESE PAGES
INCLUDE
VAT AND DELIVERY

POWER CO

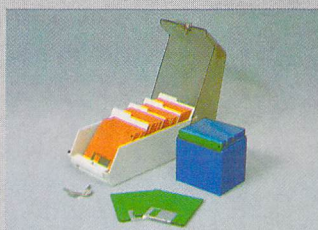
A selection of special deals only available

POWER DRIVES

At least £10 cheaper than the competition with no compromise on quality and performance.

- 720K Formatted capacity
- Quiet and Reliable
- Epson or Citizen mechanism as used in new STE's
- Compatible with all ST's
- Slimline and colour matched
- Free Diskette
- 12 month warranty
- Made in the UK!

40 Disks* and lockable
storage box
£29.95
INC. VAT



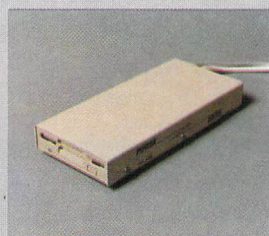
15 Disks* and
Storage Box
£9.95
INC. VAT

From
£59.95
INCREDIBLE!

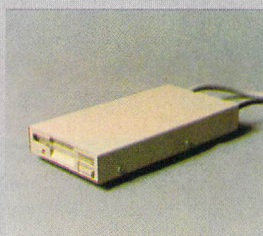


80 Disks &
lockable storage box
£59.00

SPECIAL Buy any Power Drive
and get BLITZ TURBO for only
£19.95!



PC720
Power Drive
with built-in
240v Power
Supply and
connection
leads.
£79.95



PC720E
Power Drive
powered from
ST Joystick
Port. Includes
joystick
through port
£59.95



DD003
3.5" Internal
replacement
drive &
instructions*
*requires case
modification and
opening of ST
£59.95

All trade marks acknowledged.

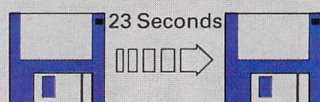
ALL PRICES SUBJECT TO CHANGE

BLITZ TURBO!

£24.95

The ultimate personal backup tool that will backup most ST Diskettes (double or single-sides) in a fraction of the time of GEM™ or other copy programs. With Blitz a single sided turbo format and copy takes only 23 seconds and 41 seconds for double sided! Blitz works by passing the ST's disk controller chip and copying from the internal drive to an external one. Literally 1000's of users now, including all PD libraries and anyone who needs to backup in a hurry A MUST. AN EXTERNAL DISK DRIVE IS REQUIRED - See offer

1988 copyright Act. It is illegal to copy copyrighted material without the permission of the copyright owners.



PC 5.25 Disk Drives & Emulators

Need Help?
0234-267537
3 PM - 5 PM

3.5/5.25 Multidrive

The king of ST disk drives with combined 3.5" and 5.25" units and built-in PSU. A special lead provided allows you to use both drives and your internal drive together. The 5.25" drive is 40-80 track switchable and is ideal for use with PC emulators.

£199



5.25 Disk Drive

This fully switchable 5.25" 40-80 track disk drive has a built in PSU and is ideal for use with PC emulators or as an alternative storage medium using cheaper 5.25" diskettes.

£99

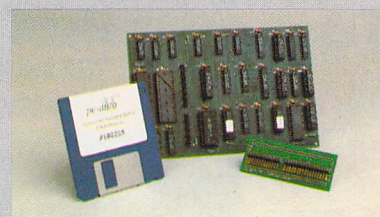


NEW! PC - DITTO II

£229

We stock a wide range of Macintosh and PC emulators
PC ditto £79.95 (£50 with 5.25" or multidrive)
Supercharger £299
Spectre 128GCR £379
Aladin + Exchanger £299

Please call for the latest information



COMPUTING

Available from Power House DIRECT!

ATARI® STE

520 STE POWER PACK **£399** 1040STE **£499**

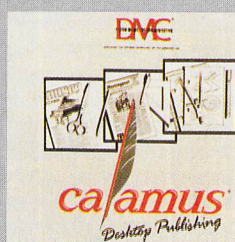


The Atari of the 90's

- Stereo Sound, Game Ports
- Blitter
- Memory easily upgradable*
- TOS 1.6

- Faster Hard Disk Access
- Totally ST compatible for all good software!
- Only from Power, Hyper Draw, Hyper Paint & **FREE NEODESK v2!**

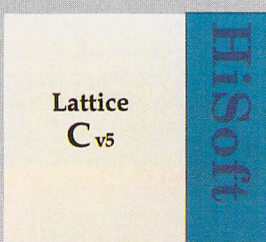
*Requires case to be opened and may void warranty



STE DTP Business

- STE
- 20MB Hard Disk
- Timeworks DTP, First Word Plus, Superbase, Kspread 2
- Mono Monitor
- 15 Disks + Box

512K £799; 1MB £899
2MB £999; 4MB £1099



STE Programming

- STE
- 20MB Hard Disk
- Lattice C v5, Tempus 2
- Mono Monitor
- 15 Disks + Box

512K £799; 1MB £899
2MB £999; 4MB £1099

Other Systems available including Calamus Pro DTP, Superbase Professional and Music applications

STOP PRESS ZIP 1MB Memory Modules for STE now available £Call

PRINTERS

The printer deal from Power Computing!
Complete printer systems with nothing more to buy!

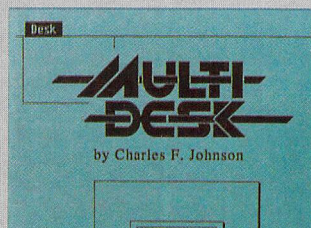
LC10 Mono £169
LC10 Colour **£229**
LC10-2 Mono £199
LC10 24 Mono £269



Deal includes

- Printer
- 200 sheets microperf paper
- 200 address labels
- Parallel cable
- The amazing Flexidump printer utility worth £29.95!

Power are the specialists in serious software & books for the ST enthusiast at prices that are rarely matched by our competitors. Large stocks of the latest versions and an extensive showroom display avoids disappointment.



ART & GRAPHICS

(Typically 30-40% off rrp)

Quantum Paint Gold v2 £15
Spectrum 512 £45
Cyber Studio £62
Campus Draft £69
Dyaacadd £Call
Easy Draw Turbo £72
CAD 3D £19
STAD £99

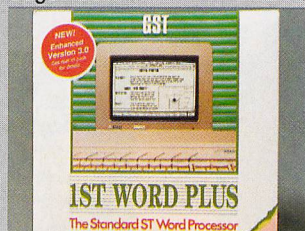
WORD PROCESSING & DTP

Calamus £458
Oline Art for Calamus **£172.50**

Pagestream £149
Timeworks £72
Wordup £40
First Word + Script £62
Microsoft Write **£89.95**
Signum 2 £62
Protext £184
£74.99

BUSINESS

K Spread 3 £63
K Graph 3 £35
Logistix £87
Superbase 2 £69
Superbase Pro £175
K Roget £32
Sage Accountant £149



Sage Financial Controller £399
Datafax £35

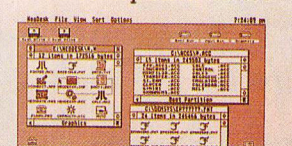
LANGUAGES ETC

Power Basic £29

Hisoft Basic £55
GFA 3 Interpreter £49
GFA 3 Compiler £23
Laser C v2 £129
Laser C debugger £45
Lattice C v5 £79
Hisoft C Interpreter £35
Personal Pascal £55
K Resource £23
Tempus 2 £35
Devpac £40
Weracs £20

NeoDesk 2.0

The Desktop Alternative



UTILITIES

Twist £29
Neodesk II £35
Revolver £39
K Com £35
Flash £19
Rubyview £49
PC Ditto £79
Knife ST £29.95

POWER HOUSE DIRECT

Power House, the direct sales arm of Power Computing Ltd — Leaders in peripherals & software — is the natural choice for the ST enthusiast. Highly competitive prices, a wide choice, fast computerised service and the backing of a £2M+ 5 year old company are just some of the reasons for tele-shopping at Power. Large stocks, friendly reception and "if it don't work we give you a new one" are a few more!



"The Extensive Power House Bedford Showroom" open Monday to Saturday 9.30am - 6.00pm
Thursday & Friday 7.00pm

Power Computing Ltd,
Power House, 44A Stanley Street,
Bedford MK41 7RW

Orders Only 0800 581742 Free Call
General Enquiries & Orders
0234 273000 (5 lines)

Name

Address

Postcode

Telephone

System owned

Credit Card no.

Expiry date

Signature

I would like to order

Make cheques payable to
Power Computing Ltd

I enclose a cheque / PO for
£

BEATING 'EM

Combat games enjoy an almost cult following on the ST. Here Anthony Houghton presents a round-up of the best games on offer

BEAT-'em-ups are often the focal genre for people's negative views about computer games. They claim that they encourage mindless violence, mental corruption and desensitisation. Anyone who has played a beat-'em-up will tell you that it's more a case of good fun, a test of skill and reactions, a situation where you're dealing with the unpredictable.

The ST initially posed a problem in home computer beat-'em-up history since it offered the processing power to create ever more graphic depictions of violence – most people ignore the fact that coin-op

graphics are often far more explicit.

But even the ST doesn't go very far: The most offensive moments a beat-'em-up has attained are found in the decapitation scene of Palace's *Barbarian* – in context, hardly a video nasty.

Most kick and punch games are limited to 16 moves, for the simple reason that the joystick only has eight directions and a fire button – which doubles up the movement capability.

They are, in fact, quite limited in what they can do. Far from stimulating the imagination to acts of aggression, they reduce it to concentrating on specific skills.

The elements that make a good beat-'em-up are diverse. The most important for the solo player is the computer intelligence level: Having an opponent that is too easy to defeat – as did *Street Fighter* – quickly becomes a boring waste of money.

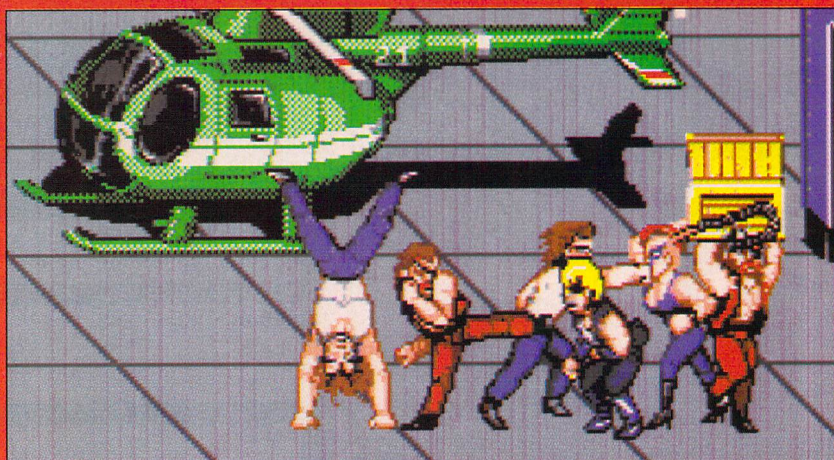
The choice of screen display is also important. If a game just presents two opponents fighting each other, then a single screen display is best, as in *Barbarian*. If there is some greater aim than just defeating a single enemy, as in *Double Dragon*, *Shinobi* or *Dragon Ninja*, a stage-by-stage scrolling scenario is chosen. If the beat-'em-up elements are contained within the wider framework of an arcade adventure, as with *Batman*, a flick-screen map is often the result.

To some extent the choice of one or two-player modes relies on this screen display, and there's no point in having a two-player combat option when the aim is to defeat a common enemy. By the same rules, a game such as *IK+* needs a choice of two players because its format is quite limited. Once the human player has defeated all the computer opponents, the game becomes boring without the spice of an unpredictable second human opponent.

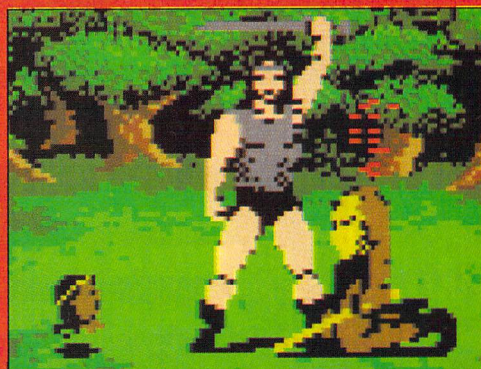
Visual and aural presentation are also vital in generating the correct atmosphere. Spitting Image would be useless without the cartoon-style graphics, *Barbarian* wouldn't be the same without the blood and sampled effects.

Sprite movement has to look, feel and sound natural – as a result sound effects tend to be minimal, sometimes reinforced by a suitable tune.

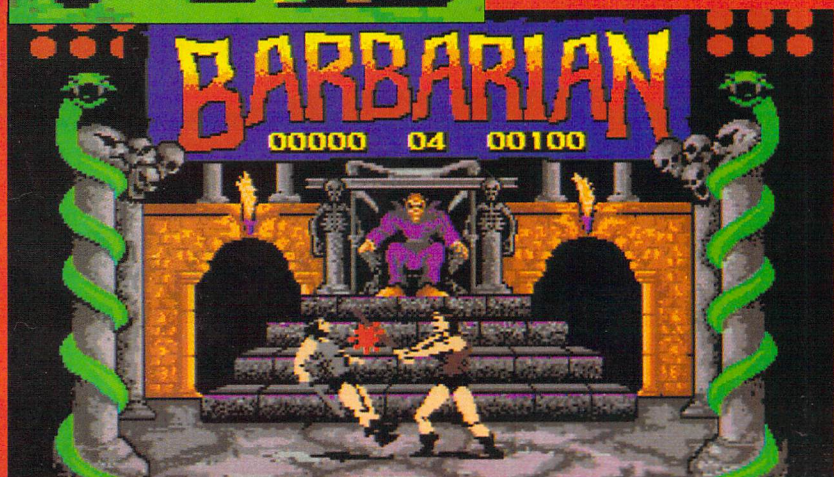
Again it's often dictated by the



Move like a butterfly sting like a bee in *Double Dragon II*



Stitch that! *Barbarian II*'s gory beheading scene



UP INTO THE '90s

size and purpose of the game. If there is only one screen, programmers have the memory space to make sprites large, well animated and natural sounding. If the game is larger and more progressive, the character size shrinks, the moves become more limited and the sound effects suffer for the cause of wider variety.

The number of blows/hits punches a character can take is similarly crucial. Programmers have developed various systems of keeping players in the game without making the action dull. IK+ uses the system of players spending time recovering before they can continue, and eliminates the

fighter with the lowest score. Vigilante has an energy bar, Psygnosis' Barbarian gives you lives which are lost when you're injured.

The better games rely on a gradual loss of energy, and don't force you to die at the first blow.

Finally, a lot of kicking games rely on a goal to provide extra incentive. The beat-'em-up is a male-dominated genre, so often this goal is related to rescuing a princess (Barbarian) or a helpless female (Vigilante). But there's also the achievement of acquiring higher grades of belt (IK+), or even attaining enough skill level to enter a competition in the first place (Chambers of Shaolin).

As more beat-'em-ups appear, it seems as if there isn't much room for development. Really nothing has improved on Palace's Barbarian in the single-screen format or on Dragon Ninja for the multi-screen version.

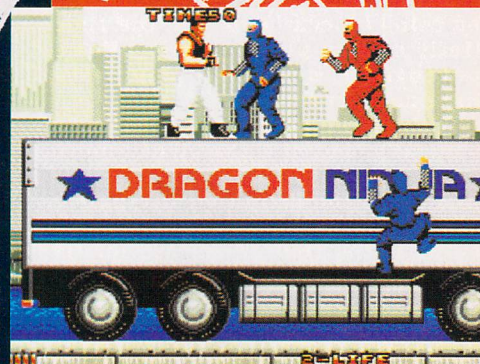
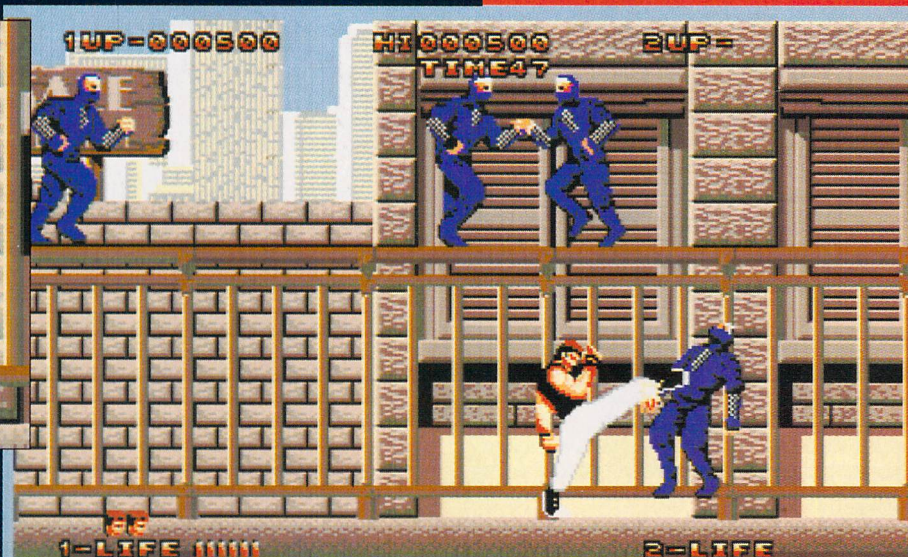
However, games are becoming more cosmopolitan, and you can find elements of beat-'em-ups springing up as part of other genres - for example, in Batman and Dynamite Dux.

There is plenty of room for experimentation, as little has been made of a character using a variety of weapons, no one has tried a beat-'em-up viewed from the first person perspective, no game has really tried to expand the number of moves beyond 16, by having different moves in different situations.

Barbarian was one of the first ever 16 bit beat-'em-ups, and it contained an experiment which has never been repeated - using a mouse to control



Taste the leather on these new Doc Martens: Fast and furious action in Dragon Ninja



Keep your balance on top of the moving wagon while beating up the enemy

movement. The push-scroll environment and long movement buffer didn't do much for the gameplay side, but the direction control via icons was an interesting idea which hasn't been repeated.

Maybe someone will come along with a fresh idea and do for beat-'em-ups what Nemesis did for blasters and Kick Off for football games?

Putting the boot in

Which beat-'em-up gives you more kicks than the rest? You could argue that Palace's Barbarian is the best action game because of its excellent design.

At any moment a player can win by using a neck chop, and the time limit of two-player mode allows potentially weakened players to fight another round.

It's not the prettiest nor the best sonically, but it's fun. What more could you want from a game? It is just about the definitive alternative beat-'em-up, but was widely criticised at the time of release for its goriness and its advertising campaign, which featured a scantily-clad Maria Whittaker.

This is a shame, since both views disregarded the quality of its gameplay: Fast action, superb one-on-one combat, neat animation, but some tacky backdrops and excellent sound effects. It's also remarkable because it broke the mould of standard oriental beat-'em-ups.

In recompense for the assumed sexism of the prequel, Palace produced a male/female fighter option second time around in Barbarian II. It improved on the original in several ways.

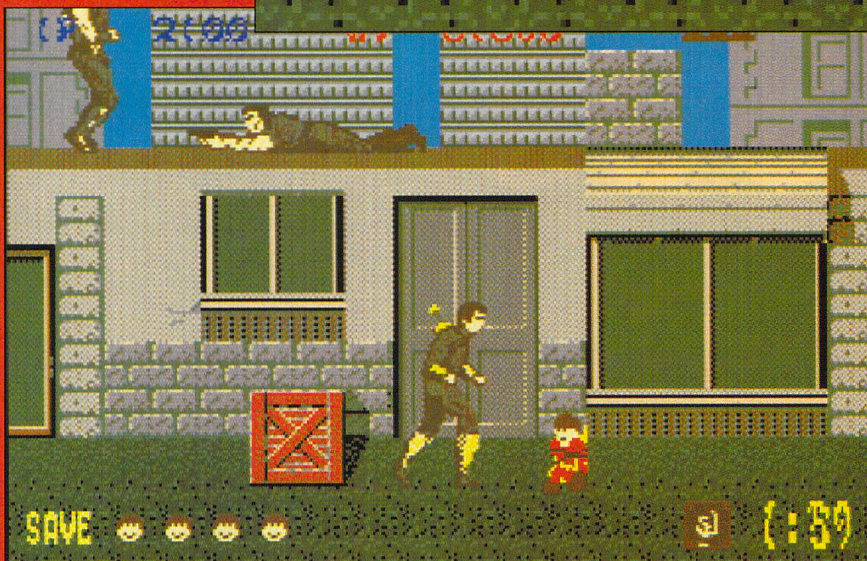
There's a whole host of different and original monsters to combat (very few games have ever featured monsters as opponents), culminating in a couple of spectacularly huge end-of-game opponents.

It also contained some brilliantly imagined sequences like leaping over a pit only to be snapped up by a set of jaws, or teetering on the edge of a hole and having to wobble the joystick to retain balance.

Some of the enemies were a little predictable, and the game as a whole was limited in scope, but it remains one of the most addictive beat-'em-ups going.

System 3's beautifully drawn single-screen karate game IK+ maintains a permanent computer opponent on the playfield. There are always three fighters, two of which can be human controlled. Every third bout a bonus screen appears that either has the player deflecting balls of variable bounce

Rescue the children held as hostages in Shinobi



with a shield or kicking bombs which are about to explode off screen.

It has a wide variety of moves and much better staying power than most. Extra options include a silly fast mode, the ability to remove the players' trousers and excellent presentation.

One of the best coin-op conversions around, Ocean's Dragon Ninja, is set in a scrolling environment over many levels. The opponents include four types of dastardly star-throwing ninja assassins, some pretty tough guard dogs and acrobatic women.

As if this isn't enough, at the end of each level there's a massive, superhuman opponent, including a larger-than-average Ninja in armour

and a fire-breathing fatty. You've also got to watch out where you're going on some levels - so there's plenty to keep any fan busy.

Programmed by the German software house, Thalio, Chambers of Shaolin is distinctly divided into two sections - training and combat. This split creates a genuine sense of achievement, in that the character you enter for the fight is someone you've sweated with during the learning process.

In addition to the usual punches you've got specialist moves such as the Tigerclaw and splits, and the colour of your belt is determined by the success of your training. The main sprite animation isn't fantastic, but the game has a style and sense of humour all its own.

It came as no surprise to see the ST dominate this year's Frankfurt Music Fair – it probably outnumbered all the other computers put together. All the major music software developers were showing new products along with many French and German companies looking for a UK distributor.

The news from C-Lab (distributed by Sound Technology) is the imminent release of three new educational programs. Aura, costing approximately £70, plays a series of rhythms and pitches which you have to copy. Midia, around £40, is a Midi tester/monitor program with which you can test your Midi system. It also allows you to create and record Midi data into a sequencer.

Notator Alpha, around £170, has most of the features of Notator but fewer real-time recording facilities. Although aimed at education, it could be a very attractive package for anyone wanting scorewriting facilities, although it is limited to four staves.

Version three of Notator is nearing completion and includes graphic editing of controller data and an adaptive groove design feature which intelligently corrects a musical passage according to its context.

Also new are the Polyframe editor/librarian modules, including one for Yamaha's new mega SY77 synth. The librarians can store voice data from different machines and manufacturers within one library. Screen updates are incredibly fast.

Digidesign is porting its Soundtools digital recording and editing system to the ST. This allows the storage of audio information such as a vocal track onto disc. There were rumours of a tie-in between Digidesign and C-Lab which may result in Soundtools being available within Notator. That would allow you to record and playback all acoustic tracks from the one program.

Steinberg's mega sequencer Cubase – distributed by Evenlode Soundworks – has been updated. Version two's new facilities include scorewriting with support for all popular printers including the Atari laser printer. It also has a feature called Interactive Phrase Synthesiser (IPS) which lets you process music phrases using functions such as scale correction, pitch and rhythm modulation.

A new release from Steinberg is Cubeat an entry level budget version of Cubase for users who don't need such a wide range of facilities. It is fully compatible with M.ROS and is expected to sell for £285.

Like C-Lab, Steinberg, too, is preparing an editor for Yamaha's new SY77. It is expected to cost £165.

Roland is one of the few major musical instrument companies actively supporting computer-based music and last year saw the release of three Computer Modules based on the successful MT-32 and U-110 instruments.

Now, to support these, Roland is about to release a music program for

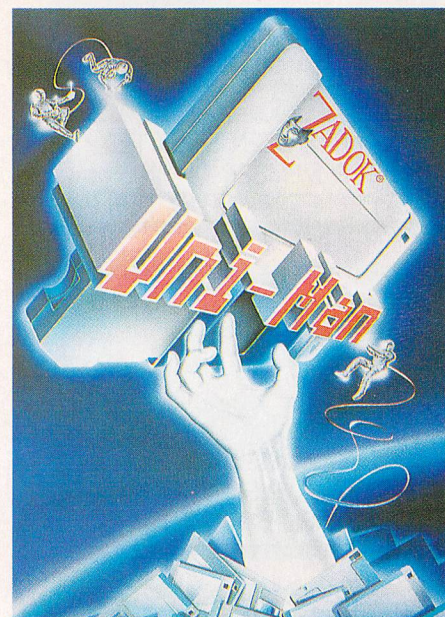


ST hits the top note

Ian Waugh reports from the Frankfurt Music Fair

the ST called Tentrax. The main screen looks like a 10-channel mixing desk complete with pan pots and VU metres with moving needles. It includes a drum edit page and on-screen notation. It is hoped it will sell for less than £100.

Hybrid Arts' EZ-Track Plus now supports the FM Melody Maker cartridge – with no increase in price. You can now make recordings from EZ-



Track's sequencer using the cartridge's sounds and there is also an edit page for tweaking output.

At the opposite end of the market, Hybrid Arts' direct-to-disc digital recording system, ADAP II, has had several software updates including an extended play list, crossfade editing and a Midi performance page.

French company Digigram, distributed in the UK by Soundbits, has updated several programs. Studio 24, for example, now has the ability to accept music lines input with Digigram's MidiMic, a pitch to Midi converter.

More interesting was version two of Big Band, Big Band Plus. This will add an auto accompaniment section to your melody line, a melody line to your chord sequence or, left to its own devices, it will compose both melody and accompaniment.

Big Band Plus now includes real-time and step-time recording, the editing of notes in notation form, interactive mixing and Midi synchronisation. It also lets you load in new musical styles which will be made available on separate discs.

Finally, a foreign program which you will be able to buy in the UK either direct or through a UK distributor, if one emerges, is Uni-Man from Dutch company Zadok.

Now into version two Uni-Man is a universal editor/librarian which looks extremely powerful. It can handle nine banks of sounds and has extensive editing facilities.

You can even define the type of controls you want to use to edit parameters. For example, graphs for envelopes, bars for volume settings or dials for pan position.

A UK price has yet to be fixed, but the equivalent German price converts to about £200.

If any of the continental software producers land a UK distributor, no doubt we will see them at this year's British Music Fair.

Contacts

Sound Technology, 6 Letchworth Business Centre, Avenue One, Letchworth, Hertfordshire SG6 2HR. Tel: 0462 48000.

Evenlode Soundworks, The Studio, Church Street, Stonesfield, Oxford OX7 2PS. Tel: 099 389 8484.

Roland, Amalgamated Drive, West Cross Centre, Brentford, Middlesex TW8 9EZ. Tel: 081 568 1247.

Hybrid Arts, 24/26 Avenue Mews, Muswell Hill, London N10 3NP. Tel: 01-444 9126/7.

Soundbits Software, 48 Galton Towers, Civic Close, Birmingham B1 2NW. Tel: 021-0233 3440/733 2063.

Zadok Products, P.O. Box 1192, 2260 BD Leidschendam, The Netherlands. Tel: 31-70-3 200 209.



YOU HAVE BEEN SELECTED
AS A MEMBER OF AN
INTERPLANETARY **SWAT TEAM!**



PLANET X. A SYNTHETIC
INDUSTRIAL PLANETOID---



---HAS BEEN
TAKEN OVER
BY THE EVIL
REPTILONS!



THE **REPTILONS** HAVE ENSLAVED
THE HUMANS STATIONED THERE.



THEY ARE BEING FORCED TO CREATE
AN EVIL ROBOT ARMY DESTINED
TO **DESTROY EARTH!**



YOUR MISSION

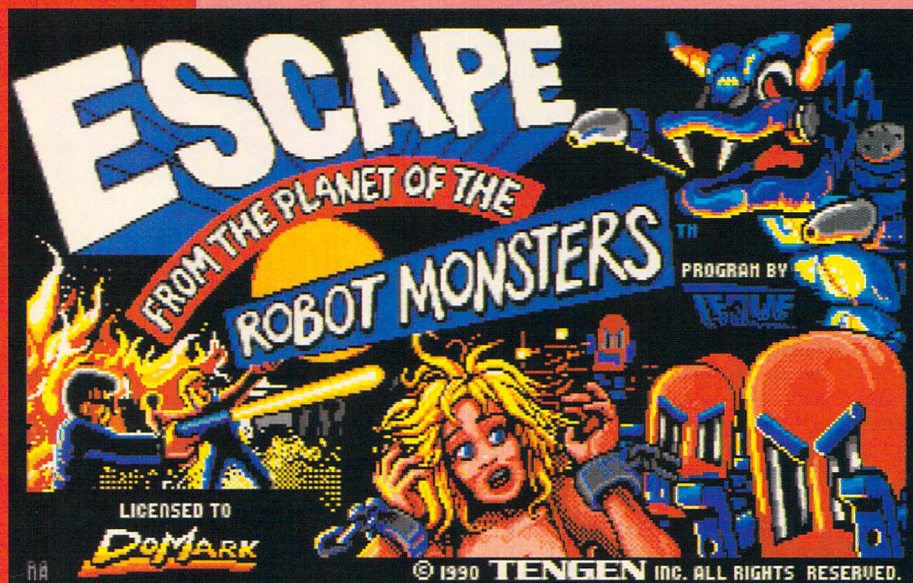
TRANSPORT ALL
HOSTAGES BACK TO
YOUR SHIP

DESTROY ALL ROBOTS

RID PLANET X OF
THE EVIL REPTILONS

FIND AND RESCUE
PROF. SARAH BELLUM

ATARI STAR USER GAME



Clunk, click

Product: *Escape From the Planet of the Robot Monsters*

Price: £19.95

Supplier: Domark, Ferry House, 51-57 Lacy Road, Putney, London SW15 1PR.

Tel: 01-780 2224

THRILLS, spills, arcade action and hilariously funny cartoon-like graphics are the trademark of Domark's latest release, *Escape From the Planet of the Robot Monsters*.

Planet X, a synthetic industrial planetoid, has been taken over by the evil mechanical Reptilons. They have enslaved the humans stationed there and are forcing them to create a robot army which the Reptilons will use to attack Earth.

You have been selected as part of an interplanetary SWAT team which sets off for Planet X. You beam down to the

planet's surface either with a friend (in two player mode) or alone.

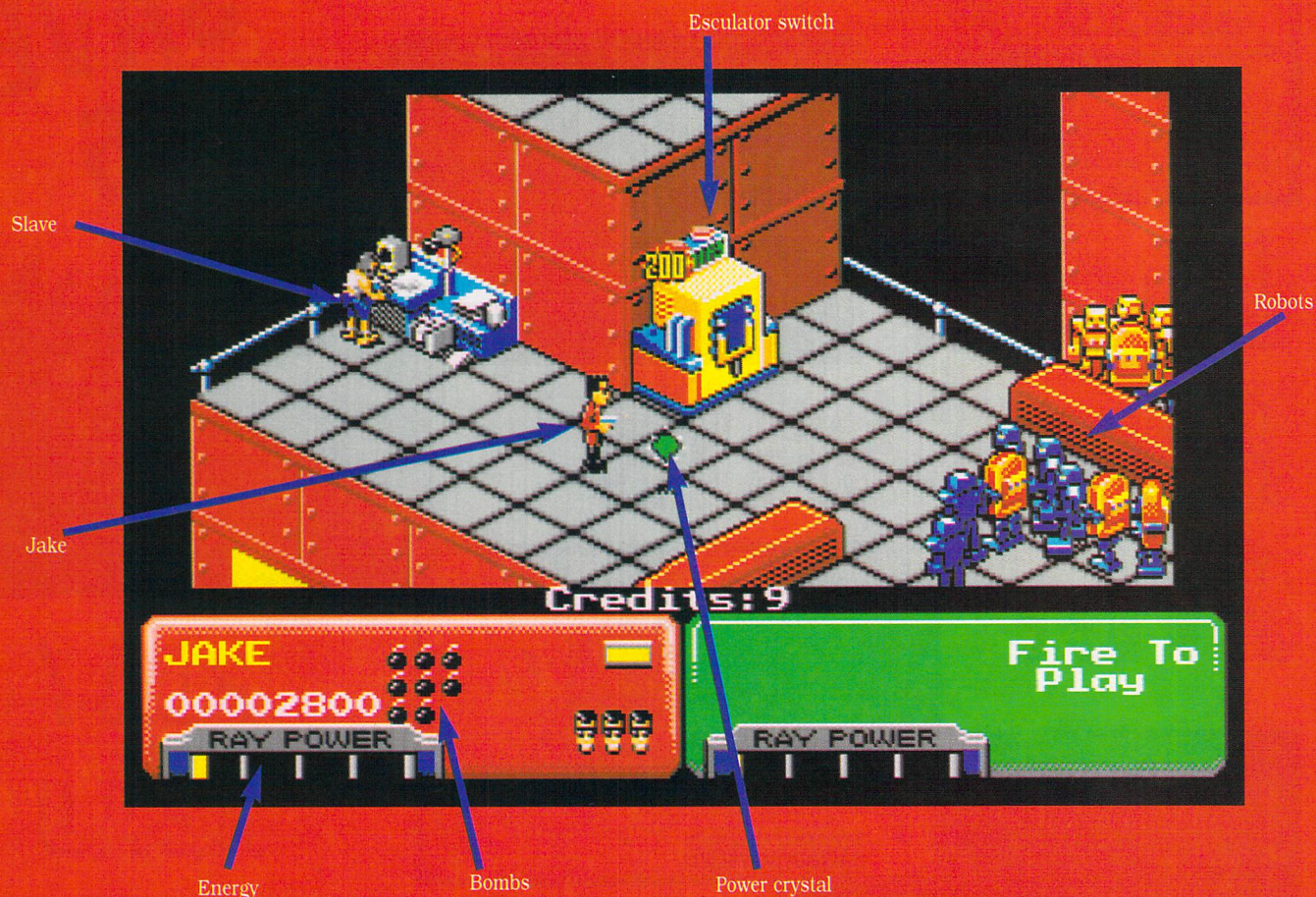
Your aim is to work your way through each of the Reptilon factories rescuing hostages (bumping into them beams them back aboard your ship), destroying the equipment, killing the robot guards and rescuing Professor Sarah Bellum.

The superbly drawn introductory screens tell the story up to the point of entering the first factory.

Armed with a ray gun and a pocketfull of grenades you enter the fray. Shooting or blowing up the robots often produces a green crystal to boost the firepower of your ray gun.

Each factory is spread over several levels and access to each is via ladders or escalators. The latter must first be switched on by locating the power switch.

Around the factories you will



every trip

find lockers and crates. Blast them open as they usually contain something useful, like extra bombs, food, energy or simple slaves waiting to be rescued.

Most slaves can be found tending the robot-making machinery and are easily rescued. Some however, are imprisoned within glass cases. To unlock them you must locate the machine that controls them and blast it with your ray gun.

At the end of each screen you are awarded bonuses for all hostages rescued. Every fourth screen you enter the canal zone in your cyber sled space shuttle and you have 30 seconds to find your way through the maze to the next factory. It's a bonus screen and nothing untoward will happen if you don't make it.

The 3D isometric viewpoint graphics are excellent and the animation superb. Control of

your character takes a bit of getting used to, though after a while it becomes easier to judge angles and directions of fire.

The comical capers of Jake your character and Duke, your partner in a two player game, are fun to watch.

He shakes his head when he bumps into a wall, dangles on the edge of floor levels by his fingertips and clasps his hands over his face in horror when a robot Reptilon zaps him.

Domark has come up with a sure-fire winner in *Escape From the Planet of the Robot Monsters*.

Buy it – you won't be disappointed.

Roland Waddilove

Sound	7
Graphics	10
Playability	10
Value for money	10
Overall	9

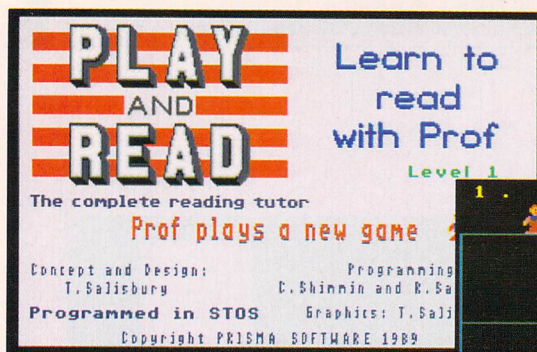


What a way to go – skewered on a pair of spikes!

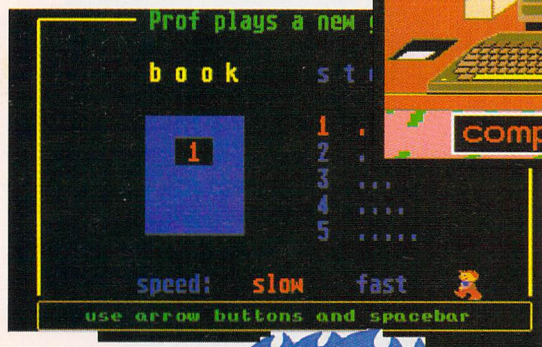
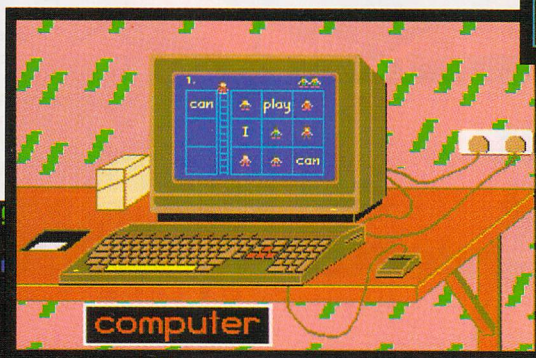
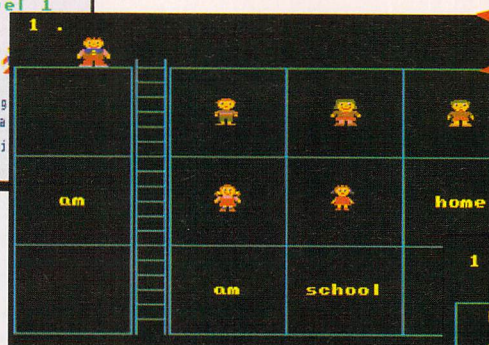
SECOND SIGHT

Escape is a brilliantly conceived and programmed arcade game that is likely to top the software sales charts the day it is released. The gameplay is addictive, the graphics are clear and well drawn and the cartoon-like capers are quite amusing.

Julie Boswell.



Learn Read with Prof



An integrated package consisting of audio cassette, disc and 5 reading books!

This is one for you and your child to work through together. Aimed very definitely at the four year old through to the ability level of being able to understand 60 simple words. A great way for your child to start to read in an approved and enjoyable way.

"The people who wrote this know what they are talking about... An excellent package of its kind"

— The Micro User



RRP £29.99

Our price £24.99

TO ORDER PLEASE USE ORDER FORM ON PAGE 121

Arrival of the aliens

Product: Xenomorph
Price: £29.95
Supplier: Pandora, Mercury
House, Calleva Park,
Aldermaston RG7 4QW.
Tel: 07356 71145

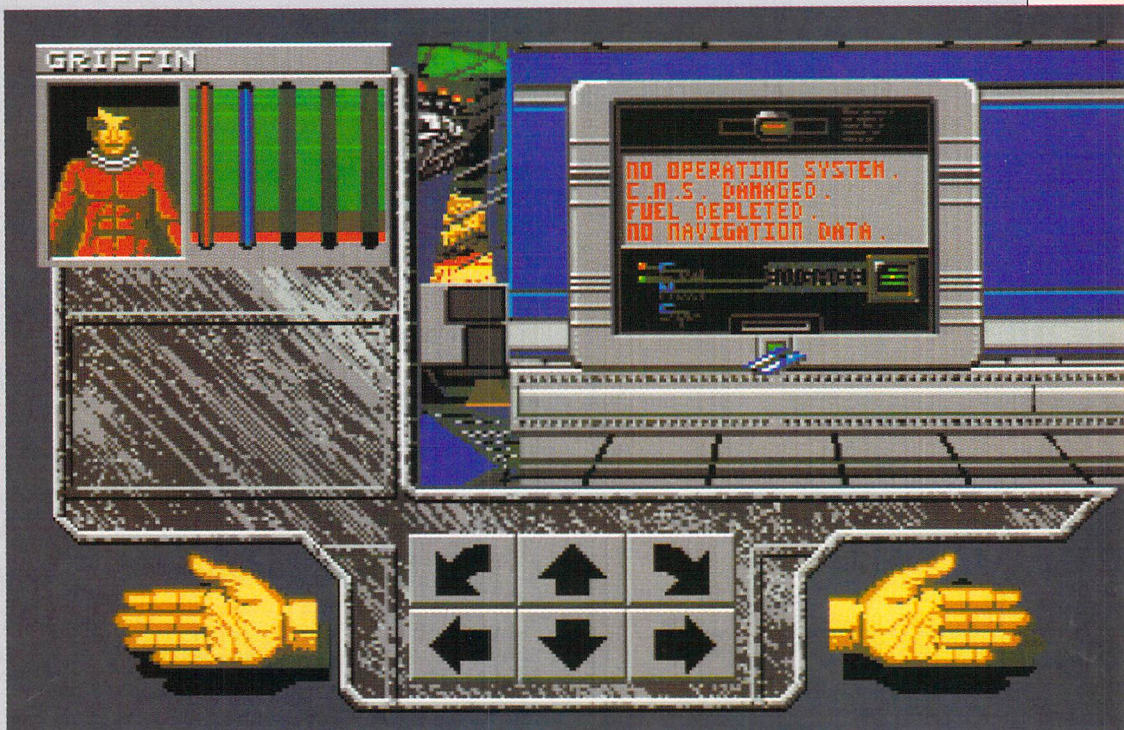
HORROR stories have often been told about the perils of travelling in hyperspace. Aside from the dangers of encountering ghost ships, there is also the fear that something might go wrong with your deep freeze.

In the realm of interstellar travel, such a failure could cost you your life, for we are talking cryogenic freezing here. Your problem in Pandora's Xenomorph, however, is a little stranger than either of these.

On a standard, two year supply trip to an outpost around Sirius B, your cargo pod fails to emerge from hyperspace, the resulting power surge nearly destroying your ship's computing services, and damaging a fair amount of electronics.

Nursing the near-crippled cargo ship, you make it to your destination, an Essen mining station. It seems oddly quiet as you approach, and there are no people around when you disembark. Something has happened – something to do with a shape-changing alien.

Xenomorph is an impressive game, with icons used to good effect throughout, but it is very slow to start – I played for three hours without seeing any



Accessing the computer terminal will provide you with useful information

sign of the alien. The graphics – seen from the first person perspective – are extremely effective in conjuring up an Alien (the film) type atmosphere as you explore both your own ship and the Essen base, which is patrolled by guardian robots which do not seem overly keen on your presence there.

Strewn around the base are various computer discs, the contents of which can be read at any convenient terminal,

and which consistently hint at an attack of some sort. Picture the colony on Acheron in Aliens and you will have some idea of the style of game.

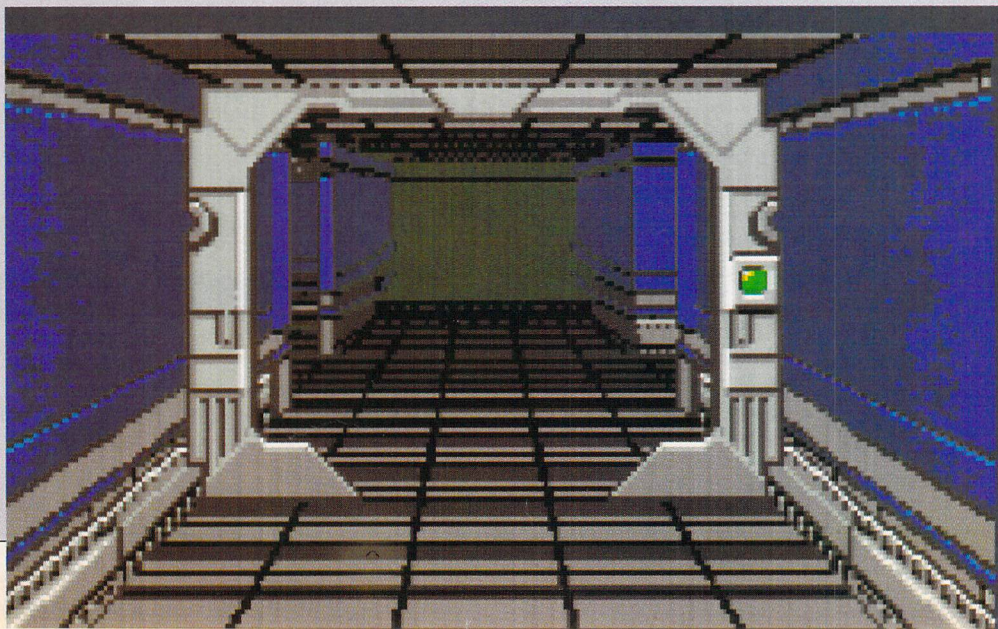
Xenomorph is excellent and the aliens – when they finally appear – are hostile in the extreme, and in line with the rest of the game's graphics, are supremely well drawn.

An excellent game, with little to hold against it, except the annoying and intrusive

need for changing discs twice every time you climb a ladder. This detracts from an otherwise wonderful presentation. The best implementation of the Aliens scenario I have seen on any computer.

Roy Stead

Sound	7
Graphics	8
Playability	9
Value for Money	8
Overall	9



SECOND Sight

Xenomorph is an excellent Aliens type combined adventure and strategy game. Unfortunately, it is slow to start, but if you can persevere with the dull beginning you will discover it's a real gem.

Mike Rowe

It's easy to get lost in the maze of tunnels – there could be an alien around the next corner.

BARGAIN SOFTWARE

**GUARANTEED
NEXT DAY DELIVERY**

**RING
NOW**

081-566-2325 10am - 6pm 6 Days
081-741-1222 10am - 8pm 6 Days
081-995-3652 9am - 10pm 7 Days

**MAIL ORDER
PRICES ONLY**

BARGAIN SOFTWARE, 405 CHISWICK HIGH STREET, LONDON W4

CHART TOPPERS

	ST Price
AUSTERLITZ: Replay Napoleon's battle	£16.99
BLACK TIGER: Face The Dragon Of Hell	£14.99
CABAL: Load Up and Fire	£13.99
CASTLE MASTER: Castle of Eternity	£14.99
CHAOS STRIKES BACK: It's No Picnic!	£16.99
CHASE HQ: Arcade Game Of The Year	£13.99
COLORADO: Over A 100 Screens Of Action	£16.99
COMBO RACER: Superb Sidecar Racing	£14.99
CONQUEROR: Drive the Devil's Machine	£16.99
CYBERBALL: The Bionic Players	£14.99
DAMOCLES: This could be MEGA	£15.99
DEFENDERS OF THE EARTH: Flash Gordon	£14.99
DIE HARD: Party's About To Explode	£14.99
DOMINION: Fight to The End	£16.99
DOUBLE DRAGON II: The Revenge	£14.99
DRAGON FLIGHT: 3 Years in Production!	£16.99
DRAGONS BREATH: Incl. FREE Spellbook	£21.99
DRAKKHEN: Can You Save The World?	£19.99
DRIVIN' FORCE: Grab a Yorkie	£14.99
DUNGEON MASTER: All Time Great	£16.99
DYNASTY WARS: Hack 'n' Slash Game	£14.99
E. MOTION: A Whole New Ball Game	£14.99
EAST VS WEST BERLIN 1948	£16.99
EMLYN HUGHES ARCADE QUIZ:	£14.99
EUROPEAN SPACE SIMULATOR	£16.99
F.29 RETALIATOR: Nothing Comes Close	£15.99
F/BALL MAN. II + FREE Expansion Kit	£14.99
F/BALL MAN. WORLD CUP EDITION	£14.99
FALCON: The Best Just Got Better	£16.99
FIGHTER BOMBER: Feel The Thrill	£21.99
FIRE: In The Hot Seat Of A Helicopter	£14.99
FULL METAL PLANET: The Right Stuff	£14.99
FUTURE WARS: Sabotage The Defences	£16.99
GARRY LINEKER'S HOTSHOT: IT'S A GOAL!	£14.99
GHOST 'N' GOBLINS	£14.99
GHOSTBUSTERS II: Who Ya Gonna Call!	£16.99
GHOULS 'N' GHOSTS: This'll Scare You!	£16.99
GRAVITY: This is no simple blast	£16.99
HARD DRIVIN' Best Driving Simulator	£14.99
HEAVY METAL: Battle till you bleed	£16.99
IMPOSSAMOLE: Monty Mole Is Back!	£14.99
INFESTATION: An atmospheric experience	£16.99
IT CAME FROM THE DESERT:	£21.99
ITALY 1990: Not Just More Football	£16.99
IVANHOE: The Mighty Legend	£14.99
JUMPING JACKSON: You Choose The Music	£14.99
KID GLOVES: Light years ahead	£16.99
KLAX: The Fastest Selling Coin-Op Ever	£14.99
LEAVIN' TERRAMIS: Find Those Monsters	£14.99
LOST PATROL: We're Not Back Home	£14.99
MAN, UNITED: 'Ere We Go 'Ere We Go	£13.99
MIDWINTER: 'Game Of The Decade!'	£19.99
NINJA SPIRIT: Full Of Eastern Promise	£16.99
NINJA WARRIORS: Fight To Survive	£14.99
NORTH & SOUTH: Worth Every Penny	£13.99
OP. THUNDERBOLT: Test Your Nerve	£16.99
P47 - THUNDERBOLT: Fast Aerial Combat	£13.99
PARIS TO DAKAR RALLY: Win a Peugeot	£16.99
PIPEMANIA: Mind Bendingly Addictive	£14.99
PLAYER MANAGER: Relive The Glory Days	£14.99
POPULOUS PROMISED LANDS: Play More God	£7.50
POPULOUS: Play God	£16.99
PRO TENNIS: OK Tennis Ace	£16.99
RAINBOW ISLANDS: At Last!	£15.99
RINGS OF MEDUSA: Find the Rings fast	£21.99
RISK: Dominate The World	£14.99
ROBOCOP: Part Man... Part Machine	£13.99
SHINOBI: Survive Enemy Onslaught!	£14.99
SIDESHOW: Spend A Day At The Fair!	£16.99
SOCCER MANAGER PLUS: Aggressive Stuff	£14.99
SPACE HARRIER II: Master The Forbidden	£14.99
STRIDER: One Man! One Sword!	£16.99
STUNT CAR RACER: Just Brilliant	£16.99
SUPER CARS: A Refreshing Change	£14.99
SUPER LEAGUE MANAGER: Win The League	£14.99
THE OFFICIAL LIVERPOOL FC SOCCER	£14.99
THEME PARK MYSTERY: Evil lurks	£16.99
THUNDER STRIKE: It's Polygons Ahoy!	£16.99
TOWER OF BABEL: It's More Than a Game	£21.99
TURBO OUTRUN: Terrorise the Highways	£14.99
ULTIMATE GOLF: Is It Here At Last	£16.99
UNTOUCHABLES: Take on the Mob	£13.99
WARHEAD: Crush those roaches	£16.99
WAYNE GRETZKY ICE HOCKEY	£16.99
X-OUT: Make No Compromises	£14.99
ZOMBI: They'll eat all they can get	£16.99

COMPILATIONS

PREMIER COLLECTION

Neblus + Exolan +
Netherworld + Zynaps
ALL 4 GAMES FOR ONLY
£10.99

STAR WARS TRILOGY

Star Wars + Empire Strikes
Back + Return Of The Jedi
ALL 3 GAMES FOR ONLY
£12.99

LIGHTFORCE

I.K. + Bio Challenge +
Voyager + R-Type
ALL 4 GAMES FOR ONLY
£16.99

TRIAD

Starglider + Defender Of The
Crown + Barbarian
(Psygnosis)
ALL 3 GAMES FOR ONLY
£10.99

FLIGHT COMMAND

Strike Force Harrier + Sky
Chase + Eliminator +
Lancaster + Sky Fox II
ALL 5 GAMES FOR ONLY
£19.99

SUPER QUINTET

Bubble Ghost + Chamomix
Challenge + Passengers On
The Wind I + II +
Warlocks Quest
ALL 5 GAMES ONLY
£7.99

MAGNUM 4

Afterburner + Operation
Wolf + Batman The Caped
Crusader + Double Dragon
ALL 4 GAMES FOR ONLY
£21.99

PRECIOUS METAL

Captain Blood + Super Hang
On + Arkanoïd II + Xenon
ALL 4 GAMES FOR ONLY
£16.99

COMPUTER HITS II

Tetris + Tracker + Joe Blade
+ Tau Ceti
ALL 4 GAMES FOR ONLY
£10.99

ACTION

Trailblazer + Deflector +
Northstar 3D Galaxy +
Masters Of The Universe
ALL 5 GAMES FOR ONLY
£11.99

TRIAD VOL. 3

Speedball + Bloodmoney + Rocket Ranger
ALL 3 GAMES FOR ONLY
£21.99

JOYSTICKS

CHEETAH 125+	£7.99
CHEETAH STAR PROBE	£14.99
KONIX NAVIGATOR	£14.99
KONIX SPEEDKING	£10.99
PRO 5000 CLEAR	£13.99
PRO 5000 EXTRA	£14.99
PRO 5000 STANDARD	£12.99
QUICKJOY JET FIGHTER	£14.99
QUICKJOY JUNIOR	£7.99
QUICKJOY STICK	£7.99

3.5" BLANK DISCS

2 FOR 1 LIFETIME GUARANTEE

ALL DISCS ARE DS, DD, AND ARE INDIVIDUALLY
SLEEVED AND SUPPLIED WITH LABELS

10 DISCS	£7.99
20 DISCS + FREE STORAGE BOX	£14.99
30 DISCS + FREE STORAGE BOX	£21.99
50 DISCS + FREE STORAGE BOX	£37.50
100 DISCS + 2 FREE STORAGE BOXES	£69.99
"BLANKS" DISC BOXES (HOLDS 80 DISCS)	£12.99

SPECIAL OFFERS

A.P.B.	£10.99
ACTION SERVICE	£2.99
AFRICAN RAIDERS	£7.99
AFTERBURNER	£7.99
ALTERED BEAST	£9.99
AMAZON ADVENTURE	£6.99
ARCHIPELAGOS	£5.99
ASTERIX	£10.99
BAD COMPANY	£9.99
BALLISTIX	£10.99
BARBARIAN II	£10.99
BIO CHALLENGE	£7.99
BLASTEROIDS	£10.99
BLOOD MONEY	£12.99
BOMB JACK	£7.99
BOULDERDASH CONSTRUCTION KIT	£5.99
BREACH	£9.99
CASTLE WARRIOR	£5.99
CHAMBERS OF SHAOLIN	£9.99
CHARIOTS OF WRATH	£7.99
CHICAGO 90's	£9.99
CONFLICT IN EUROPE	£10.99
COSMIC PIRATE	£7.99
DARK CASTLE	£9.99
DE JA VU	£9.99
DRAGON SCALE	£4.99
DRAKKHEN	£14.99
EYE OF THE HORUS	£9.99
FERNANDEZ MUST DIE	£7.99
FIGHTING SOCCER	£9.99
FLYING SHARK	£7.99
FREEDOM	£9.99
G. NIUS	£5.99
GALAXY FORCE	£10.99
HIGH ROLLER	£9.99
IRON TRACKERS	£7.99
KAYDEN GARTH	£7.99
KICK OFF	£13.99
KICK OFF'S EXTRA TIME	£5.99
LASER SQUAD	£10.99
LEGEND OF THE SWORD	£9.99
MAFDET	£4.99
MANHUNTER IN NEW YORK	£11.99
MILLENNIUM 2.2	£9.99
MURDER IN VENICE	£7.99
NETHERWORLD	£7.99
NOT A PENNY MORE - NOT A PENNY LESS	£4.99
OPERATION NEPTUNE	£6.99
PACMANIA	£9.99
PALADIN	£9.99
POWERDRIFT	£9.99
PURPLE SATURN DAY	£9.99
QUADRILIAN	£5.99
QUEST FOR THE TIME BIRD	£7.99
RETURN OF THE JEDI	£7.99
ROAD BLASTERS	£9.99
ROCKET RANGER	£10.99
ROLL OUT	£7.99
S.D.I.	£7.99
SAFARI GUNS	£9.99
SARGON III CHESS	£4.99
SEVEN GATES OF JAMBALA	£9.99
SHUFFLE PUCK CAFE	£10.99
SKIDOO	£10.99
SKRULL	£6.99
SKY CHASE	£9.99
SLAYER	£7.99
SOLDIER 2000	£9.99
SPIDERTRONIC	£3.95
SPITTING IMAGES	£4.99
SPY VS SPY	£5.99
STAR BLAZE	£9.99
STAR GLIDER II	£14.99
STAR GOOSE	£5.99
STAR RAY	£4.99
STEEL	£7.99
STIR CRAZY Featuring BoBo	£9.99
T. PURSUIT A NEW BEGIN	£9.99
TARGHAM	£11.99
TECH	£7.99
THUNDERWING	£7.99
TIN TIN ON THE MOON	£9.99
TOOBIN	£10.99
TOURNAMENT OF DEATH	£4.99
TRIVIAL PURSUIT	£9.99
VINDICATORS	£7.99
XYBOTS	£9.99
ZERO GRAVITY	£5.99

PERSONAL CALLERS WELCOME

309 Goldhawk Road
London W12

Open Monday - Sunday
10am-8pm

405 Chiswick High Street
London W4

Open 7 days
10am-10pm

18 Market Square
Leighton Buzzard
Open Mon-Sat 10am-6pm
(Closed Thursday)
Tel: 0525 371884

178 Archway Road
London N6 5BB
Open Monday - Friday
11am-6pm
Sat 10am-6pm

Unit 33/34
Rumford Shop Hall
Romford
Open Mon-Sat 9am-5pm
(Half Day Thursday)

ALL SHOPS ARE INDEPENDENT. SHOP PRICES MAY VARY

SECOND Sight

Klax is a simple game, which didn't really stimulate my old brain cells enough with its dull, repetitive gameplay. Stacking up tiles is best left to four-year-olds. I need a bit more action.

Julie Boswel

ones on level three, gain 10,000 points on level four, survive 40 tiles on the next level and so on, with each level bringing a new challenge.

Like Tetris, the gameplay is very simple, but it can easily become quite addictive. My only minor complaint was that the viewpoint made the stack of tiles at the bottom screen quite difficult to see clearly.

If you liked Tetris, Klax will instantly appeal to you. However, if you like an arcade game with more to do than simply stacking up coloured tiles I suggest you look elsewhere.

Roland Waddilove

Sound	6
Graphics	6
Playability	8
Value for money	7
Overall	7

Flipping tiles

Product: Klax
Price: £19.95
Supplier: Domark, Ferry House, 51-57 Lacy Road, Putney, London SW15 1PR.
Tel: 01-780 2224

FREQUENTLY computer games are merely conversions of successful arcade games, but Domark's Klax breaks the mould in that it has been developed at the same pace as

the arcade version, and both are to be released at the same time.

Vaguely reminiscent of Tetris, Klax involves stacking up piles of coloured tiles that flip head over heels out of the screen towards you in a pseudo 3D view display. You have a paddle with which to catch them and they can be stacked up at the bottom of the screen.

You can also flip them back into the screen, or temporarily stack them on the paddle to

give you breathing space until you decide where it is best to place them. A line of three identically coloured tiles is called a Klax and you have to create three Klaxes to complete the first level. Horizontal, vertical and diagonal Klaxes may be made, but diagonal ones are more difficult. Having made a Klax, the three tiles disappear to allow room for more tiles to be stacked up.

You make five Klaxes on level two and three diagonal

QUICK PEEK

Paris - Dakar 90

Tomahawk/Active Sales (01-384 2701)

WELL sports fans, here we are at the start of the 1990 Paris - Dakar rally, probably the most arduous and dangerous motor race that you're ever likely to enter.

Lining up against eight decidedly foreign-sounding opponents you must first decide in which of the three classes of vehicle you wish to compete.

Cars range from slow and sturdy to fast and fragile, with handling characteristics to match - the choice is yours.

Race stages are of two varieties. The first is a sprint along a set route bordered by small rocks. Stage two is rather more unusual.

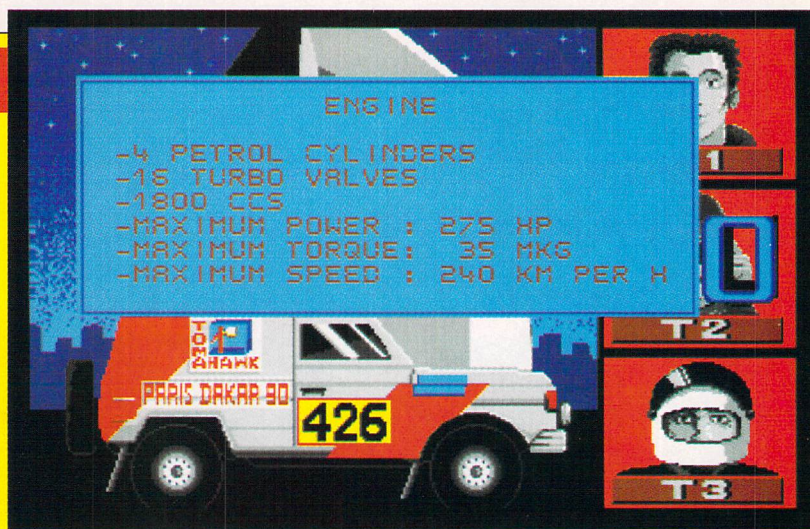
A small on-screen map shows you where you must drive to, but with no fixed course. It therefore consists of a high speed dash between rocks, trees and oil drums, as you attempt to navigate the shortest route between the two points.

Sand dunes have been included to add an interesting vertical dimension to the landscape. Your car landing with a worrying crunch as you leap them with excessive verve.

Apart from the ability to recover from skids, car control is very limited. Of the current crop of racing games this must be the only one which lacks a gearbox.

In many ways Paris - Dakar 90 is similar to Mandarin's Lombard RAC Rally, but lacks Lombard's varied scenery.

Jon Revis



Equip your car for the rally then set off across the Sahara for Dakar. The map shows your route, it's easy to become lost



Product: *The Krystal*
 Price: £24.95
 Supplier: Prism, Unit 1,
 Baird Road, Enfield,
 Middlesex EN1 1SJ.
 Tel: 01-234 5678

INCREIBLE though it may seem, Atari ST User first previewed *The Krystal* from Prism a year and a half ago. While Amiga owners have had the chance to play the game for over a year, it has taken until now to complete the ST version.

The main reason for the delay was that the original programmer had a breakdown and the game had to be recoded from scratch. This has had two noticeable effects - one is that you now get true sideways scrolling instead of the ghastly flip screen effect first used, and that the backgrounds have been reduced to six colours only.

Surprisingly the loss of colour from the attractive but occasionally gaudy scenery is virtually unnoticeable, thanks to some imaginative and clever shading, giving the illusion of there being far more colours than there actually are.

Time dims the memory so you've probably forgotten that you play the part of Dancis Frake, who wakes up in a park bereft of his memory. Unknown to you at the time, the great *Krystal* of Konos has been stolen, and it's going to be your job to find it.

First, however, wander from the park into the city, and to an audience with the Kring. If you're already wincing at the spellings be warned, that it gets worse.

The full flavour of Rodney Wyatt and Mike Sutin's original '70s stage show has been repro-



You play the part of Dancis Frake - and you have lost memory

Long time, no see

duced in the game. Thus you can look forward to confronting the Akes, your mortal enemies. Ask anyone about the Akes and they will describe them as a pain. The boss of the Akes is naturally the Head Ake.

Anyway, as the stomping Dancis you set off into the city to find out what on Meltoca is happening. Another little innovation in the gameplay is that although you can't see certain objects on the screen, they will flash in an inventory panel when you pass them by.

You should pick up everything you find, and then you can have a lot of fun sorting out the red herrings. Your first chance to talk to a human is the buxom flower seller in the plaza, so press F1 to load the parser and get talking.

You should beware of using the odd naughty word because they cost you psychic points, and you'll need more than 30 for a final confrontation at the end. You'll also need plenty of skringles - what passes for currency, though it sounds like a painful ailment - and strength.

You can build up your strength by eating and winning sword fights, which less talented gamers will be happy to learn, have been made easier. Before long you should find yourself in the palace, being greeted by Nedrod of the Two Bones, who is Gru to Kring Narta.

Some important information can be had from the Gru, but he will only answer a limited number of questions before thrusting you before the Kring. The upshot is that the Kring's daughter is going to marry an absolute boulder by the name of Ffin Shadok, but you, if you find and recover the *Krystal* of Konos, can claim her hand and the rumpy pumpu rights.

After seeing the Kring you meet your would be bed partner, and she is indeed fair of face.

The Princess will give you a very valuable object if you say the right thing, so don't offend her.

Then it's off into space, to face space battles and the start of the quest.

There are many planets to

visit, and you can do so in almost any order, which lets you see some of the glorious scenery without actually solving anything. Going to places without being in possession of certain artifacts or knowledge can be both fruitless and fatal. For instance, the planet with volcanoes and lava flows is one to avoid until you have protection.

It has taken a long time for the ST version of *The Krystal* to arrive, but now it has you'll find the combination of tasty graphics, humorous character interaction, and the occasional spot of joystick waggling a real treat.

Expect to still be playing in a couple of months time, because with four discs worth, you're getting both value for money and an epic quest to savour.

Duncan Evans

Sound	7
Graphics	8
Playability	9
Value for money	9
Overall.....	9

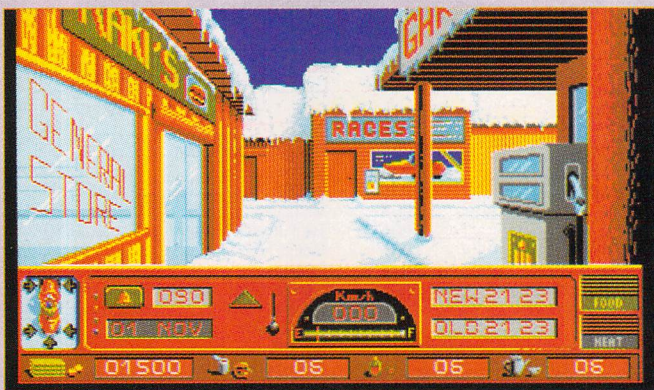


Talking to the other characters can provide help and clues

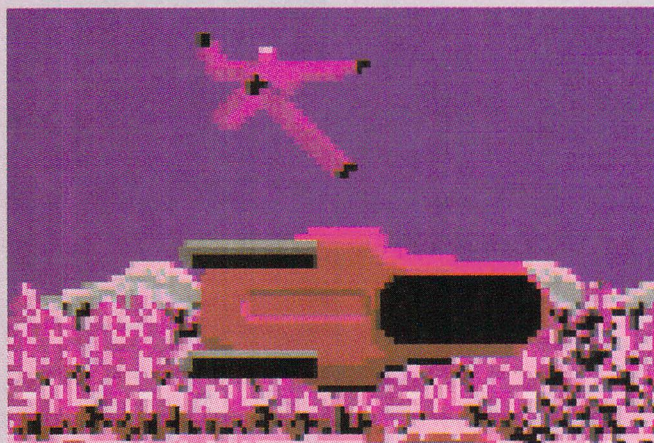
SECOND SIGHT

The Krystal has been a long time in development and there was a danger that it would become outdated long before it was released. Fortunately, however, it still looks fresh and is quite an entertaining game. Good graphics combined with varied gameplay make a professional product.

Roland Waddilove



In town you can buy provisions, fuel and look at the race timetable



You and your Skidoo part company after hitting a snow drift

SECOND Sight

snow on your scooter, hunt caribou and wolves, and enter races. Thoroughly good fun.

There is a lot to do in Skidoo, a simulation of life in north Canada, so you won't easily become bored. Speed over the

Julie Boswell

Skating on thin ice

Product: Skidoo

Price: £19.95

Supplier: Active Sales, Studio Centre, 1 Ranelagh Gardens, London SW6 3PA.

Tel: 01-384 2701

SKIDOO by Tomahawk is an unusual simulation. You live in the frozen wastes of Canada, deep in the Arctic Circle, and your only means of transport is a snow scooter.

The package comes with a map of the north-east territories, showing the towns, plains, mountains, forests and Eskimo igloos. Using this map and your snow scooter's compass you can tour a large part of Canada and visit many towns.

Once in a town you can refuel the snow scooter and get it repaired should you damage it by hitting a snowdrift or log. Food is an essential item, but as a last resort you could stop your snow scooter and go hunting caribou. Catch a wolf and you can sell its fur for money which can be spent

in the towns. Also in the towns are posters giving details of snow scooter races.

You must then travel to the towns holding the races and time your arrival to coincide with the day before race day. You can then enter the race and pit your skills against computer driven competitors.

The graphics are excellent, with plenty of 3D action as you speed through the frozen wastes. The lower quarter of the screen shows the dashboard of your scooter, which provides information on compass bearing, date, damage, food reserves, petrol, spirits, speed and position.

The sound effects are minimal and the music accompanying the introduction isn't too good. However, the game is interesting, challenging and good fun to play. It is nice to see an original game.

Roland Waddilove

Sound.....	5
Graphics	8
Playability	8
Value for money	7
Overall	7

QUICK PEEK

Pipe Mania

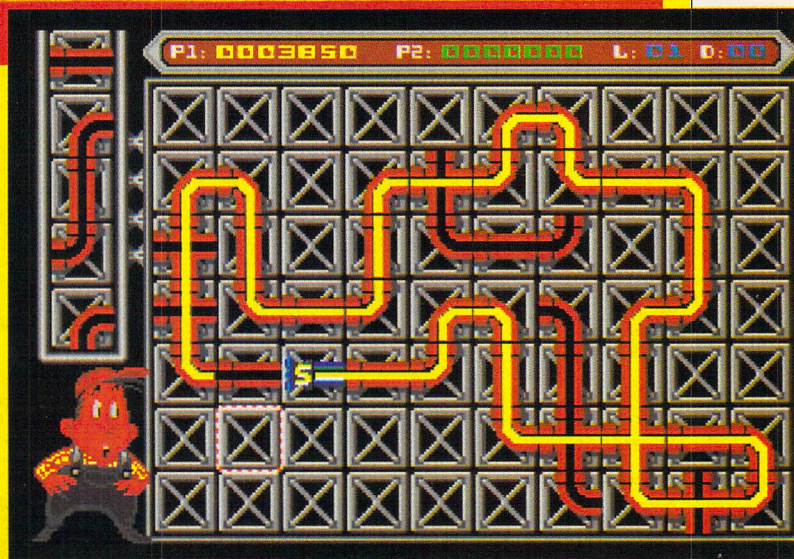
Empire (0268 541126)

PIPE Mania is one of those simple, yet infuriatingly, frustrating and addictive games that you just can't put down. It's not new game - Empire first previewed it at around a year ago, but has only now decided to release it.

The screen forms a grid on which you place sections of pipe using a cursor controlled by the joystick. There are horizontal and vertical pieces, right angle bends and cross pieces which can be connected to form one long pipe. Water flows from the start (tap) and you have to see that it flows for as long as possible before reaching the end of the pipe.

The problem is that the computer hands you each section of pipe at random - you can see what's next by looking at the pile of pipe sections on the left-hand side of the screen. You might want a left-hand bend, but you are given a right handed one. The pipe section must be placed somewhere on the screen, so by planning ahead you can decide where to put the right-hand bend.

The water starts flowing after just a few seconds pipe laying and then the pressure mounts. Wrong pieces come thick and fast and you sweat and panic as you try to find a use for them. Pipe Mania proves



the old advice of "Keep it simple". A good basic idea will sell more games than fancy graphics and intricate gameplay.

Recommended

Roland Waddilove

GASTEINER

INTERNATIONAL ORDERS
24 HR SERVICE
RING LONDON 884 2415

COMPUTERS

Atari 520STFM	£269
Atari Mega 1	£519
Atari Mega 2	£POA
Atari Mega 4	£POA
Atari 1040 STE	£POA
Atari 520 STE	£POA
Atari Discovery Pack	£269

MONITORS

SM124 (Atari) with computer	£99
SM1224 (Atari)	£259
Philips 8833	£POA

COMPUTER PACKS

Atari Power Pack	£349
Atari PC Pack	£499
Atari Ultimate Pack	£439
Atari Lynx	in stock

DRIVES

AVAILABLE FROM GASTEINER TECHNOLOGIES AND ALL GOOD STORES

GAS 40Mb 11 milliseconds	£599
GAS 50Mb 28 milliseconds	£479
GAS 85Mb 28 milliseconds	£679

Autoboot, Auto Park, 12 months
guarantee, 12 partitions full
SCSI DATA in and out.
Back up program

50Mb	£479
Atari 30Mb	£389
3.5" 1Mb	£85
5.25"	£POA

PRINTERS

Epson LX400	£POA
Epson LQ400	£POA
Epson LQ550	£POA
Citizen 1086	£POA
Citizen Swift 24	£285
NEC P7+	£POA
NEC P6+	£POA
Star LC10	£POA
Star LC10 Colour	£POA
Panasonic KXP1180	£POA
Panasonic KXP1124	£POA

LASER

Atari SLM804	£POA
StarLP8	£1249
HP Laser II	£POA
HP Laser IID	£POA
Panasonic Laser	£POA

ACCESSORIES

Sony, TDK, Philips 3.5" DS/DD	
Box of 10	£10
Kempston Data Scan	£229
Mouse	£24.95
Vidi ST	£95
Midi Lead	£POA
Twin Joystick Extension	£POA
Mouse Mat	£5
Ribbons	£POA
Internal Clock	£POA
External Clock	£POA
Dust Covers	£POA
Toners	£POA
A-Magic Turbo Digitiser	£POA
Printer Cable	£6

UPGRADE FOR ATARI COMPUTERS
UP TO 4MB £99

Available from Gasteiner and all
good stores

Worlds
Best

MS-DOS ON THE ST WITH 'THAT'S' PC SPEED - THE HARDWARE PC EMULATOR

Supports monochrome as well as colour monitors.
Supports all hard disks and disk drives connected to the serial
and parallel port of your ST. Mouse supporting, IBM monochrome, CGA, Olivetti and Hercules
graphic emulation. Extensive test available in ST magazine.

Latest version
1.4 supports Atari
mouse extended Ram
facility up to
2.9 meg

The Ultimate Challenge . . . PC compatibility for ATARI ST owners

1. PC SPEED is small but powerful measuring only 9.5 x 9.5 cm
2. PC SPEED is fast and compatible
3. PC SPEED does not require the ROM port therefore leaving it free to be used by other valuable programs
4. PC SPEED can be built into any ST including the 520
5. PC SPEED is easy to work with
6. PC SPEED runs MS-DOS software fast and bug free
7. PC SPEED supports all hard disks that rely on the DMA port and it also uses ATARI hard disk driver
8. PC SPEED supports all external 3.5" and 5.25" drives
9. PC SPEED supports the parallel and serial ports, can even use PCmouse
10. PC SPEED supports all sound capabilities
11. NORTON factor 4.0 (four times faster than 4.77 MHz XT)
12. PC SPEED provides the user with 704K ram (64 more than an XT)
13. PC SPEED emulates CGA and Hercules graphic cards
14. The processor in PC SPEED gains direct access to the RAM via the systembus, therefore requires no
RAM and thereby does not lose speed, the known problem when accessing the ram via the serial port.

ALL THIS FOR ONLY
£249 inc VAT

OFFICIAL DISTRIBUTORS FOR THE "THAT'S SERIES" OF PROGRAMS

EXCLUSIVE TO GASTEINER: SCSI host adaptor + 1 disk with
formatting and auto booting software + DMA cable £69.00.
Dealers and educational software enquiries welcome - Build
your own Atari drive.

SPECTRA GCR
MAC EMULATOR
RING FOR
DETAILS

What the Press says . . .

Guardian - "It seemed to work
well, and ran Dos software (in
704K of memory) at a reasonable
speed"

- Thursday, 6th Oct 1989

ST Format - "A hard act to
follow"

- Nov 1989

ST World - "It took Germany by
storm"

- Nov 1989

Popular Computing Weekly -
"PC speed is capable of out
performing an 80286 band PC
when fitted to a 1040"

- 5th Oct 1989

Micro-Mart - "There had been a
lot of interest in it"

- Issue 100

SOFTWARE

WORD PROCESSING

That's Write	£99
First Word	£59
K-Word	£POA
Word Perfect	£199
Protext V4.2	£POA
Tempus II	£POA
Microsoft Write	£49
Word Write	£69

DTP

Time Works DTP	£POA
Fleet ST. Pub	£89
Easy Draw II	£POA
Easy Draw (Super)	£POA
Easy Tools	£POA
Scan Art	£POA
Draw Art	£POA
Borders	£POA
Partner ST	£POA

MUSIC

C-Lab Notator	£319
C-Tab Creator	£POA
Steinberg Pro 24	£POA
Mastertracks Pro	£POA
GIST	£POA
Neo-Desk	£POA

GRAPHICS

Cyber Studio	£POA
Cyber Paint	£POA
Cyber Sculpt	£POA
Cyber Texture	£POA
3D Developer's Disk	£POA
Architectural Design Disk	£POA
Cartoon Design Disk	£POA
Future Design Disk	£POA
Human Design Disk	£POA
Microbot Design	£POA
Video Tilting	£POA
Sterotek	£POA
3D Font + II	£POA

LETS MAKE

Greeting Cards	£POA
Signs + Banners	£POA
Calendars + Stationery	£POA
Art Library 1+2	£POA
Spectrum 512	£POA
CAD 3 D	£POA
Plotter + Printer	£POA

THAT'S FUNFACE including
THAT'S SNAPSHOT - £34.95

DATABASES

Data Manager Pro	£POA
Data Manager	£POA
Base II	£POA
Superbase	£POA
Superbase Pro	£POA

PROGRAMMING

Mark Williams	£POA
GSTC	£POA
Prospero C	£POA
Prospero Fortran	£POA
Prospero Pascal	£POA
Hi Soft Basic	£POA
68000	£POA
Genesis	£POA
Start	£POA
ST Basic	£5
C-Breeze	£POA
GFA Basic	£POA

SPREADSHEETS

K-Spread	£POA
VIP	£49
Swiftcalc	£POA
Saga	£POA
Mini Office	£POA

TIMESWORKS DTP + EASY DRAW II £95

PC SPEED
FOR STE
OUT NOW
(NO SOLDERING)

SPEED BRIDGE
FOR EASY
CONNECTION OF
PC SPEED TO ANY
MEGA

GASTEINER TECHNOLOGIES LTD

UNIT 12A, MILLMEAD BUSINESS CENTRE, MILLMEAD ROAD, LONDON N17 9QU

Telephone: 01 365 1151 Fax: 01 884 2418/01 885 1953

SECOND Sight

If Pursuit to Earth was a budget shoot-'em-up then I would wholeheartedly recommend it. However, as a full price game it doesn't measure up to its competitors - Xenon II, R-Type, Blood Money and the rest. Wait for it to come out on a budget label.

Roland Waddilove

The PURSUIT TO EARTH

Slow coach encounter

Product: Pursuit to Earth
Price: £19.95
Supplier: Exocet,
14 Langton Way, London,
SE3 7TL.
Tel: 01-985 7232

IN Exocet's latest game, Pursuit to Earth, you are once again the only person capable of saving mankind from an approaching alien invasion fleet.

A new powerful weapon has been developed at the Pluto Research Base which will increase Earth's chance of killing off all the invaders, letting us live peacefully until the next shoot-'em-up is released.

With your spaceship fitted out with the latest in space armoury you have the job of delivering the new super weapon to Earth.

On the way you'll encounter wave upon wave of enemy fighters. You can only travel in a circular motion around the screen and it took a while to get used to the controls, but after some practice I found it easy to handle.

You blast the opposition and

You've been hit! Never mind, next time you'll wipe that silly grin off their alien faces.

dodge their fire.

Energy pods in the form of blue and red bubbles occasionally float across the screen and should be collected if possible to give you extra features.

By collecting the required number of pods you can have increased weaponry, missiles, beamers, bursts, shields or buddies.

All of these options are quite straightforward. Beamers fire a

group of shots, a burst is a shot that on contact with an alien will split into two more bursts, and a buddy lets an extra player into the game who will be on screen at the same time as you.

You start off with three ships and lose one whenever you are hit by enemy fire.

The graphics are quite ordinary, with the viewpoint just behind your ship as it flies into

the screen, and the action slowed down considerably when there were many sprites onscreen. There isn't any music, just shooting and explosions sound effects.

The price isn't going to add to the Chancellor's inflation rate worries, but it's questionable whether you'll want to spend £20 on such an unoriginal game.

The circular motion of the craft is unusual, but if you are looking for a good shoot-'em-up then shop around, as there are much better variations on this theme.

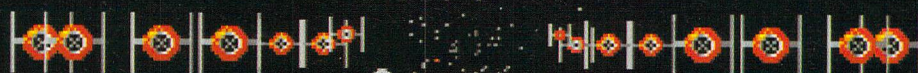
John Butters

Sound.....	4
Graphics.....	6
Playability.....	6
Value for money.....	7
Overall	6

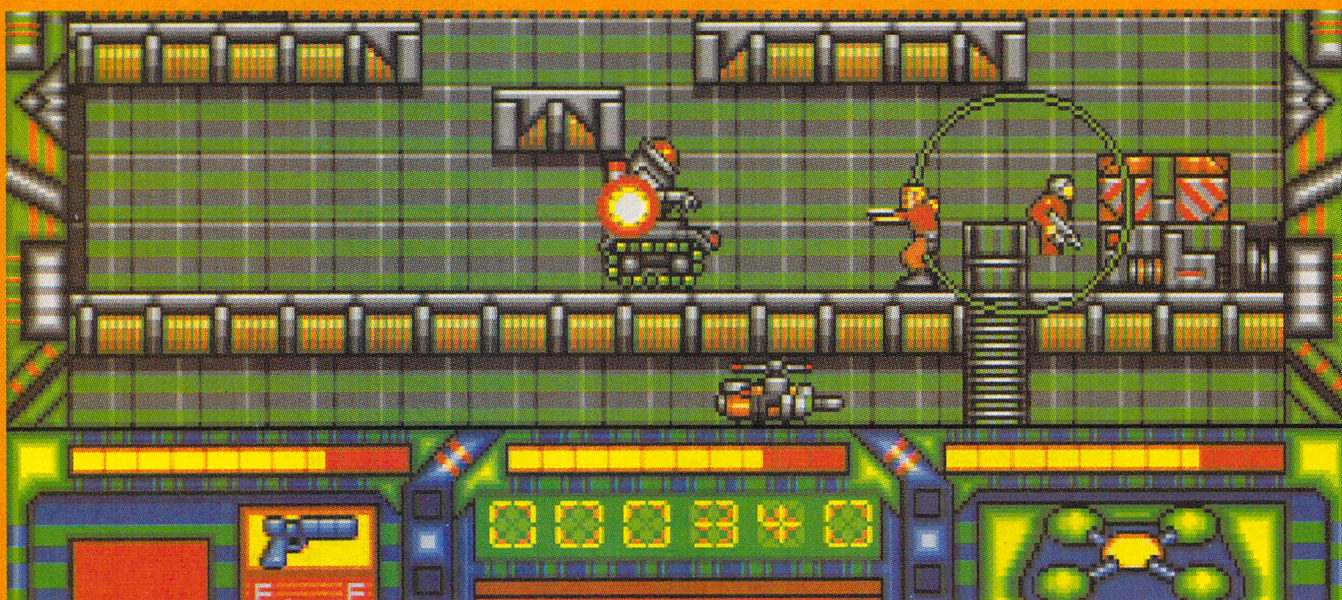
SCORE: 00003400

WAVE: 01

[A] : 02



SPE NTRA MISSILE BEAMER BURST SHIELD BUDDY



Stryx is tough – here you're being attacked from all sides

\$6,000,000 man

Product: Stryx
Price: £19.99
Supplier: Psygnosis, 122
 Century Buildings, Tower
 Street, Brunswick Busi-
 ness Park, Liverpool L3
 4BJ.
Tel: 051-709 5755

PSYGNOSIS can always be relied upon to produce a cracking good game, and Stryx is no exception. The opening animated graphic screens are very impressive and serve to brief you on your mission. In a nutshell, Earth has been devastated by war and the only hospitable places are four huge domes encasing four cities. The domes, which are linked to each other by travel tubes, consist of a series of platforms which can be accessed by lifts, tunnels and ladders.

Deep beneath the domes is the hive, where energy crystals are mined to fuel the city. Cyborg robots do this manual labour and the rulers, terrified of a revolt, have imposed a lifespan of just a few years upon them.

The Lifeforce – the termination system – is controlled by four keys, but these have been stolen by the cyborgs and they're now on the rampage, determined to wipe out humanity.

You are Stryx, half man, half robot, and your mission is to locate and destroy the cyborgs then recover the keys and decode the machine to kill the rebels.

The game is basically ladders and levels, but the action is fast and furious right from the start. Before you even take a step you must pick up the laser pistol at your feet. There are more weapons to be found, such as grenades and bombs, but I constantly found myself short of fire-power.

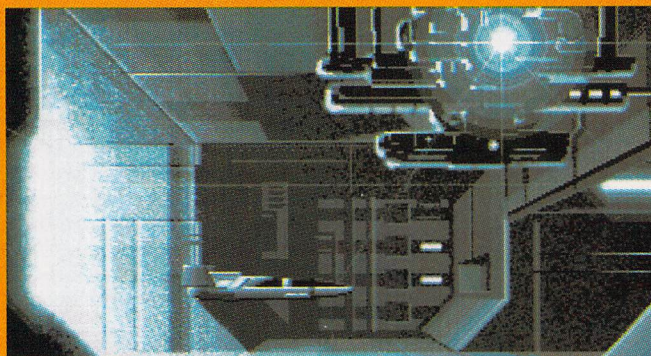
At first you won't live long as you are blasted from all sides by cyborgs and robots. However, with practice you can develop techniques for dodging their bullets, crouching down when they fire and springing up, shooting from the hip when their bullets have zipped by. Also try luring robots to the foot or top of a ladder, then stand above or below to shoot them. Good sportsmanlike stuff.

The graphics are clear and well drawn and Stryx has a wide variety of movements and his animation is quite good. The music is fast paced and keeps up the tension, but thankfully is turned off during the game leaving just the sound effects. Stryx is a difficult challenge for experienced arcade game players.

Keep a stiff upper lip and blast everything in sight. Recommended.

Roland Waddilove

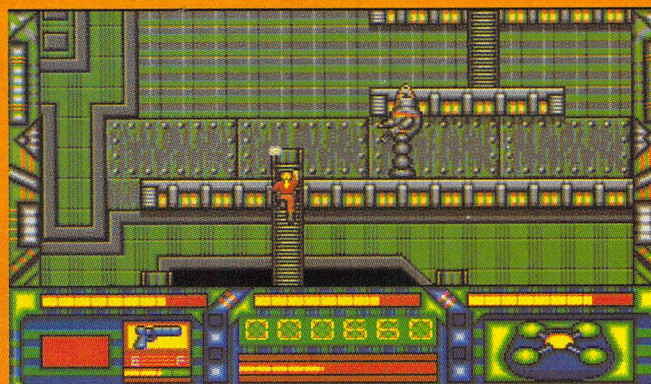
Sound	9
Graphics.....	9
Playability.....	9
Value for money	9
Overall	9



SECOND Sight

The opening graphics are brilliant, so I was a bit disappointed when the game started, revealing completely different graphics. However, the gameplay is exciting and addictive, but also very tough. Recommended for advanced gamers.

Julie Boswell



Lure that robot over the ladder then blast him from below

520ST-FM SUPER PACK



1Mb DISK DRIVE £450 OF SOFTWARE ARCADE GAMES

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
Quadralien	Logotron	£19.95
Ranarama	Hewson Consultants	£19.95
Return To Genesis	Firebird	£19.95
Roadwars	Melbourne House	£19.95
Starquake	Mandarin	£19.95
Test Drive	Electronic Arts	£24.95
Thrust	Firebird	£9.95
Thundercats	Elite	£19.95
Wizball	Ocean	£19.95
Xenon	Melbourne House	£19.95
Zynaps	Hewson Consultants	£19.99

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympiad '88	Tynesoft	£19.95

PRODUCTIVITY SOFTWARE

Organiser	Triangle Publishing	£49.95
-----------	---------------------	--------

JOYSTICK

Atari CX40 Joystick	Atari Corp	£4.99
---------------------	------------	-------

FREE ATARI BUNDLE VALUE: £458.97

£399

INCLUDING VAT

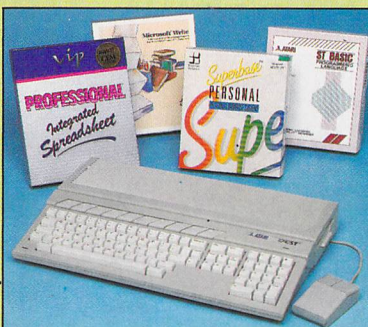
With SM124 mono monitor: £498 ^{INC VAT}

With SC1224 colour monitor: £698 ^{INC VAT}

1040ST-FM PROFESSIONAL PACK

NOW WITH TV MODULATOR

For the serious home user and the small business, we are pleased to announce a new package based around the 1040ST-FM. The 1040ST-FM has 1Mbyte RAM and a 1Mbyte built-in disk drive. In addition, the 1040ST-FM now comes with a TV modulator built-in. (The previously available 1040ST-F was designed for use with a monitor only and did not come with a modulator.) This modulator allows the 1040ST-F to be plugged directly into any domestic TV set, and comes complete with a lead to allow you to do so. The new 'Professional Pack' from Silica includes the new 1040ST-FM with modulator plus four high quality software packages including a spreadsheet, database, word processor and programming language. This 'Professional Pack' software will enable you to get straight down to business with your new computer. In addition to this software (worth £384.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200), FREE OF CHARGE. Return the coupon for further information.



ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98

NORMAL RRP: £884.82

LESS DISCOUNT: -£385.82

PROFESSIONAL PACK PRICE: £499.00

£499

INCLUDING VAT

With SM124 mono monitor: £598 ^{INC VAT}

With SC1224 colour monitor: £798 ^{INC VAT}

2Mb & 4Mb MEGA ST

The MEGA ST computers are styled as a lightweight keyboard with a separate CPU, connected by a coiled telephone style cable. There are two versions of the MEGA ST, one with 2Mbytes of RAM and the other with 4Mbytes. Each version has a 1Mbyte double sided disk drive built-in to the CPU unit. The MEGA ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both FREE OF CHARGE. Return the coupon for further details.

2Mb MEGA ST
£899 ^{INC VAT}
+ mono monitor = £998
+ colour monitor = £1198

4Mb MEGA ST
£1199 ^{INC VAT}
+ mono monitor = £1298
+ colour monitor = £1498



DTP PageStream £149 ^{+VAT} = £171.35

Desktop Publishing (DTP) is one of the fastest growing applications for personal computers. We are pleased to announce a powerful low cost package for the Atari ST called PageStream. PageStream costs only £149 (+VAT=£171.35) and, because it works with an Atari 1040ST and a Seikosha SP-180AI printer, you can be up and running with a complete system for less than £1000. Some of the features of PageStream are listed to the right. If you would like further information on this program, complete and return the coupon below, ticking the 'DTP' box in the corner.

- TEXT-FLOW AROUND GRAPHICS
- ROTATION OF TEXT & GRAPHICS
- SLANT OR TWIST ANY OBJECT
- POSTSCRIPT COMPATIBLE
- TAG FUNCTION
- AUTO/MANUAL KERNING & HYPHENATION
- GROUPING OF OBJECTS



ST COMPUTERS

The range of Atari ST computers offers something for everyone. From the games enthusiast who wants the challenge of the very best in arcade action, to the businessman who wants to make financial forecasts or faultless presentations. The ST offers high quality graphics, sound and speed for the gamer, whilst providing a fast, user friendly and affordable solution to business. The ST is now firmly established in the home environment and boasts a wealth of users in education, local government, television, and a variety of different businesses. Software for the range stretches to cover applications as diverse as ENTERTAINMENT, ACCOUNTS, ART, COMMUNICATIONS, COMPUTER AIDED DESIGN, DATABASES, DESKTOP PUBLISHING, EDUCATION, MUSIC, PROGRAMMING, SPREADSHEETS, WORD PROCESSING and more. For a full list of the software available, as well as details of the ST range, complete and return the coupon below.

All prices correct at the time of going to press. E&OE

520ST-FM EXPLORER PACK WITH BUILT-IN 1Mb DISK DRIVE



The value for money offered by the Atari ST range is reflected in the Explorer Pack featuring the 520ST-FM computer with 512K RAM. The 520ST-FM computer now comes with a built-in 1 Mb double sided disk drive as well as a free mouse controller and a built-in TV modulator. The new 520ST-FM Explorer Pack includes the 520ST-FM computer, the arcade game Ranarama, a tutorial program and some useful desktop accessories. In addition, if you buy the Explorer Pack from Silica, we will give you the Silica ST Starter Kit worth over £200, FREE OF CHARGE. Return the coupon for details of our Starter Kit and of the full ST range.

£260

ONLY
£2.51
PER WEEK
RETURN COUPON
FOR DETAILS

+VAT=
£299

+ SM124 mono monitor: £398 ^{INC VAT}

+ SC1224 colour monitor: £598 ^{INC VAT}

WHY SILICA SHOP?

Before you decide when to buy your new Atari ST computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer and expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Atari ST related products in the UK, a full time Atari ST specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years with an annual turnover in excess of £3 million and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. But don't just take our word for it. Complete and return the coupon below for our latest literature and begin to experience the Silica Shop specialist Atari service.

SILICA STARTER KIT: Worth over £200, FREE with every Atari ST computer bought from Silica.
PROFESSIONAL PACK: Free business software with 1040ST-FM and MEGA ST's bought from Silica.
DEDICATED SERVICING: 7 full-time Atari trained staff with years of experience on Atari servicing.
THE FULL STOCK RANGE: All of your Atari requirements from one place.
AFTER SALES SUPPORT: The staff at Silica are dedicated to help you get the best from your ST.
FREE CATALOGUES: Mailed direct to your home as soon as we print them, featuring offers as well as all of the new releases.
FREE OVERNIGHT DELIVERY: On all hardware orders shipped within the UK mainland.
PRICE MATCH PROMISE: We will match competitors on a 'same product same price' basis.
FREE TECHNICAL HELPLINE: Full time team of Atari technical experts always at your service.

FREE SILICA STARTER KIT WORTH OVER £200

WITH EVERY ST - RETURN COUPON FOR DETAILS
ALL PRICES QUOTED INCLUDE FREE UK DELIVERY

To: Silica Shop Ltd, Dept 23-ATSTR-0690, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX
PLEASE SEND FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Do you already own a computer
If so, which one do you own?

DTP ☐

DO YOU OWN AN ATARI ST?

If you already own an Atari ST computer and would like to be registered on our mailing list as an ST user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist ST service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111

1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

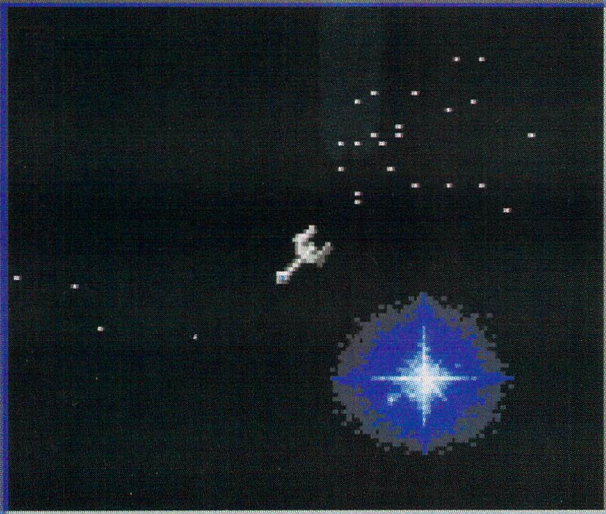
LONDON 01-580 4000

52 Tottenham Court Road, London, W1P 0BA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914

Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm


98 79



ISS WAYNE

STATUS

DATE: 22.22-06-4620



S A

DAMAGE: 0%

CARGO: 47%

ENERGY: 97.4

SHIELDS: DOWN

WEAP: ARMED

CAPTAIN

SCIENCE OFFICER

NAVIGATOR

ENGINEER

COMMUNICATIONS

DOCTOR

COMMENCING INTER-STELLAR TRAVEL

Pilot your ship through deep space, seeking out new civilisations

Flight of Fancy

Product: Starflight
 Price: £24.95
 Supplier: Electronic Arts,
 Langley Business Center,
 11-49 Station Rd, Lang-
 ley, Slough, Berkshire
 SL3 8YN.
 Tel: 0753 49442

If you have both played and become Elite, then you're probably looking for new interstellar regions to explore and fresh galaxies to conquer. If this is the case then I heartily recommend that you take a look at

Star Flight by Electronic Arts, as this game will allow you to boldly go where few men have gone before throughout its 270 star and 800 planet universe.

Starting the game on an orbital station called Starport, you are given 12,000 monetry

units to buy a spaceship, recruit and train a crew.

Correct selection of crew is vital, as you choose from five races, all with different abilities.

A crew consists of a captain and five officers, each talented in such areas as science, navigation, engineering, communication and medicine.

The early stages of the game are spent exploring nearby systems and following up some of the rumours at Starport. Once you have discovered an interesting planet, you are able to choose what actions you wish to perform by selecting a crew member's name from a menu and utilising his skills.

By following the options presented, you can gain a lot of useful information before landing on your target planet, including an analysis of its composition and atmosphere, indications of lifeforms present and details of its topography.

On landing you will find that your ship is equipped with a terrain vehicle (TV) to explore the planet's surface.

You can gain artifacts from

SHIP CONSTRUCTION

SELECT PURCHASE

- ☒ CARGO PODS..
- ☐ ENGINES
- ☐ SHIELDING
- ☐ ARMOR
- ☐ MISSILE LAUNCHER
- ☐ LASER CANNON

☐ CLASS 1


☐ CLASS 2

☐ CLASS 3

☐ CLASS 4

☐ CLASS 5

BUY



DONE

ISS WAYNE

CARGO PODS: 16

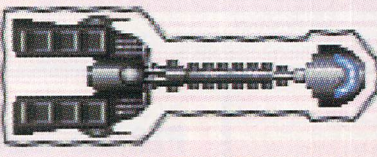
ENGINES: CLASS 5

SHIELDS: CLASS 5

ARMOR: CLASS 5

MISSILES: CLASS 5

LASERS: CLASS 5



MASS: 495 TONS

ACCELERATION: 5 G

ENDURIUM: 88.7 M³

YOUR ACCOUNT BALANCE IS: 322929 MU

Your ship can be enhanced with extra weapons and go faster stripes



Explore brave new worlds

ancient ruins, capture exotic lifeforms and recover valuable minerals.

However, travelling planet-side can be a hazardous business as it is possible to get lost in bad weather, run out of fuel or have some of your crew members killed by lightning.

If you manage to return to your spaceship safely laden with goodies you can return to Starport's trading depot and sell them for a healthy profit.

Then with your new found wealth you can upgrade your ship's offensive and defensive capabilities as well as buy more fuel and cargo pods.

It is here the game enters a new phase as you travel further afield and encounter other alien races.

Although some aliens will immediately open fire upon sighting you, many are friendly and willing to enter into diplomatic negotiations. These conversations can reveal all manner of interesting information which could prove very useful in the long run.

Eventually it becomes clear that you have to save your planet from destruction as some mysterious outside force is rapidly making it unstable and it will soon be torn apart. Once more you set out to explore the vast universe that lies before you and confront the dangers it contains.

There are many similarities between Star flight and Elite.

In my opinion Elite wins hands down in both the areas of graphics and combat, as these are vastly superior to what Starflight has to offer.

On the other hand Starflight has an intricate and enjoyable gaming system that delivers more complex and demanding challenges.

In fact, Starflight has a whole host of features such as planet colonisation, ship repairs, crew recovery, and space continuum fluxes. The best way to find out about all of these features is to buy the game. You won't be disappointed.

Wayne

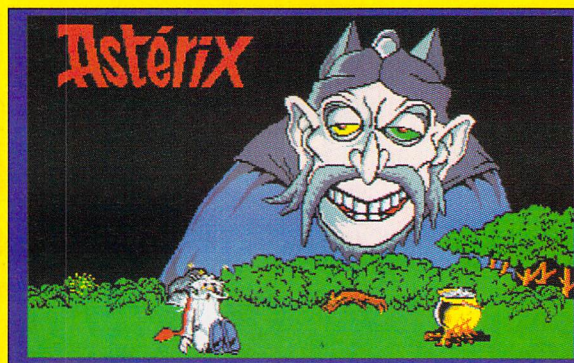
Sound	6
Graphics	7
Playability.....	9
Value For Money	9
Overall	8

SECOND Sight

Starflight is a massive game involving forward planning, strategy, exploration, space battles and conquest. The graphics are good and the sound effects are OK, combining to make an attractive package. Worth considering.

Roland Waddilove

QUICK PEEK



Asterix - Operation Getafix

Active (01-384 2701)

ASTERIX returns to the ST screen for another adventure in Roman occupied France. Obelix threw a menhir - an enchanted stone - at the Romans, but missed and hit Getafix on the head.

Getafix could easily make a potion to cure himself, that is if he hadn't been knocked senseless by Obelix. As it is he can't even remember how to make the magic potion that make the Gauls strong enough to resist the Roman army.

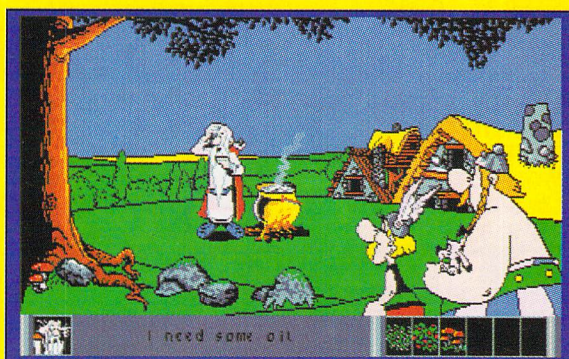
Your task, as Asterix, is to help Getafix make the magic potion to restore his memory. You search for the ingredients in the Gaul village, the surrounding woods and Roman fort, then return to Getafix to make the potion.

Only three ingredients are necessary for the potion so you must experiment with the large number of available items such as oil, mushrooms, strawberries and bay leaves.

You can also catch wild boar, fight with the Romans and play dice, though I couldn't work out how to manage the last activity.

The cartoon graphics are so good that at a glance you could easily mistake the display for the real TV cartoon. The music and sound effects are reasonably good, and the gameplay seems quite challenging for younger or novice players. Worth a look.

Roland Waddilove



Find the ingredients Getafix needs for his potion



Bash that Roman soldier

STOP PRESS
SUPER KUMA SOFTWARE OFFERS
KUMA PACK K1...
 K-MINSTRAL 2 - Music Programme
 K-SPREAD 1 - Beginners Spreadsheet
 K-DATA - Database Programme
 K-WORD 2 - Word Processing Prog.
ONLY £59.95-YOU SAVE £85!
KUMA PACK K2...
 K-MINSTRAL 2 - Music Programme
 K-SPREAD 2 - Advanced Spreadsheet
 K-DATA - Database Programme
 K-WORD 2 - Word Processing Prog.
ONLY £69.95-YOU SAVE £109!
 Other Kuma Packs available at SUPER SAVINGS...Phone for details

Merlin Bargain Offer!
SUPERBASE PERSONAL
 Popular Database Package
 with Extensive Features
ONLY £19.95-SAVE £40!



PHONE NOW
 for the great NEW
ATARI 520 STE
 Discovery Packs and
 the 1040 STE
 Business Pack

MERLIN

MONITORS

Including FREE ST Leads!

ATARI SM 124
 12" High Res. Mono Monitor
Phone for latest prices
ATARI SC 1224
 12" Medium Res. Colour
£265
PHILIPS CM8833
 14" Medium Res. Colour
£249
 Twin speakers, Green screen
 switch, with tilting stand.
CHECK FOR LATEST PRICES & AVAILABILITY ON ALL MONITORS

FREE...12 Months on site Maintenance with CM8833's

DISK DRIVES

ATARI SF 354 0.5 Meg Single 3.5" **£115**
ATARI SF 314 1 Meg Single 3.5" **£135**
CUMANA CSA 354 **£99**
 1 MEG. 3.5" Single
CUMANA CSA 1000 **£125**
 1 Meg. 5.25" Single

PRINTERS

Including FREE ST Leads!

STAR LC 10 Mono **£169**
STAR LC 10 Colour **£209**
STAR LC 24 10 **£249**
STAR LC 10 MkII **£185**
Genuine Star Ribbons now Available!

ACCESSORIES

10 - TDK 3.5" BLANK DISKS **£14.95**
DISK STORAGE 40 Capacity **£6.95**
BOXES... 80 Capacity **£8.95**
MOUSE MATS **£4.95**
CM 8833 DUST COVERS **£5.95**
ATARI ST SERIES DUST COVERS **£5.95**

MORE ST's

ATARI STE's & STFM's BOTH AVAILABLE
520 STE Explorer Pack **£269**
520 STE Explorer Pack **£279**
520 STFM Power Pack **£349**
1040's.....PHONE FOR KEENEST PRICES!
All ST's now available with Sorcerors Packs!

ATARI 520 STE POWER PACK

Now you can take advantage of the NEW 520 STE with a total of 23 GREAT SOFTWARE TITLES... The Powerpack includes, ALL OF THE FOLLOWING...

IMPROVED VERSION OF OLD STFM

£354

Inclusive of VAT and Postage!

Plus Free... Atari CX 40 Joystick and 23 Software Titles...**AFTERBURNER, BLACK LAMP, BOMB JACK, BOMBZAL, DOUBLE DRAGON, ELIMINATOR, GAUNTLET II, NEBULUS, XENON, OUTRUN, OVERLANDER, PACMANIA, PREDATOR, R-TYPE, SPACE HARRIER, SUPER HUEY, STAR GOOSE, STARGLIDER, STAR RAY, SUPER HANG-ON, FIRST BASIC, MUSIC MAKER, ORGANISER**

CHOOSE ONE OF OUR 5 SORCERORS PACKS!

ORDER SC-11



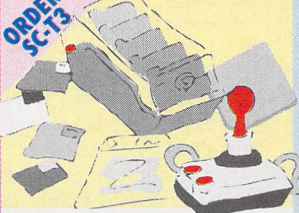
HYPERPAINT, HYPERDRAW, BORODINO, £50 ATARI MIND GAMES DISCOUNT VOUCHER, ST BASIC & 240p. MANUAL

ORDER SC-12



12 MONTHS SUBSCRIPTION TO ATARI ST USER MAGAZINE PLUS A FREE MAGAZINE BINDER AND A QUALITY MOUSE MAT

ORDER SC-13



MOUSE MAT, DUST COVER, LOCKABLE 80 CAPACITY DISK STORAGE BOX 10 BLANK DISKS & JOYSTICK

ORDER SC-14



ATARI VCS 2600 GAMES CONSOLE WITH CENTIPEDE GAMES CARTRIDGE AND AN ATARI CX 40 JOYSTICK

NOW AVAILABLE

A CHOICE OF 5 GREAT NEW SORCERORS PACKS WHEN YOU BUY AN ATARI ST, BUT ONLY FROM MERLIN EXPRESS!

PAY JUST £25!

ORDER SC-15



A GREAT DEAL IS BEING NEGOTIATED AT TIME OF GOING TO PRESS...PHONE NOW TO FIND OUT JUST WHAT YOU CAN GET!

EXAMPLE...

ATARI 520 STE POWERPACK (As listed at top of page)

Plus **Your choice of 1 Sorcerors Pack from the 5 listed above**

(Individual Sorcerors Packs [ie without the ST] are available to purchase depending on our stocks, phone for prices and further details quoting the relevant SC number)

£379

Inclusive of VAT and Postage!

ALL OUR PRICES INCLUDE V.A.T. AND POSTAGE (UK Mainland)

Whilst every effort is made to ensure that the information shown on our advertisements is correct, you should ALWAYS confirm any Offers, Prices, Availability etc. prior to placing orders. Because our advertising is booked so far in advance, Merlin reserve the right to alter equipment specifications, withdraw any product/offer or update prices (either up OR down), without prior notice. ALWAYS CHECK DETAILS PRIOR TO ORDER. Merlin will NOT supply anything that has been subject to change without the customers prior permission.

ORDERING: Just phone our 24 hour order line using your Access/Visa card, OR, send a cheque/postal order with your requirement details. (Cheques need clearance prior to despatch)

DELIVERY: You choose either, by post at no extra cost, or simply add £5 per large item for next working day courier service. (UK Mainland)

WARRANTY: Goods that prove faulty within 30 days will be exchanged for NEW. After 30 days, & within 12 months, faults repaired at our expense.

MERLIN

EXPRESS LIMITED

DEPARTMENT **AST/T4**, 5 REDWOOD COURT
 SALISBURY STREET, NOTTINGHAM NG7 2BQ
 Telephone: 0602 424444 FAX: 0602 420813

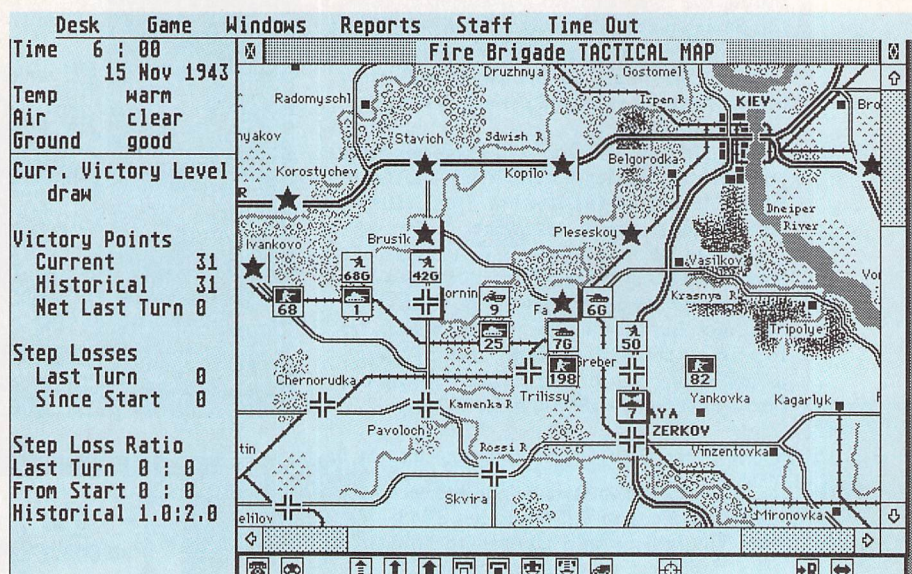
GREAT VALUE, THAT'S THE MAGIC OF MERLIN



AS dawn broke on November 3, 1943, Russia's General Vatutin unleashed the biggest artillery barrage so far seen on the Eastern Front. The objective was to crush the German defenders screening the bridgehead, storm Kiev and then explore westward to seize the key towns of Korosten, Zhitomir, Berdichev and Fastov. These would cut the vital rail link to Army Group Centre and lay the ground work for a massive envelopment of Army Group South.

It was a bold and ambitious plan, which started very successfully – so successfully that even the cool-headed Manstein began to worry. As Rybalko's tanks headed past a liberated Kiev on November 5 Manstein was pleading with Hitler for the release and commitment of the 48th Panzer Korps, the Fire Brigade.

The battle for Kiev was a torrid affair. Terrible casualties, desperate



Unusually, the game runs on monochrome as well as colour

Manstein's Elite

Paul Rigby reports from the battle for Kiev on the Eastern Front – a new award winning wargame from Mindscape

defence and exhaustion on both sides. The re-enactment of this battle, from Australian software house Panther Games, is named Fire Brigade in appreciation of the 48 Pz Korps' work in countering the Soviet offensives and restoring a semblance of order to Army Group South's bedraggled and extended front.

You may play either the commander of the German Fourth Panzer Army, directing infantry and panzer corps in the battle for the city of Kiev, or you can assume command of the Soviet front with the task of freeing the capital of the Ukraine and breaking through the German lines.

The computer executes all orders by carrying out all movement and combat with allowances made for unit commander and staff capabilities, troop quality, armour and anti-tank strengths, supply, morale, supporting arms, casualties, fatigue, leadership and combat power. You will be able to observe the battle on both tactical and strategic level maps.

Victory progress is continuously

tracked and compared with the historical result at any given point. The computer also has a limited military intelligence without any input needed to be given by the player.

Probably the best advice that can be given to anyone playing this game for the first time is to take things slowly. It is a valid criticism that Fire Brigade presents you with too much information. It would have helped if information for all the units in a corps or army could have presented in some other form, such as tabular, for example.

This could have helped the player to make the best decisions possible. In addition, be wary of HQ symbols. Sometimes it is easy to mistake them for division/corps symbols on the tactical map.

It will probably take weeks or months to learn the finer points of Fire Brigade. Such as which commanders you can trust, or how far you can push a weary group of panzer grenadiers before they crack up, or what is the proper mix of tank corps and rifle corps needed to make a tough

Soviet Army, or what to do when bad weather hits, and so on.

When playing the game you should always be aware that historically, even with the large amount of forces deployed on the Eastern Front, there was usually no continuous front line, but rather a series of forward outposts and strongholds backed by reserves. So don't panic if your nice, neat front develops holes by the dozen and the enemy take a stroll behind your front line forces.

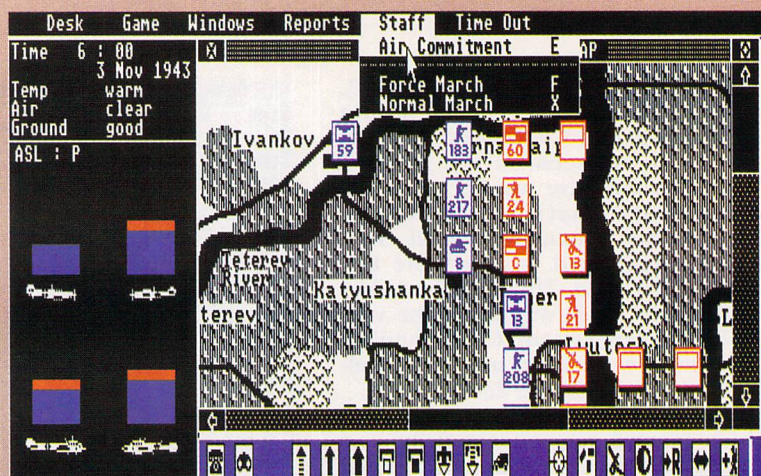
Concentrate your offensives in pockets with adequate reserves. Don't push too hard though. Advance slowly, otherwise your troops will suffer to the detriment of their fighting capability. In fact, fatigue has to be stressed as a major factor in the fortunes of your forces. If possible, give them a well-deserved rest in a local town and rotate another unit to take their place.

Overall, Fire Brigade is a well thought out and researched wargame that will hold your interest for quite some time.

During the first scenario (November 3, 1943) the Soviet player has a numerically superior force, so use it, but be quick because German re-inforcements are on the way. Avoid being bogged down for extended periods. Manoeuvre, chaps, manoeuvre.

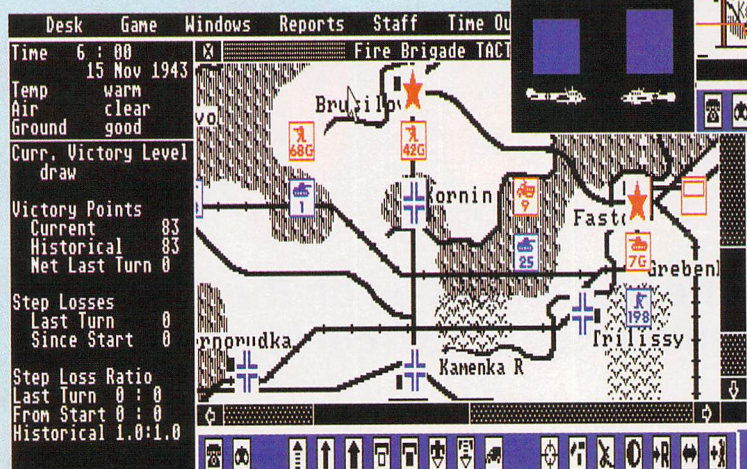
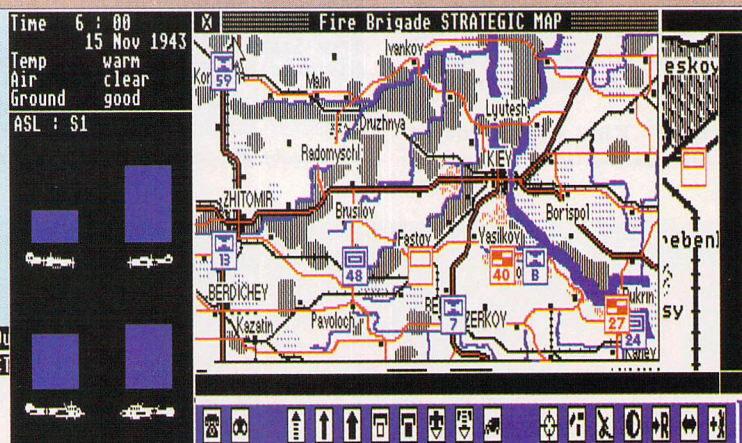
Probably your best source of advancement is your all-star 3rd Guard Tank Army – a sort of Wimbledon FC of the Eastern Front. They'll leave bodies strewn in their wake.

For the German side? Well, exactly the opposite strategy is called for. For two weeks you have to check the Soviets in their stride while keeping the German casualties low. Try to preserve the 48th Pz Korps until re-inforcements arrive. Try not to tangle with the 3rd Guard Tank Army – they're mean fighters.

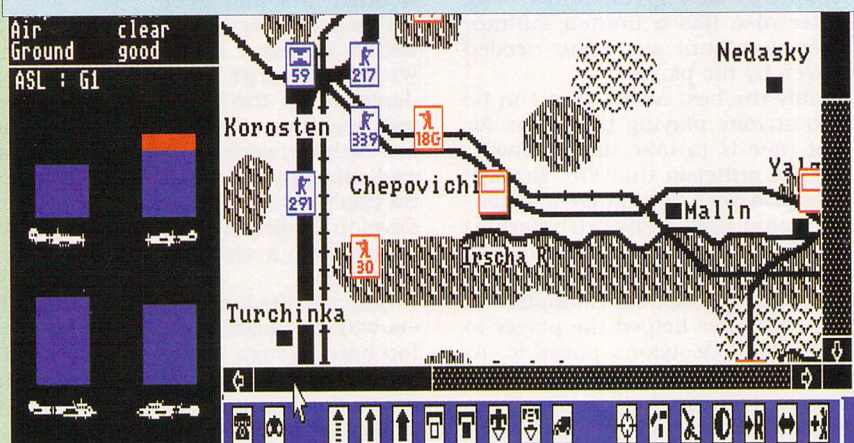


Taking the Russian side in the second scenario (15 November 1943) you will be well advised to hold tight, rest your troops and build a reserve. Two options for defence arise. Firstly, you can meet the advance head-on or, secondly, invest in random attacks in other areas to attract German attention.

The latter will also disrupt any



head-on attack the German side is making or planning. Don't be afraid to give way, slowly retreating if losses mount up will extend your survival rather than stubbornly digging your heels in and being slaughtered into the bargain. Your reserves and rested troops can be introduced later to hit the, by then, slowed German advance.



In the third scenario (December 5, 1943) the German side should go hell for leather by pushing the Soviets as far as possible. Maintain a steady pace, but keep a few reserves back because when the Soviets counter attack you will need them.

If you decide to head northwards push the 48th to the limits until they reach Malin. If you don't make haste you'll find your path blocked by Soviet reserves. Watch the 48th's flank. Use the 13th Korps to hit the 1st Guard Army. Go the whole way with this attack by throwing the lot at them – heavy artillery, Amiga power packs, you know the sort of thing.

FACT FILE

Product: Fire Brigade
Price: £29.99
Supplier: Mindscape, PO Box 1019,
Lewis, East Sussex BN9 4DW.
Tel: 0444 86545

POINTS FOR:

Full-featured wargame that is historically accurate. Runs in colour and monochrome..

AGAINST:

The game's complexity means that it is difficult for the novice to get to grips with.

£19.95

SOCCER GLORY

For Atari ST

Take the challenge of not only managing a 1st Division club but playing for the team as well. SOCCER GLORY gives you the choice of being the player manager or taking the role of club manager only. Whatever your choice skill, good judgement, and luck will be needed to be successful in this exciting and realistic soccer management game.

In depth research and attention to detail gives Soccer Glory its reality. Joystick control does not play a part in this game. Instead you must evaluate players, team strengths, playing formats and the wealth of information available as you play the game.

Success will be hard to achieve but if you build a strong squad and make the right decisions the following can be won:

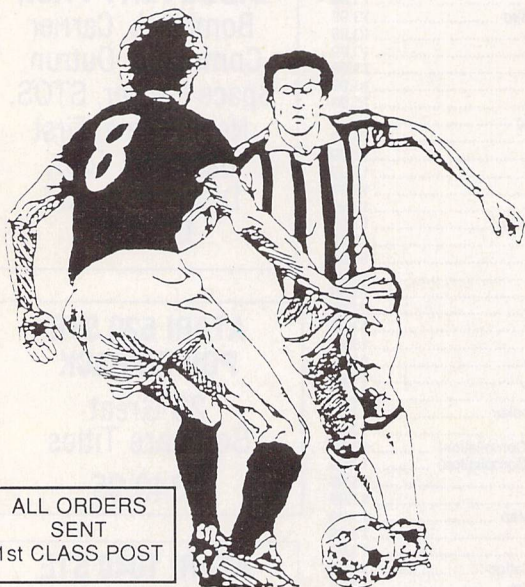
**1st Division Championship – FA Cup – League Cup
European Cup – Cup Winners Cup – UEFA Cup**

RICHARD CHARLSTON OF LEEDS – "I am very impressed with the depth and accuracy of soccer glory"

Here are some of the features of Soccer Glory.

20 1st Division teams – over 1,200 named players – individual players skills reflecting BALL WINNING, GOALMAKING and GOALSCORING abilities – physio and coach reports – pie charts of players skills etc. – team selection – playing format – named goal scorers – goal tally – substitutions – injuries – penalties – corners – free kicks – negotiate players contracts – free transfers – suspensions – success rating – apprentices – P.W.L.D.F.A.Pts League tables – relegation – promotion – save game – and so much more.

ALL ORDERS
SENT
1st CLASS POST



Proprietor: J. Moss

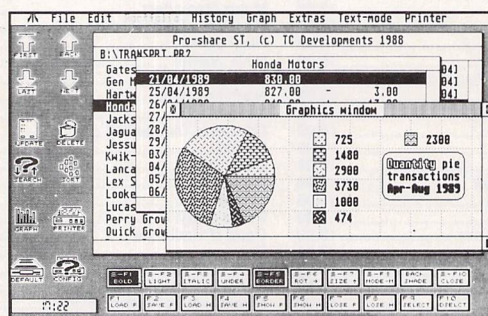
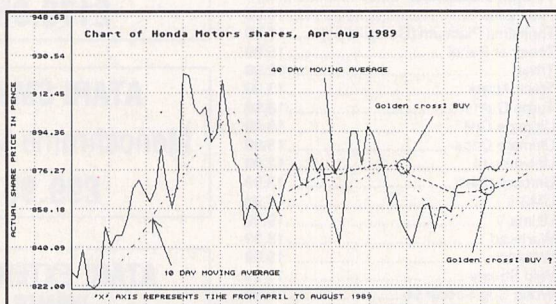
To obtain your copy of Soccer Glory send a cheque or postal order for £19.95 to:

**TANGLEWOOD SOFTWARE, Dept AA
157 Warwick Road, Rayleigh, Essex, SS6 8SG**

Play the Market

Yes, at last there is a simple yet high-powered Stock Market analysis package available for your Atari ST

ProShare-ST



ProShare-ST utilises powerful techniques previously only available to technical analysts, to bring the highly profitable world of Stocks and Shares to anyone with an Atari ST microcomputer.

- ▶ Massive Transactions database
- ▶ Day-to-day price tracking & analysis
- ▶ Extensive chart production featuring moving averages & Golden Crosses
- ▶ Instant Point and Figure, Hi-Lo & Stock charts for advanced analysis
- ▶ No previous city experience required

ProShare-ST is available for £49.95 inc. VAT and P&P. It's impossible for us to even begin to list the advanced features found in ProShare-ST in such a small space, for a FREE information sheet (subject to availability) call TC Developments on 0937-61145 or write to us at PO BOX 15, Wetherby, West Yorkshire, LS22 4ZE. Dealer enquiries welcomed.

£3.99

GAME IS HERE!

**NO CLUBS TO JOIN, NO
HIDDEN CHARGES, JUST
£3.99 A GAME PLUS 50p
POST & PACKING
ALL THE GAMES
REALLY ARE JUST
£3.99 EACH.**

I OWN AN

ST ☐ AMIGA ☐

Please send me:

Qty

- GOLDRUNNER ☐
- ELECTRONIC POOL ☐
- JUPITER PROBE ☐
- KARATE KID PART 2 ☐
- AIRBALL ☐
- GOLDRUNNER 2 ☐
- LEATHERNECK ☐
- TETRA QUEST ☐
- MAJOR MOTION ☐
- SLAYGON ADVENTURE ☐
- TANGLEWOOD ADVENTURE ☐
- TIME BANDIT ☐
- 'THE GRAIL' ADVENTURE ☐
- INTERNATIONAL SOCCER ☐
- J.U.G. ☐
- ABZOO EDUCATIONAL SOFTWARE ☐

NAME _____

ADDRESS _____

POST CODE _____

SEND ME _____ TITLES
at £4.49 (50p p&p)

TOTAL ENCLOSED £ _____

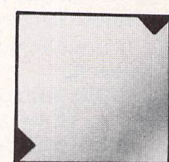
CREDIT CARD TYPE _____

No. _____

EXPIRY DATE _____

Allow 28 days for delivery

Post to:



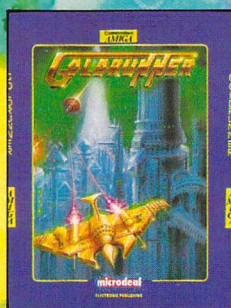
direct

software

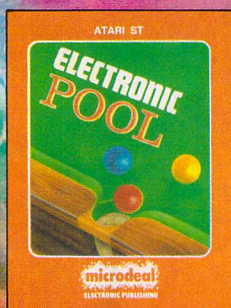
PO Box 68, St. Austell, PL25 4YB
or phone with credit cards



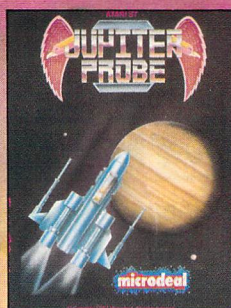
0726 68020



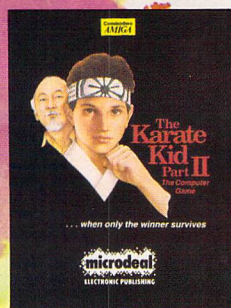
GOLDRUNNER
Our top selling
shoot em up from
Steve Bak and
Pete Lyon.



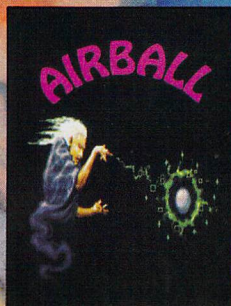
**ELECTRONIC
POOL**
Mono or colour
version of 'Video
Pool' arcade
game.



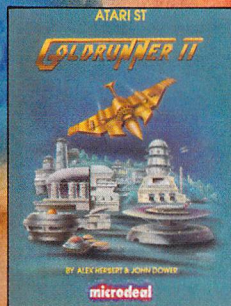
JUPITER PROBE
Vertically
scrolling shoot
em up by Steve
Bak.



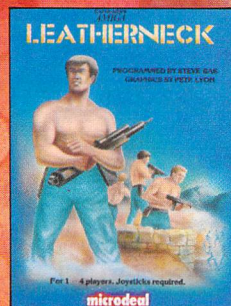
**KARATE KID
PART 2**
Our top selling
karate game.



AIRBALL
Over 200 rooms
of strategic
arcade action,
graphics from
Pete Lyon!



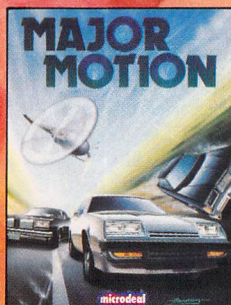
GOLDRUNNER 2
Sequel to our top
selling shoot em
up, high speed
action packed
arcade game.



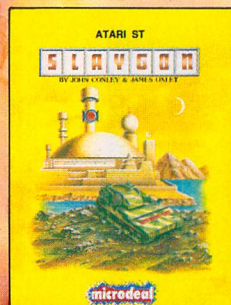
LEATHERNECK
Reviewed as the
best arcade war
game, program by
Steve Bak.



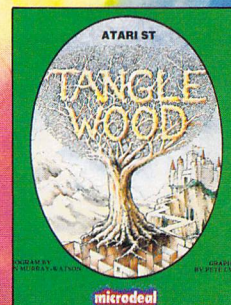
TETRA QUEST
Over 300 screens
of arcade
strategy.



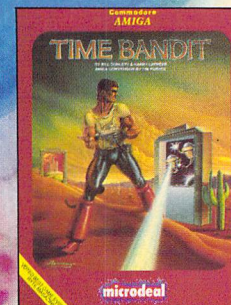
**MAJOR
MOTION**
Spy car chase
arcade game.



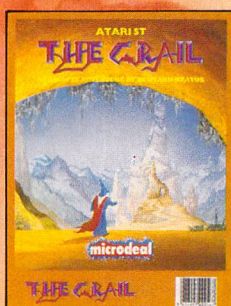
**SLAYGON
ADVENTURE**
Stop Cyber
Dynamics ruling
the world in this
graphic
adventure.



**TANGLEWOOD
ADVENTURE**
Rated as one of
the best 16 bit
graphic
adventures.



TIME BANDIT
Top selling arcade
adventure, the
original ST Mega
game.



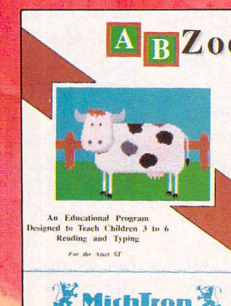
**'THE GRAIL'
ADVENTURE**
Full size
adventure
programmed
using our
Talespin
development
system.



**INTERNATIONAL
SOCCER**
Soccer action at
its best in our
own soccer game.



J.U.G.
Highly rated
arcade game with
4 way scrolling.



**ABZOO
EDUCATIONAL
SOFTWARE**
Preschool to 8.
Helps character
recognition and
spelling with
funny and serious
A to Z pictures.

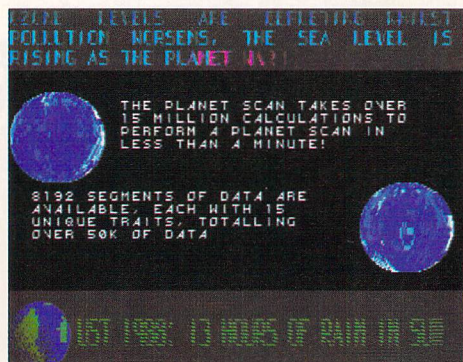
ATARI ST USER

SIDE ONE

Defsel
DLII
Pro-Ed
DirPrint

SIDE TWO

Debut
Damocles



DEBUT is an impressive planet simulation from Pandora in which the aim is to stabilise a planet's ecosystem and environment.

You must rid the world of pollution and create a habitable enough atmosphere for people to be moved out of enclosed cities on to the surface.

You start with a mildly polluted planet and as the game progresses the cities will

Début



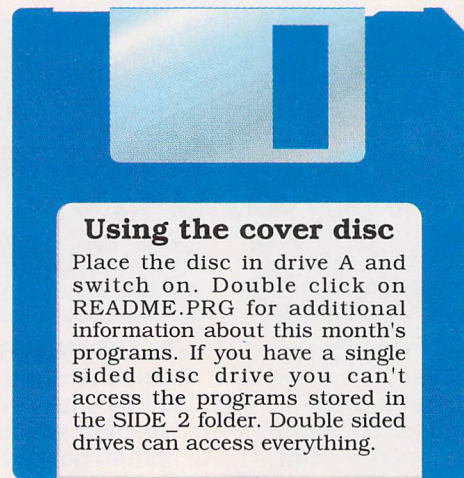
To load: Double click on DEBUT.PRG.

- ✓ Low res colour
- ✗ Medium res colour
- ✗ Monochrome

slowly pollute it to a greater extent – a bit like Earth, really. You are not offered with a vast array of hardware in order to achieve your goal, but simple equipment that is around today.

Debut is built on the science of chaos, and the programming language provided will enable you to locate the crisis points on the planet. It is these locations that control its future.

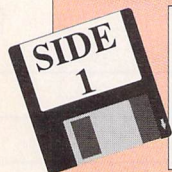
THE



Using the cover disc

Place the disc in drive A and switch on. Double click on README.PRG for additional information about this month's programs. If you have a single sided disc drive you can't access the programs stored in the SIDE_2 folder. Double sided drives can access everything.

DLII



To load: Double click on KEYBOARD.PRG.

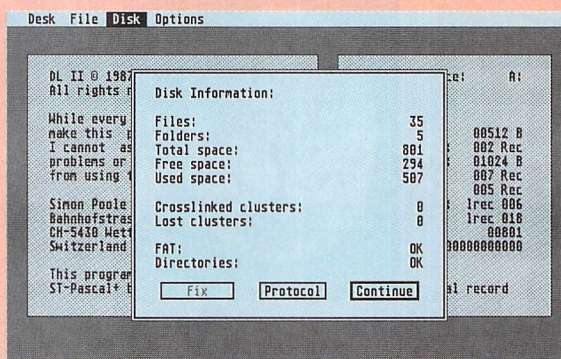
- ✗ Low res colour
- ✓ Medium res colour
- ✓ Monochrome

DL II, written by Simon Poole, is a powerful multi-function disc utility program which has the following functions: Disc usage display, check FAT integrity, check for lost and crosslinked clusters, some disc fix functions, automatic and manual unerase, file attribute modification, disc editing (file or sector oriented) and edit hard disc bootsector.

To run DL II double click or open DLII.PRG. If you don't want an automatic disc check performed after most operations, deselect Autocheck in the Options menu (the default value is not to perform a check).

The functions of DL II can be divided into three groups: Commands which access the disc via the information in the bootsector, those which do not need a correct bootsector, and others that are not disc related.

In the View/Edit dialogue box, accessed from the Disk menu, some or all of the buttons will be disabled. The number in



Displaying disc usage statistics

the top right-hand corner indicates which logical sector/cluster you are working on and this is always relative to sector zero of the current disc or the first cluster of the file. To leave the View/Edit dialogue press or select Exit.

In the Ascii display section both NUL and @ are mapped to space, so if you want to enter them as characters use the hexadecimal part of the display. Point at a byte or character with the mouse and click the button to alter a value. Type in the new value and press Return.

The left and right arrows decrease or increase the current sector or cluster number by one. A single click in the grey part of the slider bar will decrease or increase the number by 10.

The slider can also be dragged to any position. To position it at an absolute position, double click the bar and enter the sector or cluster number in the dialogue box.

Click on the Search button to call up a dialogue box, where you can enter the

string you want to search for as an Ascii string or hexadecimal number. If a match is found the first character of the string is inverted for 10 seconds and a keypress or a mouse click returns you immediately to the editor. To continue from the

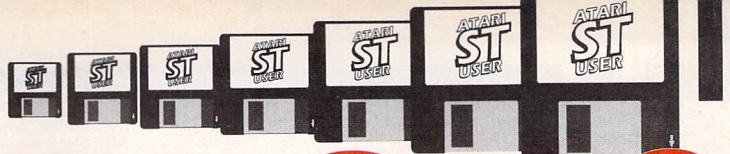
current position double click the Search button.

To copy a sector/cluster to a different position on the disc/file select Copy and enter the new position in the dialogue box.

The Files dialogue box works much the same way as the standard Gem file selector. Select the '..' entry to return from a subdirectory (folder) to its parent directory.

Selecting the Check command will start a check of all the files and directories on the current drive. Items that are checked are: Lost clusters – ones that are marked as used, but do not belong to a file or directory – crosslinked clusters (used by two different files), bad directory entries (zero length files, first cluster out of range) and other catastrophic errors in file allocation.

Once the check is finished a dialogue box will show the results of the operation. If DL II finds something wrong with the disc structure it will report the faults. If



DISC PAGES

Earn up to £1,000 for cover disc submissions

We are looking for new and innovative software to include on our cover disc. It can be anything from business packages and utilities to shoot-'em-up arcade games.

The more useful, enjoyable and original your program is the more chance you'll have of getting it published. Can't program? No problem we're also on the lookout for top quality public domain programs.

If you find a good one that isn't generally available in a PD library send it in and we'll pay you for your efforts.

Send your submissions to:

The Disc Editor,
Atari ST User, Europa House,
Adlington Park, Adlington,
Macclesfield, SK10 4NP

Please include an SAE if you want your submission returned.

DL II can fix the problem, the Fix button will be enabled.

The Fix command will truncate files to avoid crosslinked clusters and will generate files of the form 99999999.FIX (where 99999999 is an unique number) in the root directory out of lost clusters. Since only unused (and undeleted) entries are used, there is a limit to the number of files that can be generated.

If you have problems here, you can change deleted entries into unused ones by changing the first letter of the filename from \$E5 to \$00, but be careful as this also marks the end of used entries in the directory.

ReOrg

ReOrg improves performance on hard and floppy discs through better placement of subdirectories and their files on disc, and through defragmentation of the files themselves. It will also remove deleted and zero length entries.

Before running the utility first backup your disc and only run ReOrg after all crosslinked and lost clusters have been disposed of using DLII. ReOrg has no protection against incorrect discs and will probably run into a infinite loop if you do not take these precautions.

The ST will reboot after you have run ReOrg and reorganised your disc, the ST will reboot. This is normal, and serves the purpose of re-initialising the operating system's internal directory tree.

DIRPRINT is a very simple, yet useful, desk accessory which has just one function - to print out a listing of all files contained on a disc. Place the accessory on your boot disc so that it is automatically installed next time you boot up.

To print out a list of files stored on the disc select it from the accessory menu and click on the Perform button. Now select either Drive A or Drive B after making sure your printer is online. All folders present on the selected disc will be searched, along with any folders they themselves contain.

DirPrint

To load: Boot up with the disc in the drive

- ✓ Low res colour
- ✓ Medium res colour
- ✓ Monochrome



Damocles

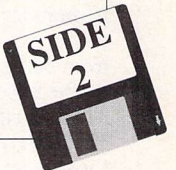
DAMOCLES, the latest release from Novagen, is a brilliantly absorbing game with high speed, solid 3D graphics. Erin is the fifth planet in the Gamma solar system, and in a few hours it is going to be smashed to pieces by the giant comet, Damocles.

Your task is to fly to the planets in the solar system, search any cities you discover for objects and clues and ultimately, save Erin from impending destruction. With nine planets and 19 moons there is much to explore and many places to visit.

Benson is your constant computer

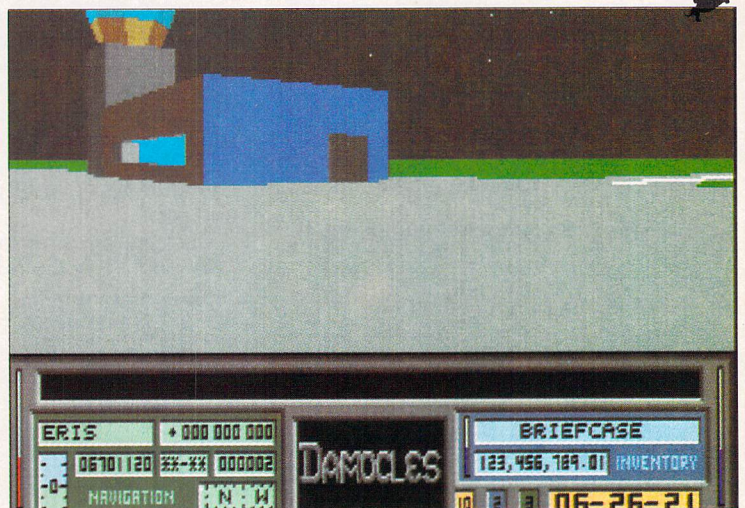
To load: Copy DAMOCLES.ARC and ARCX.TTP to a blank disc. Double click on ARCX.TTP and enter DAMOCLES. Double click on DAMOCLES.PRG.

- ✓ Low res colour
- ✗ Medium res colour
- ✗ Monochrome



companion who guides your actions and provides whatever help he can. Even if you fail in your mission, the game isn't over as you can still wander the galaxy in your spacecraft and discover new life forms, boldly going where only Captain Kirk and co have gone before.

High speed, 3D graphics are the trademark of Damocles. Fly around the solar system and visit the many planets



DISC PROBLEMS?

If you have any difficulties loading programs from your disc it will be replaced free of charge. Send it with your name and address to: Stanley Precision Data Systems, Unit F, Cavendish Courtyard, Sallow Road, Weldon North Industrial Estate, Corby, Northants.

If you damage the disc yourself please include a cheque/postal order for £1.50 made payable to Stanley Precision Data Systems. If the disc has been damaged in transit please return it to Database Direct at the address shown at the foot of the order form on Page 121.

Defsel

DEFSEL is the definitive file selector from a group of programmers known as Worlds Immarcescible. As many computer boffins will know, file selectors are really Gem object trees, and to interact with them you call the Gem routine *form-do*.

This piece of Digital Research's code is bugged and quite slow, so they set about writing their own version. As a consequence, Defsel hardly uses Gem at all. All the mouse routines, code to print the characters, button handlers and so on, are custom written, and Gem is called only to draw the objects (that code isn't bugged).

Defsel is very easy to install by putting DEFSEL.PRG inside the AUTO folder on your boot disc. When you switch on you should see a message to the effect that Defsel has been installed. Once in memory the Defsel file selector should appear wherever the old file selector did.

Defsel isn't particularly fussy as to whether it is run first or last in the AUTO folder, except that it must be run before any of those programs which speed up the mouse, because they use the same vector. If memory is tight, hold both Shift keys down as you boot up to prevent Defsel from being installed.

The pathname entry line can be scrolled left and right, allowing you to have up to 150 letters. All 16 drives are shown and those that are inactive are in faint print and cannot be selected.

At the bottom of the file window are left and right arrows, plus scroll bar. Scrolling along shows all the information on a file - its size in bytes, date and time of creation and all system flags. Since these are only any use to those who know about them anyway, it is only necessary to say that if the archive bit is set you will see an A on the far right, if the hidden bit is set, an H, and if the system bit is set, an S.

There will be normally two spaces on the left of the filename, a diamond there means that the file is a folder, and an R means the file is read only.

To load: Copy DEFSEL.PRG to the AUTO folder of your boot disc and boot up with it.

- ✓ Low res colour
- ✓ Medium res colour
- ✓ Monochrome



Another bonus of this file selector is the nine ways it allows you to sort your files. To select them, you click on one of the UNSDT buttons below the selection line:

- U** Unsorted
- N** Sort by name
- S** Sort by size
- D** Sort by date
- T** Sort by file extension

The 10 buttons in the bottom right corner are the file extension buttons. Clicking on them tacks that extension to the pathname. Clicking on Delete has no immediate effect, except to toggle the mouse pointer between an arrow and a D. The D pointer means you are in Delete Mode and now when you click on a file or folder it is deleted.

Diskinfo shows the free space, used space and so on, for the current drive. Clicking on Options brings up a whole new screen with several options. Maxfiles allows you to change the amount of memory Defsel needs.

Storage space is used for filenames and so on, and the more files it can hold, the more memory it needs. Memory is allocated when you boot up, so changing Maxfiles from within Defsel has no immediate effect. What you must do is change it and save it, using the Save button.

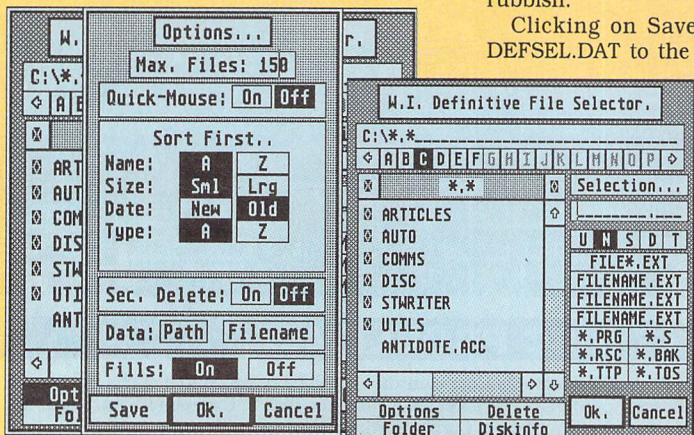
When Quick-Mouse is on, the mouse's speed is doubled. When deleting a file under Gemdos, you don't really delete it at all, you simply erase the bit on the disc which says that it exists, and where to find it. The actual data remains intact. Recovery programs use this fact to their advantage, and it can be quite a bonus.

However, if you have a file that you want to physically erase, there aren't many simple ways unless you format the disc. By turning Security Delete on, whenever you delete a file it is first filled with rubbish.

Clicking on Save, saves a file called DEFSEL.DAT to the AUTO folder on drive

A, so make sure you have your boot disc in the drive. This file is loaded (if it exists) when the program is booted, so you can have customised options.

Clicking on the title at the top of the main screen reveals a dialog box with which you can de-install Defsel.



Customising Defsel

Replace Gem's file selector with this more powerful version

Pro-

PRO-ED was written by Jerry Cole of Beavercreek, Oregon, and is a text editor designed specifically for the programmer to create and edit source code. This editor can be used to produce any type of document, but it does not attempt to replace a word processor.

A programmer requires a tool that will assist him or her to be more productive, and make development much easier. Pro-Ed will strictly enforce an 80 column limit on line length, as it is the opinion of many that source code should not exceed column 80, because longer lines may affect readability.

It is a good idea to copy Pro-Ed to another disc before using the editor. Use the backup copy as your working disc and place the master disc in a safe place. PRO-ED will run from a ram and hard disc without any problems.

Pro-Ed is a .TTP (Tos Takes Parameters) program. This will allow you to specify the name of a file to edit when executing Pro-Ed. If a pathname was entered when executing Pro-Ed, the program will attempt to load that file into memory for editing. If not, Pro-Ed will boot up and prompt you for the pathname of a file to edit. (A list of files on disc can be shown on the screen at any pathname prompt by entering a pathname containing wild card characters).

All tabs within the file being loaded will be automatically removed and expanded. Also, any lines terminating with LFs only will be changed to end with CR/LFs. To create a new file simply press the Return key at the pathname prompt without entering a pathname. Pro-Ed will request a pathname when you save the file. A new file is indicated by the words *New File* displayed on the left hand side of the status line.

After loading a file or creating a new file the editor will display the first screen of text and position the cursor on column 1 of the first line. The top line of the screen is reserved for the status line.

Editing

The cursor can be moved anywhere on the screen except past the end of file. Insert mode can be engaged by pressing the Insert key and the editor will display *Ins* on the status line. Insert mode will remain active until the insert key is pressed again.

In Compose mode Pro-Ed will automatically insert a new line each time the Return key is pressed. Compose mode is activated by pressing function key F9 and *Com* is displayed on the status line. In addition, Control+O and Control+U can be used to open new lines of text - either above or below the cursor line. Note that the Return key will not split a line -

Ed



To load: Double click on PROED.TTP in the PRO-ED folder and then enter the file to edit or press Return to create a new file.

- ✗ Low res colour
- ✓ Medium res colour
- ✓ Monochrome

instead use the command Control+Y.

Pro-Ed has two different command groups: Key commands, such as function, Control and Alternate keys, can be executed at any time during editing by pressing the appropriate key, and extended commands are executed by pressing function key F10 or Control+X followed by the command to be executed. The editor will prompt for information needed to carry out the command. The last line or block

deleted can be recovered by pressing the Undo key. A character or word delete can also be recovered, but the undo must be carried out before leaving the line. Any other changes made to that line will also be undone.

A block of text must first be marked before a block command can be executed. A block can be marked with F4 at the beginning and end and removed with Shift+F4. The cursor does not have to be in

column one when defining a block, but only entire lines of text can be marked. The block markers are removed after a block command has been executed.

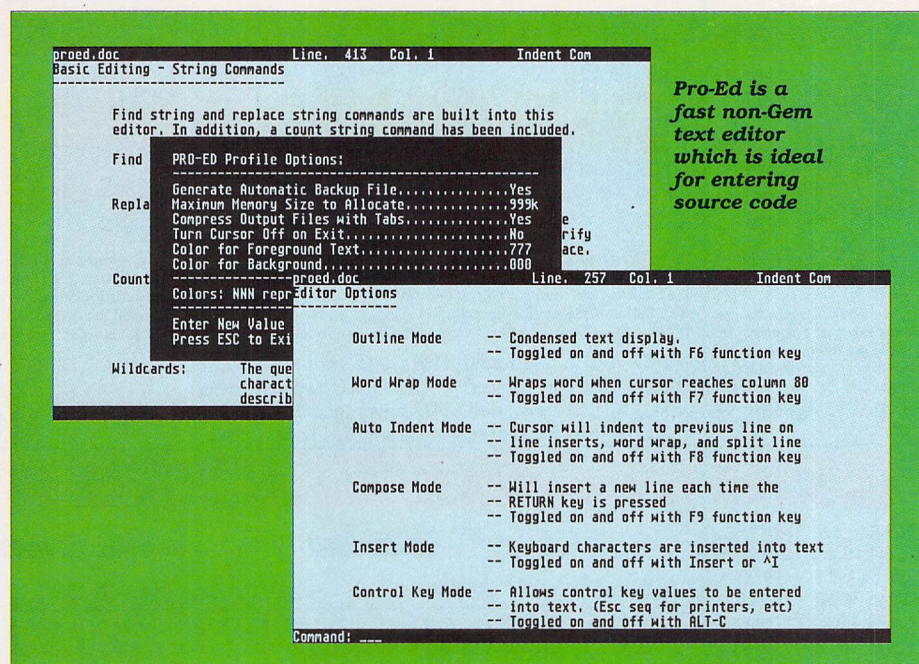
To insert an external text file into the current edit, position the cursor at the correct place, press the F10 key and enter IF at the command prompt. Pro-Ed will then prompt for the pathname of the file to insert.

To edit a second file press the F10 key and enter XE at the command prompt. You will then be prompted for a pathname to edit. The file will load and the first screen of text will be displayed. The status line will show the name of the second file you are editing. When the second edit session has ended, the first file will return to the screen. There are two commands for saving your work: SE will save the file and allow you to continue editing afterwards, while QE will save the file and quit editing. Both commands will prompt you for a pathname for the file and the default one will be shown on the command line. Press Return to accept it.

Press the Escape key to cancel the save command. If the Auto-Backup option is on, the original file will be renamed with a .BAK extension before the new file is written. Quit editing without saving the file by using the command QA (Quit and Abort).

The editor's Outline display mode allows text to be viewed in a condensed form. This is activated and turned off by toggling the F6 key. When in the Outline mode, the editor will only show those lines of text that begin at or before the cursor's column position when the F6 key was pressed.

Pro-Ed will not allow you to quit during editing. To exit and return to the desktop press the Escape key when the editor prompts for a pathname to edit. If the Escape key is pressed at the second edit pathname prompt, the editor will return to the first edit.



Key commands

Function keys

- | | |
|------------------------|----------------------------------|
| F1 Scroll forward | Shift/F1 Scroll to end of file |
| F2 Scroll backward | Shift/F2 Scroll to start of file |
| F3 Scroll to locator | |
| F4 Mark block | Shift/F4 Clear block markers |
| F5 Mark locator | |
| F6 Outline mode toggle | |
| F7 Word wrap toggle | |
| F8 Auto indent toggle | |
| F9 Compose mode toggle | |
| F10 Extended commands | Shift/F10 Line per screen toggle |

Alternate keys

- | | |
|---------------------------------|--|
| Alt-P Scroll backward | Alt-E Show end of file |
| Alt-N Scroll forward | Alt-S Show start of file |
| Alt-L Scroll to locator | Alt-O Outline mode toggle |
| Alt-M Clear block markers | Alt-F Cursor forward to next word |
| Alt-D Delete word or spaces | Alt-B Cursor backward to previous word |
| Alt-C Toggle control code entry | |

Control Keys

- | | |
|-----------------|-------------------------------|
| ^B Cursor left | ^A Align block/line to cursor |
| ^F Cursor right | ^O Open line above cursor |

- | | |
|-------------------------|---------------------------------------|
| ^S Start of line | ^U Open line under cursor |
| ^E End of line | ^Y Split line at cursor |
| ^P Cursor up | ^J Join current line to previous |
| ^N Cursor down | ^L Locate next occurrence of string |
| ^D Delete character | ^C Copy previous line - cursor to eol |
| ^R Delete line | ^I Insert mode toggle |
| ^K Erase to end of line | ^M Mark block |
| ^T Set/Release tab mark | ^X Extended commands |
| ^Z Cursor line to top | |

Extended Command Functions

- | | |
|-----------------------------|--------------------------------|
| SE Save edit and continue | XE Execute second edit |
| QS Quit and save | DB Delete block |
| QA Quit and abort changes | CB Copy block |
| IF Insert file | MB Move block |
| PF Print file | SB Save block to file |
| HP Halt printing | PB Print block |
| KP Kill printing | FS Find string |
| RP Resume printing | RS Replace string |
| SL Show line | CS Count occurrences of string |
| MR Modify roll size | SP Save profile |
| DK Define keyword | LP Load profile |
| SK Show keyword definitions | PO Modify profile options |

Ladbroke Computing International

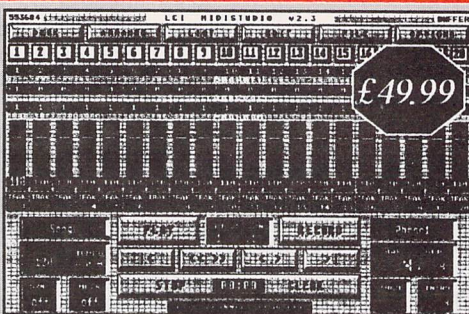
"The Country's leading 16 Bit Specialist"



33 Ormskirk Rd, Preston, Lancs, PR1 2QP
Open Mon. to Sat. 9:00 am to 5:00pm
Dealer enquiries welcome.

Midistudio 20 track ST Midi sequencer

Midistudio is an attractively priced, 20 track Midi Sequencing package. It can record up to 682 bars per phrase (pattern) on up to 100 phrases. Any phrase can be placed on any track. Tracks can be soloed and muted and tracks and phrases can be named. Program numbers can be displayed in a variety of ways including 0-127, 1-128, in banks from a1-b88 or a01-b64. The Desk features sliders to set relative volumes on each track and you can even do a mix on the fly. Midistudio also has a clock to display the length of the last playback. Step time note edit functions are available including copy, split, merge, append, and transpose, velocity editing (including a humanize function), full controller editing and different levels of quantizing. Midistudio works in medium and hi res and a demonstration disk is available for just £3.99.



£49.99

Midistudio Master. 30+ new features £129.99

200 DPI A4 Flat Bed Scanner

- ▷ A4 200 DPI scanner
- ▷ 200 DPI thermal printer
- ▷ Acts as Photocopier
- ▷ Up to 16 grey scales
- ▷ Black/white mode
- ▷ Works with ST, Amiga
- ▷ Works with PC (add £30)
- ▷ Thermal paper in stock: £7.99

Unbeivable value

£449.99

This high quality flat bed scanner can scan a full A4 page at 200 Dpi in approximately 12 seconds. The scanner includes a thermal printer which can be used alone or with the scanner to act as a photocopier. The ST software requires 1 megabyte of memory, works in medium and high resolutions and allows capture, printing, load and save of images in a number of formats. The ST software also includes an image editing software. The scanner can be also be used with the Amiga and PC but software specification may vary. Ideal for DTP this is probably the most cost effective piece of office equipment you could own.

IMG scanner Scan at up to 1000 Dpi

The IMG scanner is a realistic, low cost scanner which can offer high quality graphics digitising for a tenth of the cost of other scanners. This simple unit plugs into the cartridge port of the ST and accepts scanned information via optical cables which fix easily to the head of any Epson compatible dot matrix printer. The software allows grey scales to be replaced with colours, 4 in medium resolution and 16 in low resolution and offers scanning resolutions of 75, 150, 216, 300, 360 and 1000 dots per inch horizontally. Best results are achieved with photocopies. Greater than screen resolution images are saved in IMG file format and can be edited with any compatible art package. Screen resolution images can be saved in Raw data, Degas or Neochrome formats and edited with compatible art packages.



£49.99

Low resolution demonstration disk £3.99

ST & Amiga Hard Drives

Megafile 30	(ST)	£474.99
Megafile 60	(ST)	£599.99
Supra 30Mb	(ST)	£474.99
Third Coast 65Mb	(ST)	£599.99
Third Coast 65Mb	(Amiga)	£659.99
Vortex 40Mb	(Amiga)	£499.99

Look at these prices

Ladbroke Computing Hard drives

We have a range of high quality ST hard drives at affordable prices. All have a minimum specification of: full metal case with push button on/off switch mounted on front and 60 watt PSU, Autopark mechanism, has room, power connections and controller capability for second mechanism, external push button DMA device No. selection. The low power controller is full SCSI and can support up to 8 drives. The software includes, Autoboot, up to 14 partitions on ST, 100% AHDI 3.2 compatible driver.

40HD 42Mb formatted, 11Ms, 64K on board cache memory.	£ 549.99
50HD 48Mb formatted, 40Ms average access time.	£ 499.99
60HD 61Mb formatted, 24Ms average access time.	£ 619.99
85HD 84Mb formatted, 24Ms average access time.	£ 699.99

ST & Amiga Repairs & Upgrades

512K STFM upgrade, fitted.	£74.99 *	512K STFM upgrade, kit.	£49.99 *
512K STM upgrade, fitted.	£74.99 *	512K unpopulated ST board, kit.	£39.99
512K unpopulated ST board, fitted.	£49.99	512K populated ST board, kit.	£99.99
512K populated ST board, fitted.	£109.99	2Mb unpopulated ST board, kit.	£49.99
2Mb unpopulated ST board, fitted.	£59.99	2Mb populated ST board, kit.	£199.99
2Mb populated ST board, fitted.	£249.99	4Mb populated ST board, fitted.	£399.99
STFM Blitter chip, fitted.	£49.99 *	STFM Blitter chip, kit.	£39.99 *

Amiga Upgrade Boards

▷ With/without clock/calendar	512K unpopulated Amiga board.	£19.99
▷ Plugs into A500 slot.	512K populated Amiga board.	£59.99
▷ Switch RAM in/out.	512K unpopulated Amiga board + clock.	£29.99
▷ New low price.	512K populated Amiga board + clock.	£69.99

* Please check configuration before ordering. Our Atari trained engineers can repair all hardware, including Amigas, in minimum time at competitive prices. Fitting prices quoted for machines not previously tampered with. All upgrades and repairs carry our 3 months parts and labour guarantee.

SGSnet ST Networking

- ▷ SGSnet Starter kit £149.99
- ▷ SGSnet add-on kit £99.99
- ▷ Up to 500 ft between ST's.
- ▷ Uses Midi ports for low cost networking.
- ▷ Full data correction.
- ▷ File locking.
- ▷ Network permissions.
- ▷ Allows up to 12 Hard or RAM disk partitions.

Only available from us

SGSnet is a low cost Midi based network system which works in all resolutions and allows up to 31 ST's to be networked to a file server. The server software runs as a background application so it does not tie up the server machine. Documentation is also provided for programmers.

Quality 3.5" Disks

Quantity	Unbranded		Sony Branded
	Loose	Boxed	Boxed
10	£6.99	£7.99	£9.99
100	£64.99	£74.99	£89.99

All our disks are top quality Sony, Maxcell or Kao products, not cheap imports. All disks carry an unconditional lifetime guarantee. Please add 60p postage and packing for each box of ten disks.

Best Quality, Lowest prices.

Macintosh Emulation

- ▷ Spectre GCR £284.99.
- ▷ Spectre GCR with 128K ROM's £384.99
- ▷ Reads and Writes Macintosh disks.
- ▷ Supports hard drive and second drive.
- ▷ Supports SLM 804 Laser printer.
- ▷ 30 % bigger screen area than Mac plus.
- ▷ Runs faster than a Macintosh plus.

128K ROMs in stock

We Were First: We have been supplying the excellent Spectre GCR since October 1989 and have Ex-stock availability on GCR and the 128K ROM's.

Amax

- ▷ Amax £124.99
- ▷ Amax+128K ROM's £224.99
- ▷ Compatible with A500, 1000, 2000
- ▷ Compatible with flicker fixer.

ST World 'Best Dealer' 1989

Phone for best prices. We will try to match any price.

This company has given years of full support to computer users from their premises at 33 Ormskirk Road Preston. Now from their Mail Order premises they can offer this "second to none" service to users countrywide. All Software/Hardware is ex stock and fully tested prior to purchase, to ensure that returned goods are now a thing of the past. All hardware is supported by our on site engineers so that quick turn around on all repairs is guaranteed. There are no hidden extras WYSIWYG. All prices include VAT, and delivery on orders over £100(Mainland UK)(next day delivery +£5). All prices are correct at copy date, 28/03/90 and are subject to change without prior notice. All prices are good while stocks last. Phone for up to date prices.

Entertainment packs

520 STE Explorer	£379.99
520 STFM Power pack	£369.99
520 STFM Discovery pack	£369.99
1040 STE Hyper pack	£459.99
Amiga Batman pack	£369.99
Amiga Batman + pack	£399.99
Amiga Class of 90's	£549.99

Power pack consists of Organiser software, First Basic, First music and games including, Afterburner, R-Type, Gauntlet II, Super hangon, Space harrier, Mousetrap, Buggy boy, Super huey, Eliminator, Nebulus, Pacmania, Predator, Bombjack, Bombuzal, Xenon, Double dragon, Blacklamp, Outrun, Stargoose, Staray.

Hyper pack includes Hyper Paint art package, Hyper draw vector drawing package, Borodino strategy game and Metacomco Basic.

Batman + pack includes A500 Batman pack, mouse mat, joystick and the Tenstar games pack with Photon paint

STE Memory upgrades

SIMM, SIP Upgrades

No soldering
Easy to fit

512K SIMM, SIP *	£49.99
2Mb SIMM, SIP *	£249.99
520STE upgraded to 1Mb	£439.99
520STE upgraded to 2Mb	£549.99
520STE upgraded to 4Mb	£749.99

* Please check configuration before ordering. All upgraded 520 STE's include free Hyper pack, Basic. Phone for SIMM, SIP exchange.

All STE prices apply while stocks last.

Business & DTP Systems

Mega ST1 + SM124	£ 599.99
Mega ST2 + SM124	£ 899.99
Mega ST4 + SM124	£ 1199.99
Portfolio (pocket PC)	£ 224.99
Atari PC4 (80286)	£ 1383.99
Atari PC5 (80386)	£ 2121.99
DTP Mega 2 pack	£ 1674.99
DTP Mega 4 pack	£ 1999.99
Stacy 2	£ 1799.99
Amiga 2000	£ 1449.99
Amiga 2000 XT/HD	£ 1584.99
Commodore PC's	phone

Monitors

Atari SM124 Mono monitor.	£109.99 *
Atari SC1224 Col. monitor.	£279.99
Philips 8833 Stereo Colour monitor.	£249.99 *
Philips 8802 Colour monitor.	£239.99 *
Philips 15" FST, remote, Scart input Tv with 60 tuner presets, timer and teletext.	£259.99
Philips 14" remote, Scart input Tv with 40 tuner presets and Fastext.	£234.99
* Deduct £10 if bought with computer, also scart cable included.	

Cumana Drives

CSA 354 ST

3.5", slim 25mm unit 720K Formatted capacity
Integral power supply Active indicator
Low noise Data lead

Only £84.99

CAX 354 Amiga

3.5", slim 25mm unit 880K formatted capacity.
Enable/disable switch Through port

Only £69.99

Cumana 720K formatted internal drive.
(ST requires case modification) £69.99
ST A/B Boot switch, fitted £24.99

Repair Centre

Our Atari trained engineers can repair a range of computer hardware and peripherals in minimum time at competitive prices and are on site from monday to saturday. We can arrange for pick up by courier and return delivery(phone for details). All repairs and upgrades carry our 3 months parts and labour guarantee. Minimum charges are as follows:

Full range of Atari ST's	£34.50
Commodore Amiga	£34.50
Sinclair Spectrum's	£23
Monitors	£34.50

Peripherals

Hawk Scanner	£1249.99
Portfolio peripherals from	£39.99
Trak Ball (ST&Amiga)	£19.99
Mouse mats from	£5.99
Amiga modulator	£19.99
Joysticks: Turbo 3, Turbo 6, Turbo cobra, Star probe, Competition	
Pro 5000, Quickshot 2 Turbo from	£9.99
AMAS sound sampler(Amiga)	£91.99
Digiview gold v3.0(Amiga)	£137.99
Master sound(Amiga)	£39.99
Midi Master (Amiga)	£32.99
3.5" disk care kit	£5.99
80/100 3.5" disk box	£9.99

Connectors

ST Centronics lead	£ 14.99
Atari Monitor lead	£ 5.99
Amiga Scart with sound	£ 14.99
ST Scart with sound	£ 14.99
8 Bit printer interface	£ 29.99
Atari DMA cable	£ 15.99

Dustcovers

Monitor covers from	£ 4.99
LC-10 cover	£ 7.99
Hard drive cover	£ 4.99
ST cover	£ 3.99
Amiga A500 cover	£ 3.99
Mega 2 cover	£ 7.99

Miscellaneous

Books: We stock a full range of Books, reference and tutorial for the 8 Bit atari range and the ST and Amiga.

Software: We have a wide range of software for the 8 Bit range of Atari computers in cassette, disk and cartridge form. We also support the ST and Amiga with Business, DTP, Word processing and games software from stock.

Send SAE for catalogue

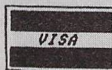
Akai Music hardware

Akai EX90R	£199.99	Akai MPX820	phone
Akai EX65D	£199.99	Akai X-7000	£999

Quality Low Price and Professional Series Printers

Star LC-10, Best-Selling mono 9 pin	£ 164.99 *	Star FR-10 mono 9 pin, 300 cps draft elite, 16 NLQ fonts	£ 527.99 *
Star LC-10 Mk II, faster version of the LC-10	£ 189.99 *	Star FR-15 15" carriage version of above	£ 688.99 *
Star LC-10 Colour, 9 pin, 7 colour printer	£ 209.99 *	Star XB-24/10 24 pin SLQ, LQ, 240cps draft elite	£ 688.99 *
Star LC-24/10, 24 pin mono excellent quality	£ 239.99 *	Star XB-24/15 15" carriage version of above	£ 907.99 *
Citizen Swift, 24 pin printer	£ 319.99 *	7 colour upgrade kit for XB-24/10 and XB-24/15	£ 39.99
Citizen 120D, 9 pin mono. Lowest price	£ 134.99 *	Star Laser Printer 8, 1 Mb memory, 8 resident fonts,	
Atari SLM804 Laser printer with 90 days on site warranty	£ 1099.99	8 pages per min, 300 Dpi	£ 2287.35 *

* All these printers carry a 12 months on site warranty and come complete with Centronics cable



(0772) 203166

Fax 561071

Ladbrooke Computing International is a trading name of Walton Marketing Limited.

To assist us in processing your order please quote this code.

DST3.1

ADVENTURES

Pendragon relaxes in the dungeon and ponders on Satanic ambitions as well as a forthcoming blockbuster from Magnetic Scrolls

Hot from the

Overture and beginners

There can, perhaps, be nothing more infuriating in text adventuring than to reach a seeming impasse. Many a time I have struggled for hours with various strategies and re-runs, and still found myself well and truly stuck. Eventually, weary-eyed I would make my way to bed and perhaps lie awake for hours trying to fathom out what I have missed, or what other ploy I could try.

Paradoxically, such frustration is one of the greatest joys of this genre of puzzle solving. We all have blind spots, though thankfully these do seem to decrease with experience.

Perhaps the ancestor of all such stymies involves the dragon in Colossal Adventure. When you attempt to fight the beast, the program responds with "What, with your bare hands?". You then try unsuccessfully to kill it with a sword, an axe, a wand and so on. Only perhaps in desperation will you try with your bare hands and achieve success.

In one of the earliest adventure games I played – long before the ST was even a twinkle in a designer's eye – I had solved more than 100 locations of a quest before being

confronted by a locked and seemingly impassable door.

Close inspection revealed a key stuck in the lock on the other side. I banged my head in frustration, and retraced my steps to look for some overlooked item. Then by chance, I remembered a similar incident in a Famous Five novel I had read as a child.

I checked my inventory and discovered I was carrying a map, a candle and a knife. The candle appeared to be of no immediate use, but the map and knife surely were implements which could be used to open the door.

First I carefully slid the map under the door, then picked the lock with the knife. The game responded with "You can hear a clink as a key falls". Now I carefully pulled back the map, upon which rested the key. I unlocked the door and my journey continued. Needless to say, this puzzle has been repeated many times, with slight variations, in a host of other adventures.

More recently, in Guild of Thieves I became stuck while trying to open an opaque case by manipulating a set of dice – a similar puzzle exists in Kult. The main problem was

knowing how many spots should show on the top face of each die when it is placed into a slot. I tried all sorts of combinations in vain before I turned to my map for help. It was here that the clue lay. The arrangement of rooms surrounding the opaque case resembled the five-spot face of a die. It was now a simple matter to work out the correct combination.

Elsewhere in the same game your way is blocked by a barred gate which cannot be climbed or unlocked. The way through is to simply break the bars, as they turn out to be made of flimsy polystyrene.

However, perhaps the most annoying puzzle I have ever faced was in Incentive's Ket Trilogy. Here I met a door with a minty smell. I tried every way I could think to get through, and the only clue open to me was "A mixed up LOOP".

Eventually, taking the excesses of cheap humour to its lowest bounds, I uttered the word POLO, and hey presto, the door opened. Perhaps the moral from all these experiences is: If at first you don't succeed, try the unexpected.

Next month I will look at more sophisticated problem solving.

THERE is nothing quite so relaxing after a hard day in the saddle than to lie out on my favourite rack before sojourning to play a splendid text adventure. Since we spoke last, much of my time has been spent unravelling the delights and tortures of Horrorsoft's Elvira, Mistress of the Dark.

This flight of gothic horror has been long awaited by myself and many of my less tainted knights, but at last Elvira is upon us in six discs of satanic glory.

Unlike its predecessor, Personal Nightmare, Elvira is a totally icon-driven adventure, with little regard to text, and probably the best graphics I have seen since Chronoquest.

The plot surrounds the evil created by the long-dead Queen Emelda, and her somewhat naive and less evil descendant Elvira. As the game's hero

press



you have an uphill battle to right some of the mess Elvira has landed herself in, and some nasty surprises await around each corner.

The never-ending story concerning the new Magnetic Scrolls adventure has been taking a few equally strange twists and turns of late. Originally scheduled for March release, we are all awaiting with baited breath for the launch of this new blockbuster from the masters of ST text adventuring.

A Magnetic Scrolls spokesman told me: "The game is almost finished ... it is very big and tremendously exciting". While on the very same day, Ian Mathias at Virgin/Mastertronic – the game's publisher – announced: "It is nowhere near finished and a late summer release is probable."

This just goes to show the often vast dichotomy which exists between programmers and publishing companies when it comes to marketing and releasing a product. So despite my inside source, we can only wait and see.

In the mailbag this month I was pleased to receive Issue 4 of Syntax – the best yet – from Sue Medley. This is an excellent disc-based adventure help service of which I made detailed mention of a few months ago.

I was delighted to receive a full solution to Space Quest II from Michael Ward of Nuneaton. Many thanks Michael, use will be made of your scroll in a future edition of this column. Thanks must also go to Allen and Mark Errington of County

Durham for some superb maps to Zak McKracken.

Before I close I must report that I have just received an epistle from Zenobi Software which informs me that the company is now the sole publisher for Whiplash and Wagonwheel – reviewed in the April issue of *Atari ST User* – The Jade Stone, and Three of the Best. These clever text/graphic adventures retail at £7.49 each; Zenobi can be contacted at 26 Spotland Tops, Cutgate, Rochdale, Lancashire OL12 7NX.

Finally, I am delighted to present the first in a new series of maps to Mindscape's classic brain teaser, *Déjà Vu II*. See over the page.

● *Until the night comes rushing in, happy adventuring.*

Problems solved

This is part five of my serialisation of solutions to three of the most popular and difficult adventures for the ST. If you wish to keep your dignity and not indulge in a bit of cheating, look away, otherwise read on.

Fish The Boss

You see the Dark Warp, from where you will get the cylinder. But on enter-

ing the warp Sir Playfair tells you that the Fins have twisted the dimensions into a labyrinth.

The backroom boys know it is in a place where the only exit is Up. So you enter a maze which is as baffling as the one in Zork II. The only way to map this maze is to draw each set of available exits on a compass face.

You can then ascertain that NW, SW, SE and NE are covered by the

exits on either side of them – for example, North West is covered by North and West. Therefore, whichever exit you take, you will discover that direction and its two companions – for example, North West, West and North – do not appear at the next location.

If you couple this with the knowledge that going Up will enable you to get the cylinder, you will strike suc-



cess. Anyway, get the cylinder and go Up, South, Down, South, East and Down to the platform. Catch the train to Opah University, then go South, Up and East.

If Simon is waiting, give him the kipper tie and go North into the disco, but ensure you wear the shades and the ear plugs.

From the university quad, go East, East, East, and put the tatty card into the slot. Continue East, South-East, drop the various components and take the bag.

Keep the crystal, go North-West, put the tatty card in the slot, go West, West, and put the new card in the slot. Now travel North and place the crystal in the box. Close the box and turn it on.

(To be continued)

Manhunter - New York R.G.B. Marshall

The day starts with a report of a dead Orb at the Greenwood Cemetery. Play Tracker and note that the suspect goes to a theatre in Times Square and then on to Abdul's pawnshop.

Here the signal ends, so go to the cemetery and note that Tim Jones died for his father. Type in Harry Jones to get Harry's address. Now go to Trinity and light three candles - as shown on Harry's arm. This opens a secret compartment and Module B. Note the symbols on the back of the compartment door.

Continue on to Abdul's place and pick three badges from the selection offered to you. Pick the two which you saw on the compartment, and the third one which looks similar to British Rail's logo.

If you choose the correct three badges, you will fall through a trap-door. You are then presented with four pictures in turn, which apparently show the combination codes for the door which is to the left of each. To save some perplexed head-scratching, the combinations are: 41, 1031, 264, 425.

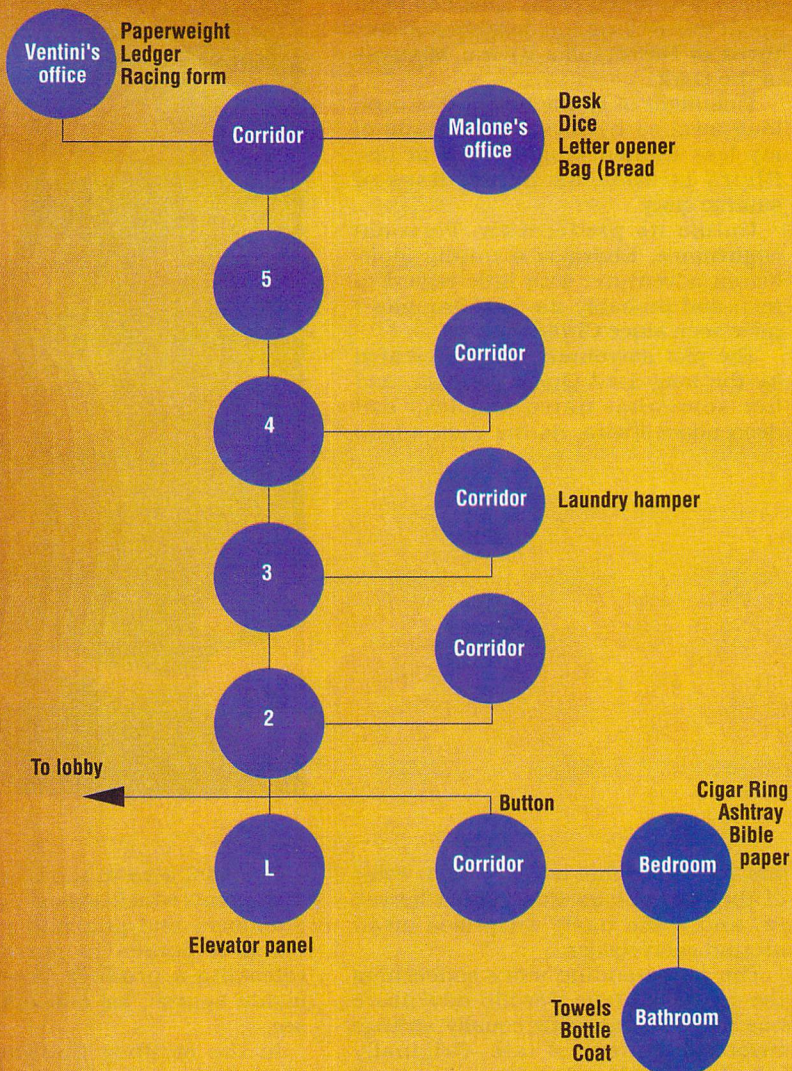
When you go through the door, you will see Phil, who you must overpower. He will then drop a note which reads 843769. He now escapes, but you should not follow him.

Instead, make your way to the theatre, remove the picture and enter the code from the note. You will now be given a new code, which reads UCUC.

(To be continued).

War in Middle Earth Steve Perris

In order to equip yourself for the enormous task ahead it is important that you know a little about the strange objects you may come across (see panel)



Déjà Vu II Map I

Object	Location	Effect or Use
Flask of black beer	Tuckborough	Increase strength
Blue healing potion	Michel Delving	
	Grey Havens	
	White Towers	
	Mouth of Isen	
	Belegost	Restore Health
Mithril mail	West of Buckland	Increase armour
Gnarled staff	North of Erebor	Valued by the wise
Elven hammer	East of Annuminas	Increase prowess
Sceptre of Annuminas	West of Mount Gundobad	Enlists Denethor
Silver orb	South of Mount Gram	Enlists Thranduil
Red arrow	North of Necromancer's	Enlists Theoden
Dwarven ring	Tower	Enlists Dain
Palantir	South of Forlond	Give to Aragorn
Ancient sword	South of Ost-in-Edhil	Give to Aragorn
Cloak, rope, vial	Lorien	Various magical uses

PUBLIC APOLOGY

M.D. Office Supplies would like to take this opportunity to apologise to all its competitors. As always we will supply the highest standard Discs, Storage Boxes, etc. at the lowest possible prices. IN FACT WE GUARANTEE IT.

AMAZING PRICES **SUPERB QUALITY** **UNBEATABLE VALUE**

3 1/2" 3.5" DISCS & BOXES 3 1/2"

25 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£21.95
35 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£29.95
45 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£34.95
55 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£39.95
65 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£44.95
75 3.5" DS-DD 135 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£49.95
150 3.5" DS-DD 135 TPI WITH 2, 100 CAPACITY LOCKABLE STORAGE BOXES	£84.95
200 3.5" DS-DD 135 TPI WITH 2, 100 CAPACITY LOCKABLE STORAGE BOXES	£94.95

OUR 3.5" DISCS ARE **VERY CAREFULLY SELECTED** TO GIVE YOU 100% ERROR FREE PERFORMANCE AND UNQUESTIONABLE RELIABILITY. EACH DISKETTE IS SUPPLIED WITH OUR 100% NO QUIBBLE GUARANTEE AND IS SUPPLIED WITH LABELS.

5 1/4" 5.25" DISCS & BOXES 5 1/4"

25 5.25" DS-DD 96 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£12.50
50 5.25" DS-DD 96 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£16.50
75 5.25" DS-DD 96 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£22.50
100 5.25" DS-DD 96 TPI WITH 100 CAPACITY LOCKABLE STORAGE BOX	£28.50

OUR 5.25" DISCS ARE **VERY CAREFULLY SELECTED** TO GIVE YOU 100% ERROR FREE PERFORMANCE. EACH DISC IS OFFERED WITH OUR 100% MONEY BACK GUARANTEE AND IS SUPPLIED WITH LABELS, ENVELOPES AND W.P. TABS

HIGH DENSITY 3.5" DISCS

10 DS HD 3.5" DISCS	£14.99
30 DS HD 3.5" DISCS WITH 50 CAPACITY BOX	£49.99
50 DS HD 3.5" DISCS WITH 100 CAPACITY BOX	£64.99
100 DS HD 3.5" DISCS WITH 100 CAPACITY BOX	£110.00
150 DS HD 3.5" DISCS WITH 100 CAPACITY BOX	£149.99

PRICE & QUALITY GUARANTEE

We pride ourselves on offering you the very Highest Quality products at the best possible prices. If you should ever see a comparable product offered cheaper in this magazine DO NOT HESITATE give us a call because we won't match it.

WE WILL BEAT IT - GUARANTEED

LOW LOW PRICES FOR BULK BUYERS

For all you large users we have some **unbeatable** bulk rates on our superb DS-DD 3.5 discs

300 DS-DD 135 TPI	£139.95	600 DS-DD 135 TPI	£258.00
400 DS-DD 135 TPI	£179.95	800 DS-DD 135 TPI	£335.00
500 DS-DD 135 TPI	£220.00	1000 DS-DD 135 TPI	£389.95

As always Lifetime Guaranteed, unquestionable reliability, each disc is supplied with label

NEW EXCITING PRODUCTS

NEW, NEW, NEW product to enhance your computers productivity and performance

External Disc Drives, slimline, very quiet, very reliableonly £79.95
Replacement Mice, smooth operation, precise movementonly £29.95
2 Piece Universal Printer stands (cuts down on space)£6.95

Stackable disc boxes 80 capacity and lockable
1 off - £9.95 3 off - £8.95 5 off - £7.95
Can be stacked horizontally or vertically as you please
Tilt 'n' Turn 14" Monitor stand, a superb investment only £14.95
Data Switches 2 way manual switch (state serial or parallel)only £12.95



Trade Accounts Welcome

M.D. OFFICE SUPPLIES

18 CRESCENT WAY, FARNBOROUGH, KENT BR6 9LS

TELESALES HOTLINES: 0689-61400

All prices include VAT and Delivery UK only. E/OE



Education Orders Welcome



A moving experience

WE have all seen amazing arcade games containing hordes of sprites, all moving independantly of each other or following a leader. No matter what the final appearance, you can rest assured that the programmer has forced them to follow pre-defined paths, which explains why certain aliens always appear at exactly the same point in a game.

For the next couple of months I'll be showing how to implement this feature in our own games, starting with simple examples and working up to some very complex techniques.

There are two ways of making a sprite travel around the screen. The first and probably most often used is by using the MOVE command, but with many large sprites onscreen this can become too slow.

The second way is to store each coordinate a sprite is to appear at in an array and use the SPRITE command to display it at each one in turn. Don't worry if this sounds complicated, as we'll be examining this

Phil Lawson cast his eye on the humble sprite and comes up with some simple but interesting effects

method in detail next month.

The simplest way to control a sprite is to make it travel from one side of the screen to the other and back again in a continuous loop. Boot up STOS, then load Program I from the Cover Disc and run it.

You should recognise lines 26000 to 26030 from previous articles – they set the colours to those stored in the sprite bank. Each program this month will use this routine. Line 25050 tells the sprite that it will be moving 200 pixels to the left and then 200 to the right.

The letter L means that when the movement is finished the sprite should loop back to the beginning of the

MOVE command. Just because the screen is 320 by 200 pixels in size, there's no reason why our sprites cannot move outside this area. Program II shows a sprite appearing from the top of the screen, moving down to the middle of the screen, going left and finally disappearing off the top of the screen. Load it and run it.

Everything in this program is controlled through the two MOVE commands in lines 25040 and 25045. To recap, the syntax of this instruction is:

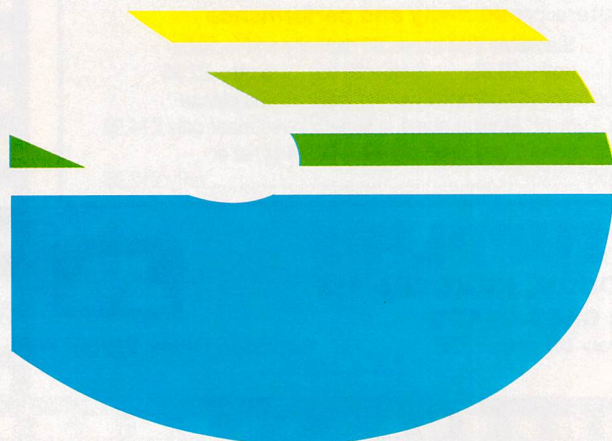
`MOVE speed,direction,steps`

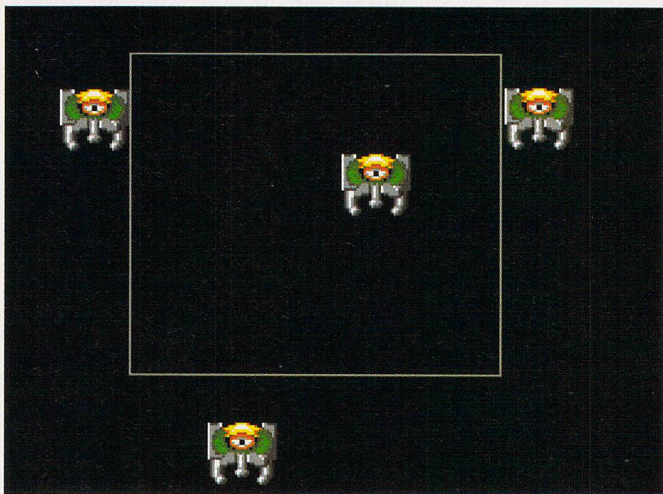
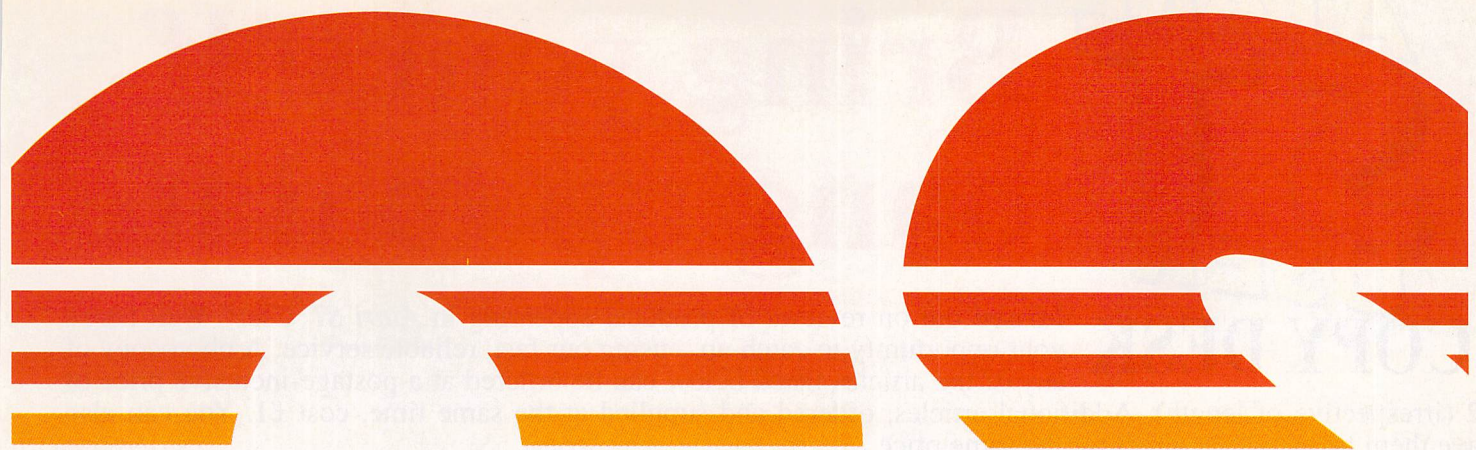
The important parameter is *direction*, which specifies the number of pixels the sprite will move each step. If this number is negative the sprite will move either left or up, where positive values move the sprite right or down, depending whether the command is controlling the X or Y plane.

If the value of *direction* is zero, the sprite will not move in that plane at all. Taking a look at lines 25040 and 25045 shows that the sprite will move down the screen for 100 steps, without moving horizontally at all because the value for X movement is zero. After 100 steps the sprite moves to the left (note the negative value of *direction*). Our sprite will now move up the screen and vanish off the top.

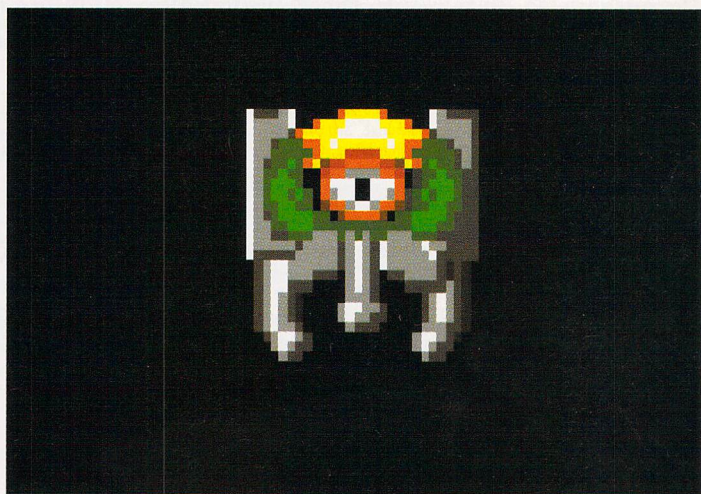
• Using combinations of MOVE X and MOVE Y commands like this can produce very impressive results, including diagonal movement as in Program III.

Sometimes it may be necessary to keep a sprite within a certain predefined area on the screen. As we have seen, we can easily define the path for





One sprite is confined by the box, the others patrol the perimeter



Close up of a sprite. Replace it with your own design if you like

our sprite to follow with the MOVE commands, but unfortunately this doesn't allow for random movement. The best way around this is to set maximum and minimum values for the X and Y sprite coordinates and keep checking that it doesn't go past them.

Two other variables are used to show the sprite's direction in both the X and Y axis, and whenever the sprite reaches the edge of its area the appropriate variable is altered. Load and run Program IV to see this working.

The variables *xp* and *yp* are the initial position of the sprite chosen at random, and *xd* and *yd* are the directions the sprite will travel. When *xd* is one the sprite moves to the right, and a value of minus one moves it to the left. If the value is zero our sprite won't

move at all in the X direction. The same goes for *yd*, except the movement is vertical.

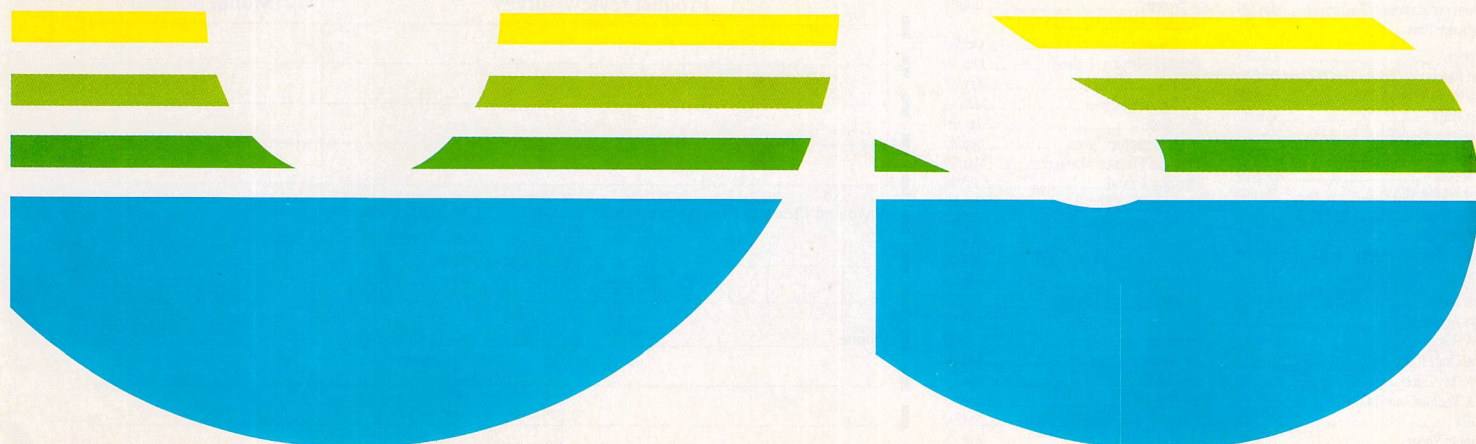
In Program IV, after every 300 counts – or six seconds – the sprite changes direction and to make sure the new directions are different from the last ones, two variables are used to remember the last values. These are *oxd* and *oyd*. Line 25040 just draws a box on the screen so you can be sure the sprite is staying within the area.

The two important lines are 25120 and 25130. This is where the checks are made to ensure the sprite hasn't reached the edge of its allocated area. If it has, the value of *xd* or *yd* is negated. This simply changes any value of one to minus one and vice versa, therefore altering the direction. If the value is zero, it will remain zero.

We'll be covering how several sprites can all follow the same path next month, along with some slightly more complex sprite techniques, but to get you in the mood Program V is a very simple program with two sprites moving around the edge of the screen.

We have covered enough MOVE commands to enable you to discover exactly how this program works. Our final program this month shows four sprites and covers all the techniques we have discovered. I mentioned at the beginning that some sprites can be forced to follow others, and Chase is a very simple program which demonstrates this technique.

● Can you discover how it works? I'll leave you with that little brain teaser until next month, when I'll be looking at this and other STOS sprite movement routines.



ATARI ST USER COPY DESK

Bring yourself bang up to date

Missed out on reviews of products appearing in *Atari ST User*? Well here's your opportunity to catch up – using our fast, reliable service. A photocopy of any of the articles listed below can be ordered at a postage-inclusive price of £2 (irrespective of length). Additional articles, ordered and supplied at the same time, cost £1. You can also have them faxed to you direct for the same price

All you have to do is return the coupon below showing the items you require, the month they appeared, and the method by which you wish to receive them. Despatch will normally be within 48 hours of receipt of order.

FULL REVIEWS

A B Animator	Jul/88
AC Datalink	Feb/90
Add and Subtract	Sep/89
Adventure Creator	Jun/88
Aladin	Apr/88
Alphabet Creator	May/89
A-Magic Turbo Dizer	Apr/88
Arty Junior	May/90
Assembler (Metacomco)	Apr/88
Atari TT	Jan/90
Atari STE	Nov/89
Autoroute	Feb/89
Beat Box	Mar/90
BeckerCad	Dec/89
Big Band	Nov/89
Blowup	Aug/89
Borodino	Mar/89
B.Spell	Nov/88
B.Spell Construction Set	May/89
C (Digital Wisdom)	Feb/90
C (HiSoft)	Sep/89
C (Mark Williams)	Nov/88
C-Breeze	Sep/89
Calamus	Oct/90
C - Laser	Sep/88
Campus CAD	Jun/88
Cashbook Controller	Feb/90
Certificate Maker	May/88
Citizen LSP-100 printer	Jul/89
Colourjet 123 printer (Integrex)	May/89
Colours	Feb/89
Creator	May/88
Critic Bar Code Plus	Jul/89
Crosswords (Sun)	Apr/89
Crosswords (Times)	Apr/89
Cyber Paint	Apr/88
Daatafax	Apr/89
Daatascan	May/89
Data Manager Professional	Nov/88
Data Manager ST	Aug/88
Day by Day	Mar/89
DeskCart	Dec/89
Digicalc	Aug/88
Digisound	Mar/90
DGBase	May/90
Dr T's 4-Op Deluxe	Jun/89
DynaCADD	Apr/90
Easytext+	May/90
Eight serial port board (Unison)	Dec/89
Eprom programmer (Unison)	Dec/89
Eprom programmer (Lakmeyer)	May/89
EZ-Score Plus	Jun/88
Fasttype	Oct/89
First Paint	Dec/88
First Word Plus v3.1	Dec/88
Flair Paint	Mar/89
Fleet Street Publisher 3	Nov/89
Flexidump	Jan/89
Flexcessary	Dec/89
FM Melody Maker	Feb/90
Fun School 2	Jun/89
Fontkit Plus	Jan/89
Fontkit Plus Accessory Pack	Sep/89
Fontz	Oct/88
Gem Forth	May/88
GFA Artist	Jul/88
GFA Basic	Nov/88
GFA Draft Plus	Jun/88
GFA RayTrace	Jan/90
GFA Vector/Companion	Apr/88
Grafix	May/88
Graphic Sheet	Apr/88
Graphics Tablet (Cherry)	Jan/89
Hard drive 20/40Mb - Big Disc	Apr/88
Hard drive 40Mb (Gasteiner)	Feb/90
Hard drive - Supra FD-10 (Frontier)	Aug/88
Hard drive 22/32/85Mb (Third Coast)	May/89
Hard drive 20/40/70Mb (Systems 2000)	May/89
Hard drive - Vortex HDPlus 40	Aug/89
Home Accounts	Dec/88
Hyperdraw	Nov/89
Hyperpaint	Apr/89
IMG Scan	Jun/88
Instinct	Nov/89
Jackpot 2	Jun/89
Jigsaw	Jun/89
K-Expert	Jul/88
K-Rhymes/K-Index	Sep/89
K-Spread 3	May/89
Keys!	May/89
Keyword	Dec/89
Knife ST	Mar/90
LDW Power	Apr/90
Learning to Type	May/90
Let's Spell at the Shops	Dec/89
Let's Spell in French	Dec/89
Lispas 2	Jul/88
M (Intelligent Music)	May/88
Mailshot Plus	Apr/88
MasterPlan	May/88
MasterScore	Apr/88
Master Sound	Sep/89
Maths Mania	Apr/90
Mavis Beacon Teaches Typing	Nov/89
MicroLink Multi-speed modem	Nov/88
MidiDrummer	Jul/88
Midiman	Jan/90
MidiStudio	Aug/89
Mini Office Presentation Graphics	Dec/89
Mini Office Pro Communications	Apr/89
Mini Office Pro Spreadsheet	Jun/89
Minix	Dec/89
Multiface ST (Romantic Robot)	Mar/89
Music Construction Kit	Jun/88
Musigraph	Sep/88
NEC Multisync GS monitor	Jun/89
Neodesk 2.0	Oct/89
Notator	Oct/88
OS/9 (Cumana)	Mar/89
Panasonic KX-P1081/1083/3131 printers	Jul/88
Parallel and Analogue I/O port (Unison)	Oct/89
Parallel I/O port (Unison)	Oct/89
Partner	May/88
PC Board Designer	Mar/88
PC Speed	May/90
ParSec graphics board	Sep/89
Personal Finance Manager	Mar/89
Personal Pascal	Jul/88
Personal Tax Planner	Dec/89
Pictures from Space	May/89
Play-Spell	Jul/89
Plotter - Roland DXY1000	Apr/90
Pools System	Jun/89
Power Basic (HiSoft)	Jun/88
Pro-24	Apr/88
Prodata	Jan/90
Pro-Light	Apr/88
Pro-Midi	Apr/88
Pro-Punter	Dec/88
Prospero Developer's Toolkit	Apr/90
Protext	Apr/88
Protext Office/Filer	Sep/88

Quantum Paint	Jul/88
Quantum Paint Gold	Jul/89
Quartet	Jan/90
Quicklist + Mastermat	May/88
RC Aerochopper	Feb/90
Regent Word II	Nov/89
Revolver	Nov/89
Robokit	Dec/88
Ruby-View	Jun/88
SBA Xtra	Aug/89
Scan Art/Draw Art	May/89
Share Master	Aug/88
Shoot-em-up Construction Kit	Feb/90
Signum 2	Sep/88
Skyplot	Jul/88
Sound Blaster	Mar/90
Spectrum 512	Aug/88
Speed Read	Jul/89
Spell Book	Sep/88
Sprinter	Mar/89
Sprite Master	Jan/89
Stacy portable - Part I	Feb/90
Stacy portable - Part II	Mar/90
Stage 2	Jul/89
Star LC-10 colour/mono printer	Aug/88
Star NB24-10	Oct/88
ST Organiser	Dec/88
STOS Games Creator	Dec/88
STOS Compiler/Sprites 600	Aug/89
STOS Maestro Plus	Sep/89
Studio 24	Oct/89
Superbase Personal 2	Apr/89
Superbase Professional	Jul/88
Superbase Professional 3	Apr/89
Super Card Index	Apr/90
SuperScore	Dec/88
Swiftcalc	Nov/88
Swiftie Lisp	Jan/89
Tables Test	Apr/89
Talespin	Mar/89
Technist	Dec/88
Tempus	Mar/88
Tempus 2	Oct/89
That's Write	Oct/89

The Juggler	Jul/88
Things to do with Numbers	May/89
Things to do with Words	Jan/89
Timeworks DTP	May/88
Trackman	Dec/89
Trip-a-Tron	Oct/88
True Basic (Precision)	Apr/88
Tune-Up!	Apr/88
Turbo Kit	Nov/89
Turbo ST	Feb/89
Tweety Board	Jun/89
UltraScript	Dec/89
Universal Item Selector	Dec/89
Utilities Plus (Microdeal)	Feb/89
Vidi-ST	Feb/89
Virus Destruction Utility	Jun/89
Waterloo	Aug/89
Werces/Werces+	Jan/89
WordFinder	Oct/89
WordPerfect	Mar/88
Word Search	Sep/89
Xtent Easitalk ST	Apr/89
Xtra-RAM	Mar/90
Z80 x 68000 Translator	Jul/89

LANGUAGES:

Modula 2 - FTL (HiSoft)	June/88
Pasal (Prospero)	

MODEMS:

Miracom Courier	
Miracom WS300, WS400	Apr/89
Modem Marketing Designer	

MIDI/MUSIC PACKAGES:

Dr T's Fingers	Feb/89
MidiGrid	
Master Tracks Junior	Nov/88
SST	

WORD PROCESSORS:

Protext	
Word Writer ST	Aug/88
WordUp	

COMPARATIVE REVIEWS

ASSEMBLERS:

Devpac2	Aug/88
Workbench	

BULLETIN BOARD SOFTWARE:

BBS Express	Apr/90
BBS 3.0	

C COMPILERS:

Manx Aztec	Feb/89
Micro-Time	

CLOCK CARD UTILITIES:

Forget-me-Clock	Jan/89
Micro-Time	

SURVEYS

SOFTWARE:

Educational Software Guide	Mar/89
Hardware/Software Guide	Apr/88

MODEMS:

Amstrad stand alone	
Anglo Turbo I/II	
Datachat	
Dataflex Stradcom	
Dataphone Demon	Mar/89
Dataphone Designer	
MicroLink dual/Multi-speed	
Miracom Courier HST/2400e	
Miracom WS3000/WS4000	
Pace Series Four/Linnet	
Telemap Propak	

ORDER FORM Send to: Atari ST User, FREEPOST, Macclesfield, Cheshire SK10 4YB

Please send/fax me photocopies of the following:

Orders can
be faxed to
0625 879967

Product review/survey	Month of issue

Payment: Please tick method required

Cheque/Eurocheque

Access/Visa

Expiry date

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Name

Signed

Postcode

Fax number if required



GASTEINER

Presents

PC SPEED

**HARDWARE PC EMULATOR FOR
ATARI ST, STE & MEGA
SERIES OF COMPUTERS**

THE ULTIMATE CHALLENGE

Worlds first internal PC EMULATOR for ST
Small and compact only 9.5 x 9.5 cm
PC-SPEED is fast and fully compatible
PC-SPEED can be built into any ST or MEGA
PC-SPEED runs 99% of all PC software
PC-SPEED supports all hard drives
PC-SPEED supports serial and parallel ports
ATARI mouse supported as MS mouse or cursor
Emulation of CGA, HERCULES graphic cards
And now supports OLIVETTI screen mode (640 x
4000) for full SM 124 Quality
Norton factor 4.2 (V1.3)

V1.3 includes MEGADISK.SYS which is a ramdisk
driver and gives following RAMDISKS:
0MB FOR 520, 1040, MEGA 1, MEGA 2
1.4MB for MEGA 2.5
2.9MB for MEGA 4

V1.3 also supports Extended memory support
(XMA) and gives following XMA support:
0MB for 520, 1040, MEGA 1
0.9MB for MEGA 2
1.4MB for MEGA 2.5
2.9MB FOR MEGA 4

New

*Speed Bridge for all MEGA ST's
Enables PC-SPEED to sit easily
into the Expansion Slot inside,
therefore eliminates any need for
soldering.
Available only from Gasteiner.*

THAT'S PC SPEED

GASTEINER TECHNOLOGIES LTD

Unit 12A, Millmead Business Centre, Millmead Road, London, N17 9QU

Telephone: 01-365 1151



Deep space probe

John Kennedy
explores brave
new worlds with
the aid of his ST

FAR out on the western spiral arm of the Galaxy lies the yellow star Sol. Orbiting it at a distance of about 93 million miles is a blue/green world, unique in the system because the hydrogen-oxygen molecule called water exists in three distinct states. On this planet live many species of carbon-based life forms, among which one of the most intelligent is Man.

Man has fashioned many cunning devices to help him explore his universe, and has collected many pieces of data and as many theories again to explain them. His fascination with the science of astronomy has remained to the current day, with each new discovery heightening his desire for knowledge.

Now the ST can help present the data collected in a form to stimulate interest with the help of the Computer Guide to the Solar System (CGSS), running in medium resolution colour in half or 1Mb versions.

By clicking on various drop-down menus, Earth creatures of all ages can pay visits to various parts of

the solar system, exploring planets, asteroids and Sol itself. Animated sequences demonstrate physical phenomena, and even perform scientific experiments to explain them.

Don't mistake CGSS with a number-crunching program that will produce dates, events, right ascension and declinations of the planets: There are many of other packages on the market and in the public domain that will achieve this more specialised requirement.

The CGSS is more in way of an interactive on-screen text book. It will explain what a lunar eclipse is, but it won't tell you when to expect the next one.

Each planet and phenomena has several pages of information associated with it, and can be read in any order. The ability to step back to a previous page is missed.

It's difficult to criticise a package like this without simply picking at any tiny defects. The CGSS is definitely a well polished package, but it could have been so much better.

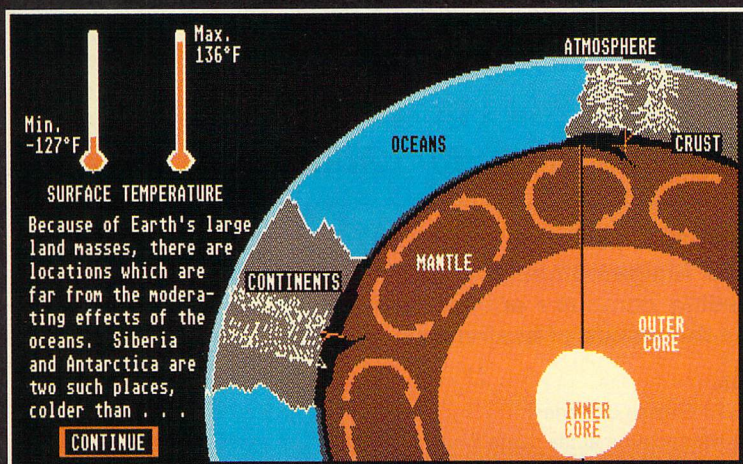
For example, a major disappoint-

ment is the lack of any information on the planets' moons. Obviously the programmers had to draw the line somewhere regarding what to put in and what to leave out, but I think by ignoring natural satellites they have done themselves a grave disservice.

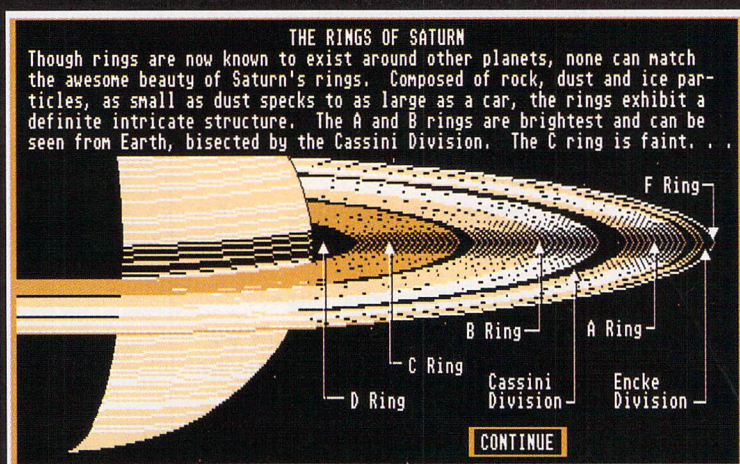
Not only that, but subjects such as thermodynamics are touched upon, which are a great deal less important. A brief mention about the number of moons of each planet is made (as known in 1989), but this is not enough: The moons of the outer gas planets are among the most amazing and dynamic worlds in our entire solar system.

Io, a moon of Jupiter, is where the first extra-terrestrial active volcano was discovered by means of a now-famous photograph showing a plume of gas. Saturn's satellites include a deep-frozen version of the Earth. Even the moons of Mars merit more than a mere mention of how much you would weigh if you were standing on one.

Also maps of the Moon and Mars were conspicuous by their absence.



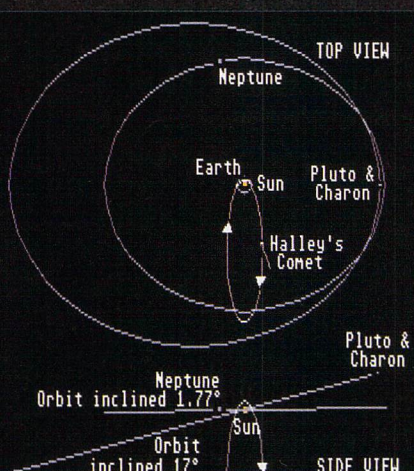
From a main menu you can access dozens of screens packed with facts, figures and information about the heavenly bodies in our solar system



THE ORBITS OF COMETS

While some comets have nearly circular orbits, most travel in paths that are extremely elongated or eccentric. For example, Halley's Comet travels from beyond the orbit of Neptune, to within the orbit of Venus, in a path highly-inclined to the ecliptic. A group of clock-wise moving comets, the "sun-grazers", swings closer to the Sun than one solar diameter! Many in this group are believed to be fragments of a larger comet, torn apart by tidal and thermal forces encountered near the Sun.

CONTINUE

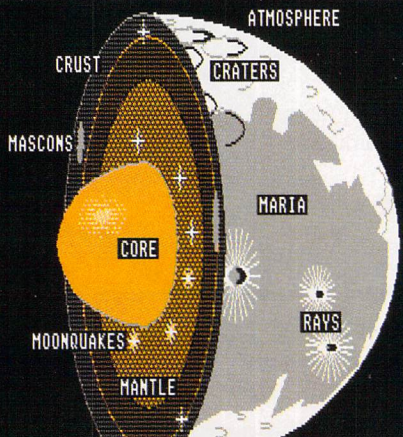


Now, let us examine more closely the first stepping-stone in our journey to the far reaches of the Solar System. A barren, scarred, ancient world that so fired the imagination of mankind during Project Apollo, it still has secrets to reveal, and beckons our return.

Now, point to the name of each region or feature and Click the Left Mouse Button.

When finished, Click on the CONTINUE box.

CONTINUE



Pointing out some well known craters and features would have been a good idea. Another missed opportunity is the lack of digitised pictures, say a Lunar close-up or a Viking Lander image.

Now I don't want to paint a wholly negative picture; the program contains a lot of useful information, two discs worth in fact. Every planet has comprehensive cross sectional diagrams, comparisons with the Earth and generally enough information to comfortably answer any astronomy questions which may crop up on Mastermind.

The presentation standard is very high indeed, with clear diagrams and clever animated sequences of eclipses and tides and so forth. Make sure for "clever" you read "easy to understand" and not "state of the art".

The astronomical data included is valid up to some time before 1989. So for example, the Halley's Comet rendezvous is recorded, but the Voyager 2 encounter with Neptune is not. Upgrades are promised, so make sure the registration card is returned.

Although the amount of information contained in the CGSS is about the same as that in a text book costing about £10, the interaction and animation means that the grab factor is immediately higher.

Thus the CGSS would be wonderfully at home in a primary school, where children could sit in front of an ST and explore the solar system at their own pace.

Parents should also take note that it might be a chance to use that computer bought under auspices of education for something other than games.

By nudging into the education market, WinterTech has felt justified at pricing the CGSS at a rather high £50 (minus a penny). Yes, it is a good program, but for the price I would have expected more information, if necessary on an extra disc or two.

FACT FILE

Product: The Computer Guide to the Solar System

Price: £49.99

Supplier: WinterTech/Third Coast Technologies, Unit A, Bradely Hall Trading Estate, Standish, Lancashire WNO OL9.

Tel: (0257) 472444

POINTS FOR:

Well presented, well executed and full of interesting facts.

AGAINST:

Lacking in detail in some areas, such as the planet's moons, but too much detail in others.

The word is PROTEXT...

**Britain's favourite home-grown word processor
has now been joined by Prodata, the Arnor database**

"Protex - the real joy comes only from using it. I can say without any fear of contradiction it is the best word processor available at the price, in my view, at any price in fact."
AUI 3/89

"Protex really is the best text processor on the Amiga"
ST/AMIGA FORMAT 2/89

"Wins hands down as the all round package"
ST USER 8/88

"I couldn't be more impressed" ...

"So a big thanks to Arnor for writing a brilliant piece of software"
COMPUTER SHOPPER

PROTEXT is now Britain's fastest selling Word Processor on Atari ST and Amiga computers, and is used by many of the leading computer publications and journalists, as well as thousands of businesses.

Protex's powerful features include:-

- fast spell checker with 70000 word English dictionary.
- background printing. You can print and type at the same time.
- box manipulation. Columns can be moved around on the screen.
- macro recording. Any key sequence can be assigned to a single key.
- use of foreign languages
- headers, footers and footnotes
- flexible configuration program
- comprehensive set of printer drivers
- wysiwyg ('what you see is what you get') display shows bold, underlining and italics on the screen.
- two file editing. You can edit two documents at the same time.
- find and replace. Powerful search facility.
- mail merging. The most comprehensive mail merging facilities available in any program.
- 300 page manual with full index.
- Swedish version also available. French and German coming soon.

Protex was awarded the "Best Buy" accolade in PC Buyers Guide, and was given a bottom line verdict of 5 stars in What Personal Computer?

"Protex is probably the most powerful word processor on the Atari ST"
ST USER 4/88

"the best value for money in word processing on the Amiga"
AUI 9/89

"Protex deserves to be the system by which all other word processors are judged ... Arnor has given the market a superb product"

YOUR COMPUTER

"Arnor's Protex 4 is just about unbeatable ... this really is an excellent program"
PC AMSTRAD

Protex ... truly the professional's choice

Just some of the features of Prodata:-

- Multiple indexes for accessing data
- Full editing facilities for data
- Comprehensive printing options
- Importing and exporting
- Undo changes facility
- Powerful filtering feature
- Easy to use layout design
- Password protection (5 levels)

And of course, Prodata is fully compatible with Protex.

Amiga owners please note that you need 1MB to run Prodata - see below for special price for Prodata plus A501 (512K memory + clock expansion)

PRODATA

"Designing layouts is incredibly easy" YOUR AMIGA

PRODATA v1.00 (c) Arnor 1989 Printer (P1) EPSON Directory E:\PROD
Open: INVOICE (49F) Recs: 12 Sel: ALL Layout: 1 Index: 0 15:23:22

INVOICE		Select field name
Invoice Address	Del	Field 4 : Address 3
-----	---	Field 5 : Address 4
-----	---	Field 6 : Address 5
-----	---	Field 7 : Del Addr 1
-----	---	Field 8 : Del Addr 2
-----	---	Field 9 : Del Addr 3
-----	---	Field 10 : Del Addr 4
-----	---	Field 11 : Del Addr 5
-----	---	Field 12 : Telephone
-----	---	Field 13 : Fax
-----	---	Field 14 : Contact
-----	---	Field 15 : Invoice Number
DATE	Your Ref	Field 16 : Order Ref
????????????????		Field 17 : Quantity 1
		Field 18 : description 1
		Field 19 : Unit Cost 1

Top left = (0,0), Pos = (3,17), Length=20.
Variable name: DATE Use <<<< to move, < and > to resize
(Field) (Text) (Variable) (Line draw) (Attr) (Del) (Edit) (Tab) next:

"Totally menu driven, Prodata must rank among the top database systems..."
ST USER 12/89

"Prodata is a very sophisticated database package, and at £79.95, it is most certainly worth the money"
YOUR AMIGA 12/89

"Arnor have a quality product at a very reasonable price"
POP COMP WEEKLY 19/10/89

ORDER FORM - Send to: Arnor (STU), 611 Lincoln Road, Peterborough

Please send me (indicate where applicable):

PE1 3HA

Name

Address

Postcode

- ____ PROTEXT v4.2 @ £99.95
____ PRODATA @ £79.95
____ PRODATA + A501 (Amiga) @ £179.95
____ Further information

____ Protex demo disc

Computer: PC 5¼" / PC 3½" / Atari ST / Amiga

I enclose Cheque / Postal order for £ _____, or debit my

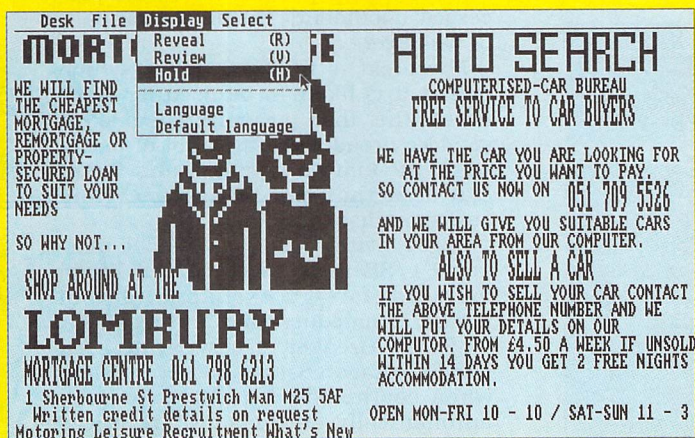
Access/Visa card no. _____ Exp. ____/____

Releasing your micro's potential...



Arnor (STU), 611 Lincoln Road, Peterborough PE1 3HA. Tel: 0733 68909 (24 hr) Fax: 0733 67299

All prices include VAT, postage and packing. Credit card orders will be despatched by return of post. If paying by cheque please allow 10-14 days for delivery.



The monochrome display shows two pages onscreen

Tune in to the Atari

A new hardware add-on to receive teletext services is tested by Roland Waddilove

Teletext

A television signal is made up of several hundred individual lines, each containing colour and brightness information for that line. These lines are demodulated and displayed by the television to make the picture you see on the screen.

The first 25 lines of broadcast information are ignored by a standard television, and 16 of them may be used to transmit extra information not related to the picture.

About six or seven are currently used to transmit teletext signals – a digital stream of 1s and 0s at a rate of around seven million bits per second. Teletext pictures are constructed from this binary data.

YOUR ST has one big advantage over a normal TV set when it comes to dealing with the teletext services broadcast by the BBC and Independent TV, Ceefax and Oracle. It can store the displayed information on disc and subsequently manipulate it in a variety of ways.

The Microtext teletext adaptor is a small light grey coloured box about 8in x 6in x 2in. A ribbon cable plugs into the ST's printer port and a power supply and aerial plug into the Microtext. A through port on the rear of the unit allows you to continue using your printer.

Boot up the software and it automatically scans the TV broadcast frequencies looking for teletext signals – up to 16 channels can be stored. It notes the frequencies found and saves them to disc ready for next time you boot up. It automatically recognises BBC 1 and defaults to displaying the general index on page 100.

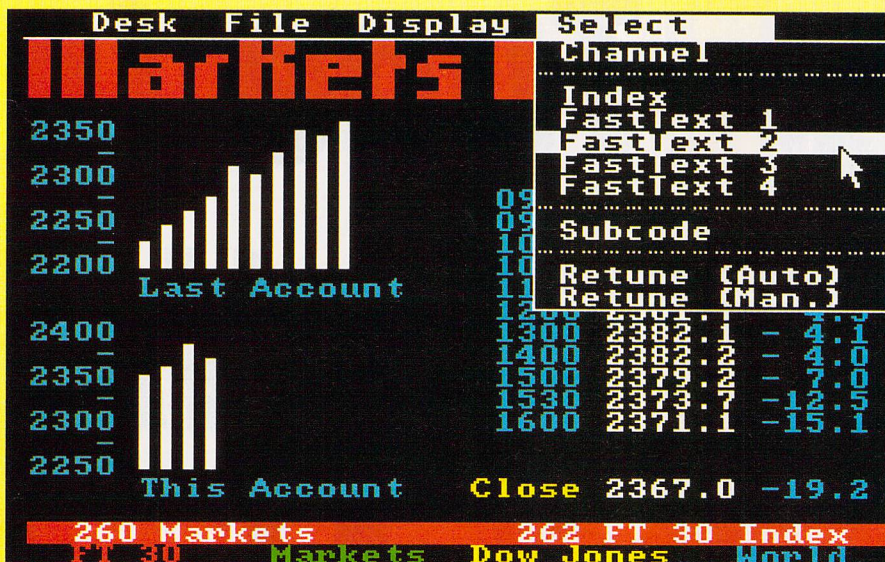
The display on a colour monitor is excellent and you would think you were watching a TV. You can, in fact, treat Microtext just like a TV – type in the page to display using the numeric keypad and the page will be displayed. The lazy way to use Microtext is to use the mouse to point and click at page numbers displayed onscreen, such as in the index.

So far its operation is just like a TV, but now for the several extras that might tempt you to invest in the Microtext. The software runs in either low resolution colour or high resolution monochrome, and in the latter mode, two pages are displayed side by side.

Fastext is provided – each page is accompanied by a four-item menu at the bottom of the screen. The menu items each take you to a related page, so if you were looking at what's on BBC 1 TV then the menu options might be to display BBC 2, ITV and Channel 4. You can point and click on



Here, the Gem menu bar is overlaying a typical teletext page. Note the fastext options at the bottom of the screen



Financial pages can be automatically downloaded and saved to disc

P221 CEEFAX 221 Thu 14 Dec 20:04/13

Prices

SHARECHECK CLOSE		3/4
Calor	428	- 4
Cap Cos	365	
Caradon	533	
Carlton	850	+11
Charter	459	- 7
Christi	284	
Clyde	170	- 4 1/2
Coates	494	
Coats V	143	- 1
Colorol	66	
CU	495	+ 4
Compass	350	
Control	50 1/2	+ 1/2
Cookson	259	-13
Costain	276	
Courtau	380	- 5
CRH	253	+ 1
Croda	190	- 3
Dalgety	401	
Davy	252	
Dawson	207	+ 1
DeLaRue	303	
Delta	320	+ 5
Dixons	134	- 1
Dowty	233	+ 2
DRG	587	
Dunhill	388	+ 7
Electro	199	
EMAP	234	- 1
ECC	429	- 9

Updates: 0915 1045 1215 1345 1515 1730

220 Prices 221-3 SHARECHECK
SharesH-R Prices SharesR-2 Features

Market Breaker - a separate software package - will download and manipulate stocks and shares information

the menu options. The last 16 pages displayed are retained in memory and can be recalled instantly.

This facility can be used for temporarily storing related pages or for automatically capturing multiscreen pages.

Pages can be saved to disc in a variety of ways - in a special compact form, as an Ascii text file or as a Degas picture. Pages can be output to the printer as Ascii text or as a screen dump. You can also specify page subcodes, for instance, if page 199 has five screens and you wanted to see just the third you could select 199 then 003.

The most exciting feature of Microtext is the ability to program it using a

text editor (not supplied, but there are plenty around).

The keywords consist of CHANNEL, PAGE, SAVE, PRINT, ALL, DELAY, WAIT, REPEAT and QUIT, and their functions are immediately obvious, except perhaps for ALL. This command means all the frames of a rolling multipage.

This code will save the share price listings on Channel 4 to disc:

```
CHANNEL 4
PAGE 501 SAVE ALL
PAGE 502 SAVE ALL
```

Quite simple, isn't it. This example would be very useful for a businessman. The pages could be recovered from disc, printed out, turned into a

text file to incorporate into a word processed document, put on a DTP page or whatever.

Microtext is far from cheap which means it is likely to be used for business rather than pleasure. The teletext services broadcast quite a lot of useful up-to-the-minute business and financial data that can be captured and stored on disc.

Pages include shares, the stock market, FT/SE index, Wall Street, World markets, foreign exchange, pound report, commodities and unit trusts.

Market Breaker is a separate software package costing £69.95, which, when combined with Microtext, will automatically download share prices from Ceefax and Oracle. Prices can also be manually input.

Graphs can be produced in five formats, showing selling and buying points. Portfolios can be set up and subsequent share acquisitions recorded.

This package is ideal for anyone interested in the intricacies of the stock market and enormously increases the power and usefulness of Microtext. It's a pity some simple software along these lines couldn't have been bundled with Microtext.

Conclusion

Microtext worked perfectly throughout the review period. It is easy to use and gives a superb display. Even with only a cheap indoor aerial the reception was faultless.

If you have a need to access the data stored on Ceefax and Oracle pages then Microtext will fulfill your hardware requirements. If you want to manipulate the data captured you will either have to process it manually, write some software yourself - this could easily be done in Basic - or buy a package such as Market Breaker to do it for you.

FACT FILE

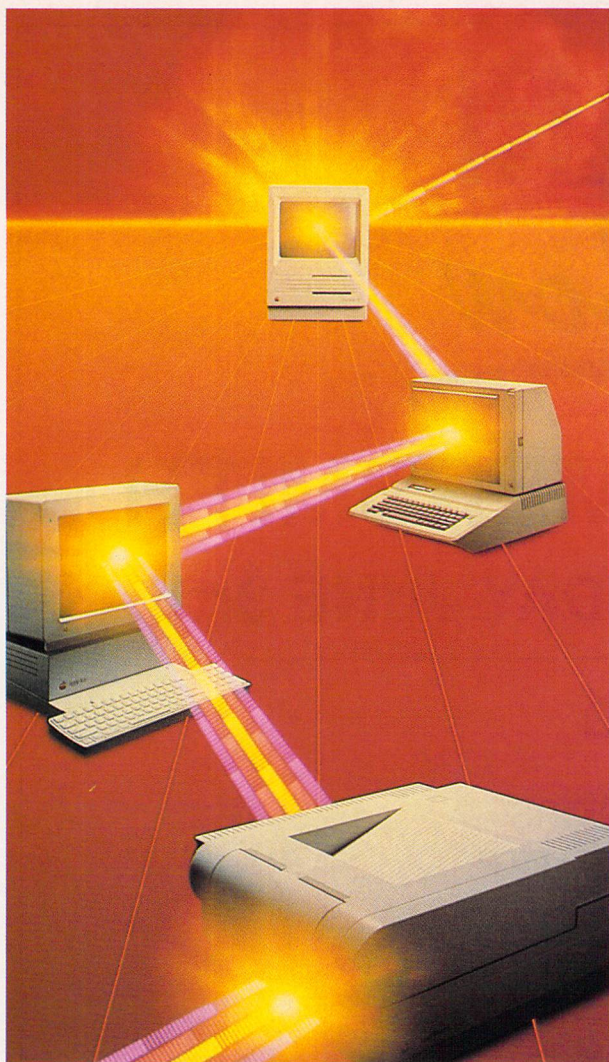
Price: £148.90
Supplier: Microtext, 7 Birdlip Close,
Horndean, Hampshire PO8 9PW.
Tel: 0705 595694

POINTS FOR:

Easy to use. Produces a good display.
Many useful features.

AGAINST:

You'll need to buy extra software or write your own to make the most of the downloaded pages.



'TODAY'S WAY'

TO GET
in touch

MicroLink is your vital link with other users the world over. Exchange news and views via a Bulletin Board or pit your wits against fellow players of MicroLink's challenging multi-user games, including BLOODSTONE and FEDERATION II.



WHAT'S GOING ON OUT THERE?

VIEWTEL lets you see at a glance what's happening – as it happens – in the world of finance, current affairs, sport and leisure.



STEAL MICHAEL FISH'S THUNDER!

WEATHERLINK lets you display satellite weather maps of the U.K. and Europe on your own monitor.



'SAY IT' WITH FLORALINK

Make someone's day extra special with flowers and your message delivered direct via MicroLink's FLORALINK facility.



HOW'S BUSINESS FOR 280,000 TOP U.K. COMPANIES?

INFOCHECK gives you the current status and credit recommendations on over 280,000 leading companies in Britain.

MicroLink

THE BUSINESS BRAIN THAT'S YOUNG AT HEART

BE ABLE TO ACCESS ALL THIS FROM JUST £7.00 A MONTH

With a PC/terminal, modem and communications software, you can use MICROLINK to access business information worldwide, communicate on a global scale, even organise your social calendar and much, much more. All from as little as £7.00 a month. Mail the coupon below to find out more.

WE'VE TAKEN INTO ACCOUNT ALL BRITAIN'S BIGGEST BUSINESSES

The facts about 2.1m U.K. companies and full audited accounts for companies with £1m+ turnover via JORDAN INFORMATION

HOT NEWS FROM MICROLINK

Instant access to early edition newspapers plus many U.K. and U.S. magazines, journals and research reports through PROFILE INFORMATION.



WHAT'S THE QUICKEST WAY TO JFK?

Key into the OFFICIAL AIRLINE GUIDES (OAG) for full flight, fare and seat availability details of 100's of airlines.

YOU'VE GOT 'FRIENDS IN THE TRADE' ALL OVER THE WORLD

BUSINESSLINK is MicroLink's bulletin board where you can pose problems, queries and requests to like-minded professionals throughout the world.

And these are just a few of over 1200 varied business databases available through MICROLINK covering Market Information and Research Reports to Technical, Medical and Scientific Data.

MICROLINK TURNS ANY PERSONAL COMPUTER INTO A COMPLETE COMMUNICATIONS CENTRE

Make the most of your computer with MicroLink's total communications package which includes Electronic Mail, Fax, Telex, Telemessages, Telegrams and RadioPaging.



I would like to know more about MicroLink. Please send me the complete MicroLink Information Pack.

Name *U/SI/FC6*

Address

Postcode Tel No

MicroLink
The Vital Link

MICROLINK, 4 MOONS PARK,
BURNT MEADOW ROAD, REDDITCH,
WORCESTERSHIRE B98 9PA.
TEL: 0527 69459 (Sales & Marketing)
FAX: 0527 63084

ATARI

90's Show

NOVOTEL HAMMERSMITH

FRIDAY JUNE 1st-SUNDAY JUNE 3rd

FEATURING

FIRST FLOOR

THE ATARI SHOWCASE AND OVER 30 EXHIBITORS

- ★ APPLICATIONS FROM MIDI TO DTP
- ★ NEW PRODUCT DEMONSTRATIONS
- ★ INFORMATION AND EXPERT ADVICE

GROUND FLOOR

- ★ THE ATARI GRAND PRIX COMPETITION
- ★ THE ATARI ARCADE
- ★ OVER 40 EXHIBITORS INCLUDING LARGE SALES AREA

STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS

Space has been booked in the Mezzanine Level for a series of
Forums and Workshops

Event

STOS Demo by Mandarin Software
How to get the Most From the Atari Portfolio
ST Programming Forum – HiSoft Ltd.
Atari Lynx – The New Age
User Groups and Bulletin Boards
Atari New Product Update
MIDI Workshop

Timing

Saturday 10.30,
Saturday 11.30, Sunday 15.30
Saturday 12.30, Sunday 11.30
Saturday 13.30, Sunday 14.30
Saturday 14.30, Sunday 12.30
Saturday 15.30, Sunday 13.30
Saturday 16.30, Sunday 10.30

STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS STOP PRESS

Atari anticipate that this exciting forum for the exchange of information and ideas will generate a vast amount of interest from our end users. Free tickets will be available at the Show if you wish to reserve a seat.

Opening times: Friday-Saturday 10am-6pm Sunday 10am-4pm

TICKETS £2.00 FAMILY TICKET £4.00
(Two adults, two children, £1.00 for additional children)

All times quoted are subject to alteration without notice

Drakkhen dissected

Arcade CORNER

BEFORE starting to play Drakkhen you'll have to generate a set of characters, and the instructions to do this are clearly explained in the manual. However, where most players may fall down is in accepting the first characters the computer offers them.

Table I shows the desired values for each party member. You don't have to be spot on with these, but don't go less than one point below any of them or you probably won't survive very long.

When starting to play, first of all clothe your characters and give them weapons. The magician and priest should be ready with healing spells – they'll probably be needed before long.

To cast a spell, except in battle where it's automatic, choose it from the weapon/spell selector and right-click on the object or person to operate on.

Your first task is to gain entrance in to Prince Hordthken's palace, which you can see directly to the west. Before crossing the drawbridge, wait until the shark goes under it and out the other side.

Once inside you'll find a buckler on the wall; take it and give it to one of your companions. Now go outside, then enter again and again take the buckler which has reappeared. This should be done three times until each character has one. Go outside again and save your position.

When you re-enter, press the second symbol counting from the left. This will turn off the force field and allow access to the rest of the palace. Now enter the doorway to the immediate left of this symbol and begin exploring. In one room you'll find a carpet hung on the wall. It covers a passageway into a chapel.

While wandering around be ready for a fight, so keep the combat icon active. If you make it into the bedroom, do not enter the room to the south until your characters are at least level five. When you do go in there, don't fight the Prince, but acti-

Phil Lawson guides you through the dark land of Drakkhen and offers hints and tips to aid survival

vate the question (?) icon and you'll receive your orders.

Gaining experience points is only achieved by attempting to perform actions or winning a fight. At times your party will come close to death, so be sure to save your position at regular intervals.

You can do one of two things to increase your hit points, either visit one of the two temples and get a priest to heal you for cash, or stand immediately outside a building and wait for a couple of minutes.

I prefer the second method, as it

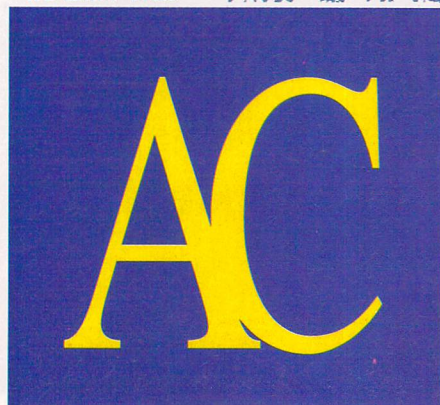
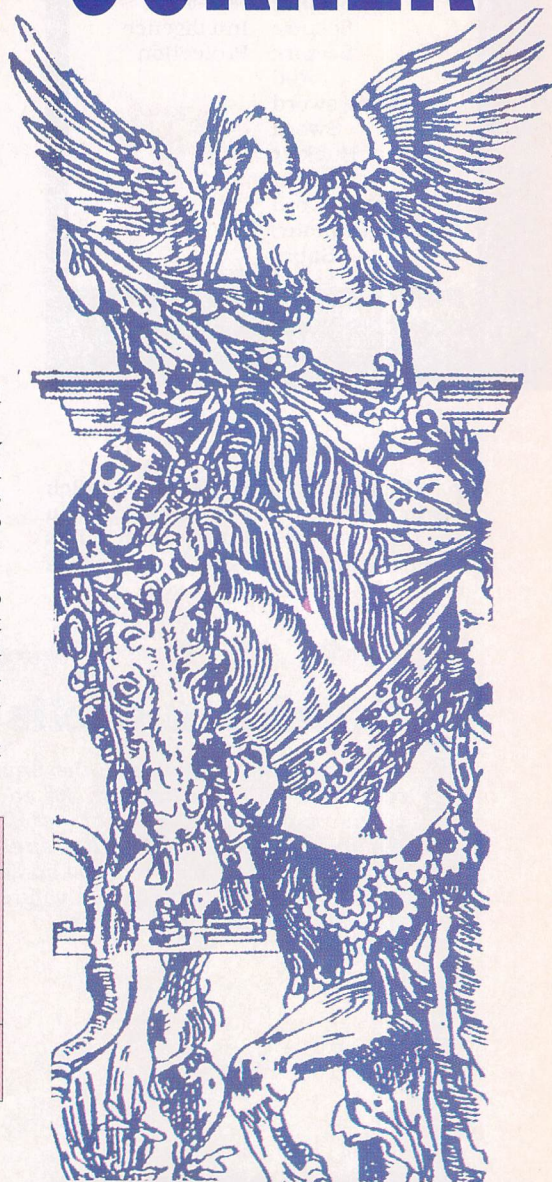
	F	S	M	P
Strength	18	17	15	16
Dexterity	17	14	12	14
Intelligence	15	11	16	16
Constitution	17	11	13	10
Education	15	10	18	12
F Fighter		S Scout,		
M Magician		P Priest		

Table I: Minimum requirements for each party member

gives you an opportunity to take a break without the threat of being attacked.

Most of the creatures you'll encounter carry some form of bounty, either in extra weapons, useful objects or cash. Once they're defeated, the character who dealt the final blow will collect all the treasures.

Make sure that no one carries more than seven weapons or items, as this leaves no room for others to be picked



Ring	Power
Ring	Luck
Ring	Dexterity
Ring	Invisibility
Ring	Intelligence
Ring	Understanding
Potion	Speed
Potion	Cure
Sceptre	Power
Sceptre	Intelligence
Sceptre	Protection
Rod	
Long sword	
Sword	
Buckler	
Helmet	
Long sword	
Cuirass (armour)	
Sabre	

Table II: Extra weapons and objects

► up. Whenever an object is found which acts in a similar way to one already in use, throw away the one which offers the least protection. Always wear rings

when possible, preferably the ones of power and dexterity.

The sceptre of protection should be carried by the magician, as he's unable to wear some of the more protective clothing such as chain mail and helmets.

Be sure to collect torches whenever possible, as night comes fairly quickly. Swords, rods and other weapons, to be found in Prince Hordthken's palace, should be picked up and distributed among the party.

Don't think that you can get by if a character is killed. Each one has different characteristics and therefore is essential to a successful adventure.

The manual mentions the weapon-smith, which is in the ice land to the north. To reach it, follow the east path northwards into the ice land and take the first turning on the right.

Once you've bought everything you want, leave the shop and head south back to familiar lands again. On no account attempt to explore either the ice-land or the desert until each member has reached level seven, otherwise you'll be quickly wiped out.

Occasionally a small man will appear. Don't fight him, as he's well versed in the magic arts and will quickly kill you. Talk to him instead,

as he often has valuable information to pass on.

All the crossroads you'll come across contain a small grave, which if bumped into will often release a demon. These can be defeated, but it takes great skill and it's best to skirt around the headstones whenever possible. Losing your direction is a common way of getting into trouble, but luckily the crossroads have a small arrow pointing north.

The transporters marked on the map take you quickly from one side of the island to the other without having to worry about being attacked on the way.

The group of triangles in the middle should be avoided at all costs, as stepping on them produces some very evil creatures, which will take great delight in killing you on the spot.

Hostels are scattered all over the land and should be visited on a regular basis, as vital information can be obtained by questioning the inhabitants.

Remember your main task is to rescue a priest, kept under close guard by Princess Haagkha. Gaining entrance to her palace isn't easy, but you won't need to do this for quite some time.

Drakkhen spells

Some are only available to the priest and some to the magician. As each gains experience, so more spells become available. As the spells marked * and + have the same names, it is assumed that the priest controls one and the magician the other

⌈V<J⌋⌈⌋	Heal small wounds	Low
⌋⌈⌋⌋⌋	Light	Low
⌋⌈⌋⌋⌋⌋⌋	Lightning bolt	Med
⌈⌋⌋⌋⌋⌋⌋	Invisible	High
⌋⌋⌋⌋	Cure	Med
⌋⌈⌋⌋⌋⌋	Extra protection	Low
⌋⌋⌋⌋>⌋⌋	Unlock door	Med
⌋⌋⌋⌋⌋⌋	Increase speed	Med
⌋>⌋⌋	Lock door	Med
⌋⌋⌋⌋⌋⌋	Blind the enemy	Low
⌋⌋⌋⌋⌋>⌋	Teleport	High
⌋⌋⌋⌋>⌋	Increase strength	High
⌋>⌋⌋⌋⌋⌋⌋	Confuse enemy	Med
⌋⌋⌋⌋⌋⌋⌋	Dispell enemy	High
⌋<⌋<⌋⌋⌋⌋	Paralyse creatures	?
⌋<⌋⌋⌋⌋<⌋	Language translator	?
⌋⌋⌋⌋⌋⌋⌋⌋	Increase force	Med
⌋V<J⌋<⌋	Heal large wounds	Med
<⌋⌋⌋⌋<⌋	Kill undead creatures	Med
* ⌋⌋⌋⌋>⌋⌋	Recover all that was lost	High
* ⌋⌋⌋⌋>⌋⌋	Back to life	High
+ ⌋⌋>⌋<⌋⌋	Isolation: Ignored by enemy	Med
+ ⌋⌋>⌋<⌋⌋	Deny the dragon	High

SCHOOL SOFTWARE LTD.

FREE Catalogue Amstrad CPC, PCW, PC1512, Commodore, BBC, IBM PC, MSDOS, ATARI, ST, STE.
Additional Dealers Wanted. 24 hour Visa/Access Hotline.
Ring UK 010353-6149477 (Office Hours) (Irl. 061-45399).
Direct UK 010353-6145399 (24 hr.)

NEW RELEASES

Our Highly Acclaimed educational software is being released on the Atari ST and STE. From All good dealers.

MAGIC MATHS (age 4-8) £22.95

Five superb programs dealing with numbers, addition and subtraction. "Excellent sound and graphics". A first class educational product.

MATHS MANIA (age 8-12) £22.95

"Five brilliantly conceived programs". Logical thinking, multiplication, division, memory training. "Excellent value"

THE THREE BEARS (age 5-10) £22.95

"Probably the best reading and adventure program ever written on computer for young children".

BETTER SPELLING (age 8-Adult) £22.95

"The best and most comprehensive spelling tutor on the market".

BETTER MATHS (age 12-16) £22.95

"Major coverage and tutorial material for GCSE".

We accept Access, Visa – see phone numbers above

ORDER DIRECT TO: School Software Ltd., Tait Business Centre, Dominic St., Limerick, Ireland.
Tel: (UK) 010353-6145399 (UK) 010353-6149477.
Fax Orders (010-353-61-44315)

Atari ST & STE Discs £22.95 (£1 p&p)

☐ Access/Mastercard/Eurocard/Barclaycard/Visa

Expiry Date /

Card No.

☐ Cheque/PO made payable to Easibusiness Systems



My Machine Titles

Name

Address

..... Postcode ST

FOOTBALL CRAZY

The Most AUTHENTIC MULTI-MANAGER Football Game Has Finally Arrived. After 2 Years Research & Development The Ultimate Game Is Ready And Waiting To Test Your Skills. FEATURES INCLUDE:-

Multi-Manager Game for 1 to 4 Players.

STE Compatible

Full UK and European Cup itinerary including FA, League, Zenith Data, Leyland Daf, European, Cup Winners and UEFA Cups. All Cup matches are played to the precise rules. eg. 2 Leg Ties, Extra Time, Away Goal Rule, Seeded Draws, Penalties, etc.

Complete league line up with 20 1st division teams and 24 in the 2nd, 3rd and 4th. End of Season Playoffs with Expulsions.

All team surnames are the real ones for all 92 clubs (CURRENT 89/90 SEASON).

Historic Records are maintained for 6 seasons with the ability to call up all previous results against your next opponent.

A Lively Transfer Market to Buy and Sell Players with a end of season deadline. Player Loans, Free Transfers with Approach & Offers on players or trainees.

Managers can be sacked or offered jobs at better teams.

All screens are displayed in a pleasant format, which is easy to use and comfortable to read. PRINTER facilities also exist.

Complete Instructions, for the beginner, are provided in a 16 page booklet.

...and would you believe it doesn't stop there! We have included many other fine details which are just impossible to list in this space. They include all the regular features you would expect like loading & saving your game, player injuries plus much, much more. The most genuine implementation of a Football Managers hectic season awaits you for only £19.95.

Take Your Team To The Top And Win The Double.

Or Are You Good Enough To Win The Quadruple Crown. Never Yet Achieved By A League Team Manager.

Available for the Amiga and all Atari ST's

PC version coming soon



© ESP SOFTWARE 1990

MAIL ORDERS

Send £19.95. Cheque / Postal Order / Credit Card Details to:

ESP
SOFTWARE

32a Southchurch Road,
Southend-on-sea,
Essex SS1 2ND.

**AVAILABLE
FOR IMMEDIATE
DISPATCH**

Orders outside the UK please add £1.00 extra.

TELEPHONE ORDERS



(0702) 600557

FAX (0702) 613747
Out of hours Answer Phone





1st floor, 117 Regent Street
London W1R 7HA
Telephone: 01 734 17 19, 734 17 40

**The Central London
ATARI Centre
for Business and Leisure**

THE WORLD OF ATARI



COMPUTERS

We stock all models of the ST series and all its peripherals: monitors, disk drives, harddisks, printers.

Any product we sell is ready for immediate use: computers include a special startup-disk, printers include cables as well as printer-drivers for the programs you are going to use, hard-disks are installed for automatic boot-up and configured according to your needs, etc.

MEGA ST1 with monitor	599.-
MEGA ST2 with monitor	849.-
MEGA ST4 with monitor	1099.-
PORTFOLIO, pocket-PC 128K	229.-
ABC, 80286, disk 3,5" 1.44 Mb	599.-

SPECIAL OFFER

FREE with every STACY, or ST2/4 + monitor + harddisk and/or laser: Pocketphone TECHNAPHONE

the most advanced hand-portable available. RRP 249.-

NEW PRODUCTS

STACY 2, ST portable computer,	
RAM 2 Mb, harddisk 40 Mb,	
LCD screen, mouse	1799.-
Multisync B/W Monitor, 12", high,	
medium and low resolution	149.-

**We do not pretend to compete
with discount stores.
However, we shall equal any
reasonable price without
cutting down on the service.**

ACCESSORIES

Monitorswitchbox B/W-colour	19.95
Switchbox for 2 external drives	34.95
Joystick/mouse extender, 4 player	
joystick adaptor, Printer cable,	
special quality mouse mat	5.95
Real time clock internal or ext.	24.95
VIDI-ST video digitizer	79.95
ST REPLAY 4 sound digitizer	63.95
SCART cable, RS-232 cable	12.95
All kind of special plugs,	
connectors and cables, from	1.95
Dust covers from	4.95
Modem V21/V23	79.95
PAR-SEC, 16 million colours	899.-
Internal 3,5 disk drive	66.-

NEW PRODUCTS

DVT. harddisk back-up to video or	
audio cassette, 8 Mb/min.	189.95
EPROM or GAL BURNER	99.95
Computer FAX 9600 bd	599.-

SPECIAL OFFERS

PC SPEED	199.95
PC DITTO II	199.95
SPECTRE GCR with ROM	339.-

**1040STE, high resolution monitor
and A4 flatbed scanner/fotocopier/
printer SPAT CP11** 899.-

**1040STE, high resolution monitor
and C-LAB NOTATOR** 899.-

**STACY 2 and
C-LAB NOTATOR** 2099.-

SOFTWARE

NEODESK, alternative OS	39.95
G+plus, faster GDOS	34.95
Multidesk, accessories utility	29.95
Hotwire, autostart, ST shell	39.95
Codehead Utilities	29.95
Sprinter, textile design	29.95
Colours, better colour printing	19.95
Real Music Publisher	299.-
Script, word processor	89.95
Calamus, desktop publishing	458.85
Outline, Calamus Vector gr.	175.50
Imagic, graphics processor	172.50
Flow chart drawing	49.95
OCR JUNIOR, text recognition	129.-
PC Layout, with auto routing	74.95
PRESTO, Karajan's favorit	399.-
Networks from	99.95
MEGA PAINT II, pixel&vector	169.-
Fleet Street 3	199.-
All STEINBERG and C-LAB programs	

SPECIAL OFFERS

Superbase Professional	249.-	179.-
Master CAD, 3D design	149.95	39.95
Timeworks desktop publ.	99.95	69.95
ABZOO	14.95	3.95
Games from		5.95
Many more offers in our showroom.		

BOOKS & MAGAZINES

START, US magazine with disk	11.50
GFA Advanced Prog., with disk	11.95
More than 80 titles available.	

SERVICE

PROFESSIONAL ASSISTANCE

permanently
(9 to 6 monday to saturday).

MAIL ORDER

if you cannot visit us.

OFFICIAL WARRANTY



Twelve months for computers and
three months for peripherals.

MONEY-BACK GUARANTEE

if we did not advice you correctly.

FREE with every ST:

- STARTUP-DISK, with several utilities of everyday use
- SOFTWARE according to the use of the computer: games with a 520 ST, utilities and business applications with other models
- mouse mat, dustcover, disks and cleaning disk

**Ask for our
FREE**

catalogue

CMV-ATARI

with more than

1.500 products

CMV

the power of service



ERGONOMICS used to be quite a big buzzword. Everybody was really into stuff that looked like a sumo version of everyday objects – all big and curvy and easy to hold. The design of the XB24 harks back to these times, it looks like it was left out in the sun to long – more sort of congealed than designed. But looks aren't everything, or so they tell me. Let's see what it can do.

After unpacking and removing the

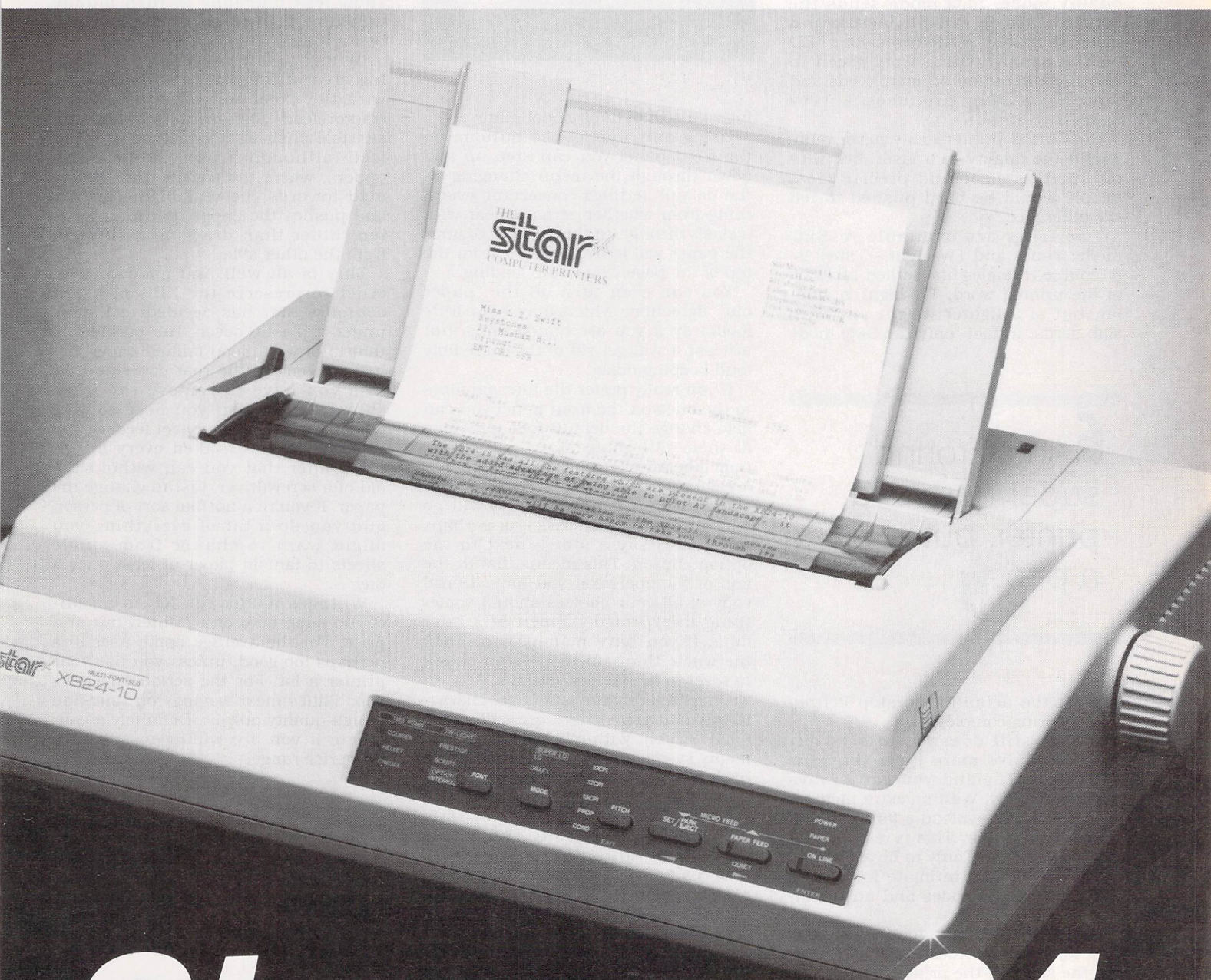
obligatory three pieces of expanded polystyrene the first thing you must do is to put a piece of paper in and press the feed button. Motors whir, lights flash and your page is parked auto-

Nic Veitch checks out whether the XB24 is worth its pin money

matically. That's what you pay money for.

The park and eject routines are very precise, helping to eliminate the usual first page wastage.

The front panel overflows with gadgets. There are five buttons and 19 LEDs, which are mostly connected to the surprising number of fonts. There are 15 letter quality fonts, though one of these doesn't really count as it is a



Stars on 24

representation of the Code 39 bar-coding system.

Seven fonts can be obtained using the select button on the printer itself, the rest will have to be prised out with a bit of cunning programming and use of escape codes. This is a shame since fonts like Blippo and Orator are a lot more useful than some of the ones on the panel – Script for example.

The XB also supports a super letter quality mode. SLQ mode sends the printer into its 48-pin emulation mode, indicated by the two-colour LED on the panel turning from green to red. A combination of micro feeds and double passing produces a very impressive output.

Dot matrix printers may never quite match the quality of a laser, but with output this clear and precise most people would be hard pushed to tell the difference.

Two fonts are available in SLQ mode: Times and TW-Light – Times is, of course, the elegant, serified stalwart of the printed word. TW-Light is similar, but of a lighter weight and with slab serifs. In fact, only the SLQ mode



ings – a sort of duck-shoot affair.

Using only four of the buttons on the front panel you can step up and down through the menu changing all the default settings concerning everything from whether zeros appear with a slash through to the number of lines the paper will be fed forward from the top of the page when auto loading.

You can even turn off the “paper out” detection, which may be a little foolhardy if you are handfeeding, but at least it will get rid of the incredibly loud beeping noise.

If you really prefer the internal fonts to the ones on the front panel you can also change the default font to be one of them. All choices are, of course, remembered after powering down.

Because of the XB's reverse feed capability, at each option it will go back and put an asterisk – or perhaps we should say a star – next to the option chosen. This means that at the end of the operation you have a hard copy of all your choices should something unexpected happen at a later date. If you have managed to muck the whole thing up there is an option to reset to the factory settings.

Unfortunately the language, character set and page length are still set by a DIP switch. With all these wonderful menu systems why do we have to go back to the primeval chore of rooting around in the guts of the printer with a Bic?

On the speed front the XB is impressive with a draft (pica) rate of 200 cps and for LQ (pica) 67cps, just a shade slower than the Epson LQ-850, although considerably quieter. In fact, the XB has a quiet mode – actually just a switch to turn off bi-directional printing – which enables the user to work at the same desk as the printer and remain sane (assuming he was in the first place).

Being a Star, there is no compatibility problem. Just set the printer to Epson mode and it will run happily. If you go for the colour option be sure to check for software compatibility.

The colour kit is very easy to install – just pop out the ribbon and lever up

the plastic base of the carrier unit. Remove the polystyrene – it gets everywhere – and drop the colour unit into place. There is no worry about getting it wrong, it will only fit one way. Put everything back the way you found it and you're now ready to explore the spectrum.

The ribbon can take quite a bashing, but after about six or seven sheets of A4 the colours start to fade. Colours are still fairly distinctive though and show less tendency to turn muddy with time than most other colour-ribbon printers.

Getting to any conceivably interesting area of the printer is fairly easy with the exception of access to the tractor feed. Star printers favour the sensible push-tractor method of paper feed (although a pull-tractor is an option), where the tractor unit is situated towards the rear of the printer and pushes the paper round the platen rather than dragging it through from the other side.

This is all well and good, but in order to preserve the XB's pleasant contours Star has decided to hide it under a plastic cover. The problem is that in order to load fanfold paper you have to remove the rear cover and for this you have to remove the front cover, and for that you need to take out the plastic single-sheet feeder.

Soon you have taken every bit off the printer that you can without the aid of a screwdriver, just to change the paper. If you're a normal sort of person and you do a bit of everything you might want to change from single sheets to fanfold paper at least once a day.

Whinges aside, the XB is an all-round superhero of a printer, but at a price. For the average home user it is perhaps too good, unless you use your printer a lot. For the serious user it's capabilities mean savings on time and a high quality output. Definitely a candidate if you are willing to spend in this price range.

“An all round
super hero of a
printer, but at
a price”

gives it the definition to stop it from disappearing completely.

If that still doesn't satisfy your desire to have more fonts than the Church of England you can always download a few. With no extra memory card you can download a font and still have a 12k buffer. This is a very difficult business and only to be attempted by those with an intimate knowledge of Epson escape codes and an unlimited supply of paper.

In addition to the pitch, print mode and font, many other options regarding the setup of the printer can be carried out from the front panel. To access them turn off the printer and then turn it on again while holding down the Set, Paper Feed and On-line buttons simultaneously.

From this moment on your printer thinks it's a terminal. Menu options will be printed out and at the touch of relevant buttons the print-head will position itself under one of the head-

FACT FILE

Product: Star XB-24

Price: £470

Supplier: Star Micronics, Star House, Peregrin Business Park, Gomm Road, High Wickham, Bucks HP13 7DL.

Tel: 0494 471111

POINTS FOR:

Excellent quality, intelligent, almost pleasing to the ear and more fonts than most users would need. Fully Epson compatible.

AGAINST:

Changing paper gets exceedingly tedious. Not exceptionally fast, but adequate.

STAR SOFTWARE ★★☆☆

29A Bell Street, Reigate, Surrey RH2 7AD.
Tel: 0737 223869. Fax: 0737 246733

COMPILATION BONANZA!

MAGNUM 4 ONLY £20.99

Batman - Caped Crusader,
Afterburner, Operation Wolf,
Double Dragon

COMPUTER HITS VOL 2 ONLY £8.99

Tetris, Tau Ceti, Tracker,
Joe Blade

PRECIOUS METAL ONLY £16.99

Captain Blood, Xenon,
Crazy Cars, Arkanoid II

LIGHT FORCE ONLY £16.99

R-Type, IK+,
Voyager,
Batman The Caped Crusader

TOP 20

	ST		ST
1 F29 Retaliator.....	16.99	11 Xenomorph.....	16.99
2 Warhead.....	16.99	12 Cyberball.....	14.99
3 Midwinter.....	19.99	13 Hard Driving.....	14.99
4 X-Out.....	14.99	14 Ghouls & Ghosts.....	14.99
5 Manchester United.....	14.99	15 Altered Beast.....	16.99
6 Flight Command.....	19.99	16 Turbo Outrun.....	16.99
7 Black Tiger.....	14.99	17 The Kristal.....	14.99
8 Rainbow Islands.....	16.99	18 Kick Off.....	13.99
9 Infestation.....	16.99	19 Xenon II.....	16.99
10 Full Metal Planet.....	16.99	20 Dragons Breath.....	18.99

FANTASTIC VALUE - FANTASTIC GAMES

NEW RELEASE - FLIGHT COMMAND ONLY £19.99

Eliminator, Strike Force Harrier,
Skyfox II, Lancaster

NEW RELEASES

Pipemania.....	14.99	Sherman M4.....	14.99
Ultimate Golf.....	17.99	Triad 3.....	21.99
The Lost Patrol.....	14.99	Ninja Spirit.....	16.99
Cyberball.....	16.99	Third Courier.....	16.99
Crossbow.....	14.99	Gravity.....	16.99
Sim City.....	18.99	Conqueror.....	16.99
Battle of Britain.....	19.99	Dark Century.....	16.99
Ivanhoe.....	16.99		

Plus Many More

16 BIT FULL PRICE

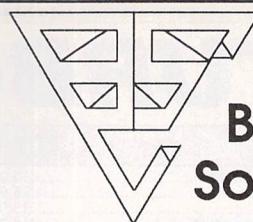
A.P.B.....	14.99	Powerdrift.....	16.99
Airbourne Ranger.....	16.99	Red Storm Rising.....	17.99
Balance of Power 1990.....	16.99	Rick Dangerous.....	14.99
Barbarian 2 (Psygnosis).....	16.99	Robocop.....	14.99
Batman the Movie.....	14.99	Shadow of the Beast.....	14.99
Beach Volley.....	15.99	Shinobi.....	14.99
Blood Money.....	16.99	Silkworm.....	14.99
Bloodwych.....	17.99	Strider.....	14.99
Bomber.....	21.99	Stryx.....	14.99
Cabal.....	14.99	Test Drive 2-Duel.....	19.99
Carrier Command.....	16.99	The Untouchables.....	14.99
Chase HQ.....	14.99	Toobin.....	14.99
Deluxe Scrabble.....	15.99	Turbo Outrun.....	16.99
Double Dragon II.....	14.99	T.V. Sports Football.....	14.99
Dungeon Master.....	19.99	Warin Middle Earth.....	14.99
Emlyn Hughes Soccer.....	15.99		
F-16 Combat Pilot.....	17.99		
Falcon.....	16.99		
Ferrari Formula 1.....	19.99		
Flight Simulator 2.....	27.99		
F-16 Falcon.....	15.99		
Football Director 2.....	15.99		
Football Manager 2.....	15.99		
Gazza's Super Soccer.....	16.99		
Kick Off.....	14.99		
Lazer Squad.....	14.99		
Lombard RAC Rally.....	16.99		
Microprose Soccer.....	16.99		
New Zealand Story.....	15.99		
Pacmania.....	14.99		
Player Manager.....	15.99		
Populous.....	19.99		

LOOK AT THESE SPECIAL OFFERS

Order any of the following 3 and get a free mystery game

Starblaze.....	9.99	Safari Guns.....	10.99
Bad Company.....	12.99	Bo Bo.....	8.99
Amazon Adventure.....	8.99	Tin Tin.....	10.99
North & South.....	10.99	Action Service.....	4.99
Murder in Venice.....	9.99	Sim City.....	14.99
Operation Neptune.....	8.99	Question of Sport.....	7.99

Please note not all games are released on time and
may be unavailable at time of going to press



Cambridge
Business
Software

ATARI ST SOFTWARE

ACCOUNTS

Accountant Plus.....	£199.00
Small Business Accounts.....	£69.95
Small Business Accounts Extra.....	£99.00
Small Business Accounts Plus.....	PHONE
Personal Accounts Plus.....	£26.95
Personal Tax Planner.....	£34.95
Cashbook Controller.....	£39.95
Final Accounts.....	£24.95
Cashbook Combo.....	£59.95
System 3.....	£39.95
Wages.....	£89.00

DATABASES

Base Two.....	£49.95
Data Manager Professional.....	£29.95
Super Base Personal 2.....	£69.95
Super Base Professional V3.....	£175.00
Digit DGBASE.....	£39.95
Prodata.....	£69.95

DESKTOP PUBLISHING

Timeworks DTP.....	£69.95
DTP Clip Art Pack.....	£19.95
Page Stream.....	PHONE
Fleet Street Publisher V3.....	£159.00

COMPUTER AIDED DESIGN

PC Board Designer.....	£135.00
BeckerCAD.....	£249.00
GFA Draft Plus.....	£79.95
Campus Draft.....	£59.95
CAD 3D V1.0.....	£18.95
Cyber Studio CAD 3D V2.....	£39.95
Cyber Control.....	£32.95
Cyber Paint V2.....	£39.95
Cyber Sculpt.....	£59.95
Cyber Texture.....	£39.95
Architecture Design.....	£19.95
Human Design.....	£19.95
Cartoon Design.....	£19.95
Future Design.....	£19.95
Easy Draw 2.....	£39.95
Supercharged Easy Draw 2.....	£59.95
Easy Draw 2 Tech Art.....	£29.95
Easy Draw 2 Scan Art.....	£29.95
Easy Tools.....	£29.95
Easy Draw 2 Art.....	£39.95

MUSIC

Turbosynth.....	£259.00
Softsynth.....	PHONE
C-LAB Creator.....	£259.00
C-LAB Notator.....	£429.00
Pro 24.....	£269.00
FM Melody Maker.....	£57.00

LANGUAGES & COMPILERS

Prospero C.....	£99.00
Prospero Fortran.....	£99.00
Prospero Pascal.....	£79.95
Prospero Toolkit.....	£59.95
ST68881 Libraries.....	£59.95
Mark Williams C.....	£92.00
Mark Williams C.S.D.....	£45.00
GST C. Compiler.....	£14.95
GST ASM.....	£14.95
Lattice C V5.....	£75.00
Hisoft Power Basic.....	£39.95
Hisoft Basic.....	£59.95
Hisoft C. Interpreter.....	£39.95
FTL Modula 2.....	£52.00
FTL Modula 2 Developer.....	£69.95
Personal Pascal V2.....	£62.95
WERCS plus GDOS.....	£39.95
GFA Basic Compiler V3.....	£24.95
GFA Basic Interpreter V3.....	£45.00
Nevada Cobol (with C/PM).....	£42.00
MPE Forth 83 (GEM).....	£39.95
Minix.....	PHONE

SPREADSHEETS

Digicalc.....	£29.95
K-Spread 3.....	£67.95
K-Spread 4.....	£85.00
Logistix.....	£79.95

WORD PROCESSORS

GST First Word Plus V3.....	£57.95
Protext.....	£69.95
Wordperfect.....	£179.95
Wordwriter.....	£39.95

MISCELLANEOUS

Hyperpaint.....	£19.95
Hyperdraw.....	£19.95
GFA Gem Utilities.....	£24.95
GFA Ray Trace.....	£39.95
Neochrome.....	£24.95
Neodesk.....	£34.95
Degas Elite.....	£19.95
Spectrum 512.....	£44.95
Tempus 2 Editor.....	£34.95
G + Plus.....	£29.95
K-Graph 3.....	£39.95
Mailshot.....	£19.95
Mailshot Plus.....	£35.95
STOS.....	£22.50
Video Tinting.....	£24.95
SLM 804 Epson Emulator.....	£24.95

No surcharges on European orders!

Many other titles in stock.

Phone 0763 262582 NOW!

NEW RELEASES

Hyperchart.....	£99.00
Lattice C V5.....	£75.00
Logistix V1.2.....	£79.95
Fleet Street Publisher V3.....	£159.00

SPECIAL OFFERS

Prospero C.....	£89.00
Small Business Accounts Cash.....	£59.95
BeckerCAD.....	£195.00
Timeworks DTP + DTP Clip Art Pack.....	£85.00

All prices include VAT & delivery. Make cheques payable to Cambridge Business Software.

Melbourn Science Park, Moat Lane, Melbourn, Royston, Herts. SG8 6EJ



IMMEDIATE DESPATCH (subject to availability)

ORDERS WELCOME FROM EDUCATION, GOVT. & TVEI

HOW TO ORDER:

TEL 0763 262582 • FAX 0763 262425 • TELEX 817932



QUESTION
OF SPORT
£4.99

TURBOSOFT

ST BASIC
ONLY
£6.99

FORTHCOMING ATTRACTIONS

Heroes Quest	£24.99
Leisure Suit Larry III	£27.99
Hammerfest	£16.99
Ninja Spirit	£16.99
Heavy Metal	£13.99
Addidas Gold Shoe	£13.99
Blade Warrior	£16.99
Ivanhoe	£13.99
Last Ninja 2	£16.99
Lords of the Rising Sun	£16.99
Lost Patrol	£13.99
F-29 Retaliator	£18.99
Myth	£13.99
Oriental Games	£13.99
Quartz	£16.99
Sim City	£18.99
Shadow of the Beast	£24.99
Test Drive 2	£16.99
Damocles	£16.99
Tusker	£13.99
UMS II	£16.99
Zombi	£16.99
European Superleague	£14.99
Darius +	£16.99
Cyberball	£12.99
S.T.U.N. Runner	£12.99
Wings of Fury	£13.99
Dragons Breath (1Meg)	£19.99
Their Finest Hour	£16.99
Barbarian 2 (Psygnosis)	£16.99
Cabal	£13.99
East V. West	£13.99
Infestation	£16.99
Slayer	£13.99
The Kristal	£17.99
Xenomorph	£16.99
Windwalker	£19.99
Theme Park Mystery	£16.99
F-19 Stealth Fighter	£19.99
Gravity	£16.99
Final Battle	£16.99
Bad Company	£13.99
Colorado	£16.99
Castle Master	£16.99
American Dream	£16.99
Anarchy	£16.99
Dan Dare III	£12.99
Imperium	£16.99
Klax	£12.99
Ghosts 'n' Goblins	£13.99
TV Sports Basketball	£16.99

JOYSTICKS

125+ Cheetah	£7.99
Pro 5000 Clear	£11.99
Pro 5000	£11.99
Navigator + Autofire	£10.99
Speedking + Autofire	£8.99
Cruiser Black/Blue	£8.99
Quickjoy Superboard	£16.99
Quickjoy II	£7.99
Quickjoy Supercharger	£10.99

MISCELLANEOUS

Sony Branded 3.5" Box 10	£9.99
Sony Bulk 3.5" Box 10	£6.99
3.5" Disc Cleaning Kit	£1.99
3.5" External Disc Drive	£74.99

ART & SOUND

Super Conductor	£37.50
Master Sound	£27.50
Spectrum 512	£42.50
Pro Sound Designer	
Gold	£44.95
Degas Elite	£17.99

Advanced Art Studio	£16.99
Fleet Street Publisher	£84.99
Realtime	£174.95
Flair Paint	£23.99
Quantum Paint Pro	£29.99
ST Replay 4	£59.99

Lattice C Version 5	£74.95
Devpac ST Version 2	£45.00
Hisoft Basic	£59.95
Personal Pascal	
(Compiler)	£59.95
Hisoft C Interpreter	£34.95

UTILITIES & BUSINESS

K-Spread 3	£59.99
K-Graph 3	£32.99
P.C. Ditto	£74.99
Superbase Professional	£169.99
First Word Plus V.3	£57.50
GFA Basic Interpreter	£39.99

Fun School 2 (6-8)	£12.99
Fun School 2 (8+)	£12.99
Fun School 2 (under 6)	£12.99
Division	£12.99
Pre School Kids	£12.99

ST EDUCATION

Postman Pat	£6.99
First Paint	£10.99
Stage 2	£10.99
Learning to Type	£10.99
Jigspell	£10.99

TOP 50 CHART

Rainbow Islands	£13.99	Batman the Movie	£13.99
Space Ace	£26.99	Red Storm Rising	£16.99
X-OUT	£13.99	Stunt Car Racer	£16.99
P-47 Thunderbolt	£16.99	Hound of Shadow	£16.99
Black Tiger	£13.99	Future Wars	£16.99
Fire Brigade	£19.99	Untouchables	£13.99
Chaos Strikes Back	£16.99	Kick Off	£12.99
Drakken	£18.99	Kick Off Xtra Time	£6.99
Player Manager	£13.99	Lombard Rally	£16.99
Operation Thunderbolt	£13.99	R.V.F. Honda	£16.99
Iron Lord	£16.99	Robocop	£13.99
Chase H.Q.	£13.99	Populous	£16.99
Gazzas Super Soccer	£14.99	Promised Lands	£7.99
Hard Drivin'	£12.99	F-16 Falcon	£16.99
Pro Tennis Tour	£16.99	Falcon Mission Disc	£13.99
Zenon 2 Megablast	£14.99	Dungeon Master	£16.99
Fiendish Freddie Big Top Fun	£16.99	Warhead	£16.99
Ghouls n' Ghosts	£13.99	Midwinter	£18.99
Bomber	£17.99	Pipemania	£12.99
Ninja Warriors	£11.99	Hot Rod	£16.99
Turbo Outrun	£13.99	Stryx	£13.99
Maniac Mansion	£16.99	Man Utd	£12.99
Ghostbusters 2	£16.99	Paris Dakar Rally	£14.99
Double Dragon 2	£13.99	North & South	£14.99
Ferrari Formula One	£16.99	Conqueror	£16.99

SPECIAL OFFERS

Baal	£6.99	Powerplay	£6.99
Menace	£8.99	Olds	£6.99
Ballistik	£6.99	IK+	£7.99
Goldrush	£12.99	Balance of Power	£9.99
Interphase	£7.99	Deja Vu	£6.99
T.V. Sports Football	£12.99	Nigel Mansells Grand Prix	£4.99
Block Money	£9.99	Dark Castle	£6.99
Conflict in Europe	£7.99	Legend of the Sword	£8.99
Chambers of Shoalin	£7.99	Mickey Mouse	£6.99
Starfighter 2	£8.99	Trivial Pursuits	£9.99
Afterburner	£6.99	Trivial Pursuits New Beginning	£6.99
Airball Const. Kit	£4.99	Mini Golf	£4.99
Alternate Reality	£5.99	Galaxy Force	£4.99
Brian Cloughs Football	£6.99	Peter Beardsleys Soccer	£4.99
Fish	£7.99	Shufflepuck Cafe	£7.99
Fernandez Must Die	£3.99	Dragon Spirit	£7.99
Hunt for Red October	£9.99	Spittire 40	£4.99
Asterix	£6.99	Gauntlet 2	£7.99
President is Missing	£9.99	Ikari Warriors	£4.99
Rings of Zilfin	£9.99	Manhunter in New York	£12.99
R-Type	£7.99	Netherworld	£4.99
Saint and Greavsie	£5.99	Nebulus	£4.99
Shadowgate	£7.99	Cybernoid 2	£4.99
Pacland	£7.99	Joan of Arc	£7.99
Sorcerer Lord	£6.99	Hollywood Poker Pro	£7.99
Speedball	£7.99	World Class Leaderboard	£7.99
Rocket Ranger	£7.99	Outrun	£7.99
Super Hang On	£7.99	Marble Madness	£7.99
Pacmania	£8.99	Laser Squad	£7.99
Uninvited	£7.99	Running Man	£4.99

Supreme Challenge

Flight Command
ONLY £19.99
Eliminator, Skychase, Lancaster, Skyfox II
Strike Force Harrier

ACTION ST - ONLY £9.99

Deflector, Northstar, Trailblazer, 3D Galax,
Master of the Universe

MAGNUM 4 ONLY £19.99

Double Dragon, Batman Caped Crusader,
Operation Wolf, Afterburner

COMPUTER HITS II-ONLY £8.99

Tetris, Black Shadow, Golden Path, Joe Blade

PRECIOUS METAL-ONLY £16.99

Captain Blood, Xenon,
Arkanoid II, Crazy Cars

Triad 3

ONLY £19.99
Blood Money
Speedball, Rocket ranger

TIME AND MAGIC - ONLY £9.99

Lord of Time, Red Moon,
The Price of Magic

PREMIER COLLECTION II-ONLY £19.99

Eliminator, Instodian, Backlash,
Mercenary

PREMIER COLLECTION-ONLY £9.99

Exolon, Nebulus, Netherworld, Zynaps

LIGHT FORCE-ONLY £16.99

Voyager, R-Type,
Batman-Caped Crusader, IK+

CLASSIC COLLECTION

Hillsfar	£16.99
Dragons of Flame	£16.99
Quest Quest 3	£19.99
Heroes of the Lance	£16.99
Football Manager II + Exp Kit	£12.99
3D Pool	£13.99
Airborne Ranger	£16.99
Altered Beast	£13.99
Back Gammon	£16.99
Balance of power 1990 (1Meg)	£16.99
Bards Tale Vol 1	£7.99
Battle Chess	£16.99
Battletech	£16.99
BattleHawks 1942	£16.99
Bridge Player 2150	£19.99
Blood Money	£9.99
Colossus Chess X	£12.99
Dungeon Master Editor	£7.99
Flight Simulator 2	£24.99
Deluxe Scrabble	£14.99
Elite	£17.99
F-16 Combat Pilot	£16.99
Games Summer Edition	£17.99
Kings Quest Triple Pack	£24.99
Kings Quest IV	£19.99
Leisure Suit Larry	£16.99
Leisure Suit Larry 2	£19.99
Mavis Beacons Typing	£20.99
Mr Hell	£16.99
New Zealand Story	£13.99
Operation Wolf	£16.99
Operation Wolf	£13.99
Omega	£19.99
Overlord	£13.99
Pirates	£16.99
Powerdrome	£16.99
Red Lightning	£19.99
Rick Dangerous	£16.99
Scenery Disc 7, 9 or 11	£10.99
Scenery Disc Japan or Europe	£10.99
Hawaiian Scenery Disc	£14.99
Scapehost	£13.99
Shinobi	£13.99
Silkworm	£13.99
Street Fighter	£7.99
Solomons Key	£7.99
Tank Attack	£15.99
Times of Lore	£16.99
Tracksuit Manager	£14.99
Ultima IV or V	£16.99
Verminator	£16.99
Weird Dreams	£16.99
War in Middle Earth	£16.99
Waterloo	£16.99
Austerlitz	£16.99
Zak McKracken	£17.99
Bloodwych	£27.99
Bloodwych Data Disc	£10.99
Treasure Island Dizzy	£4.99
Nitro Boost	£4.99
Int. Rugby Simulator	£4.99
Captain Blood	£4.99
Jack Nicklaus Golf	£16.99
Adv. Ski Simulator	£4.99
Moonwalker	£13.99
Bad Cat	£7.99
Demons Winter	£16.99
Daily Double Racing	£9.99
Deja Vu 2	£16.99
Football Director 2	£13.99
Switchblade	£13.99
Borodino	£19.99
Manhunter San Francisco	£19.99
Powerdrome	£16.99
Forgotten Worlds	£13.99
Wild Streets	£12.99
California Games	£13.99
Indy Jones Adventure	£16.99
Hunter Killer	£4.99
Pub Pod	£4.99

Please note that not all forthcoming attractions are released at the scheduled time.
These will be despatched within 24 hours of release, subject to availability.

41 SOUTH STREET, LEIGHTON BUZZARD, BEDS, LU7 8NT TEL: 0525 377974 FAX: 0525 852278

ORDER FORM

Please supply me with the following for

Computer

Titles

Price

Date:

Name:

Address:

.....

.....

Post Code

Tel:

ST USER JUNE

Please make cheques
& PO payable to
Turbosoft

Orders under £5 please add
50p per item. Over £5 p&p **FREE**
in UK. Elsewhere please add
£1.50 per item.

N.B. Please state clearly
mode of computer & also
cassette or disc when ordering

APL.68000:

Bored with Basic, fed up with Forth,
peevied by Pascal, confounded by C?

Nic Veitch introduces an alternative
programming language and assesses
an APL development system

Weird – or wonderful?

SHOW someone a function listing from APL and they will say "What sort of programming language is that?" and the answer is that it isn't any sort of programming language. It is a mathematical one.

Back in the sixties a guy called Iverson decided what the world really needed was a new form of mathematical notation, a way of writing complex and often repetitive formulae in a way that was easy to understand.

He felt so strongly about this that he gave lectures, wrote papers and finally, in 1962, produced a book outlining the symbols for the language and the format it would take.

The book was entitled *A Programming Language*, and Iversons' strange squiggles became a symbol based programming language which, with a blinding stroke of imagination was christened APL.

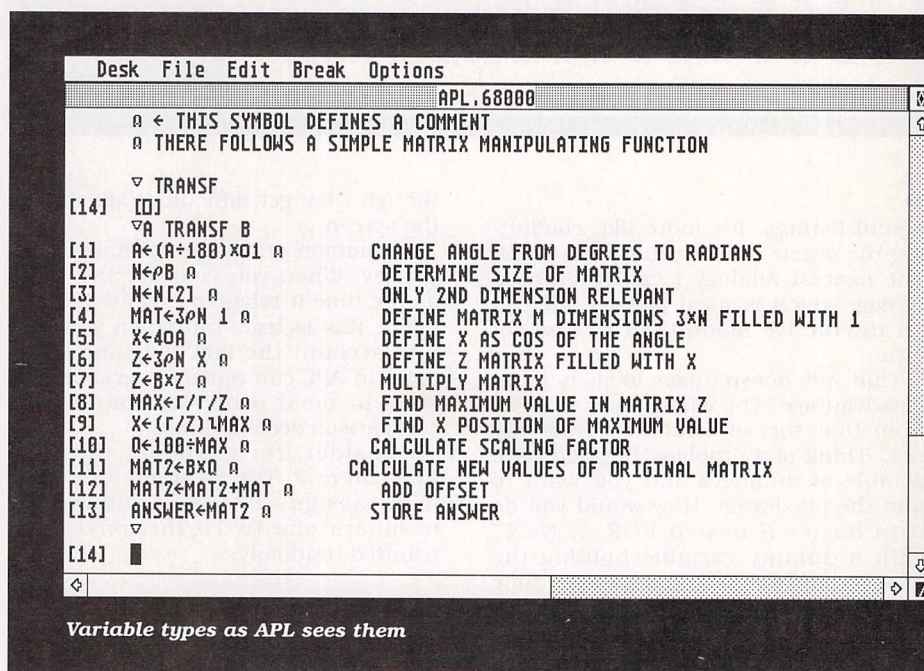
Now it has arrived for the ST in the shape of APL.68000 from Micro APL, and very well presented it is too. Open the excellent hard box to reveal two manuals, a set of stickers and a single disc. Yes, one disc, and it's not completely full – size isn't everything.

The first manual is around 280 pages of just what it is that APL can do. A lot of this is taken up by definitions of all the strange symbols and a discussion on what exactly is meant by the terms monadic, dyadic and nomadic.

It is fairly well written and gives enough information for the APL illiterate to get an idea of what's going on. There are examples, but in some cases I think they are too simple.

The fervour induced by APL is near religious in some circles, with many camps divided on the proper way to do things. If you really want to know what's going on you have to buy a book, but it is unlikely you will find one in the local library.

The second manual is much smaller and is an ST specific guide to how APL



uses Gem, with a breakdown of the sample files included. It also tells you where to put all the little stickers provided. This is a task which can be tackled in one of two ways – the cunning method or the *Atari ST User* reviewer system.

I managed a fairly straight set by lowering them on to the front of the keys and pressing them flat with a small screwdriver. The more sensible would possibly prefer removing all the keys and sticking them that way. This method has the added bonus that you can easily reconfigure your keyboard as a zerty if you want to run German software.

The stickers are very important as they don't just tell you where the symbols are, but where everything is. When you run APL all the familiar brackets, quotes and colons will magically swap about. There is a word to

explain this sort of behaviour – no, not that one. The word I was thinking of is compatibility.

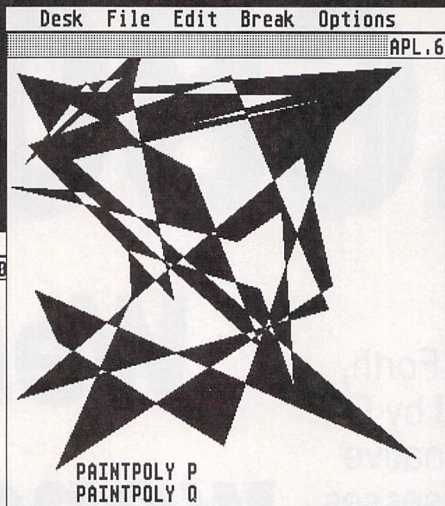
Years ago, when I had a C64, I used to take the keys off and swap them around to confuse people who didn't know how to type. Their experience would be similar to an APL programmer's if he was suddenly introduced to an environment where all of his symbols were in different places. It would be like learning to type again.

In the interests of system portability the keyboard layout for APL remains the same, whether you are using an IBM4040, a Vax, an ST or an A500.

So much for the system, what can you actually do with it? Well, writing a program is a very different experience in APL. For a start there are no FOR ... NEXT loops. APL tends to operate on a more interactive level. There are no

Graphics are catered for with the STGRAPH workspace

Desk File Edit Break Options										
APL.680										
X ← 1 10										
X										
1	2	3	4	5	6	7	8	9	10	
Y ← 1 16										
Z ← X°.XY										
Z										
1	2	3	4	5	6	7	8	9	10	
2	4	6	8	10	12	14	16	18	20	22
3	6	9	12	15	18	21	24	27	30	33
4	8	12	16	20	24	28	32	36	40	44
5	10	15	20	25	30	35	40	45	50	55
6	12	18	24	30	36	42	48	54	60	66
7	14	21	28	35	42	49	56	63	70	77
8	16	24	32	40	48	56	64	72	80	88
9	18	27	36	45	54	63	72	81	90	99
10	20	30	40	50	60	70	80	90	100	110



PAINTPOLY P
PAINTPOLY Q

APL has been described as a write only language – once written you have little chance of reading it back

actual listings. It's more like consulting the oracle than writing a program. The nearest analogy I can think of is Prolog, which is used just as often in an interactive mode than in any set form.

That APL doesn't have loops is not a disadvantage. The whole ethos is away from that sort of structure. And why not? Think of a problem. Say you have a table of numbers and you want to find the maximum. How would you do it in basic? A nested FOR ... NEXT with a dummy variable holding the best so far? In APL this can be done with four symbols:

```
X ← 3 3 3 8 9 10
Y ← 1 1 1 1 1 1
```

where x is a variable containing the table of data. The first line sets up x as a three by three matrix full of random numbers, the second reduces to the maximum by row and column.

APL resists the whole idea of top down programming. Instead of breaking a problem up into successively smaller problems and then coding it, the way of APL is to tackle the problem head on, as a complete task. A sort of hollistic approach, you might say. If you can express the problem then you have the answer.

A variable in APL covers a whole range of data types. A scalar is just a single number, a vector is a string of numbers (like a one dimensional array in Basic) and a matrix is a table of numbers, a two or more dimensional vector. In fact APL will handle up to eight dimensions for a variable,

though they get difficult to display on the screen.

A common criticism of APL is that it is slow. When you consider the speed as the time it takes to execute a statement, this is true, but when you take into account the fact that one statement in APL can replace several lines of code in most other languages, the comparison seems unjust.

Consider, for example, the Deal function or ?. The following APL statement assigns to the variable x the numbers one to 10 inclusive, distributed randomly:

```
X ← 10 ⍵ 10
```

Just one statement. How long would that take you in Basic? Or C?

This isn't just an isolated case. There are many more examples of very useful symbols, like iota, the index symbol. In one form, the dyadic or two-argument form, it will return the index or the position the variable to the right occupies in the variable to the left:

```
5 4 3 2 1
```

Here the number four appears in position two of the vector to the left. In its other form, monadic or taking only one argument, it will produce a vector of numbers from one to the value of the argument. This can be combined with more conventional mathematical operators to provide a vector containing any arithmetic sequence:

If you desperately require graphics, which to the eyes of many APL hardened programmers are namby pamby, the STGRAPH workspace provided includes a few functions you might find useful. Among these are line drawing and filled polygons, pattern fills and inverting routines.

Heavily biased towards graph and chart style graphics, you can even choose lines to be drawn dashed, dotted, dash double dotted and virtually any other permutations.

The Workspace environment is difficult to get used to if you have not worked with such a system before. Instead of saving a listing, the whole area of memory is saved. These means that not only are all the functions recalled when you load a workspace, but all the variables as well.

Speed is hard to judge since although statement execution is fairly slow an average APL statement does 10 times as much as a line in any other language. In interactive mode it is irrelevant anyway.

The language is more biased towards mathematical and statistical problems, but that isn't all it can do. Its design gives it away as a language for theorists, mathematicians and scientists, not programmers. Variables can just as easily be strings as numbers though, so it isn't a language only for those who speak in floating point.

Admittedly as an implementation on a micro it is probably aimed more at the hobbyist, but the advanced filing system means that as ST networking facilities become more widely used APL.68000 will be able to cope with multi-user access.

A must for serious users and those interested in learning a truly alternative language. Forget Swahili and Apache, see if you can get a language record for APL.

FACT FILE

Product: APL.68000

Price: £99.95

Supplier: MicroApl, South Bank Technopark, 90 London Road SE1 6LN

Tel: 01-922 8866

POINTS FOR:

Excellent implementation of a classic language. A must for every serious programmer's library. Fun, too.

AGAINST:

The manual could have been more extensive, providing more useful examples. Sample functions should have been included on disc – the ones supplied are locked and therefore can't be edited.

DISCOUNT SOFTWARE

For the Atari ST

WORD PROCESSING

Protext See Specials	£64.95
First Word Plus	£58.95
K Word II	£29.95
K Spell	£13.95

FINANCIAL

Cashbook Controller	£37.95
Final Accounts (for above)	£21.95
Cashbook Combo (Cashbook+Final)	£54.95
System 3 (Inv., Stock, C/Flow)	£37.95
K-Spread IV	£99.95
K-Spread III (Spreadsheet)	£59.95
Mini Office Spreadsheet	£15.95
Digitalc (spreadsheet)	£28.95
Digital Home Accounts	£18.95
Personal Tax Planner	£28.95

DATABASES

D. G. BASE by Digita	£37.95
Supercard by B. Ware	£19.95
K Data	£31.95
Data Manager Professional	£29.95
B. Base II (B. Ware)	£11.95
Base II (antic/catalogue)	£23.95
Pro Data by Arnor	£59.95

GRAPHICS/ PRESENTATIONS

Timeworks DTP	£68.95
Timeworks DTP Tutor	£24.95
Easy Draw II	£39.95
Supercharged Easy Draw II	£59.95
K Graph III	£39.95
Mini Office Pres. Graphics	£15.95
Degas Elite	£18.95
Canvass	£14.95
Spectrum 512	£23.95
Cyber Studio	£39.95
Cyber Paint	£39.95
Cyber Sculpt	£59.95
VIDI-ST Digitiser	£79.95

PROGRAMMING

Tempus II - Programmers Editor	£29.95
Hisoft Power Basic	£34.95
Hisoft Basic (inc. GEM libs)	£58.95
GST C Compiler	£14.95
Hisoft C Interpreter	£39.95
Prospero C	£99.99
GST Macro Assembler	£19.95
K Seka	£32.95
Hisoft Devpac ST V2	£39.95
Hisoft Werces	£21.95
Nevada Cobol (CP/M)	£33.95
Prospero Pascal	£74.95
Hisoft/OSS Personal Pascal	£58.95
Prospero Fortran	£99.95
Hisoft Werces (resource const)	£21.95
Hisoft Werces Plus (inc. GDOS)	£33.95
STOS see specials for range	

SOUND SAMPLERS

Mastersound (call first)	£34.95
STOS Maestro Plus	£59.95
ST Replay 4	£69.95
Replay Professional	£114.95

SPECIALS

PROTEXT V.4.2

Our most popular word processor on our favourite machine. Very fast, non-GEM, and command based, it offers fast conversion routines to and from other versions of Protext as well as First Word, First Word Plus and Wordstar files. 70,000 word Spell checker and very powerful mail-merge commands included

R.R.P. £99.95
Our Price £64.95

PRODATA

Arnor's new database has arrived and won't disappoint! Non-GEM, menu driven. Features include: 5 indexes per data file; good data layout options including printer features; excellent range of printer drivers; uses many of Protext's editing commands.

R.R.P. £79.95
Our Price £59.95

VIDI ST

Grab 16 shade digitised images from your ordinary video and save as Neochrome or Degas format files for your graphics or DTP programs

R.R.P. £99.95
Our Price £79.95

STOS - THE GAME CREATOR

STOS Basic Program	£18.95
STOS Add-on Compiler	£11.95
STOS Plus Compiler	£28.95
STOS Games Galore	£13.95
STOS Sprites 600	£9.95
STOS Maestro Software	£14.95
STOS Maestro Plus	£59.95
Software and Sampler	

MINI OFFICE

Spreadsheet
Presentation Graphics
Communications

Price £15.95
£30 for any two

EDUCATIONAL

Fun School 2 under 6's	£13.95
Fun School 2 6-8 yrs	£13.95
Fun School 2 8-12 yrs	£13.95
Answerback Quiz (6-11)	£14.95
French Mistress (12-adult)	£14.95
German Master (12-adult)	£14.95
Spanish Tutor (12-adult)	£14.95
Italian Tutor (12-adult)	£14.95
Mavis Beacon Typing (12-adult)	£23.95
B. Spell (5-8)	£10.95
Schoolltime Maths (5 and over)	£10.95
Play-Spell (7 and over)	£19.95
Learn to read with Prof. (Level 1)	£24.95

BOOKS

ABACUS	
ST For Beginners	£19.95
ST 3D Graphics	£18.95
ST Machine Language	£16.95
ST Gem Prog. Ref. Guide	£16.95
ST Tricks and Tips	£16.95
ST Disc Drive In and Out	£18.95
ST Basic II to C	£18.95
OTHERS	
C Prog. Language (By K+R)	£23.95
Big Red Book of C	£7.50
Using ST Basic	£9.95
Pascal A Beginners Guide	£6.50
The Game Makers Manual	£11.95

OTHER SOFTWARE

Day by Day (Electronic Diary) ..	£22.95
Michton Utilities Plus	£23.95
Mini Office Communications ..	£15.95
K-Comm 2 (V2)	£32.95
Hi-Soft Twist	£28.95
Hi-Soft Turbo ST	£28.95

ACCESSORIES

3.5" Disc Head Cleaner	£6.95
ST-Parallel Printer Lead	£6.95
Neoprene Mouse Mat	£3.95
ST-FM Dust cover	£3.95
Philips CM 8833 Dust cover	£4.95
Star LC10 Dust cover	£4.95
Panasonic KXP-1081 Dust cover ..	£4.95
Citizen 120D Dust cover	£4.95
Quickshot 2 Turbo Joystick	£9.95
Competition Pro 5000 Joystick ..	£13.95
Replacement Mouse	£29.95
ST Joystick + Mouse extension ..	£5.95
Unbranded 3.5" Disks 10 off	£9.95
Unbranded 3.5" Disks 20 off	£18.95
Sony branded 3.5" DS Disks 10 off	£12.95
Sony branded 3.5" DS Disks 20 off	£24.95

PRINTERS

All printers listed have a ten inch 80 column carriage, and accept continuous or single sheet paper. They are Epson-compatible and have centronics parallel interface and are supplied with the cable required for your computer. Prices shown include VAT, delivery by Royal Mail Insured Parcel (which takes 7-10 days, and 12 month 'return to us' guarantee

For courier Dispatch add £5.00
For on-site "call-out" Warranty, add £5.00

CITIZEN 120-D

A cheap Epson FX compatible giving a range of text sizes and effects in draft mode and limited range in Near Letter Quality

£139.95

PANASONIC KXP-1081

Well built and reliable, offers all the sizes and effects of the Citizen 120-D, but offers NLQ in all combinations

£159.95

STAR LC-10 Mk I

On a par with the Panasonic for build, speed and NLQ combinations, but offers 4 different NLQ styles and double height as well as double width text. Great value for money.

£179.95

STAR LC-10 Mk II

Identical to the Mk I but 25% faster

£199.95

STAR LC-10 COLOUR

Based on the LC-10 Mk I but offers seven basic text colours. With the correct printer driver (Epson JX-80) offers hundreds of shades from graphics programs.

£229.95

STAR LC 24-10

24 pin version of the LC-10, offering great text output in one of five Letter Quality styles, available in combination with all the usual sizes and effects.

Two additional effects, Outline and Shadow, are also available.

£259.95

CITIZEN SWIFT 24

Fast 24-pin offering all the usual sizes and effects from four Letter Quality fonts. Easy to use control panel with LCD Display

£359.95

Please Note All prices include VAT and postage in the UK

We ONLY advertise products actually available at time of going to press.

We DO NOT advertise products "Due Shortly" as they rarely are!!!

Overseas orders welcome - Please write for prices

CALLERS WELCOME! MON-FRI 9.30am TO 5pm SAT 10am TO 4pm

M.J.C. SUPPLIES, (STU)

40a Queen Street, Hitchin, Herts. SG4 9TS.

Tel: (0462) 420847/421415/432897 for enquiries/Credit Card orders

Prop. M.J. Cooper



Distinctly Digita

Cleverly written and always favourably reviewed in the press, Digita produces a range of powerful, low cost software for the home and business user.

DGCALC

The fastest and most powerful spreadsheet available in this price bracket, with 512 rows by 52 columns, giving you up to 26624 cells. As with all Digita products, the operation of the program is clearly thought out. Being either menu, mouse or command driven you'll be able to start using it within minutes—even if you've never used a spreadsheet before. Some of the features which make it such good value are the exporting of ASCII files for integration with other programs, adjustable column width and text overflow, programmable function keys (macros), and a unique windowing facility, so that you can look at different parts of a sheet at the same time.

£39.95

E-TYPE

Do you ever have to print names and addresses at awkward places on envelopes, or do you ever need to fill in tricky forms or invoices where the text has to be in exactly the right place? Usually you have to do it by hand, or get your trusty old typewriter out of the cupboard and dust it off. Well not anymore. The Emulated TYPEwriter transforms your computer and printer into a fully fledged typewriter, supporting bold, underline, italic and other type-styles. Because it can display and print text INSTANTLY you can line up your form, press Return and Space a few times to move to the correct place, and then start typing. Alternatively you can switch to line-by-line mode, which offers word-wrap, justification and proportional spacing, so that you can edit each line before it's printed.

£39.95

PERSONAL TAX PLANNER

Are you absolutely sure your taxman is doing his job correctly? Plan your own tax with ease, this menu-driven program will calculate your income tax liability (4 tax years included) and provide pertinent facts about your tax position. You can perform 'what-if?' calculation to discover ways to minimise your tax liability. In fact, the program will advise you on things such as, if you are a married man, whether it would be advantageous to have your wife's income taxed separately or not. At this price who knows, you will probably find that PTP will pay for itself in tax savings the first time you use it!

** STOP PRESS **

July 89 - PTP user receives tax refund of over £2,000!!

£39.95

DAY-BY-DAY

An excellent way to get organised. With it you'll be reminded of birthdays and other anniversaries, meetings and appointments, phone calls to make and so on. As with all Digita products, inputting information is simplicity itself and, once entered, you can search for keywords or for particular events such as birthdays to see when one is coming up. Includes month/week/day planner, automatic reminders for overdue appointments, month and week summary at a glance. For less than £30 this is the ideal way to make sure you never miss that important occasion again!

£29.95

HOME ACCOUNTS

Ideal for both home users and small business. Simple to use, this package will keep track of all your finances and cater for 10 types of income (e.g. Bank, credit card) and 60 types of expenditure (e.g. rates, mortgage, gas, food), with optional budgeting and forecasting. The program will handle Standing Orders and Direct Debits, and automatically warn if for example, Bank/Credit cards are likely, or if you have exceeded your credit limit. With the comprehensive reporting and graphics facilities you can even produce your own monthly Bank/Credit card statements! Once you've used Home Accounts, you'll wonder how you ever managed without it.

£24.95

MAILSHOT

If you ever need to send out mailings or print labels, you know how fiddly and time-consuming it can be making sure all the labels are printed correctly. Well now all that's a thing of the past. Because Mailshot actually shows you the labels on screen, you can type names and addresses in exactly the correct place. But more than that, the labels are animated on screen as a continuous sheet, allowing you to scroll backwards and forwards, to search for particular keywords or to edit entries with the minimum of fuss. Facilities include searching, detection of duplicate labels, sorting (even surname!) 9 labels across, 999 copies of any label. This has to be the simplest and most effective method of creating a mailshot available.

£24.95

MAILSHOT PLUS

Advanced version of Mailshot for the business user with the following extra facilities:

- * integration with other software (using ASCII files)
- * column/tabulated summary (ideal for telephone lists, etc)
- * 4 extra memo lines per label (with defaults) * system for coding, dating and adding messages to each label
- * different layouts available for horizontal and vertical justification.

£49.95

DAY-BY-DAY

An excellent way to get organised. With it you'll be reminded of birthdays and other anniversaries, meetings and appointments, phone calls to make and so on. As with all Digita products, inputting information is simplicity itself and, once entered, you can search for keywords or for particular events such as birthdays to see when one is coming up. Includes month/week/day planner, automatic reminders for overdue appointments, month and week summary at a glance. For less than £30 this is the ideal way to make sure you never miss that important occasion again!

£29.95

FINAL ACCOUNTS

The program will take information prepared by Cashbook Controller and produce a complete set of accounts including: * Trial Balance * Trading and Profit and Loss Account * Balance Sheet * Notes to the Accounts * Full Accounting ratios. All reports may be produced at any time, with comparative/budget figures if required. The facility to produce these documents quickly, accurately, and regularly is of enormous help in running any business, large or small, since one shows the true profitability achieved, and the other the exact strength of the business in terms of assets and liabilities.

£29.95

CLASSIC INVADERS

Escape from executive stress with the classic space invader game.

£14.95

PHARAOH III

Based on the classic gameplay of Galaxians, this original and unique game recreates the mystical atmosphere of ancient Egypt and the Pharaohs.

£14.95

DGBASE

If you're looking for fast access to stored data, and the ability to create customised reports, including office/personal records, labels and mail-merging, without the need for technical knowledge, then DGBase is for you. Designed and written specifically for the Atari ST, DGBase will fully utilise the facilities of your computer and GEM. This powerful, relational database offers access to 4 files simultaneously, full maths, integration with Digita's DGCALC and Mailshot Plus (and other programs using ASCII files). You can even change or add fields AFTER setting up your database. Simplicity itself, DGBase comes on one disc which includes on-line help and limited only by the capacity of your ST and your imagination!

£49.95

CASHBOOK

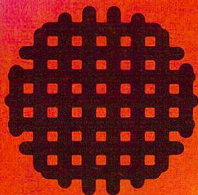
Use your computer as a powerful business tool and take the drudgery out of book keeping! In its simplest form, the program will replace your Cash and Petty Cash books BUT information includes: * Summary of VAT information to enable completion of VAT Return. * Monthly summaries and departmental analyses of sales and purchases. * Total debitors and creditors, sales, and overheads. * Total between accounts. * Journal routine for entering transfers and which are user definable. * 199 nominal account titles, most of which are user definable. * Observes accounting procedures and meets legal requirements, assuring correct approach to book keeping. * Full audit trail and integrates with Final Accounts.

£49.95

SYSTEM 3

Take the first essential step in computerising your business with this simple integrated suite of programs. 1. CASHFLOW CONTROLLER: Keep track of the most important aspect of business—cash flow. Essentially a debitor/creditor ledger, its flexibility lies in its ability to produce account balances instantly for debtors (from invoicing), creditors, VAT, Bank, Petty Cash, together with a record of all transactions, dates and descriptions. A management aid designed to run alongside your existing accounting system, reduce time and cost of preparing invoices and statements. 2. INVOICE & STATEMENTS: This program will greatly integrate with Stock Control. 3. STOCK CONTROL: Effectively control your stock, purchasing and suppliers and produce re-order reports, stock valuation, price lists, etc.

£49.95



DIGITA

INTERNATIONAL

"Serious software at a sensible price"

All software written in the UK. Prices include VAT & P & P (add £2.00 for export)

• HOW TO ORDER •
CREDIT CARD HOTLINE

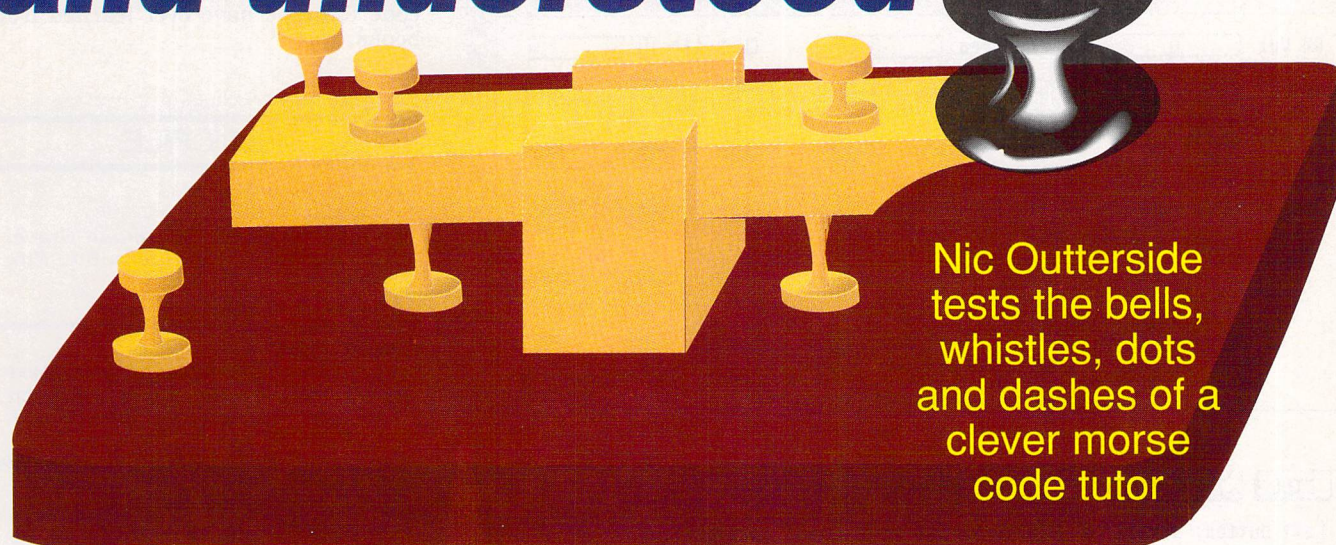


0395 270273



Post: Digita International Ltd
Black Horse House
Exmouth Devon
EX8 1JL England
Fax: 0395 268893

Message received and understood



AS the ST matures, so its supporting products begin to grow and develop beyond the range of games, music, education, and business and programming applications.

Recently we have seen astronomical packages, yachting tutors, satellite tracking programs, and even a model aircraft simulator.

Morse Master fits snugly into this expanding category of miscellaneous applications for the micro. It is a hardware/software package offering a complete morse tuition system, catering for all needs for novice to the professional operator who wishes to improve his speed or technique.

Already it has been bought by many radio amateurs and by armed forces professional operators. The program comes on a single disc with well-documented manual and a cable/connector to connect a morse key or paddle – a two way key – to your ST.

This in turn lets you send morse to Morse Master – once you have mastered receiving. The supplier, Boscad, can arrange for you to buy a good quality key or paddle should you need one.

The program and manual at first seem confusing. They refer to sending morse as the program “receiving” morse from you, and receiving as the program “sending” morse to you. It is wise, therefore, to think of the program as a third party rather than as an extension of you, the operator.

Morse Master presents a tutor/menu screen offering a number of selections, dependant on proficiency and needs. You may select whether you wish to send or receive morse, and whether this is done by key or paddle.

You may also opt for either a text or lesson format for practice or tuition.

From here a Lesson menu lets you choose from eight sets of alphanumeric characters, and selection marks a set for inclusion in random letter generated or text file exercises.

The text file option is particularly clever. Such files, loaded from disc or created from scratch, allow you to practise sending or receiving standard sets of letters and numbers.

The default sets on disc are purposely nonsensical to over-ride logical processes which may lead you into bad habits, such as guessing the next word in a message.

A further menu lets you control the

seed of a lesson group so you can try the same lesson sequence at a later date, which aids consolidation. More importantly you can select the word rate and character rate at which the morse is sent. The character rate is based on the word rate at which individual characters are sent.

Further menu selections allow you to choose whether the letters, morse characters or blinks being sent, are shown on screen, and whether you wish the letters to be repeated – a useful facility. Transmission time can also be varied between 1 and 20 minutes.

However, it is on the Control screen that Morse Master really comes into its

The main menu screen

own. It is here that the morse is sent and received, with or without the screen displays of letters, blinks and symbols which you have selected.

To the delight of all operators, you

may adjust the volume level of the CW tone channel, the amount of background noise, the level of the adjacent RTTY signal, the frequency of the primary CW tone channel and the percentage drift (distortion) of the primary

CW tone. I find it hard to imagine a more realistic way of learning or practising morse without blocking up the airways.

Both myself, as an intermediate operator, and my father as a keen beginner feel that in three weeks Morse Master has taught us more about sending and receiving morse code than we have ever learned from books.

The control screen displays several sliders for CW Vol, Noise Vol, RTTY Vol, CW Freq, and CW Drift. Below these is a display area showing 'S ... ()'. At the bottom, there are buttons for FILE, TUTOR, START, PAUSE, RESUME, and REVIEW. A note at the bottom states: 'Left button: scroll up, Right: scroll down, Both: exit review'.

The control screen

FACT FILE

Product: Morse Master

Price: £29.99

Supplier: Boscad, 16 Aytoun Grove, Baldringburn, Dunfermline, Fife KY12 9TA.

Tel: 0383 729584

POINTS FOR:

An excellent graded tutor program. Good documentation and supported by an excellent backup service from Boscad. Well priced.

AGAINST:

Nothing substantial, but a quick reference card would be a useful addition for beginners and intermediate students.

MAIL
ORDER

SOFTSELLERS

6 BOND STREET, IPSWICH, SUFFOLK IP4 1JE

MAIL
ORDER

5A DOG'S HEAD STREET, IPSWICH, SUFFOLK (RETAIL)



36A OSBORNE STREET, COLCHESTER, ESSEX (RETAIL)

MAIL ORDER PURCHASE LINE (0473) 257158/210605 FAX NO. 0473 213457

JOYSTICKS

Cheetah 125	£7.99
Cheetah Starprobe	£11.99
Pro 5000 Extra Glo Green	£13.99
Pro 5000 Extra Glo Red	£13.99
Pro 5000 Black	£11.99
QS Turbo III	£9.99
Euromax Racemaker	£24.99
Konix Navigator	£11.99

DISC BOXES WITH DISCS

3.5" 40 Holder Lockable with 10 3.5" dsdd discs	£12.99
.5" 40 Holder Lockable with 20 3.5" dsdd discs	£19.99
3.5" 40 Holder Lockable with 40 3.5" dsdd discs	£33.99
3.5" 80 Holder Lockable with 10 3.5" dsdd discs	£15.99
.5" 80 Holder Lockable with 40 3.5" dsdd discs	£35.99
.5" 80 Holder Lockable with 80 3.5" dsdd discs	£55.99

DISC BOXES

3.5" 40 Holder Lockable	£5.99
3.5" 80 Holder Lockable	£7.99
5.25" 50 Holder Lockable	£4.99
5.25" 120 Holder Lockable	£6.99

PERIPHERALS

Replacement mouse + mouse holder + mouse mat	£29.95
Four Player Adaptor	£5.95
Mouse Mat	£4.95
Joystick Extender	£5.95
Dust Cover	£4.95

DISCS

	Qty 10	Qty 20	Qty 50	Qty 100
3.5" dsdd				
Unbranded	£7.99	£14.99	£34.99	£59.99
3.5" dsdd				
Sony Branded	£11.99	£22.99	£54.99	£99.99

CHEQUES AND POSTAL ORDERS PAYABLE TO SOFTSELLERS. POST AND PACKING FREE IN UK. OVERSEAS £1.50 per item. Subject to availability and price change without notice. Not all titles released at time of going to press. Shop prices may vary, but personal callers can claim advertised discounts on production of cut-off slip.

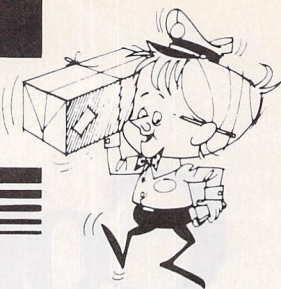
Computer Computer Computer Contriver Computer

*Whatever your computer,
Contriver fits perfectly*

*peripheral suppliers
w o r l d w i d e*



BYTEBACK



FAST

DELIVERY SERVICE

... and the keenest prices

Ring us now! **0636-79097** we're programmed to help

NUMBER ONE FOR ATARI ST USERS - FIRST CLASS SERVICE BY FIRST CLASS POST

GAMES ONLY!

Aquanaut	18.90
Austerlitz	16.90
Bards Tale	8.90
Batman - The Movie	18.90
Batman - Caped Crusader	9.90
Pacmania	9.90
Steve Davis Snooker	9.90
Battle Chess	18.90
Black Tiger	15.90
Bomber	19.90
Boxing Manager	13.90
Continental Circus	16.90
Deluxe Strip Poker	9.90
Centrefold Squares	9.90
Chess Player 2150	15.90
Chuckie Egg (1 or 2)	13.90
Demons Winter	18.90
Demons Tomb	18.90
Drakkhen	18.90
Dungeons, Amethysts	4.90
Elite	16.90
Dungeon Master	18.90
* Dungeon Master Editor	8.90
* Chaos Strikes Back	16.90
Falcon	18.90
*Falcon Mission Disk	15.90
F16 Combat Pilot	16.90
F29 Retaliator	17.90
Fire Brigade	21.90
Full Metal Planete	15.90
Ghouls and Ghosts	15.90
Hound of Shadow	18.90
Kick Off	13.90
* Extra Time	7.90
Kings Quest 4	18.90
Bloodwych	11.90
Colossus Chess X	11.90
League Challenge	4.90
Leisure Suit Larry 2	22.90
Lombard RAC Rally	16.90
Maniac Mansion	16.90
Midwinter	18.90
Ninja Warriors	13.90
North and South	16.90
Omega	18.90
Paperboy	13.90
Pinball Magic	15.90
Pipe Mania	15.90
Player Manager	13.90
Police Quest II	19.90
Populous	18.90
* Promised Lands	8.90
Pro Tennis Tour	18.90
RAINBOW ISLANDS	15.90
Red Storm Rising	16.90
Risk	15.90
Rotor	13.90
Conflict in Europe	7.90
SDI	7.90
Trivia Trove	2.90
Scrabble Deluxe	15.90
Shoot Em Up Construct Kit	21.90
Sidewinder II	4.90
Space Ace	29.90
Stunt Car	16.90
Tower of Babel	15.90
Twin World	16.90
TV Sports Football	18.90
Ultima V	19.90
Wayne Gretsky Hockey	18.90
Xenomorph	18.90
Xenon II - Megablast	17.90

HARDWARE ONLY!

520 STE Power Pack	369.90
1040 STE Pack	449.90
1MB D/S Disk Drive	89.00
Star LC10 Printer (Mono)	179.00
Star LC10 Printer (Colour)	219.00
Star LC10 Black Ribbon	3.90
Star LC10 Colour Ribbon	6.90

LANGUAGES ONLY!

Power Basic	39.90
Hisoft Basic	63.90
Devpac ST (2)	44.90
Hisoft WERCS	22.50
GFA Basic (3) Interpreter	49.90
GFA Basic (3) Compiler	22.90
GST Macro Assembler	16.90
GST C Compiler	16.90

STOS ONLY!

STOS - Games Creator	21.90
STOS - Compiler	16.90
STOS - Maestro	16.90
STOS - Maestro Plus	54.90
STOS - Sprite 600	10.90
STOS - Sprite galore	13.90

COMPILATIONS ONLY!

FLIGHT COMMAND	18.90
Lancaster, Eliminator, Skyfox	
Strike Force Harrier, Skychase	
AMERICAN DREAMS	15.90
Super Ski, Bubble Ghost	
Operation Neptune, Hostages	
MAGNUM 4	19.90
Batman, Operation Wolf	
Double Dragon, After Burner	
LIGHT FORCE	18.90
R-Type, Voyager, IK +	
Bio Challenge	
THRILL TIME (8 GAMES!)	16.90
Buggy Boy, Space Harrier	
Live & Let Die, Thundercats	
Battleships, Ikari Warriors	
Beyond The Ice Palace, Bombjack	

MEGAPACK	16.90
Frostbyte, Mouse Trap, Seconds Out	
Winter Olympiad, Suicide Mission	

MEGAPACK II	16.90
Formula 1 Grand Prix, Elf,	
Summer Olympiad, Circus games	

HIT DISKS (Vol.1)	9.90
Goldrunner, Jupiter Probe	
Karate Kid II, Slaygon	

HIT DISKS (Vol. 2)	9.90
Time Bandit, Major Motion	
Leathernecks, Tanglewood	

STAR WARS TRILOGY	18.90
Star Wars, Empire Strikes Back,	
Return of the Jedi	

TRIAD 2	18.90
Menace, Tetris, BAAL	

5 STAR	16.90
Barbarian, Crazy Cars, Wizball	
Enduro Racer and Rampage	

JOYSTICKS ONLY!

Joystick Mouse extension	4.90
Joystick lead (3 metres)	4.90
Cheetah 125	7.90
Cruiser Multi Colour	9.90
Quickshot Deluxe (NEW)	9.90
Quickjoy III Starfighter	10.90
Quickjoy Jetfighter	12.90
Comp. Pro Extra (Clear)	14.90
Arcade	16.90
Common Module	19.90

EDUCATIONAL ONLY!

AB Zoo (3-6)	5.90
Algebra 1 (11+)	11.90
Black Cauldron	16.90
Postman Pat	8.90
Learn to Read with Prof	19.90
Fun School 2 (under 6)	13.90
Fun School 2 (6 to 8)	13.90
Fun School 2 (over 8)	13.90

ART & MUSIC ONLY!

CAD 3D (1)	16.90
Degas Elite	18.90
Easy Draw 2	39.90
Easy Draw 2 (Supercharged)	59.90
Easy Tools	29.90
CANVAS	12.90
GST Fractal Generator	16.90
MASTERSound	39.90
Music Construction Set	8.90
Quartet	39.90
Replay Professional	99.90
Scan Art/Draw Art Pack	52.50
ST Replay (4)	59.90
Vidi ST	89.90

ANTIC CYBER SERIES ONLY!

Cyber Studio	39.90
Supplementary packages	
Cyber Paint (2)	39.90
Cyber Control	34.90
Cyber Sculpt	55.90
Microbot design	16.90
Architectural Designs	16.90
Cartoon Designs	19.90
Human Forms	16.90
3D Developers	16.90
Video Titling Designs	16.90
3D Fonts 2	19.90

UTILITIES ONLY!

Data Manager Professional	34.90
DG Base	34.90
First Word Plus	59.90
Flexcessory	19.90
Home Accounts	22.90
Mini Office Spreadsheet	16.90
Mini Office Communications	16.90
Mini Office Graphics	16.90
Neo Desk 2	39.90
Protex (4)	59.90
Word Writer	34.90
Mavis Beacon Typing Tutor	19.90
BLITZ Turbo - Copier	24.90
(needs 2nd drive!)	
Turbo ST (Software Blitter)	29.90
Universal Item Selector	19.90
Utilities Plus	22.50

ACCESSORIES ONLY!

Locking Disk Box (Holds 50)	7.90
Locking Disk Box (Holds 100)	9.90
Disk labels (200)	4.90
Furry Mouse Cover	6.90
(with eyes, ears and nose!)	
Mouse Bracket	3.90
Mouse Mat (BEST Quality)	5.90
Naksha replacement Mouse	34.90
ST Dust Cover	5.90
Monitor Cover	6.90
(SM124, SC1224 or CM8833)	
LC10 Printer cover	6.90
Printer Stand	9.90
Copy Holder	5.90
Mono/Colour Monitor switch	21.90
3.5" Disk Cleaner	4.90

BULK DISKS ONLY!

All 100% GUARANTEED!	
DS/DD Disks (x 10)	7.90
DS/DD Disks (x 50)	34.90
DS/DD Disks (x 100)	64.90
Boxed and Branded (x 10)	12.90
Boxed and Branded (x 50)	55.90

PUBLIC DOMAIN

1 = £3.00 4 = £9.90 10 = £19.90

This is just a small selection from our large Public Domain Library. Ask for our NEW catalogue!

BC.01-BC.10 Clip Art; Thousands of pictures for use with any Desktop Publishing package

BG.01 Games; Monopoly, Chess, Backgammon, American Football etc

BG.02 Games; Warzone, Connect 4, Haunted House, Daleks, Dragon etc

BG.03 Strategy Games; Larn, Ogre, Twixt, Nightcrawlers, Star Trek

BG.17 Games; Spook, Professional, Pac-man version plus Pipe Panic!

BG.20 Dungeon Master; Help disk, includes text files & level maps!

BG.27 Strip Breakout; Knock out bricks to reveal the pictures!

BG.34 Assassins; Excellent STAC produced Graphic Adventure.

BG.35 Tennis; Superb sports simulation + Bog; Word game.

BG.46 Quest for Galaxia; Arcade Action - 10 levels!

BE.02 Educational; Superb Value, Kids Graph, Kids Grid, Kids Music, Kids Piano, Kids Notes ...

BE.03 Educational; Kids ABC, Kid Potato, Kid Sketch and the extremely amusing Kid Story ...

BE.05 On screen colouring book; Great fun for the youngsters!

BE.10 Jigsaw; Use any Degas picture as a jigsaw puzzle ...

MD.15 Snowman; Superb version of the cartoon film with digitised sound (ST Replay used!) (D/S)

MD.22 Union Demo II; The BEST demo available for the ST! (D/S)

BU.01 Neochrome; latest version of this excellent drawing package

BU.07 ST Writer Elite; GEM based word processor, NEW version 3

BU.29 Label Printing accessories; Address, Disk and Music Cassette!

BU.32 Virus Checkers; Rattrap, Mono Emulator, Calculator etc.

BU.34 B-Boot; Boot from Drive B, Database, Text Editor, Fast mouse, Typing Tutor, Ram disk etc.

BU.39 Fractal Zoom; Superb Fractal generation program.

BU.44 IMG Utilities; Conver Neo, Degas, Tiny etc. to .IMG files!

BU.50 GEM Font Master; Superb Font editing program ...

BU.52 Address Book; Agenda Graph maker, Reminder (D/S)

BU.57 ANI-ST (Aegis Animator) + GFA Raytrace demo!

BU.05 ST-Sheet (v.2); Powerful Spreadsheet 1280 x 280 (D/S)

MU.06 Midi Special; Steinberg switcher, 32 track sequencer, Midi channel scope ... (D/S)

BT.35 Autoroute; The intelligent map, working routeplanner demo

BS.17 Sam Fox; Lots of pictures of the lovely Samantha

The above is just a small selection of our VAST range of 16 Bit software . . . Catalogue available!
All prices include VAT and FIRST CLASS POST! All stock items sent by return of post!

BYTEBACK

DEPT STU, 6 MUMBY CLOSE, NEWARK, NOTTS NG24 1JE

Cheque, postal orders or credit card facilities are available



floppyshop

45 Provost Graham Avenue
Hazlehead Aberdeen
AB1 8HB

ST User Group

Britain's No 1 ST User Group offer YOU more. Annual membership costs £7 (UK) or £10 (Rest of World). This includes a FREE DISK and six issues of Floppyshop News, our regular bi-monthly newsletter. It covers hardware and software reviews, hints & tips, programming tutorials and articles of general interest. Floppyshop News is written by ST users for ST users. Current issue available to non-members for only £1.00.

Public Domain Library

We also have one of the largest collections of Public Domain software available. At the last count we had over 1150 disks in the collection and this is growing daily. Many PD programs are particularly close to commercial quality. Prices vary but are all inclusive and start from £2.00 per disk. Next day despatch on all orders GUARANTEED. Due to the size of the catalogue, it has become necessary to put it on disk. Send a blank disk for a free copy of our extensive catalogue. We'll even pay the return postage! If you're out of blanks just send us a cheque/PO for £1.00 and we'll supply the disk. Once you've finished with the catalogue you can re-use the disk. Where else can you get a quality blank disk for £1.00?

Send A Blank Disk
For Our Free Catalogue

Get STUFFED Regularly!

Issue 6 of STUFFED is out now. The highlight of this issue is a Midi Sequencers Supertest by Lou Nisbet of The Music Matrix. STUFFED is the leading magazine on disk for the Atari ST and features both serious and games reviews along with a number of regular features, too numerous to mention.

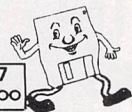
STUFFED is fully compatible with ALL colour STs (even the STE!). STUFFED features a unique disk format which allows it to be read on single or double sided drives. There are extras on the second side of the disk for those with double sided drives. Don't get left behind, Get STUFFED Regularly! Send for your copy now, enclosing a Cheque/PO for £3.50 (or £12 for a four issue subscription) to the above address.

Floppyshop Introductory
Demo Only £1.75 (We Supply The Disk!)

Touch Typing In Two Weeks

This is a new publication from Floppyshop ST. It is a complete Touch Typing tutorial based around the ST's keyboard. Written by William Hern, a regular contributor to various computer publications, it offers you the chance to get the most out of your keyboard. It runs into over fifty pages consisting of ten individual lessons. Touch Typing In Two Weeks costs only £3.95 from the address above.

Floppyshop News No 17
40 Pages! Out Now - only £1.00



SPRING SALE DISKS FROM 39P

Why is it our many customers praise our excellent service and continue to shop with us? Probably because we offer the best in mail order with a service that is beyond comprehension. For this reason, we are now offering for a limited period only, the opportunity for you to purchase our high graded disks at unbelievable prices. All disks include vat and there is a once only carriage charge of £3.50 per order up to 500 disks. This offer is only applicable to mail order and while stocks last. We will beat and match any competitor on any equivalent product. Disks complete with lifetime guarantee.

3.5" DS/DD 880K high graded bulk disks: up to 250 - 46p, up to 500 - 44p, up to 1,000 - 42p, 1,000 plus - 39p. Call for further pricing.
10 Sony/Verbatim/Tdk/Dysan DS/DD Branded boxed: £11.50 Inc.
3.5" 80cap. Datafile80: £6.50. (please add £2.50 to cover P&P if not ordering disks).
5.25" disks: £3.70 - 10, £7.20 - 20, £15.00 - 50, £28.00 - 100.
3.5" DS High Density 10 - £14.00, 30 - £39.00, 100 - £120.00.

Soft mouse mats£3.50
Twin Joystick extenders£4.80
Midi (10ft) cables£3.60
Cumana 3.5 1Mb ext. drive£87.95
Hybrid Arts FM Melody Maker£67.95
Mastertracks Pro£270.00

Mouse houses£2.90
Dust covers (ST)£3.90
Many printer ribbons from£2.70
Triangle 3.5 1Mb ext. drive£86.95
C-Lab Creator£260.00
Cubase/Pro-24call

We are agents for Alesis, C-Lab, Hybrid Arts, D.R.T. Momxoix, Soundbits Steinberg, phone for pricing on further music products and we can supply most music based products.

Atari 520 STE Power Pack£346.00
Atari 1040 STE Hyperpack£438.00
Mega 2 professional pack
with mon£898.00
Atari megafile 30 Mb Hard Disk£449.00
Star LC10 Printer£168.00
Epson LX400£179.00
Vidi ST£96.00

Atari 520STE explorer£266.00
Atari mega 1 professional pack£529.00
(with SM124)£610.00
Mega laserpack£1,580.00
Vortex 40Mb£499.00
Seikosha SP 180£139.00
Cameron B&W handy scanner
type 2£195.00

We can supply many more products for you such as Games/DTP/Accounts/Languages/
Fax paper, all branded new, and just a phone call away. (We also sell Apple branded Products.)

ST P.D. DISKS FROM £1.60. SEND £1.00 FOR DISK CATALOGUE OR AN S.A.E. DISK.

We are now the exclusive distributor of the Mountain Breeze Computer Isoliser, which if you spend time on your computer, the unit can cut down dizziness, headaches, eyestrain and many other items which may be caused by V.O.D.S. syndrome. The unit costs only £29.95 inc and is highly recommended. Phone for further details.

Why should you buy from us? Because we offer truly the best in mail order and we don't behave like cowboys. Convinced? You will be! It is our policy to offer the best pricing and service to our current and new customers, so where possible we will offer you the best price if that is what you want. If we don't advertise in the latest edition of this magazine, then it doesn't mean we are not here. Just pick up your phone. Personal calls until 12 midnight. All above prices include vat and P&P with 3 day delivery (next day add £6.00) and come complete with our no nonsense warranties.

All trade and government welcome. Best ever prices on all your hardware/software requirements not listed above. Send Large SAE for prices. Overseas please add 20% to total cost to cover shipping. Phone Paul now or fax/send in your order with Cheque/PO/Creditcard or Access/Visa/Connect your order (usual details) for immediate despatch to:

joy of life arts, (STU3), 45 elswick, skelmersdale,
lancashire, wn8 6bx. england.
telephone/facsimile: 0695 32382 (24 hrs).



APL 68000

*"You have
no other
rational
choice"*

(ST World May 1987)

THE ATARI ST family of systems has revolutionised the world of small computers. Unfortunately many of the programming tools available for the ST have not kept pace with the hardware. APL.68000 brings the right mix of power and sophistication to match the ST. In fact APL.68000 is one of the few applications that can make full use of the memory available on the ST (including the 4Mb Mega).

THE APL programming language is widely used by many of the world's largest corporations to solve their more ambitious computing problems - why not use it for yours?

APL.68000 - THE LANGUAGE

- Unique array handling language
- Fast program development
- Full 15 digit accuracy
- The most powerful language on the ST
- Easier to learn than BASIC

ST-SPECIFIC FEATURES

- standard ST user interface
- full access to ST graphics
- full GEM interface
- built-in function editor
- APL session manager

APL.68000 costs £99.95 (inc VAT) and is supplied with a comprehensive manual, reference card and keyboard stickers. P&P £3 (inc VAT). To order, contact:

MicroAPL Ltd
South Bank Technopark
London Road
London SE1 6LN
071-922 8866



KIEETH GRAHAM of Edinburgh provides the stunning artwork for this month's Gallery featuring the very best of microcomputer generated artwork. He has provided four superb pictures of well known movie stars. Some are current stars, but other a film greats of yesteryear, all drawn using the popular Degas Elite art package.

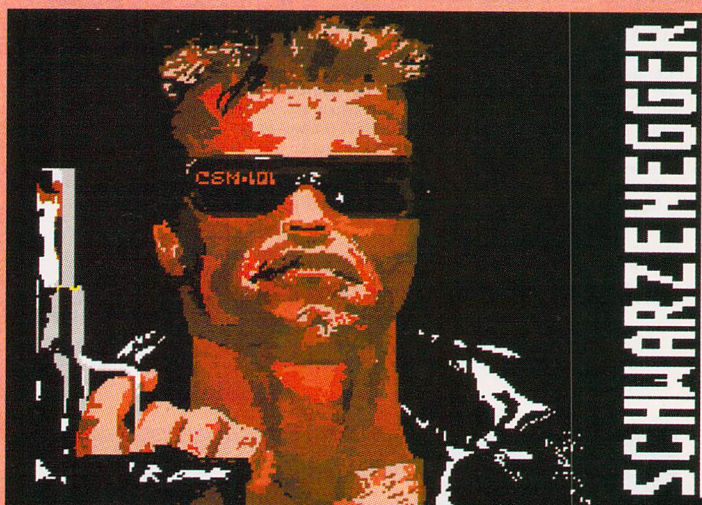
Arnold Schwarzenegger is instantly recognisable and the picture is reminiscent of his role in the popular sci-fi film *The Terminator* in which he plays a robot sent from the future to the present day on a deadly mission. We have recently been enjoying a re-run of Sergeant Bilko's comedy TV series on BBC 2. Groucho Marx is probably the better known of the Marx brothers - that look, the moustache and cigar were his trademarks. And who could fail to recognise that famous comedy duo, Stan Laurel and Oliver Hardy?

If you have a work of art that you would like to see exhibited on our worldwide stage, why not send it in on disc to Gallery? Remember though, that anything you submit must be original - for instance, don't copy posters or record covers - unusual and all your own work.

Your must own they copyright and provide us in writing with confirmation of this fact, as well as your permission to let us publish your work. If you want your work returned then please enclose a stamped address envelope

The address to send your masterpiece to is:

Gallery
Atari ST User
Europa House
Adlington Park
Adlington
Macclesfield SK10 4NP

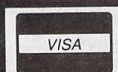


Gallery



AMIGA/PC/ATARI software

The Tipster



£29.95



Price includes VAT & delivery

THE TIPSTER is a horse racing program which will give you the information needed to pick HORSES not ZEBRAS.

THE TIPSTER stores horse and race info on a DATABASE to provide a quick and easy method of reviewing a race.

TAM Marketing (S/West)
7 GD UNITS
Marsh Barton Trading Estate
Exeter
DEVON

Telephone: (0392) 215485

MAKE YOUR ATARI ST EARN!

Yes making money with your ST becomes incidental when you know how. Your micro is, if only you knew it, a gold mine. The size and make is irrelevant. Make the initial effort. **NOW** by starting your own **HOME BASED BUSINESS.**

This may be the most important move you will ever make!

REMEMBER: You'll never get rich by digging someone else's "ditch". Anyone in the country, including **YOU**, can become very rich in a relatively short period of time just by doing a few basic things! It's more rewarding than playing games. The benefits are many and varied. Full or part time. For **FREE** details send S.A.E. to:



HOME BASED BUSINESS

31 PILTON PLACE (ASTU1)
KING AND QUEEN STREET
WALWORTH, LONDON SE17 1DR

Planning to Save the World?

Or perhaps you're working on other plans . . .

For success you need good organisation of all your facts and ideas. That's why we designed INFOBASE.

Uniquely flexible and easy to use, INFOBASE takes the effort out of organising your information! INFOBASE enables you to link items to design a network of information. Items can be text, colour graphics or even sampled sound. Any number of links can be made to create a network as complex or simple as you choose.

Fully mouse controlled, INFOBASE is also the ideal medium for presenting your information to your colleagues, friends or students!

To find out how INFOBASE can help you please write to:

Upbeat Psychotech, 57 Estcourt Street, Hull, HU9 2RR

Or send a cheque/postal order for £21.50 for your copy and discover INFOBASE for yourself!

IMPAC
Music & Performing
Arts Consultancy

Computers & Software for
MUSIC TEACHERS
and **STUDENTS**

Impac Music Education Package

- Atari or Amiga computer and monitor
- MIDI keyboard or expander
- software for teaching & classroom management
- printer, paper, disks, cables
- curriculum materials
- optional installation & training

Phone or write
for complete
details

New programs just released for Atari 520 ST upwards
(colour or monochrome) + Amiga

Tunemaker
£19.95

Ideal MIDI classroom notation package for
primary & secondary classrooms

.. write melodies.. hear them performed
.. add words.. print the score..

Rhythm Kit
£19.95

Suitable for all abilities

.. compose for drum kit or any percussion
ensemble.. hear the performance.. print the
score

Order both at the introductory price of £34.90 (inc VAT & post)
Both FREE with the Impac Music Education Package
Send £3 for demo disk containing both programs

Phone now (24 hours)
or send cheque, PO, or
official order.
(0723) 862617
All prices inclusive of
VAT

Impac
PO Box 1
Seamer
Scarborough
YO12 4DL

SUPERB QUALITY DISKS AT GIVEAWAY PRICES

10	3.5" DISKS + BOX	£07.75
25	3.5" DISKS	£16.00
50	3.5" DISKS	£30.00
50	3.5" DISKS + BOX	£35.50
100	3.5" DISKS	£58.00
100	3.5" DISKS + BOX	£63.50
Lynx now in stock at		£164.99

ALL PRICES INCLUDE VAT
ALL PRICES INCLUDE DELIVERY
ORDER DESPATCHED SAME DAY

mph

COMPUTER SPECIALIST

10 CHANDLER CT
EATON
NORWICH **0603**
503382
NORFOLK

Evesham Micros

ALL
PRICES
INCLUDE
VAT AND
DELIVERY

ATARI® Hardware Offers

520 STFM DISCOVERY PACK

New! High quality, good value package based around the 520STFM computer including 512K RAM, 1Mb Drive and built-in TV modulator. Also supplied is:

STOS Game Creator Outrun
Carrier Command Bomb Jack
Space Harrier Neochrome
FIRST BASIC Atari ST Tour
plus 'Discovering your Atari ST' Book

£259.00
Including VAT
and delivery

ATARI 520 and 1040 STE

STE models feature an extended palette of 4096 colours, PCM stereo sound, two additional analogue device inputs and TOS 1.6.

1040 STE Package: including Kuma Wordprocessor, Database, Spreadsheet and Business Graphics, plus 'FIRST BASIC', 'ST Adventure Creator', 'Hyper Paint' and 'Prince' all for only **£429.00**

520 STE POWER PACK

Amazing value, special ST package from Atari! Includes the latest 520ST with 1MEG drive, joystick, mouse, user guide, 5 disks of public domain software, plus an incredible selection of chart-topping software (£500 RRP)! Software included is:

R-Type Pacmania Out Run Nebulus
Afterburner Starglider Bombuzal Stargoose
Double Dragon Super Huey Xenon First Music
Super Hangon Eliminator Gauntlet II First Basic
Space Harrier Predator Black Lamp Organiser
Overlander Bombjack Starray

**All
for £339.00**
only inc VAT & delivery

STE Memory Upgrades (SIMMS modules)

Simple plug-in modules with fitting instructions. You cannot mix RAM module types eg. (0.5Mb with 1Mb). We will fit them for you free of charge when bought with any STE; simply add the cost of the upgrade shown below to the price of the STE.

0.5Mb (2x256K modules, upgrades 520 STE to 1Mb) **£59.00**
2Mb (2x1Mb modules, upgrades 520/1040 STE to 2Mb) **£175.00**
4Mb (4x1Mb modules, upgrades 520/1040 STE to 4Mb) **£350.00**

520STFM 1Mb internal drive upgrade kit with full instructions **£74.95**
520STFM 1Mb RAM upgrade kit, requires soldering **£59.00**
520STFM 1Mb memory upgrade fitted by us **£84.00**
Mega ST1 with mono monitor **£599.00**
Mega ST2 with mono monitor **£849.00**
Mega ST4 with mono monitor **£1099.00**
SM124 high resolution monochrome monitor **£109.00**
SC1224 colour monitor **£269.00**
SLM804 laserprinter (needs 2Mb+) with 90 days on-site warranty **£989.00**
as above, but with 15 months on-site warranty **£1099.00**
Megafile 30Mb hard disk **£439.00**
Megafile 60Mb hard disk **£589.00**
Vortex HDPlus 40Mb hard disk **£499.00**
5.25" Drive 40/80 track switchable (360/720K) including PSU **£99.00**
Kempston DATAScan 105mm / 200dpi handy scanner package **£229.00**
Vidi-ST 16-tone video frame grabber inc. digitising software **£89.00**
Philips CM8833, as above with stereo sound, +a/v inputs **£259.00**
Philips TV Tuner AV7300, for monitors with composite input **£74.95**
Supercharger Hardware PC Emulator: unit includes NEC V30 processor & 1Mb RAM. MDA & CGA video. Simple to install **£339.00**
Contriver hi-res Mouse, good quality, with mouse pocket & mat **£22.95**
STF/STFM Joystick & Mouse accessibility extension adapter **£ 4.95**

All our ST hardware prices include mouse, user guide etc., PLUS 5 disks of public domain software including 'Neochrome' graphics utility, 'First Word' wordprocessor, games, demos & utilities.

PRINTERS

All prices include VAT/delivery & cable

Star

We use and recommend Star printers - they offer an unbeatable combination of features, print quality, reliability and value. Make the sensible decision - with a Star printer at our special, all in, prices.

LC10



- Four NLQ fonts (96 print combinations)
- Paper Parking (use single sheets without removing tractor paper)
- IBM/parallel interface
- 4K buffer
- Comprehensive 'front panel'
- 144/36cps print speed
- 7 colour version also available

Only £159.00
Colour version also available,
Only £209.00
Prices include 2 extra black
ribbons free of charge.

12 months On-Site Maintenance included with all Star XB and FR models. Also available for other Star models for only £5.75 extra

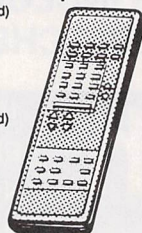
Star FR-10 Professional 9pin 300/76cps, 31K buffer, 16 NLQ fonts
EE-PROM configuration memory **£399.00**
Star FR-15 9pin printer as FR-10, wide carriage version **£499.00**
Star XB210 Professional 24pin: 27K buffer, 4 SLQ & 25 LQ fonts,
EE-PROM configuration memory **£499.00**
Star XB24-15 wide carriage version of XB24-10, with 41K buffer **£649.00**
Star Colour Unit, 7-colour upgrade kit for XB or FR models **£39.00**
Star SS10DM cut sheet feeder for XB24-10 or FR-10 **£100.00**
Star SS15DM cut sheet feeder for XB24-15 or FR-15 **£170.00**
Star LC24-10 24pin multifont printer, amazing low price **£239.00**
Star NB24-10 24pin 216/72 cps inc. c/s/feeder & 2 extra ribbons **£499.00**
Star LC10 Mk.II faster version of above LC10, 180/45 cps **£199.00**
Star LC15 wide carriage version of LC10 model 180/45 cps **£329.00**
Star LC24-15 wide carriage version of LC24-10, 200/67 cps **£409.00**
Star SF-15DJ cut sheet feeder for LC15/LC24-15 **£139.00**
Star NR-10 professional 9pin 240/60 cps inc. cut sheet feeder **£449.00**
Star Laserprinter 8: 8ppm/300dpi inc. 12 months on-site warranty ... **£1599.00**
Star SF-10DJ cut sheet feeder for LC-10 **£64.95**
Star SF-10DK cut sheet feeder for LC24-10 **£64.95**
Olivetti DM100S incredible value 9pin printer 200cps draft,
30cps NLQ. Low price includes 12 months on-site maintenance **£129.95**
Olivetti automatic cut sheet feeder for DM100S printer **£79.95**
NEC P2+ multifont 24 pin 192/64cps **£299.00**
Epson LX400 (was LX800) popular budget 10" 180/25cps **£159.00**
Epson LQ550 good 24pin printer 150/50cps **£349.00**
Epson LQ400 24 pin 180/60cps with 8k buffer, superb value **£229.00**
Epson EPX-200 cut sheet feeder for LX800 / LX400 **£74.95**
Panasonic KXP1081 reliable 120/24cps printer **£159.00**
Panasonic KXP1180 super 9pin with 3400 type combinations **£179.00**
Panasonic KXP1124 good 11 1/2" carr. 192/63 cps 24 pin **£259.00**
Panasonic KXP1624 wide carriage version of KXP1124 **£399.00**
Panasonic P37 cut sheet feeder for KXP1180 **£95.00**
Panasonic P36 cut sheet feeder for KXP1124 **£109.00**
Amstrad DMP3160/3250DI 9pin, 10" carriage **£169.00**
Amstrad LQ3500DI 24pin inc. serial/parallel ports **£279.00**
Mannesmann Tally MT-81 130/24 cps **£149.00**
Hewlett Packard Deskjet Plus 300dpi inkjet printer **£669.00**
Hewlett Packard Laserjet III new optimised 300dpi laserprinter **£1595.00**

PYE 15" FST TV/Monitor (MODEL 2325)

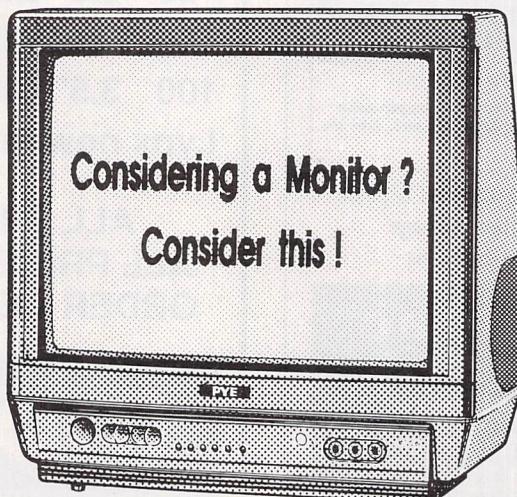
With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price!

- ✓ Suits ST or Amiga (cable supplied)
- ✓ Teletext facilities
- ✓ Full infra-red remote control
- ✓ SCART Input/Output Connector
- ✓ Audio/Composite Video inputs
- ✓ 40 TV tuner presets
- ✓ Headphone private listening jack
- ✓ External aerial input (loop supplied)

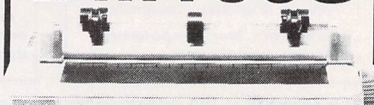
£249.00
includes VAT, delivery
and computer
connection lead



Considering a Monitor?
Consider this!



OLIVETTI DM100S



Top value, high performing 9-pin dot matrix printer

- 200cps draft, 30cps NLQ print speed
- Pica, Elite and Condensed printing
- Standard Centronics Parallel interface
- Friction and Tractor feed
- Optional auto cut sheet feeder available

ONLY £129.95

Cut sheet feeder available for only £79.95
Prices include VAT, delivery and
12 months on-site maintenance!

ST Software

WORDPROCESSING

First Word Plus	£57.95
1st Mail (for 1st Word only)	£15.95
Protext	£69.95
Tempus 2	£34.95
Word Perfect V4.1	£179.00
Word Up	£34.95

DATABASES

Base Two	£22.50
Data Manager Professional	£29.95
Prodata	£59.95
Superbase Personal version 2	£69.00
Superbase Professional	£179.95

ACCOUNTING

Accountant	£129.95
Accountant Plus	£209.00
Book Keeper	£84.95
Financial Controller	£329.00
Home Accounts (Digita)	£18.95
Personal Finance Manager	£22.95

GRAPHICS

CAD 3D 1.0	£18.95
Architectural/Human/Future Design disks	£14.95
Cyber Control (animator)	£29.95
Campus CAD	£254.00
Cyber Paint 2.0	£37.50
Cyber Sculpt	£59.95
Cyber Studio (CAD 2.0)	£37.50
Cyber Texture	£37.95
Degas Elite	£21.00
Easy Draw 2	£37.50
Easy Draw + Supercharger	£59.95
Easy Tools (requires 1Mb RAM)	£29.95
Fair Paint	£26.95
Genesis Molecular Modeller	£29.95
GFA Draft Plus	£74.95
GFA Vector	£24.95
Migraph Draw Art Professional	£29.95
Migraph Scan Art	£37.95
Spectrum 512	£22.50

DESKTOP PUBLISHING

Desktop Publisher	£69.95
Desktop Publisher Clip-art pack	£19.95
Fleet Street Publisher Version 1.1	£80.00

LET'S MAKE ...

Signs and Banners	£8.95
Greetings Cards	£8.95
Calendars & Stationary	£8.95
Art Library 1 (clip art)	£8.95
Art Library 2 (clip art)	£8.95

MUSIC

C-Lab Creator	£298.00
C-Lab Notator	£475.00
C-Lab Creator / Unitor	£550.00
C-Lab Notator / Unitor	£705.00
C-Lab X-Alyzer	£190.00
Cubase	£449.00
Mastertracks Junior	£99.00
Mastertracks Pro	£269.00
RealTime	£224.00
Replay IV	£63.95
Steinberg Pro 24	£140.00
Super Conductor	£37.50
Track 24	£60.00
Virtuoso	£249.00

PROGRAMMING

First BASIC	£14.95
FTL Modula-2	£55.95
GFA Basic Version 2 (includes Compiler)	£34.95
GFA BASIC Compiler	£22.50
GFA BASIC Version 3	£37.95
GST C Compiler	£15.95
Hilsoft Devpac	£44.95
Hilsoft Power Basic	£29.95
Lattice C V5.0	£79.95
Macro Assembler	£15.95
Prospero C	£99.00
Prospero Fortran	£99.00
Prospero Pascal	£79.95
Prospero Pascal	£22.50
STOS Game creator	£11.95
STOS Sprites	£14.95
STOS Compiler	£18.95
STOS Maestro	£52.95
STOS Maestro + (Inc.Sampler Module)	£52.95

GAMES AND SIMULATIONS

Carrier Command	£18.95
Elite	£18.95
F-16 Fighting Falcon	£18.95
F-29 Retaliator	£18.95
Flight Simulator II	£37.45
Gunship	£16.95
Mid Winter	£22.50
U.M.S.	£18.95

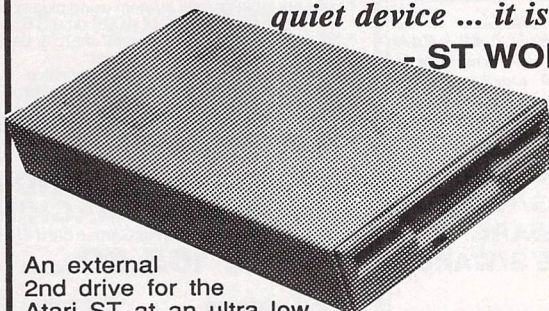
MISCELLANEOUS

Autoroute	£127.00
Epson Emulator for Atari SLM804 printer	£29.95
Fontz!	£14.95
Knife ST	£24.95
LDW Spreadsheet	£119.00
Logistix	£79.95
Mini Office Comms	£18.50
Mini Office Presentation Graphics	£18.50
Mini Office Spreadsheet	£34.95
NeoDesk 2.0	£16.95
Turbo Jet	£16.95
Video Titrer	£14.95

Full Featured, Top Quality External 2nd Floppy Drive

"... a very smart looking drive indeed ... a very slim and quiet device ... it is very keenly priced too."

- ST WORLD, September 1989



An external 2nd drive for the Atari ST at an ultra low price - complete with its own plug-in external power supply (beware of other makes of drive that take their power from the joystick port!) Based around a Teac/Citizen drive mechanism, this drive gives the full 720K formatted capacity. Quiet in operation, neat slimline design, colour matched to the ST, with a long connection cable for location left or right of the computer.

SUPER LOW PRICE!

£69.95

including VAT and delivery - Why pay more?

Atari 520 STFM Internal 3.5" drive upgrade kit Only £74.95

An ideal, simple way to upgrade your 520 STFM using a high quality double sided drive. Internally replaces the original single sided unit. One megabyte unformatted capacity and fully compatible. Detailed fitting instructions given. Requires very slight case modification. Fitted to your ST - add £10.00 extra.

KEMPSTON DATAScan

Superb quality 200 dpi handy scanner 105mm wide. Includes scanning and image processing software, operating in any resolution. Features include the ability to rescale, rotate, negate and pixel edit the captured image. Saves the image in IMG, Degas and NEOchrome formats. Scanner digitises black & white (line art) or in up to 16 grey levels, at a speed of 2cm/sec. Incorporates scanning window and scanning control button for great ease of use.

ONLY £229.00

including s/ware, manual, interface, VAT and delivery

VORTEX 40MB HARD DISKS

Excellent quality, external 40Mb hard disk sub-systems for all models of Atari ST. Vortex HDplus units offer high performance, with an average access speed of 45ms. Housed in strong and rigid casing (ideal as a monitor base), each unit includes a DMA throughput, allowing chaining of up to 8 hard disk units. Supplied with full support software (includes 'Backdisk' backup facility), connection cables and full documentation.

VORTEX HDplus 40Mb hard disk £499.00

Atari ST Books

Atari ST GEM Programmer's Reference	£14.95
Atari ST Machine Language	£14.95
Atari ST Tricks and Tips	£14.95
Atari ST BASIC Training Guide	£12.95
Atari ST Introduction to MIDI Programming	£14.95
Atari ST Disk Drives - Inside and Out	£16.95
Atari ST Internals	£14.95
Using ST BASIC on the Atari ST	£ 5.95
GFA BASIC Advanced Programming Guide	£11.95
GFA BASIC V3 Software Development	£14.95
First Steps in 68000 Assembly Language	£ 9.95
Concise ST 68000 Reference Guide (Version 2)	£17.50

VIDI-ST

GREAT VALUE REAL-TIME VIDEO DIGITISER FROM ROMBO PRODUCTIONS

- ☐ Grabs from moving video in 1/50th second in full 16 shades!
- ☐ Animates frames at up to 25Hz
- ☐ 'Carousel' frames (24 on 1Mb ST)
- ☐ DEGAS, NEO, and IMG file formats
- ☐ Cut and Paste pixel-accurate blocks between frames
- ☐ Manual control of contrast and brightness, with an additional 8 levels of s/ware brightness control
- ☐ Full palette control of frames
- ☐ 'Grab window' feature allows partial frame capture, for overlay with existing frames
- ☐ Full documentation of software interface, for user applications
- ☐ Runs on any ST in low-res mode, with video recorder or camera.

ONLY £89.00

Includes VAT, delivery, interface, software, video connection cable and manual.

ST SERVICE DEPARTMENT

Our fully equipped service department is ready to handle almost any Atari ST repair.

Telephone us on 0386 446441

Service Exchange on Atari ST power supplies £45.00

ALL PRICES INCLUDE VAT AND DELIVERY
Same day despatch whenever possible. Express Courier delivery £5.00 extra.

MAIL ORDER DEPARTMENT

Unit 9 St Richards Rd, Evesham, Worcs WR11 6XJ

Call us now on 0386-765500

8 lines, Open Mon-Sat, 9.00-5.30. Fax: 0386-765354
Technical support (open Mon-Fri, 9.30-5.30): 0386-40303

Send an Order with Cheque, Postal Order or ACCESS/VISA card details

Government, Education & PLC orders welcome
All products covered by 12 Months Warranty
All goods subject to availability, E. & O.E.

Evesham Micros

RETAIL SHOWROOMS

63 Bridge Street
Evesham
Worcs WR11 4SF
☎ 0386-765180
Open Mon-Sat, 9.00-5.30

5 Gisson Road
Cambridge CB1 2HA
☎ 0223-323898
Open Mon-Sat, 9.00-5.30
Specialist Education Centre

1762 Pershore Road
Cottfordge
Birmingham B30 3BH
☎ 021-458 4564
Open Mon-Sat, 9.00-5.30

BEST PRICES!

ATARI STE

UPGRADES!

All of our 520STE computers are checked to be working before we despatch them. All RAM upgrades are fitted on-site by our own engineers. All 520STE prices also include 3 working-days delivery by courier. Next day delivery is available for an extra 5.00 inc vat. All prices include vat.

- All STE machines come with :
- * FIRST BASIC PROG. S/WARE
 - * MUSIC MAKER S/WARE
 - * ORGANISER BUSINESS S/WARE

520 STE 512K RAM	£345.00
520 STE 1MB RAM	£395.00
520 STE 2MB RAM	£449.00
520 STE 4MB RAM	£599.00

D.I.Y. STE RAM UPGRADES :

520 STE to 1MB (2 x 256K Cards)	£62.50
520 STE to 2MB (2 x 1MB Cards)	£179.95
520 STE to 4MB (4 x 1MB Cards)	£359.95

Please ring for details

ATARI LYNX

THE NEW COLOUR HAND HELD CONSOLE

- * Fully portable games system using plug in card software
- * 16 colours from palette of 4096 on a 3.5" colour screen
- * 160x102 pixel display - crystal sharp & back lit
- * Volume, brightness and contrast
- * 8-way joystick controller - very sensitive
- * Flip screen for left or right handed players
- * Excellent 4 channel sound effects
- * 64K RAM, 16MHz clock speed, 8Mb game capacity
- * Battery or Mains powered (4hrs battery life)

ATARI LYNX HAND HELD GAMES MACHINE

(with California Games card FREE !)

only £165.00 inc vat + delivery

Blue Lightning	£22.99	(RRP £29.99)
Chips Challenge	£22.99	(RRP £29.99)
Electrocop	£22.99	(RRP £29.99)
Gates of Zendocon	£22.99	(RRP £29.99)
Gauntlet III	£26.50	(RRP £34.99)
Rampage	£26.50	(RRP £34.99)

ATARI EQUIPMENT

ATARI SM124	£99.99
ATARI MEGAFLE 30	£449.95
ATARI MEGAFLE 60	£619.95
ATARI SLM804 LASER	£1115.00

ATARI ACCESSORIES

CUMANA DISK DRIVE	£89.95
MONITOR SWITCH BOX	£14.95
STE SCART LEAD	£12.99

PRINTERS

STAR LC10 MONO	£169.00
STAR LC10 COLOUR	£219.95
MT81 9-PIN	£144.95
CITIZEN SWIFT 24	£310.00
PANASONIC KP1124	£255.00

PRINTER RIBBONS

1 x LC10 BLACK	£3.50
2 x LC10 BLACK	£7.00
5 x LC10 BLACK	£16.95
10 x LC10 BLACK	£32.95
1 x LC10 COLOUR	£5.20
2 x LC10 COLOUR	£10.40
5 x LC10 COLOUR	£24.95
10 x LC10 COLOUR	£47.95

BLANK DISKS

10 x 3.5" BLANK KAO	£6.85
20 x 3.5" BLANK KAO	£12.99
30 x 3.5" BLANK KAO	£18.99
50 x 3.5" BLANK KAO	£29.99
100 x 3.5" BLANK KAO	£56.99
200 x 3.5" BLANK KAO	£99.99

BEST PRICES

(DEPT STU), UNIT A, GRAFTON PLACE,
WORTHING, WEST SUSSEX. BN11 1QX



(0903) 700714



YOU CAN PLACE YOUR ORDER 24 HOURS A DAY

All prices include VAT and delivery unless otherwise stated. Goods despatched same day when possible. All prices are subject to change without notice. Mail order only. Thank You.

NEXT DAY DELIVERY BY COURIER - ADD £5.00 INC VAT

A COMPLETE SERVICE IN COMPUTERS & SOFTWARE

GAMES

Axels Magic Hammer	16.95
Bad Company	16.95
Bloodwych	19.95
Chambers of Shaolin	16.95
Drakkhen	22.95
F-16 Combat Pilot	18.95
Falcon	18.95
Falcon Mission Disk	14.95
Flight Sim II	27.95
Football Manager 2 & Expansion Kit	16.95
Forgotten Worlds	16.95
Ghostsbusters II	19.95
Ghouls 'n' Ghosts	16.95
Indi - the action game	16.95
Infestation	19.95
Interphase	19.95
Jack Nicklaus	19.95
Kick Off	14.95
Kings Quest - Triple Pack	24.95
Manchester Utd.	16.95
Manic Mansion	19.95
Midwinter	22.95
New Zealand Story	16.95
Operation Thunderbolt	16.95
P.47 Thunderbolt	19.95
Paris Dakkar	19.95
Paperboy	14.95
Pipe Mania	16.95
Play & Read Part 1	22.95
Player Manager	16.95
Populas	19.95
Populous - the promised land	8.95
Postman Pat	8.95
Powerdirt	18.95
Rainbow Islands	16.95
Robocop	15.95
RVF	18.95
SAS Combat	4.99
Seven Gates of Jambala	16.95
Shinobi	16.95
Space Ace	34.95
Stunt Car	18.95
Supercars	16.95
Switchblade	16.95
Super Wonderboy	16.95
Turbo Outrun	16.95
TV Sports Football	19.95
Xenomorph	19.95
Xenon II	18.95
X-Out	16.95

ADVENTURE/STRATEGY

Balance of Power 1990	19.95
Battlechess	19.95
Chaos Strikes Back	19.95
Demons Winter	19.95
Demons Tomb	19.95
Indi - The Graphic Adventure	19.95
Leisure Suit Larry 2	22.95
Manhunter II	22.95
Oil Imperium	19.95
STAC	29.95
Colossus Chess X	18.95
Scape Ghost	16.95
Sorcerer Lord	19.95
Spacequest 3	24.95
Tank Attack	19.95
Waterloo	16.95
Borodino	24.95
Federation of Free Traders	22.95
Weird Dreams	18.95

UTILITIES/BUSINESS

Wordup	59.00
Prospero Pascal	85.00
GFA Basic Version 3	45.00
Superbase Personal 2	79.00
Superbase Professional	149.00
Mark Williams C	95.00
First Word Plus V.3	59.95
Master Sound	39.95
Protext	79.95
Assempro	29.95
C-Breeze	19.95
STOS Compiler	16.95
STOS Maestro Plus	62.95
ST Replay 4	64.95
Utilities Plus	24.95
Word Perfect 4.0	185.00
Signum II	184.00
Swift Calc	39.00
Datamanager Professional	55.95
Power Basic	22.95
DevpacST v2	45.00
Logistix	90.00
STOS	23.95

WHY NOT CALL IN AND SEE ALL THATS NEW IN COMPUTERS
All prices are correct at time of going to press. Access or Visa orders welcome. Please add £1 per item for overseas orders. Please make cheques or postal orders payable to: "MILES BETTER SOFTWARE"
Phone or write for comprehensive stock list for Atari and ST software + hardware
WHILE STOCKS LAST



GRAPHIC DESIGN/CAD

Cyber Texture	39.00
Cyber Sculpt	59.00
Cartoon Disk	22.95
Video Tiling Disk	22.95
Quantum Paint Pro	24.95
Spectrum 512	28.00
Supercharged Easy Draw	59.00
GFA Draft Plus	99.95
Cyber Studio	39.00
Cyber Paint	39.00
Cyber Controller	29.00
Degas Elite	18.95
Easy Draw	59.00

ACCESSORIES

ST to Scart	11.99
ST to Composite (2 phono)	6.45
ST to Centronics	10.99
Mouse Mat (hard)	5.95
Joystick/Mouse extension	5.95
ST to Midi (2 leads)	7.95
Mouse Bracket	2.75
Trackball (Optional mouse only)	27.95
ST-Open ended lead	5.95
3M Mouse Extension	3.99
Mouse Lead-Open Ended	2.99
Original Mouse Lead	4.95

HARDWARE

Star LC10	175.00
Star LC10 II	199.00
Star LC10 Colour	225.00
Star LC24-10	260.00
Star FR10	390.00
Star XB24-10	499.00

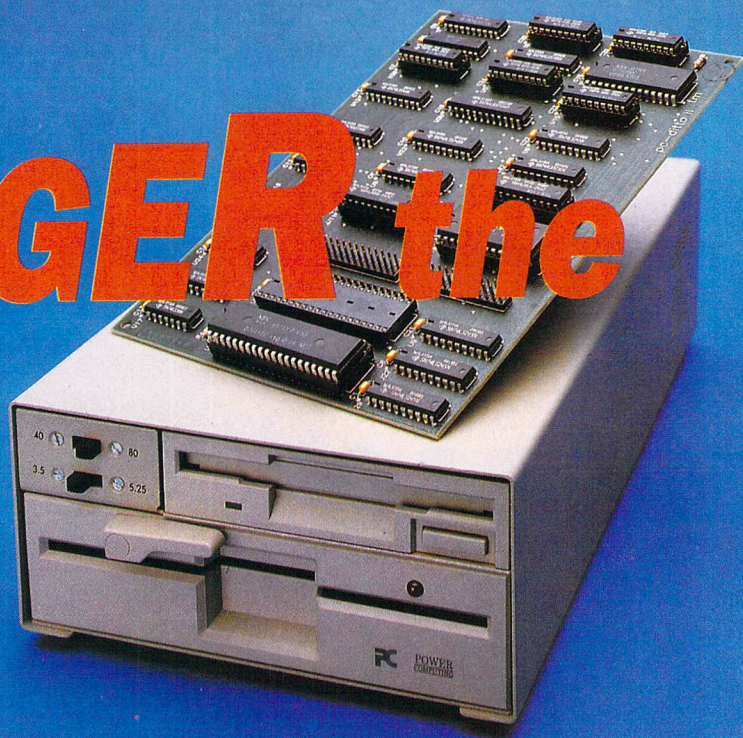


A Complete Service in Computers & Software

219/221 Cannock Road, Chadsmoor, Cannock,
Staffs WS11 2DD. Tel: (0543) 466577/8
Fax: (0543) 466579. Add 50p to orders less than £5.00

The BIGGER the better?

Roland Waddilove squeezes a pint into a quart pot with a flexible new disc drive and turns his ST into a PC clone



REPLACEMENT disc drives are a thriving business for Atari dealers and distributors. There are internal and external ones, some with built in power supplies, or externally powered, taking 3.5in or 5.25in discs. The larger size 5.25in disc drive is quite rare on the ST, and to find a double drive with both 3.5in and 5.25in units combined in one case is rarer still.

Power Computing's Multidrive is such a unit. It will take both size discs, has its own power supply, a switch to flip between the two sizes and a 40/80 track switch. It plugs into the external floppy disc port on the ST and can be used at the same time as the internal drive.

The 3.5in/5.25in switch means that you can't, unfortunately, use the two different size drives at the same time. However, this isn't a handicap, as for quite a long time now all STs have had an internal drive.

You may be wondering what advantage there is in having a 5.25in disc drive. There are two main ones – price and PC compatibility.

There is a significant price difference between 3.5 and 5.25in discs. Disc prices vary enormously according to the retail outlet, brand and so on, but by shopping around you should be able to buy a pack of 10 5.25in discs for about £6.50 compared to a pack of 10 3.5in discs for £9.00.

I have accumulated around 100 3.5in ST discs which cost about £90, but Multidrive could have saved me £25 if I'd bought the 5.25in variety.

The IBM PC, its offspring and compatibles are quite old micros, and originally exclusively used 5.25in discs, and many still do, though some now



use 3.5in discs like the ST. The ST experiences few problems reading 3.5in discs, but 5.25in ones clearly require a peripheral such as the Multidrive tested here.

A 5.25in disc was formatted on an Amstrad PC1640 and a Protex text file saved on it. The disc was inserted into the Multidrive and loaded into Protex on the ST. Brilliant! Unfortunately, the data transfer is only one way, as the Multidrive won't write to 40 track floppy discs (PC formatted or not), only read them.

The ability to directly read and copy 5.25in PC discs means that PC emulators such as Power Computing's PC Ditto II have direct access to a wealth of PC software. The PC PD market is probably bigger than that for the ST. So too is the number of commercial programs.

The Original PC Ditto from Avante Garde Systems was a software-only PC emulator. It worked quite well, but suffered severe speed problems, causing PC software to run extremely slowly. PC Ditto II, however, is a combined hardware and software package that solves the speed problem. In fact, it

boasts a Norton speed index of 3.0 – a bog standard PC is 1.0 – making it quite a fast performer.

The hardware consists of a PCB measuring about seven inches by five which has an NEC V30 processor – often used in PC clones – and space for an 8087 maths co-processor. The board sits inside the ST's case and connects to a small clip which fits over the 68000 main processor. No soldering is required, just a little manual dexterity.

It provides 640k of usable memory (same as a PC), emulates colour and mono screen modes, can be installed on hard disc and supports an external 40 track 5.25in drive, such as the Multidrive.

There wasn't enough time to test PC Ditto II, but if it lives up to its specifications it should be very good indeed.

The Multidrive performed perfectly throughout the test and combined with PC Ditto II will turn your ST into a useful PC clone.

FACT FILE

Product: Multidrive
Price: £199
Supplier: Power Computing, Power House, 44A Stanley Street, Bedford, MK41 7RW.
Tel: 0234 273000

POINTS FOR:

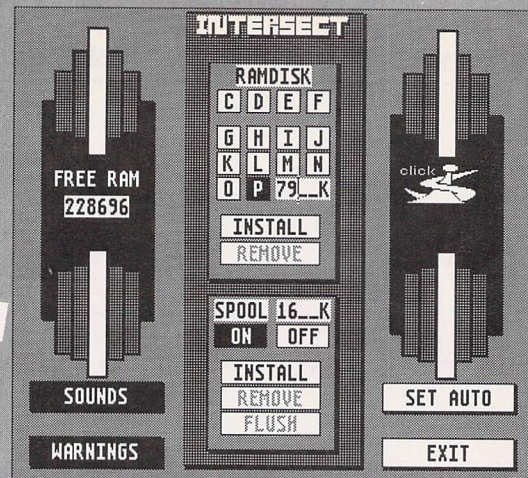
Reads 3.5 and 5.25in PC discs. Can use cheaper 5.25 instead of 3.5in ST discs.

AGAINST:

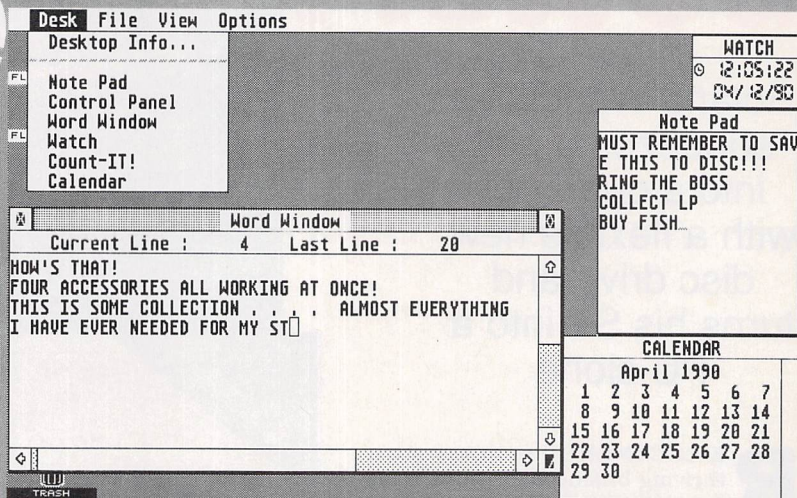
Can't write to 40 track PC discs.

Spoilt for choice

This month Jayne West examines a comprehensive collection of public domain and shareware desktop accessories



Intersect's Ram Baby offers a host of options



Four accessories working alongside in a complementary fashion show what can be achieved

If I was given 10p for every time I have searched through my PD collection – often in vain – for a certain desktop accessory I needed at a particular moment, I would be rich – and far less vexed. I am not alone, as this is a problem which I know plagues many other ST users.

The answer to this headache is now at hand in the shape of The Ultimate Accessory Collection. Newly released on to the PD market by an erstwhile colleague, this collection promises to become a very popular addition to many PD libraries.

Most of the desktop accessories featured in the Ultimate Collection you will possibly have seen before, but to have them all garnered together for the first time is a long awaited boon. All are carefully grouped in easily identifiable folders for quick access and transfer to your own work disc.

Working the System

Within the main System folder is Free Ram – a small desktop accessory which, when installed, tells you how much ram you have left free, whenever it is called upon. Very useful if you are using a number of desktop accessories.

Next up is Private Eye v2.0, a compact and useful program which allows

you to take a peephole look at the workings of your ST. It displays a window which contains a whole host of information, including your ST's system parameters, disc drive information, video information and keyboard and mouse peculiarities.

CLI (Command Line Interpreter) is a blessing to any programmer or serious user. It accepts near-English instructions and acts upon them – assuming your input makes sense.

There are more than 40 commands which are particularly useful for disc and file management, such as HELP, which summons a list of all the commands, and ECHO, which sends any text that appears on screen to the printer.

Alongside is Tiny Tool, a superb disc sector, file and memory editor. In each of a number of selectable editors you can read and write to disc. Protected memory can also be accessed in the memory editor.

An alternative to both is Disc Manager, which is similar in many ways to Tiny Tool, but offers quite a few more functions from an easy to understand menu screen.

However, the major addition to this folder, and one of the most powerful programs on the whole disc, is Quick ST by Darek Mihocka. This is a shareware software blitter/text accelerator program, similar in many ways to the

commercial Turbo ST.

With Quick ST installed screen operations such as printing text, scrolling the screen and popping up windows are performed much faster.

Fast Gem and fast text options can be disabled in situations where the speed increase is not desirable, or with a few programs that cause problems with Quick ST – such as some terminal software.

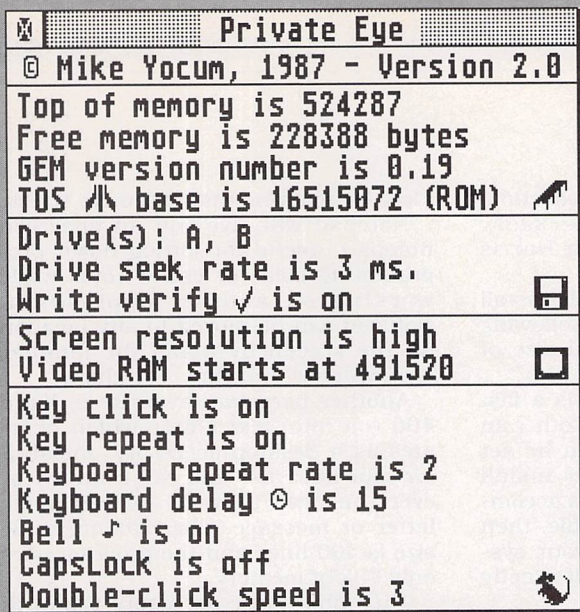
However, Quick ST supports most of the common VT52 commands, so it should work with most ST bulletin boards. It also supports the 48 row mode found in Flash and some editors.

Useful utilities

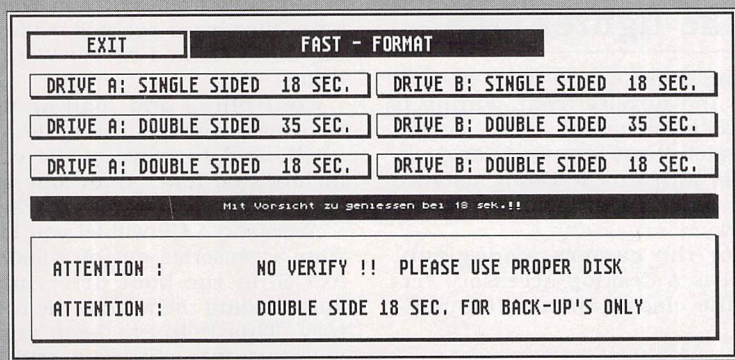
Among the more general utility accessories is Calendar, with which you can view monthly calendars of years from 1980 through to 2009 by clicking on a Gem scroll bar. If you have a real-time battery-backed clock the program highlights the current date.

Watch gives you a digital watch accessory that appears as a small window showing the current date and time. Once installed it will tick away in the top right hand corner of your screen no matter which program you are using.

Miniterm is a comms package which supports full VT100-emulation and



Private Eye gives a glimpse inside your ST



The high speed options of Fast Formatter give an indication of its power

full IBM character set with all graphics. In addition it has Xmodem, Ymodem and Zmodem file-transfer possibilities and fast screen dump to printer.

A MINITERM.INF file contains all the required settings to get started, and may be altered using a normal text editor. A useful partner to Miniterm is USVT52, an alternative VT52 emulator program to EMULATOR for your ST.

Quick Print is a useful print utility which allows you to toggle between the standard ST Alternate/Help graphics dump routine, and a quicker IMB-style Ascii text dump.

Meanwhile, Print Coder is a desktop accessory designed to allow alterations to printer status to be made without having to fiddle with your printer's DIP switches. Almost any escape sequence can be sent to the printer from this program.

For completeness, Printer-Control is a cut down (15k) PD version of the Atari Control Panel (20k) and works in a similar way to that beast.

However, perhaps one of the most useful residents in this collection is Happy Face by Robin Edwards. This cute virus detector/protector actually runs as a desktop accessory.

The program works by letting you write a greeting code such as HAPPY FACE on the boot sector of any disc. Each time you boot the disc, the greet-

ing will appear. If the greeting fails to appear, an uninvited guest has overwritten it. It is then a simple matter of running Happy Face again.

Most experts advise you to keep the disc write-protect on, but Robin Edwards invites you to do precisely the opposite. Leaving the write-protect off is the bait required: As soon as the greeting fails to appear, all discs are tested until the virus is isolated.

Favourite Goodies

Goodies is one of my favourite desktop accessories. It is a disc/desk manager that has lots of programs within one, including a printer spooler, configurable ram disc, file copier, clock/calendar and undelete facility.

A more powerful alternative to Goodies is Les Kneeling's Dos-Acc v2.8. This has all the features of Goodies - plus a couple more - but they are much faster and more advanced than the contemporary.

Codehead's famous Font Tricks is also here in all its glory. Once installed on your boot disc, it will allow you to load Degas fonts to replace the system font.

Rat Trap is an excellent, if quirkish, accessory which changes the drop-down menus on your ST to pull-down menus as on the Apple Mac - and it

Rat Trap
changes the
drop down
menus to pull
down ones as on
the Apple Mac

can be toggled on and off. You need to try it to fully appreciate the difference.

Speed Mouse does as its name suggests and speeds up the mouse pointer representation on screen, thus reducing the footprint area within which the mouse needs to perform on your desk or table. This is obviously handy if you have limited space, or your desk is cluttered.

Art Gallery shows Degas, Degas Elite compressed, Neochrome, and TNY compressed pictures. It fully supports colour rotation in any of these formats, including Degas Elite's multi-channel rotation.

And if a copier is what you are after, look no further than French programmed Riocopy, which is a disc copier and formatter. Install it on your boot disc and it will carry out simple or formatted copies of any discs, or will format from 80 to 83 tracks and 9 or 10 sectors smoothly and quickly.

SNAPSHOT.ACC is a much used accessory in my personal collection, and I am glad it is included here. When called up from the Desktop menu, you may size up any part of any screen by Gem rubberbanding and then save that part of the screen to disc. It really is amazingly simple, and works in all cases where the resident program does not overwrite the Desktop slot.

TI58C is an onscreen scientific calculator which will carry out all the functions you are ever likely to need. It allows not only basic + x / and bracketed functions, but dual function keys cater for inverse, reciprocals and logarithms.

Clearing operations include Clear Entry which clears entries made with the digit, decimal point, and change-sign keys, and the program also permits clearance of all 30 of the memory registers, and a general clear of calculations in progress.

The user is spoilt for choice when selecting formatter programs. Fred

► Deutsche's Formatter v4.0 will format between 80 and 82 tracks and 9 or 10 sectors, and to standard ST or Mac format.

Fast Formatter is the fastest disc program I have yet seen for the ST. A straightforward dialogue box offers you a selection of format types and times. It will format a single-sided disc in only 18 seconds, a double-sided disc in 35 seconds, and will back-up a double-sided disc format in less than 18 seconds.

DC Formatter v1.0 is the accessory version of the famous disc formatter program of the same name. It has all the functions of the program version except for the copy disc function.

It will create a variety of disc formats including 9 or 10 sector, 80 or 82 tracks, regular or fast format, and will even operate a Magic discs or place an MSdos boot sector on a disc so that it can be used by PC Ditto or any MSdos machine.

Another classic is MYSTIC.ACC, which is a unique disc formatter accessory that allows you to format a disc while getting on with other onscreen tasks – simply amazing. Ram

discs also proliferate in this collection. Ram Disc 349 is the accessory member of the famous John Harris ram disc family.

It allows you to install and de-install a fast ram disc, with the 349 following the RM indicating the actual size of the resident ram disc.

Intersect's Ram Baby v.1.0 is a fast ram disc and print spooler. Both ram disc and/or print spooler can be set up so that they automatically install when you boot your ST. This is accomplished by creating an AUTO file, then the next time that you boot your system Ram Baby configures itself exactly as you had previously set it.

On the lighter side

Everything doesn't have to be so serious. On the novelty front, Funny is harmless turbocharged Mites. Install it, and watch it eat through your desktop. While with Upside Down installed you can learn to program the Australian way.

And for the gamers among you, Breakout is a desktop accessory version of the classic Breakout game –

ideal for relieving that executive stress.

Notepad will give you an onscreen notepad, useful for jotting down programming ideas or essay notes while working on another application. Notepad can be moved to any position on the screen by using the familiar Gem window dragging procedure.

Another personal favourite is Word 400 – a mini-text editor which operates as a desktop accessory. Install it on your boot disc and call it up whenever you need to write the odd quick letter or message. The maximum file size is 400 lines and the program uses only 73k of memory.

Then shareware accessory Count-It! will let you count the number of words you have written either in Word400 or any other word processor file, including those created by 1st Word and ST Writer.

Controlling and loading all these Gem programs can be quite a task in itself, and thankfully the collection includes no fewer than four quite different accessory loader programs.

Accessory v1.0 will let you load all of your accessories out of a folder called ACCS on the boot drive instead of auto-loading them from the root directory. This helps to keep your main directory less cluttered and is especially useful for hard drive owners.

ACC_SEL.PRGM is another superb selector. The program resides in an AUTO folder, and all accessories live in the root directory. To select which accessories to load, the program simply writes back to disc changing the extensions from .ACC to .ACX or vice-versa.

Gem of a utility

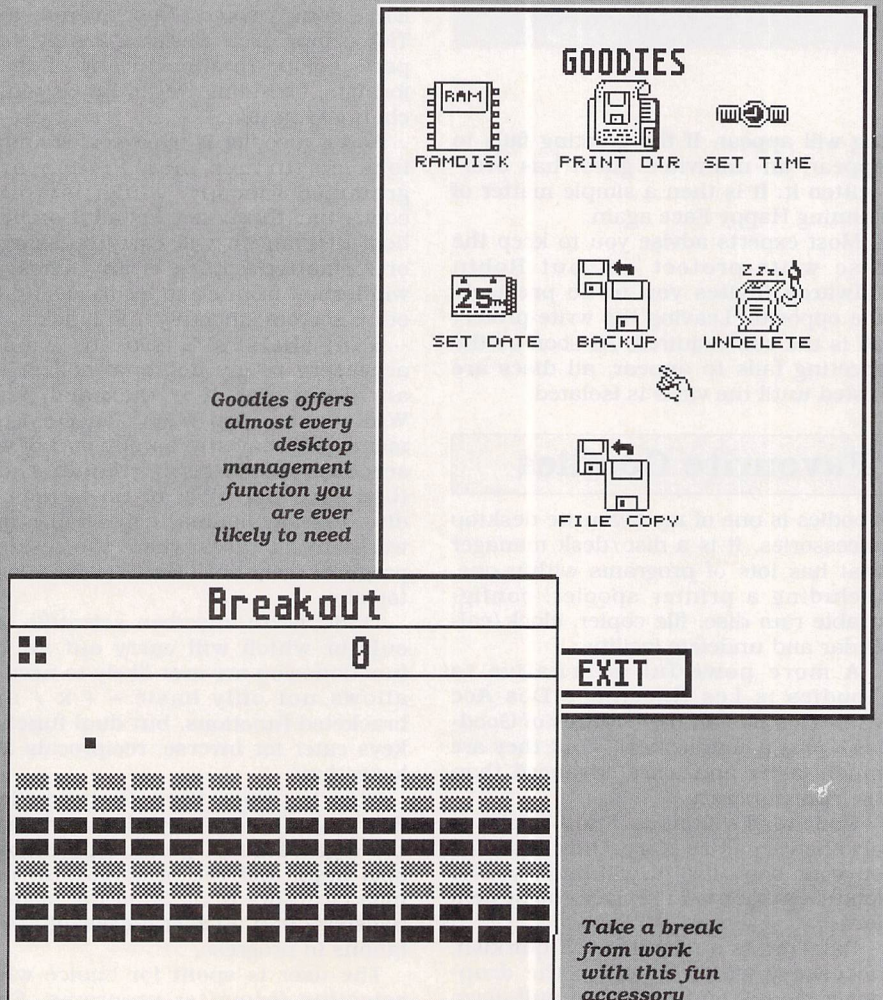
Meanwhile, STARTGEM will auto-run any Gem program of your choice, and included are old and new versions of the program. The new version works with the new Mega ST blitter roms, while old works with the older disc-based TOS.

Each version contains an .INF file which reads the name of each file to execute with its associated path. You need to edit this file to your own requirements to contain a list of all the Gem programs you want executed on startup.

Equally impressive is Accessory Loada. This superb program allows all the accessories you wish to reside in the root directory of your boot disc. You can then load only those that you want.

On boot-up Accessory Loada displays all the accessory files, then all you do is enter which you want loaded, pressing +- to end and go to the Desktop.

This is an amazing collection which boasts documentation for all programs in a 32k .TXT file. I hope it cures as many headaches for you as it already has done for me.





Captain Jimmy Birk of the U.S.S. Less is forced to put down on a Clinker planet in order to replenish supplies of Delerium Crystals. Your task is to borrow a crystal, knowing you'll be as popular with the Clinkers as the Black Death.

This adventure is guaranteed to crack your face and split your sides (and make you laugh as well). Not since 'Hitchhiker's has there been its like.

"This hilarious parody deserves to become a classic"

ST USER Prices include VAT and P&P

BARG!! **ONLY** £14.95 from HAT Software
 £14.95 21 Wye Cop, Shrewsbury, Salop. **SPECIAL OFFER**
 Access/Visa ring (0743) 231763

SOFTWARE
FROM 90p

LOOK

HARDWARE
FROM 50p

We don't list 1000's of disks. We have taken the best from over 1000, to make our catalogue. It took up to 5 disks from other PD libraries to make each 1 of ours. Large adverts and large prices, we don't have, just hundreds of satisfied customers. So why don't you get your free catalogue now!!

NEW CATALOGUE
OUT NOW !!

ALSO AVAILABLE 200 AMIGA PD DISKS

SEND A5 SAE TO WIZARD PD,
178 WAVERLEY ROAD, READING.
OR RING MEL ON 0734 574685
Mon-Fri 10am-7pm

TELETEXT

A world of information
at your fingertips



Now you can keep it informed with the latest weather, financial news, sports results, current affairs and much more from Ceefax or Oracle. But unlike a Teletext TV all this valuable information isn't trapped behind a sheet of glass. Now you can. . .

Save to disc. Pages may be saved in Raw, WP or Degas format.

Print. You can print as just text or as a screendump.

Review. Instant access to the last 16 pages received.

Multiple display. The software works in all three display resolutions with any kind of monitor or TV display. In high or medium resolution it will display and update two pages on screen simultaneously!

FastText. True FastText - reduces the waiting time.

Programmable. The system can be programmed to get a series of pages and then save or print them. With three mouse clicks it will print the whole days TV times! You own programs could process the latest sports results or share prices.

Tuning. Just connect an aerial - its tunes itself in! The prime function is to receive Teletext but it will also convert a CM8833 monitor to a colour TV.

Only a Microtext adaptor can provide all these facilities, it's easy to use and connect to the printer port of your ST, a printer can be reconnected to the adaptor. Everything is supplied, all you need is your ST and a normal TV aerial.

At just £129.50 + VAT inc p/p for an advanced Teletext TV its excellent value for money. Make sure you're always up to date, and get yours now from:-



MICROTEXT



Dept SU, 7 Birdlip Close, Horndean, Hants PO8 9PW
Tel: 0705 595694 Fax: 0705 593988



B-SOFT

PUBLIC DOMAIN SOFTWARE
FOR ALL MODELS OF ATARI ST



- H01 ST WRITER ELITE. The standard word processor for the ST, with full documentation.
- H02 SPELL CHECKER, WORD COUNTER, VIRUS KILLER, and other programmes to aid word processing.
- H03 DATABASE, TYPING TUTOR & SPREADSHEET. All with full documentation.
- H04 PROGRAMMABLE DATABASE, very high quality database.
- H06 SUPERB QUALITY SPREADSHEET. Double sided with full manual on disk £3.50.
- H09 GRAPH PROGRAMME. Input numbers to create Pie, Bar and Line graphs. Print direct to desktop or insert in other programmes.
- B61 CHESS, MONOPOLY, BACKGAMMON, LASERCHES.
- B62 CRIBBAGE, OTHELLO, YAHTZEE, WHEEL OF FORTUNE.
- B63 DRAUGHTS, HANGMAN, SOLITAIRE, DALEKS.
- AC1 DESKPACK, all in one desktop accessory includes diary, telephone book, programmable calculator and much more. Also REPAIR DISK programme and others.
- AC3 FOUR DISK COPIERS, FORMATTERS, SPEAKIT (speech synth) VIRUS KILLER and many others.
- AD1 HACK, role playing type adventure classic.
- AD2 COLOSSAL CAVE. Simply massive superb text adventure. Best on P.D.
- AD3 WIZARDS LAIR, great text and graphics adventure.
- AD5 UNDER BERKWOOD, massive graphics/arcade adventure. Excellent.
- AT1 NEOCHROME ART PROGRAMME AND PICTURES. Superb art disk with instructions, and a slide block puzzle generator.
- AT3 PALETTE MASTER, possibly the best art programme on P.D. Full instructions included.
- AT4 ANI-ST, previously sold as AEGIS ANIMATOR

- FOR £80.00. An art animating programme with full instructions. A bargain at £2.50.
- BB1 BASIC PROGRAMMES & BASIC LANGUAGE TO RUN THEM.
- DE1 MARBLES & EXCEPTIONS demo of superb graphics and sound.
- DE2 THE AMAZING UNION DEMO. Very impressive sound and graphics.
- GG1 FIRESTORM AND PIPE PANIC. Great arcade games.
- GG2 HAUNTED HOUSE, PAC MAN TYPE, BRIDGIT, SLOT MACHINE. Another suite of great arcade games.
- GG4 VEGAS. Visit a casino, gamble your money on POKER, ROULETTE, BLACKJACK & SLOT MACHINES. Great graphics.
- GG5 PIN BALL, DRAWPOKER & WALL STREET. A stocks & shares trading game.
- GG6 FLOYD THE DROID. The best of all arcade action. BLASTER, great sideways scrolling arcade action. Superb disk.
- K11 FRUIT MACHINE & PAC MAN TYPE GAMES. Very impressive implementations.
- K12 KID GRAPH, KID GRID, KID MUSIC, KID NOTES & KID PIANO.
- K13 KID SKETCH, KID ABC, KID POTATO, KID STORY.
- K14 KID SONG and working demo's of NUMBERGO & NUMBERMAZE, excellent maths programmes.
- K15 KID PUBLISHER, childrens desktop publisher. Also working demo's of MAJOR MOTION & FUZZBALL arcade action, & LINE UP 4, CONNECT 4 type game.
- K16 KID REBUS WRITER. Make phrases using letters and pictures. Also FUNFACE working demo.
- PW1 24 PIN PRINTER DRIVERS. Various programmes & files to aid graphic printout for 24 pin printer owners. Compatible with most printers

ALL DISKS £2.50 EACH

Price includes P&P. Overseas orders add £1.50

SEND PAYMENT, MADE PAYABLE TO B-SOFT, TO
33 CORSHAM ROAD, CALCOT, READING, BERKS RG3 5ZH.

24 hour Order Line No. TEL. (0734) 416492

SAE for full description

NORTHERN ATARI CENTRE

FULL ST & PC RANGE

ATARI 520 STFM
£379 inc VAT

ATARI 1040 STE
£475 inc VAT

Various software packages available
with all the above

Please phone for details

★ PORTFOLIO STOCKISTS ★

Tel: (0274) 662638

Monday-Friday 9.00am to 5.00pm

GOULD COMPUTER SERVICES LTD

3 Gain Lane, Thornbury, Bradford 3



Just a few minutes from
Leeds ring road, Pudsey



Midi on the minimum

Ian Waugh continues his survey of the budget Midi market



A SEQUENCER may be the most important part of your music setup, but many other kinds of program can help you. This is where the fun starts because the variety and choice is enormous, although the programs tend to fall into a few well-defined categories.

In this, the final part of our look at budget Midi software, we consider a selection of the most interesting ones on offer and what they can do for you.

Whereas the ceiling for budget sequencers seems to be £130, some ancillary programs cost £20 more, so I've raised the budget limit for this article to £150.

Voice editors

We'll begin with the second most popular kind of music program, the voice editor and librarian. Most modern synthesisers use a form of digital synthesis and are only slightly easier to program than a Cray.

One of the problems lies with the LCD display most synths use, as you can't see all the parameters at once and they have to be edited in isolation with up/down buttons.

A computer-based voice editor will display all associated parameters on one screen, it will show envelopes graphically and perhaps even let you alter them by clicking and dragging the nodes.

A librarian offers simple and accessible storage for your synth's voices. It will be far cheaper than ram packs and more reliable than saving to tape – program storage alone is an excellent reason for investing in a voice editor and/or librarian.

Voices can be loaded into a number of banks, you can choose which ones

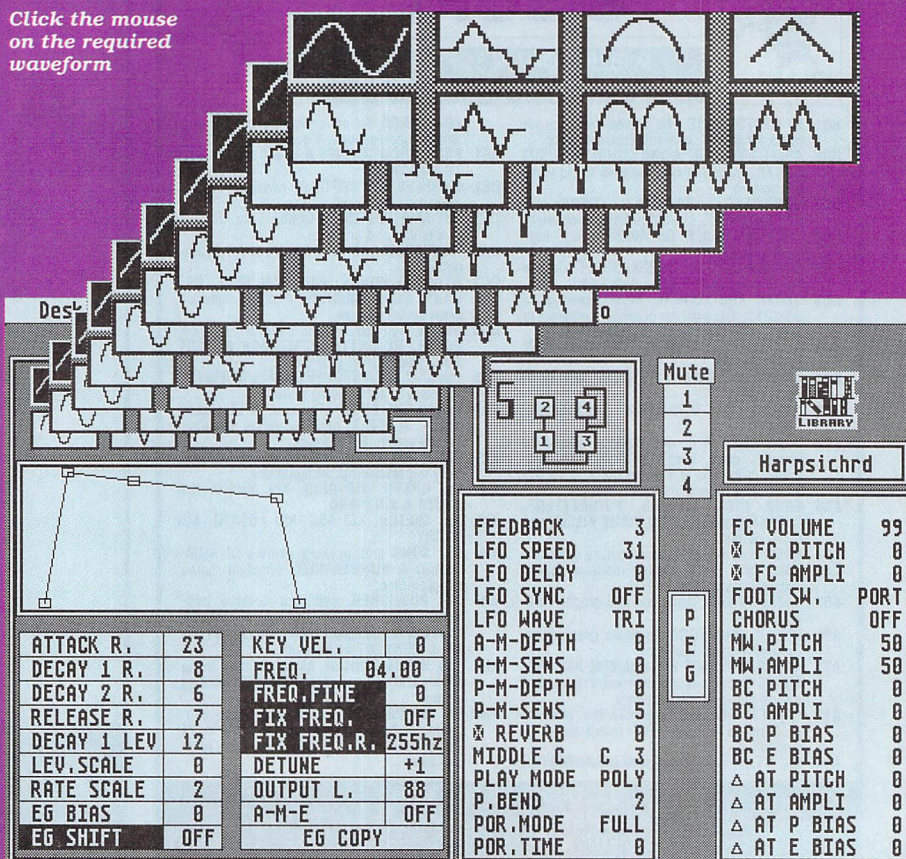
you need for a particular session, sort them into a bank in any order you wish and send them to your synth.

There are dozens of voice editors for the ST – there must be at least one for every popular synth – so you are

spoiled for choice. Most are well priced, ranging from £60 to £110.

Some of the most comprehensive editors come from Dr.T's software emporium (distributed by MCM). So far the range includes editors for

Click the mouse on the required waveform



Soundbits's Yamaha 4x4 librarians are best for the novice because they are fairly easy to use

Desk	Voices	Performance	Setup	Functions	Extra
Select a voice to move or play, or select a menu option					
Voice file A/1: BELLPLUS.A4V				1	2 3 4
Bell	1	Bell	2	Bell	3
Bell	5	Bell	6	Bell	7
Bell	A	Bell	B	Bell	C
Bell	E	Bell	F	Bell	G
BellBrass		BellBrass2		BellCello	
BellGong		BellOboe		BellOrgan1	
Bellchoir		Slidebell		VibeSynth1	
VibesBrass		VibesFlute		VibesPluck	
				Windchime	
Perform.file: DEFAULT.A4C					
Patch #1		Patch #13			
Patch #2		Patch #14			
Patch #3		Patch #15			
Patch #4		Patch #16			
Patch #5		Patch #17			
Patch #6		Patch #18			
Patch #7		Patch #19			
Patch #8		Patch #20			
Patch #9		Patch #21			
Patch #10		Patch #22			
Patch #11		Patch #23			
Patch #12		Patch #24			
Setup file: No File					
Voice file B/1: PERCUSSH.A4V				1	2 3 4
AfroDrum 1		AfroDrum 2		AfroDrum 3	
AfroDrum 5		AfroDrum 6		BassDrum 1	
Cowbell 1		Cowbell 2		Cymbal 1	
Cymbal 3		Cymbal 4		Claves 1	
Gong 2		Gong 3		Gong 4	
ElecDrum 2		ElecDrum 3		ElecDrum 4	
ElecDrum 7		BelDrumCym		TomDrumCym	
Timpani 2		Tontom 1		Tontom 2	
				Tontom 3	

Quinsoft's produce some of the cheapest librarians on the market, here is Advanced 4-Op Librarian

Casio's CZ-101/1000/1/3000/5000 and VZ-1/10; E-Mu's Proteus; Ensoniq's ESQ-1/M and SQ-80; Kawai's K1, K3 and K5; Korg's DS-8, DP-2000 and M1; Oberheim's Matrix 6/1000; Roland's D-50, D-110/10/20 and MT-32; and Yamaha's DX7 and four-operator synths (TX81Z, FB-01, and DX-100/27/21).

There are also editors for effects units including Lexicon's LXP-1 the Art MultiVerb, Digitech DSP-128 and Yamaha's SPX90/II. All cost £110.

The editors all follow a similar format although obviously there are variations to allow for the differences between synthesisers. Envelopes are shown graphically and can be edited by dragging. They let you store multiple banks of sounds and most permit random voice generation.

They all run in Dr.T's MPE (Multi Program Environment) which allows up to eight programs to coexist in the ST simultaneously and share the same Midi data. However, to use the MPE you need a core program such as Dr.T's KCS (Keyboard Controlled Sequencer).

The only budget-priced programs currently supporting MPE are Tiger and Tiger Cub. You can't, unfortunately, run the editors as desk accessories if you currently use a different sequencer.

The Dr.T programs are quite sophisticated. If you are a newcomer to voice editing and don't want to get too deeply involved, it's worth looking at some simpler programs such as the Soundbits range.

These are

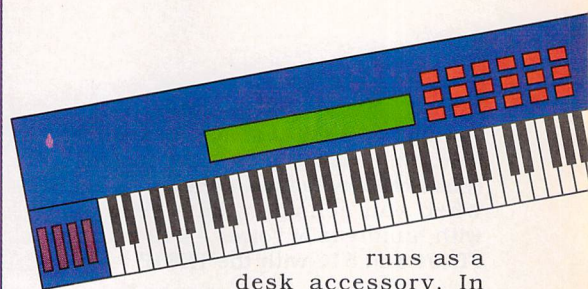
available for the Roland D-50 and Alpha Juno1/2, the Kawai K1 and Yamaha 4-operator synths. All cost £60 and have a similar, highly-graphic layout. Operation is easy and although they lack many of the bells and whistles of the Dr.T editors they

Librarians offer greater flexibility and voice storage capacity than an editor

include randomisation, cut and paste facilities and graphic display of the envelopes.

They are nice, easy-to-use programs although they are standalone and can't run as desk accessories. Pandora was one of the first companies to produce an editor which can run as a desk accessory – DXessory (£79.95) – and this is well worth looking at if you have a six-operator machine such as the DX7.

MidiMan (£89) from Hollis Research is a Universal Voice Editor which



runs as a desk accessory. In operation it's very much like a hardware remote editor such as the programming units Roland produces for some of its synths.

The main screen consists of a number of sliders and values are altered by clicking on them with the mouse. Like their hardware counterparts, communication is one way – from the ST to the synth – but MidiMan is ideal for tweaking voices and for altering configurations such as the pan and volume settings of the voices in a multi-timbral synth.

If you run it with Hollis's Trackman sequencer (from £179) you can save MidiMan data into the sequencer as it's recording. Neat!

Librarians

Most voice editors let you organise voices into banks, but some programs known as librarians specialise in this function. Most will offer greater flexibility and voice storage capacity than an editor and they are ideal if you don't want to program your instruments – and you don't have to, as packs of new voices are available from many sources, often in ST format, ready to load into your synth.

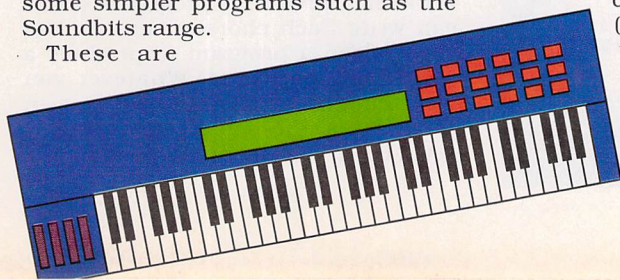
One of the best and cheapest librarians on the market is the Chameleon Universal Patch Librarian (£89.95) from Keynote. It can operate as a desk accessory or a standalone program, and as its name implies, it can handle voices for virtually any synthesiser.

It can hold up to nine libraries in memory at once, each containing as many voices as ram permits – you are not restricted to the number of voices which are held in a bank in the synthesiser. Patches can be transmitted or received individually or en bloc.

Extensive patch-handling facilities include the ability to allocate voices up to 32 named characteristics such as brassy, mellow or keyboard – you give them your own names. To select a particular type of voice you highlight the characteristics you want and the program shortlists them for you.

The adventurous can use the built-in programming language to create libraries of their own although as the current total of supported patches stands at well over 100 that should not be necessary. Highly recommended.

The cheapest librarians on the market come from Quinsoft. They are for



MUSIC ON THE ST

Yamaha's FB-01 and TX81Z expanders and cost £24.95 each. They offer remarkable value for money, especially when you consider that they come with hundreds of voices – 480 with the FB-01 and 512 with the TX81Z.

New sounds

The programs, however, are rather basic, but they do allow you to create banks of voices easily and simply. Worth investigating if you're on a really tight budget, if you don't need bells and whistles, or simply as a source of new sounds.

No budget-priced music program

has extensive scorewriting facilities. The current leader in the field is C-Lab's Notator at £485, but there are cheaper alternatives if your expectations aren't sky high.

Hybrid Arts' EZ-Score

Plus at £145 is the nearest you'll get to a budget Midi-based scorewriter. It supports three staves which



can each contain two music parts. You can click music on to the staff with mouse, enter it from the ST's keyboard or from a Midi keyboard.

It supports more than 100 music signs and symbols and it can convert files saved from other Hybrid Arts programs to notation (within its limits).

You can print the score, of course, and screens can be saved in Degas format. You can play-back via Midi or with the ST's

soundchip. Well worth

investigation if you like using the dots.

Dr.T's Copyist Apprentice (£79.95) is a graphic-based scorewriter. It does not support Midi at all, although it can read standard Midi files and convert them to notation. This, however, needs to be approached with care to get the note spacing correct.

Operation requires a combination of mouse and keyboard and there's an overlay to identify the keys. It is a feature-packed program and a little time spent getting to know it will result in impressive scores.

Languages

Music programming languages are few and far between. Anyone wishing to write their own music software normally has to do so using a general purpose language such as C, machine code or even Basic.

T-Basic (£129) – from Dr.T, of course – aims to change all that. It supports all the features of ST Basic and has additional keywords for accessing Gem. Although it can operate as a standalone program it is more powerful when used within Dr.T's MPE.

It has direct hooks into the MPE and can work on pre-recorded music data and generate music which can be placed directly into the host's sequencer tracks. Each line of code is compiled as it is entered, which helps avoid the speed problems associated with interpreted Basics.

The package includes several demonstration programs including some games. If you are familiar with Basic you should find T-Basic fairly easy to get to grips with.

Many people suppose the ultimate computer music program will compose its own music. Although the academic world has produced programs which can write Bach chorales, no one has yet devised a program to produce a convincing pop song. Whatever you may think of the efforts of our human songwriters, the pop song is a highly stylised music form. Exploring the

```

Desk File Edit Run
Run F2 Command Window
Continue
2710 lset _type$="
2720 _dc=(_vel*256
2730 return
2740 '
2750 EVST.DE:
2760 '
2770 lset _type$="DE"
2780 return
2790 '
2800 EVST.PSTR:
2810 '
2820 ' Set _pitch$ acc. to _pitch
2830 '
2840 locals note,octv
2850 if len(_pitch$)<>4 then _pitch$=" "
2860 octv=_pitch\12:note=_pitch-octv*12
2870 lset _pitch$=right$("B A#A G#G F#F E D#D C#C ",note*2+2)
2880 mid$_pitch$,3,2)=right$(" 9 8 7 6 5 4 3 2 1 0-1",octv*2+2)
2890 return
2900 '
  
```

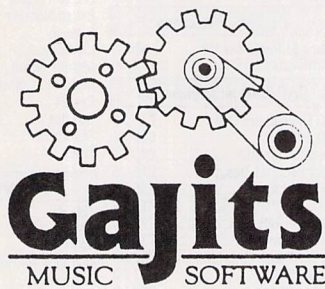
Dr. T's T-Basic is ST Basic compatible and capable of placing music data into Dr. T's MPE

THEME & VARIATION PARAMETERS										MENU									
Microbeat	< 6>	First Note	< 1>	Maxim						Play Screen									
Theme Length	< 32>	Pitch Loop	<99>	Onbea						Load Tune									
Pulse	< 2>	High Note	<F5>	Offbe						Save Tune									
Rest Probability	<25>	Low Note	<C4>	Rhyth						Load T&V Presets									
Rhythm Algorithm	< 1>	Maximum Step Size	< 1>	Pitch						Save T&V Presets									
Variant	< 3>	Maximum Leap Size	< 3>	Vari						Load Acc Presets									
Scale 1 Major	Mode F2 1st	Key N(C	Octave 0							Save Acc Presets									
Theme TA	Pulse 2	Microbeat 6	Left 1:00	Seq						Load Arrangement									
T & V PARAMETER PRESETS										ACCOMPANIMENT PRESETS									
A B C D E F G H I J K L M										A B C D E F G H I J K L M									
N O P Q R S T U V W X Y Z										N O P Q R S T U V W X Y Z									
Channel Program	Octv	Velocity	Accent	Stat	Art	Dlay				Drum Notes									
1 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>	Rhythm	Set Options									
2 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>	Notepad	Change Colors									
3 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>	MIDI Messages	Channel Reassign									
4 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>											
5 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>											
6 <14>	< >	< 0>	< 64>	< 12>	Mute	<1>	< 0>	< 1>											
Tempo <123> Arranger										Quit									
										Start Pause Stop Menu									

Dr. T's Tunesmith can compose up to five themes and three variations

ATARI WORLD IN MANCHESTER

FREE SOFTWARE CATALOGUE ON REQUEST



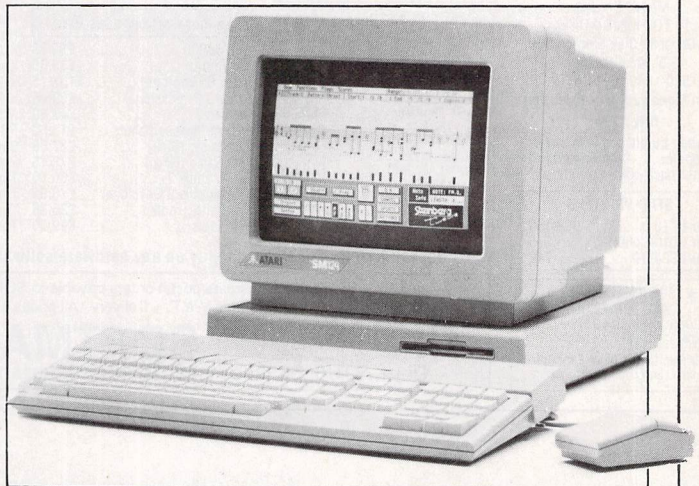
GAJITS SEQUENCER ONE

A professional quality 32 track sequencing program that will record any MIDI instrument in either real time or step time. It has a fast and easy to use graphic operation, with note editor and song arranger screens together with powerful and comprehensive editing functions. It is ideal for a beginner or an advanced musician with the advantage of access to the telephone helpline.

Main features include: Quantize, Transpose, Cut, Paste, Overdub, Merge, Standard MIDI files, Loop Mode Recording, 192 PPQN and much more. Sequencer One works with any Atari ST computer.

WORD PROCESSORS

1st Mail	G.S.T.	£14.95
1st Word Plus	G.S.T.	£79.95
Boffin	Software Punch	£99.95
Express	Mirage Concepts	£49.95
Final Word (The)	Mark of Unicorn	£149.95
Font Writer Plus	Startronics	£39.95
Haba Merge	Haba	£39.95
Haba Spell	Haba	£19.95
K-Index	Kuma	£19.95
K-Word	Kuma	£39.95
Microsoft Write	Atari	£149.95
Protext	Arnor	£79.95
Tempus	Eidersoft	£34.95
Text Pro	Abacus	£39.95
Word Perfect	Word Perfect Corp	£228.95
Word Up	Neutron	£59.95
Word Writer	Timeworks	£79.95



Star LC10 MonoPrinter£189.00

520 ST Power Pack£375.00

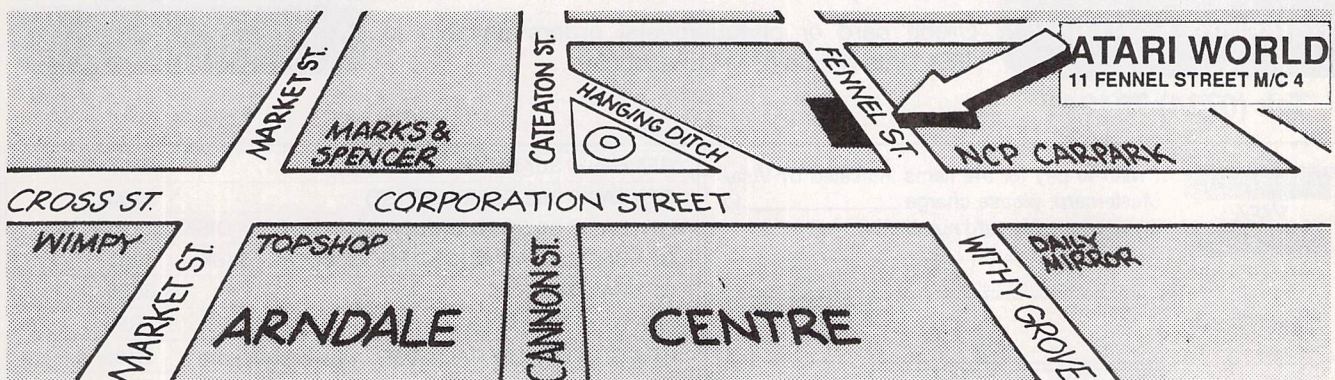
1040 STE£479.00

SM124 Mono Monitors£95.00

520 STE Explorer Pack£279.00

MUSIC

Big Band	Logiciel
C-Lab Creator	C-Lab
C-Lab Notator	C-Lab
CZ Android	Hybrid Arts
Didgi Drum	Microdeal
Didgi Drum Sample Disk	Microdeal
DX Droid	Hybrid



ATARI WORLD, 11 FENNEL ST, MANCHESTER M4 3DU
TELEPHONE: 061 834 4941

OPEN SIX DAYS A WEEK MON-FRI 10.00 AM TILL 6.00 PM SAT 10.00 AM TILL 5.30 PM

SOFTMACHINE

ATARI HARDWARE

520ST-FM Discovery Pk £274.99
520ST-E Power Pack £364.99
1040 ST-E Midiman pack £449.99
1040 ST-E Prof. pack £449.99
1040 ST-E Super pack £449.99
MEGA 1 ST Prof. pack £519.99
MEGA 2 ST Prof. pack £814.99
MEGA 4 ST Prof. pack £1114.99
Stacy Portable Ring
TT Workstation Ring
SM124 Mono Monitor £99.99*
SC1224 Colour Monitor £269.99
SF354 Disk Drive £109.99
SF314 Disk Drive £134.99
MEGAFILE 30 Hard Drive £439.99
MEGAFILE 44 Hard Drive £824.99
MEGAFILE 60 Hard Drive £599.99
SLM804 Laser Printer £1199.99
STM-1 Mouse £24.99

SOFTMACHINE STARTER PACK

Mouse Mat
Mouse Bracket
10 TDK MF2DD Disks
40 Capacity Disk Storage Box
3.5" Head Cleaner
520/1040 Dust Cover
Twin Mouse/Joystick Extension
ONLY £25*

* When purchased with any ST computer... Offer limited to 1 starter pack per ST purchased!

STAR PRINTERS

Star LC10 £169
Star LC10 Colour £215
Star LC24-10 £249

★ ★ SPECIAL OFFERS ★ ★
ALL FOR £9.99
ST Doctor, Digidrum Sample Disk,
M-Cache, The Juggler, Metacomco Make
Microsoft Write, Mono Emulator
Limited stock phone for availability

MEGA ST LASER PACK 1

MEGA 2 ST
STM-1 Mouse
SM124 Mono Monitor
SLM804 Laser Printer
SLMC804 Controller Interface
Professional Pack Software
£1599.99

MEGA ST LASER PACK 2

MEGA 2 ST
STM-1 Mouse
SM124 Mono Monitor
MEGAFILE 30 Hard Drive
SLM 804 Laser Printer
SLM804 Controller Interface
Professional Pack Software
DTP Pack Software
£2159.99

PERIPHERALS

Cumana 1Mb 3.5" Drive £79.99
Supra 30 Mb Hard Drive £439.99
Supra 45 Mb Hard Drive £529.99
0.5 Mb Xtra-Ram £94.99
2 Mb Xtra-Ram £269.99
Vidi-ST Digitiser £89.99
Hitachi Camera/lens £219.99
Demon II Modem £99.99
Designer Modem £109.99
Linnnet Modem £144.99
Replay v. 4 £64.99
Replay Professional £99.99

WORD PROCESSING

1st Word Plus £57.90
K-Word 2 £28.80
Protext £69.95
Word Perfect £177.40
Word Up £47.75
Word Writer £37.25

DATABASES

Data Manager Professional £30.50
K-Data £35.50
Superbase Personal £43.20
Superbase Personal 2 £69.95
Superbase Professional £170.55
DG Base £35.50

SPREADSHEETS

K-Spread £18.75
K-Spread 2 £43.20
K-Spread 4 £89.95
K-Spread 3 £63.30
Logistix £77.45
Mini Office Spreadsheet £18.75
DG Calc £28.80

LANGUAGES/COMPILERS ETC.

APL 68000 £99.95
Assempro £38.35
Aztec C Developer £137.15
Aztec C Professional £99.65
Devpac 2 £43.60
Fast ASM Assembler £17.50
Fast Basic (Disk) £37.65
Fast Basic (Rom) £73.15
FTL Modula 2 £50.50
FTL Modula 2 Developer £70.95
FTL Editor Toolkit £36.35
FTL Tools £29.50

SOFTWARE

GFA Basic V3 £48.80
GFA Basic V3 Compiler £25.99
GFA Basic V3 Interpreter £39.95
GST C £15.75
GST Macro Assembler £15.75
Hisoft Basic £57.35
Hisoft C £36.35
Hisoft Forth £29.50
Hisoft Power Basic £36.35
K-Seka Assembler £35.50
K-Occam £43.20
Lattice CV5.0 £70.95
Mark Williams C £91.60
Mark Williams csd £43.25
Nevada Cobol £36.35
Personal Pascal 2 £57.35
Prospero C £92.25
Prospero Fortran £92.25
Prospero Pascal £71.65

UTILITIES

Back Pack £40.65
C Breeze Editor £18.75
Craft 2 £36.35
Dash £15.40
Fontz £21.00
Harlekin £36.99
K-Graph 3 £35.50
Knife ST £22.60
K-Resource 2 £28.80
K-Roget £35.50
Mailshot Plus £35.50
PC Ditto £64.95
Saved 2 £22.60
Tempus 2 £29.50
Timeworks Partner £37.25
Turbo Kit £25.95
Turbo ST £25.95

Twist £18.95
Utilities Plus £21.95
WERCS £22.60
WERCS Plus £36.35

DESKTOP PUBLISHING

Fleet ST Publisher V3 RING
Timeworks DTP £71.00

CAD/GRAPHICS/ANIMATION

3D Developers Disk £15.75
3D Fonts II £22.60
Aegis Animator £45.85
Architectural Design £15.75
Art Director £35.50
CAD 3D V1.0 £19.15
Cartoon Design £22.60
Cyber Control £30.50
Cyber Paint £37.35
Cyber Sculpt £57.90
Cyber Studio £37.35
Cyber Texture £36.35
Degas Elite £20.75
Draw Art £36.35
Easy Draw 2 £37.35
Easy Draw 2 Supercharged £57.95
Easy Tools £29.50
Film Director £43.20
Flair Paint £24.95
Future Design £15.75
Human Design £15.75
K-Rikki £15.40
Microbot Design £22.60
Quantum Paint £21.70
Quantum Paint Prof £29.55
Scan Art £29.50
Spectrum 512 £23.60
Video Titling Design £15.75

Music

Big Band £169.95
C-Lab Creator £275.50
C-Lab Notator £457.25
Cubase £427.95
K-Minstrel 2 £21.95
Master Score £307.60
Midi Recording Studio £45.70
Pro 24 £129.95
Quartet £35.50
Studio 24 £155.00
Track 24 £75.00

COMMUNICATIONS

220-ST £21.95
BBS £35.50
Flash £19.15
Kermit & Remote £15.75
K-Comm 2 £35.50
Mini Office Comms £18.75

ACCOUNTS

Accountant £134.75
Accountant Plus £222.95
Bookkeeper £91.25
Financial Controller £355.50
Home Accounts £18.75
Michtron Payroll £69.95
Personal Finance Manager £21.95
Small Business Accounts RING

EDUCATIONAL

AB Zoo £14.95
Fun School 2 Under 6 £15.40
Fun School 2 6-8 £15.40
Fun School 2 8+ £15.40
Invasion £14.95
Pre School Kids £14.95
Spellbook 4-6 £19.95
Spellbook 7+ £19.95
Spellbook Alphabet Creator £9.95
Spellbook Spellpack 4-6 £14.95
Spellbook Spellpack 7+ £14.95
Things to do with Numbers £19.95
Things to do with Words £19.95

Please ring for prices/availability on any hardware/software/peripherals not listed. (Full price list on request)

Please make cheques/postal orders payable to SOFTMACHINE. All items subject to availability.

All prices include V.A.T. + Delivery. All prices subject to change without notice. E & OE.



SOFTMACHINE

Dept. STU6, 36 Guernsey Road, Sunderland SR4 9RR. Telephone: 091-385 7426



NEW! GFA GEM UTILITY PACKAGE £29.95

See the review in this issue

NEW! GFA MISSION CONTROL £29.95

GFA Data Media

Box 121

Wokingham

Berkshire, RG11 9LP

Tel: (0734) 794941

Available from your Atari Dealer, and most software stockists or in case of difficulty by mail order:

GFA Data Media (UK) Ltd, Box 121, Wokingham, Berkshire, RG11 9LP.

Credit card or cheque/postal orders payable to GFA Data Media (UK) Ltd accepted.

GFA

Data Media UK

Visa

MasterCard

Name (on card)

Address

I wish to pay for the items indicated by Visa/Mastercard; please charge _____ to my account. My card number is:

Signature

Expiry Date

Order Date:

Postcode

GFA BASIC 3.07 INTERPRETER (ST)	49.95
GFA BASIC 3.03 COMPILER (ST)	29.95
GFA BASIC 3.0 S/W DEVELOPMENT BOOK + DISK	19.95
GFA BASIC 2.0 ADVANCED PROG. BOOK + DISK	19.95
GFA RAYTRACE 2.1	39.95
GFA DRAFT PLUS 1.5	99.95
GFA GEM UTILITY PACKAGE NEW! Available NOW!	29.95
GFA MISSION CONTROL NEW! Available NOW!	29.95

LIMITED SPECIAL OFFERS (only available direct from GFA)

GFA VECTOR (for Basic 2.0)	9.95
GFA DRAFT ST 2.0	49.95
GFA BASIC 2.0 INTERPRETER + COMPILER	19.95

All prices include VAT, post and packing within UK.

MUSIC ON THE ST

► world of computer composition is a fascinating business and several commercial programs let you try your hand. The cheapest composition program is currently Dr.T's Fingers at £79.95, but it is highly numeric and hindered by a self-indulgent manual full of techno babble.

Composition tends to be based on numeric rather than musical criteria. However, if you're the sort of computer user who revels in numbers – and I know there are a lot check it out.

Also from Dr.T is Tunesmith (£135). This is more musically oriented, although still with its share of numeric parameters. It can compose up to five themes and three variations on each of the themes. Normally, these are created from a set of on-screen parameters but if you run it within the MPE it can create variations based on recorded material.

It has a myriad of adjustable controls for articulation, octave, dynamics, muting, parallel harmonies, counter melodies, echoes and arpeggios and you can select literally one of a hundred different tonalities.

Hybrid Art's Ludwig (£145) is similar to Tunesmith in several ways. It's quite numeric and produces variations out of user input. However, it can apply a large number of musical transformations to the data and it has more manipulatory functions than any other

Contacts

MCMXCIX, 9 Hatton Street, London NW8
9PR. Tel: 01-258 3454.

Soundbits Software, 48 Galton Towers,
Civic Close, Birmingham B1 2NW. Tel:
021 233 3440/733 2063.

Pandora Technology, 9 St. Marks Place,
London W11 1NS. Tel: 01-221 9653.

Hollis Research, First Rate (Guernsey)
Ltd., La Ramee, St. Peter Port,
Guernsey, Channel Islands. Tel: 0481
23169.

Keynote Music Software, 13 Duchy
Road, Clandown, Bath BA3 3DQ. Tel:
0761 32610.

Quinsoft Ltd., PO Box 68, Tadworth,
Surrey, Kent KT20 7EP. Tel: 0737
243066.

Hybrid Arts UK Ltd., 24/26 Avenue
Mews, Muswell Hill, London N10 3NP.
Tel: 01 444 9126/7.

Square Dance Audio, The Bakery, Boyer
Street, Derby DE3 3TD. Tel: 0332
385021.

composer program – it'll take you a long, long time to exhaust all its possibilities.

The most well-known composition program is probably M (£150) by Intelligent Music (distributed by MCM). In contrast with the other programs, its approach is more graphic than numeric which makes it more immediately accessible.

Basically, you enter a number of pitches and then set up the program to perform a variety of operations on them – cycle using various durations, pick them with a degree of randomness, apply accents, transpose, and so on. It seems to be capable of more musical output than most algorithmic composers, but then with all of the programs you get out what you put in.

If you're interested in the experimental side of music I can well recommend you try one of these composition programs. Start with a demonstration version of M which is available from most PD sources – you can't get much cheaper than that.

We have by no means exhausted the range of budget music programs, but we've covered a good selection. Your Atari ST can be used in every aspect of music production from composition and orchestration to playing and printout – and on a budget, too. But don't forget the most important ingredient of all – you! If you have the ideas you don't need expensive hardware and software to make good music.

Drum editors

MidiDrummer 2

(£85.00 – a demonstration disc is also available for £5) from Square Dance Audio is a dedicated grid-based editor for creating drum patterns. It

is not totally unlike the drum edit grids in some up market sequencers.

It can handle 32 drums and you can create to 100 patterns and link them to produce a drum track. The drum assignments can be saved so it's fairly easy to alter the setup if you add to your system or change drum machines.

Automatic Note Assign will read in the Midi channel and note the number of any drum pad or key you press, so setting up is very easy.

Drum patterns can be saved in Midi file format, allowing you to load them into your sequencer – as long as it also supports the format. It's an ideal companion for an expander with built-in drum sounds and you'll probably find it easier to use than the programming facilities on most drum machines.

The Gem-based, mouse driven software is easy to use – you simply click on the icons

Intelligent Music's M is the most well known composition program

Everything the Programmer Needs

Assembler - included in the Developers Toolkit.

Batch files - a command-line interpreter is included in the Toolkit.

C - Prospero C is the first implementation of the ANSI draft standard for the Atari ST, and costs just £113 + VAT.

Documentation - over 750 pages with each compiler.

Extensions - we provide lots of useful extensions in each compiler.

Fortran - Prospero Fortran for GEM is a full implementation of the ANSI Fortran-77 standard, and costs just £113 + VAT.

GEM bindings - with 500 pages of documentation.

Hot-line - unlimited technical support is included in the price.

Interlinkable - you can mix our Fortran, Pascal, C and Assembler.

Judge for yourself - send for a free demo disk.

Kitchen sink - about the only thing NOT in the Toolkit.

Languages - are our speciality, for a wide range of computers.

Make - included in the Developers Toolkit.

Newsletter - distributed free to all registered users.

Optimization - peephole optimization gives improved code.

Pascal - Prospero Pascal for GEM conforms fully to the ISO standard, with many extensions, and costs just £86.91 + VAT.

Quality - our compilers are reliable and dependable.

Resource editor - included in the Developers Toolkit.

Source level debugger - included with each compiler.

Toolkit - the Developers Toolkit includes a macro assembler, resource editor, a CLI and other tools, yet costs just £60 + VAT.

Unlimited - programs can be as big as memory will allow.

Value for money - comes free with all our products.

Workbench - a multi-window editor designed for programmers.

X-reference generator - one with each compiler.

Yourself - our customers are very important to Prospero.

Zany adverts - like this one!

Prospero Software

LANGUAGES FOR MICROCOMPUTER PROFESSIONALS
190 CASTELNAU, LONDON SW13 9DH, ENGLAND TEL: 01-741 8531 FAX: 01-748 9344

ACC1 Over 50 files of Accessories/Utilities
ACC3 Contents, Goodies, Accessory loader
ACC4 Epson printer controller, Address book
ACC24 ARC shell, Mono Emulator
ACC26 Easy to use DATABASE program
ACC31 ST-Sheet, spreadsheet program
ACC57 DC-Formatter, StartGem, STDcat prg
ACC64 LC10 colour printer utility etc.
ACC69 Mouse pointer Editor, good!
ACC76 Opus200, the BEST spreadsheet - 1meg
ACC79 Quickdisk, the best utilities around

ART1 NEOCHROME, the BEST art package
ART4 Master Painter, all resolution package
ART9 Pearle, ray tracing package
ART25 ANI-ST, superb animation program

COM3 Uniterm, the BEST comms package
COM11 Worli-Mailbox for Radio Hams
COM16 Van-Term, brilliant program

DEM68 TEX AMIGA demo, the best Sound
DEM89 Lost boys POWER DEMO, 20 tunes
DEM111 JUNK DEMO by the Care Bears
DEM116 The UNION DEMO, simply the BEST
DEM155 CUDDLY DEMO, second Union demo
DEM164 WHATAHECK demo, the Care Bears

GAME2 Chess, Monopoly (USA), Backgammon
GAME11 KIDGRAPH, KIDGRID, KIDNOTE2
GAME19 Pickpocket, Barnyard, Cribbage

These are brief descriptions, disks may contain much more



EASY TEXT+, a full Desktop publishing program for only £20, why pay more! Ring for full details.
Plus we stock the 'Budgie' range of disks

Over 1000 disks FULL of great programs.
1-5 disks - £3 each
6-9 disks - £2:75 each
10 and over - £2:50 each
Buy 10 - get another FREE
send your own blanks and deduct £1 each from above prices else all prices inc. of Disk, Post & packing & VAT

GAME4 Floyd the Droid, shoot 'em up
GAM61 KIDPotato, ABC & Sketch
GAM63 KIDPUBLISHER, DTP for youngsters
GAM77 DDST, Dungeons & Dragons

LAN4 Adventure Writing System
LAN11 Smalltalk language
LAN12 ST-Icon language
LAN13 4XForth from the Dragon group
LAN27 Sozobon 'C' compiler
LAN35 Modula-2 development sys - 2disks
LAN32 Pascal language system

MISC2 Orbit, object tracker - mono
MISC21 Planetarium, just what it says
MISC22 Double Sentry, small business accounts
MISC23 Pools predictor, win a fortune now!
MISC29 Dungeon Master cheat disk

MUS5 32 Track sequencer + patch generators
MUS27 Digital Drumkit, colour only
MUS32 Composer - 1meg/mono, midi/keybrd
MUS36 16 voice sequencer, all res program

WP12 STWriter Elite, the BEST word pro'
WP55 Typing Tutor, teach yourself now!

STARTER PACK

Choose any 5 disks, get 5 blank disks + labels & a Library case for only £18:50
VIRUS KILLER DISK
loads of killers/detectors - £1:50 each (state ST)

Send an A5 size envelope (28p stamp)
for a FREE copy of our 96 page
catalogue. State CLEARLY the make of
your computer

Callers

Unit 5, Stratfield Park, Eletra Ave, Waterlooville, Hants PO7 7XN.
Ring for advice or to order on

0705 266509

Fax 0705 251884



Welcome

SOFTVILLE

VISA

DIY

Fingers on the buttons, here's your starter for 10... John Kennedy shows how to build your own ST quiz adaptor

quizmaster

ALTHOUGH the ST does not have a user port as such, we are lucky enough to be provided with a pair of useful joystick ports. A standard joystick consists of nothing more than five switches to control movement up and down, left and right and fire. By connecting our own switches to the ports, we immediately have a way of getting useful user input into the machine.

Probably the simplest use of this technique is a multiple choice box, which takes the form of a set of buttons, numbered one to five. With suitable software, the computer can be programmed to ask questions and display answers which the user can then choose from by pressing a button.

The project is cheap, simple and even potentially useful for various educational applications. The parts for the project can be obtained from most electronic stores, probably the hardest item to get hold of is the multicore cable.

I usually get my parts from the mail order supplier Maplins, so its order numbers are contained in the parts list. Asking another supplier for an XH76H will probably not get you very far.

Before you sign your cheque and post off the order, or travel 20 miles to pop into your local Tandy shop, please reconcile the list with the remainder of the article. Mistakes have been known to happen, and besides, you may wish to extend the project further than the simple design provided.

Once you have collected all the parts we can begin, so scatter everything over your table and switch on the soldering iron. First strip about 5 cms from one end of the multicored cable and then strip about half a centimetre from all the individual wires exposed.

Before they can be soldered to the nine way D connector – otherwise known as a joystick socket to you and me – they must be tinned with the

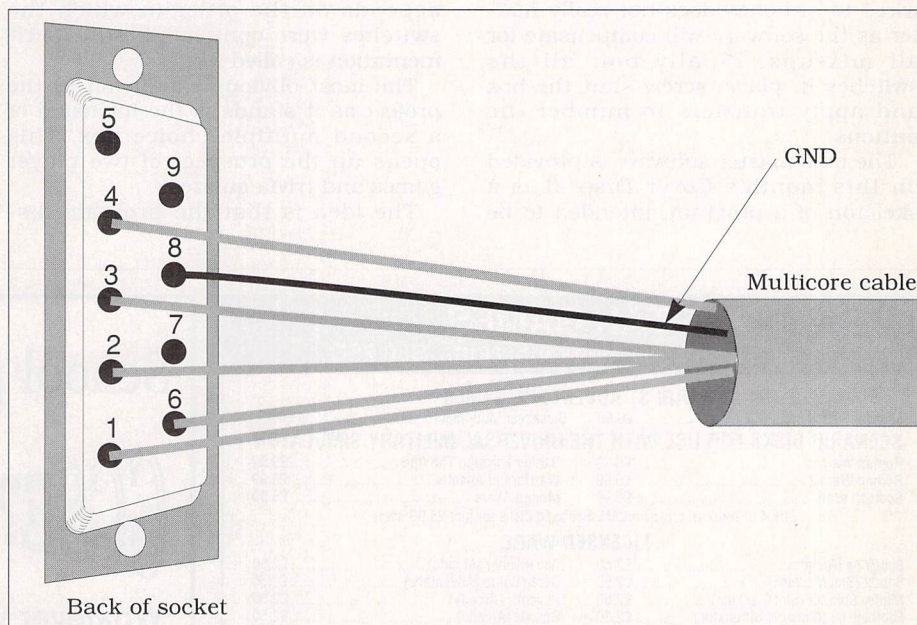


Figure 1: Connect the five signal lines and ground as shown

Parts list

Part No.	Description	Qty	Price each
RK61R	D-Range 9 way socket	1	60p
XR26D	Multi-core cable	1	52p
FH59P	Push-to-make switch	5	38p
LH14Q	Box	1	99p
XH76H	Number transfers	1	56p
			Total £4.57p

iron. Tinning, as you probably know if you have been following this series, involves letting a little solder melt over the wires to unite the tiny strands into one easy-to-handle wire.

Now the five signal lines and the single ground line can be connected to the socket. The pins to use are detailed in Figure 1. Don't worry about the order of the wires, as long as the

correct pins are used everything will work fine. The only wire you need to keep your eye on is the one connected to pin eight, the ground signal.

Once this plug has been connected, it is time to build the multiple choice box itself. Drill five holes in the top of box for the switches, and another in the side for the cable to pass through. If you don't have a drill to hand, a sharp knife can usually be used to bore through the box's soft plastic.

Before starting to solder the wire to the switches, pass it through the hole you drilled in the case. It will be difficult to do this after you have soldered the switches in place – so do it now before you forget.

Strip about 20 cms from the end of the cable and prepare the wires for soldering again. The ground wire must be connected to all switches, so solder little scraps of wire between them all.

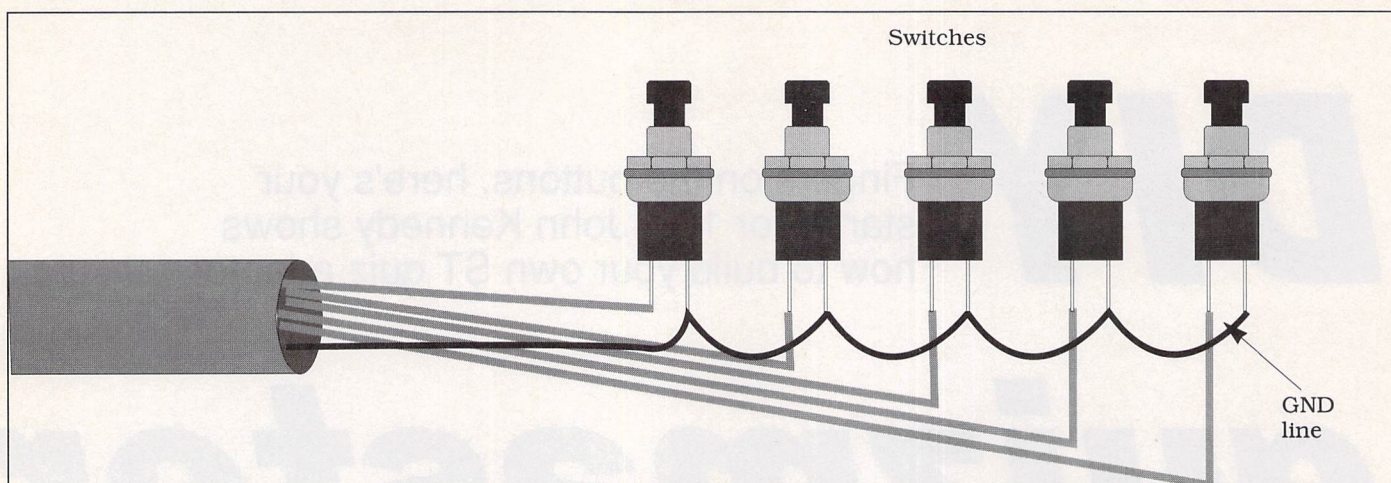


Figure II: The ground must be connected to all five buttons

as in Figure II. The other wires can each be connected to a switch to complete the circuit.

The combination of the remaining wires to switches does not really matter as the software will compensate for all mix-ups. Finally bolt all the switches in place, screw shut the box and apply transfers to number the buttons.

The quiz master software is provided on this month's Cover Disc. It is a skeleton of a program, intended to be

expanded and tailored to the purpose for which it is intended. Before using it, you must fiddle with the group of numbers in the first data statement. The order of the numbers zero to five depends on the order in which the switches were connected, so experimentation is called for.

The most obvious expansion to the project as it stands is the inclusion of a second multiple choice box. This opens up the prospect of two player games and trivia quizzes.

The idea is that the program dis-

plays a question followed by five alternative answers, only one of which is correct. The program then monitors the switches to see which contestant presses the correct switch first.

As an extension, you might like to bar a contestant from winning if he first presses the wrong switch. This would prevent someone pressing all five switches in rapid succession without even reading the question. The software, of course, simply monitors the joystick directions, so the programming is very simple.

TITAN GAMES

45 Windmill Lane, Worksop, Notts. S80 2SQ.

ATARI ST ADVENTURE GAMES

Shards of Time £6.99 Blackscar Mountain £6.99

SCENARIO DISKS FOR USE WITH THE UNIVERSAL MILITARY SIMULATOR

Roman Wars 1 £6.99 Battles Through The Ages £6.99

Roman Wars 2 £6.99 Warriors of Atlantis £6.99

Scottish Wars £6.99 Mongol Wars £6.99

Buy 4 or more of our own UMS Scenario disks for just £5.99 each

LICENSED WARE

Ball Zone (Arcade) £2.50 Ace Invader (Arcade) £2.50

Bandit (Slot Machine) £2.50 Death Camp (Adventure) £2.50

Money Spinner (Slot Machine) £2.50 Psychotic (Arcade) £2.50

Football '88 (Manager Simulator) £2.50 Galaxia (Arcade) £2.50

Made A Break (Quiz) £2.50 Mr. Dig (Mr. Do Clone) £2.50

PUBLIC DOMAIN GAMES

Triple Yahtzee Deluxe £2.50 Monopoly £2.50

Strip Breakout £2.50 Air Warrior (Flight Simulator) £2.50

5 Card Games £2.50 Vegas (4 Casino Games) £2.50

All Goods sent by return of post,
Telephone 0909 483017 for further details.

MORSE MASTER V1.0

THE complete morse tutor, with realistic 'on air' emulator and integral editor. The emulator allows complete control of your listening environment. Volume, Frequency, Drift, Noise channel and 'adjacent RTTY' Channel volumes can be tailored to suit your listening needs.

In addition to sending, your ATARI can also receive and decode morse from your own key, using the supplied interface cable. Useable by novices, radio amateurs, and professional radio operators alike, this product has got to be one of the best simulators around!

Comprehensive data sheets, send cheque or PO for £29.99, payable to BOSCAD Ltd at,

16 Aytoun Grove, Baldridgeburn, Dunfermline, FIFE KY12 9TA.

Tel: 0383 729584

BOSCAD Ltd

School problems?

GCSE?



**Whatever your age, whatever your subject
- let your computer help you learn.**

*Our range of leisure and educational software is now
available for most home and business computers.*

Subjects include ...

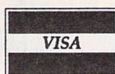
French, German, Spanish, Italian, English
History, Geography, Science, General Knowledge,
Football, First Aid, Sport, England, Scotland,
Natural History, Junior **Spelling and Arithmetic**

*Kosmos are specialist producers of Educational
Software designed to help you enjoy learning from your
computer. Our programs even allow you to add your
own lesson material.*

**Write or telephone for a FREE 20-page CATALOGUE of
our Educational and Leisure software.**

Kosmos Software Ltd, FREEPOST (no stamp needed)
DUNSTABLE, Beds. LU5 6BR
Telephone 05255 3942 or 5406





**2 William Clowes Street
Burslem
Stoke-on-Trent
ST6 3AP
Tel: 0782 575043**

All orders under £6 require 75p towards P&P. Over £6 P&P is free. Any game not released will be sent on day of release

ATARI ST SPECIAL OFFERS

Starflight	16.99
Rainbow Islands	13.99
Willow	7.99
Barbarian (Palace).....	7.99
Thunderbirds	6.99
Cybermold	5.99
Virus	6.99
Conflict Europe	7.99
Football Manager II	6.99
ST "5" Star	12.99
Talespin	9.99
Spitfire "40"	5.99
Dungeon Master	16.99
Chaos Strikes Back	15.99
Gauntlet II	7.99
Ikari Warriors	7.99
Buggy Boy	7.99
Bomb Jack	7.99
Strip Poker II +	7.99
Toobin	9.99
Pipe Mania	13.99
Targhan	9.99
Speed Ball	9.99
Super Wonder Boy	9.99
Dynamite Dux	9.99
Fighting Soccer	9.99
Altered Beast	9.99
Super Hang-On	7.99
Peter Beardsley's Soccer	7.99
Gato	6.99
Turbo Outrun.....	13.99
IK+	5.99
Fish	6.99
Jug	5.99
Orbiter	6.99
Op Wolf	10.99
Drakkhen	19.99
Player Manager	13.99
Risk	13.99
Op Thunderbolt	13.99
Black Tiger	13.99
Future Wars	16.99
Dragons Breath	19.99
Klax	13.99
Austerlitz	18.99
Paris Dakar Rally	17.99
Elvira	20.95
Theme Pary Mystery	19.95
Kid Gloves	14.95

ATARI ST SPECIAL OFFERS

Lost Patrol	16.95
Defenders of Earth	15.95
Crack Down	13.95
Jack Nicklaus Golf	16.95
Bomber	19.95
E-Motion	13.95
Sherman M4	13.99
Conquerer	19.99
Mid Winter	17.99
Tower of Babel	16.99
Bad Company	9.99
Castle Master	13.99
Cadeva	16.99
Gravity	16.99
Final Battle	16.99
Wolf Pack	16.99
Zombi	16.99
Ram Rod	15.99
Wild Streets	13.99
Stunt Car Racer	15.99
Infestation	15.99
Ivanhoe	13.99
Rings of Medusa	21.99
F29 Retaliator	16.99
Gazza's Super Soccer	15.99
Bermuda Project	4.99
1943	7.99
Sargon 3 Chess	6.99
Outrun	7.99
Shackled	4.99
SDI Cinemaware	5.99
Iron Trackers	5.99
Blasteroids	6.99
Human Killing Machine	4.99
Indy Jones Temple/Doom	9.99
Uninvited	6.99
Sundog	3.99
Grand Monster Slam	11.99
Italia 1990	4.99
Super Cars	13.99
Eye of Horus	5.99
Pirates	15.99
The Grail	3.99
Live and Let Die	6.99
Rock Star Ate Hamster	4.99
SAS Combat	4.99
Knitemare	4.99
Bangkok	7.99
Corruption	7.99

ATARI ST SPECIAL OFFERS

Captain Blood.....	4.99
G. Lineker Super Skills.....	4.99
Galdragons Domain.....	7.99
Manchester United.....	15.99
X Out.....	13.99
Vulcan.....	7.99
Sidewinder II.....	4.99
7 Gates Jambala.....	7.99
Pacland.....	6.99
Pacmania.....	7.99
Chambers of Shaolin.....	7.99
Vindicators.....	4.99
Xybots.....	8.99
Batman Cape Crusader.....	6.99
R Type.....	6.99
Lazer Squad.....	6.99
Worlygig.....	3.99
Rocket Ranger.....	7.99
Road Blasters.....	7.99
Voyager.....	6.99
Afterburner.....	5.99
Flintstones.....	5.99
Xenon 2.....	12.99
TV Football.....	12.99
APB.....	9.99
Xenomorph.....	15.99
Ballistix.....	7.99
Madhunter in N/Y.....	9.99
Menace.....	6.99
Baal.....	6.99
Millenium 2.2.....	9.99
Starglider II.....	6.99
Macadam Bumper.....	4.99
Daily Double H/Racing.....	9.99
Paint Works.....	9.99
Empire Strikes Back.....	4.99
Return of Jedi.....	4.99
Dragon Spirit.....	9.99
Goldrush.....	9.99
Bloodmoney.....	9.99
Galaxy Force.....	5.99
Chariots of Wrath.....	5.99
Super Scramble Sim.....	6.99
Bards Tale.....	7.99
Postman Pat.....	7.99
Warlocks Quest.....	4.99
Dragon Scape.....	4.99
Dominator.....	4.99
Kick Off.....	13.99

ATARI ST SPECIAL OFFERS

Fire Brigade.....	20.95
Slap Fight.....	4.99
Foundations Waste.....	4.99
Butcher Hill.....	4.99
Saint & Greavsie.....	4.99
Turbo Cup.....	6.99
Sorcerer Lord.....	7.99
Falcon.....	15.99
Gunship.....	15.99
Microprose Soccer.....	15.99
Red Storm Rising.....	15.99
Roy of Rovers.....	4.99
Future Wars.....	17.99
Prohibition.....	4.99
Billiard Sim.....	3.99
Spellbreaker.....	6.99
Hollywood Hijinx.....	6.99
Lurking Horror.....	6.99
Sea Stalker.....	6.99
Plundered Hearts.....	6.99
Suspect.....	6.99
Sorcerer.....	6.99
Planetfall.....	6.99
Star Cross.....	6.99
Ballyhoo.....	6.99
Witness.....	6.99
STOS.....	19.99
STOS Compiler.....	13.99
STOS Maestro.....	13.99
Ghouls & Ghosts.....	16.99
Treasure Island Dizzy.....	4.99
Hound of Shadow.....	16.99
Legend of Sword.....	6.99
Tracker.....	4.99
Space Quest 3.....	19.99
Mini Golf.....	6.99
Ghostbusters 2.....	16.99
Populus.....	16.99
Robo Cop.....	13.99
Lombard Rally.....	14.99
Silent Service.....	17.99
Fun School 2 Under 6.....	13.99
Fun School 2 6 to 8.....	13.99
Fun School 2 Over 8.....	13.99
Hammerfist.....	16.99
Colarado.....	19.99
War Head.....	16.99
Power Drift.....	9.99
Alpine Games.....	4.99
Sim City.....	19.99

Title/Item	Price
Total Cost £	

Name.....

Address

.....

.....

.....

Tel No.

Tel No.

STUS 0590

For all orders under £7 please add 75p P&P

Proprietors: S.A. and R.A. Beech

STE UPGRADE CHIPS

512K Expansion	£50
1meg Expansion	£85
2meg Expansion	£165
4meg Expansion	£315

Easy to Install. Fitted in seconds

We may be able to pay you £20 for your existing internal upgrade. Phone to discuss your requirements.

(051) 227 2482

**Perrymere Ltd, 46 Fenwick Street
Liverpool L2 7NB**

The ST Club

- ☐ The ST Club Newsletter - £8 for 12 issues or 80p for a sample copy.
 - ☐ Disk Mags - Newsletter subscription plus a disk full of the best PDsoftware with every other issue - £22.50
 - ☐ Public Domain Software - Our current catalogue details over 1,500 disks. Same day despatch on all orders and help available on using PD software. Free catalogue available.
 - ☐ Fontkit Plus 2 - The ultimate font utility for the ST. Version 2 includes a host of new features - £14.95. Write/phone for our information sheets on Fontkit Plus 2 and accompanying fonts disks.
 - ☐ Key Master - The keystroke recorder - allows up to 26 sets of 100 characters to be re-typed automatically. Price, with printed manual, £6.95.
 - ☐ Virus Killer - The latest version of Richard Karsmakers excellent Virus Killer. Published by CRL at £9.95 - available from us at just £6.95!
 - ☐ New! - Your Second Manual + free disk offer £9.95. Also: - Oxford Chess, Molgraph, The Astronomy Lab, Fontprint, Users Guide to 1st Word, Word Search, Guide to Timeworks DTP.
 - ☐ Books, Budgie UK games, ST accessories, Laser Printing Service and commercial software - wide range available at discount prices.
 - ☐ Our latest 32 page A4 catalogue and Club information pack is available free of cost - write or telephone for your copy.
- The ST Club - 49 Stoney Street - Nottingham NG1 1LX - (0602) 410241

Callers welcome Mon - Fri: 9.30 - 5.00
- No surcharges on European orders -

Reach the top
with ...

LCL

Self-Tuition Courses

World leaders - Hons graduate/teacher authors - At all major shows - £5 off total for 2, £10 off for 3



MICRO MATHS

NEW

Complete course taking beginners to GCSE in 24 programs on 59 topics + 2 books. £24 (ST, STE, PC, PCW, CPC, BBC)

PRIMARY MATHS, COURSE

Complete course taking age 3 years to secondary school entrance, using moving colour pictures. NATIONAL CURRICULUM levels 1-4, 24 programs + 2 books. £24 (ST, STE, PC, CPC, BBC)

MICRO FRENCH

Complete course taking beginners to GCSE, with real speech & graphics adventure game, 24 programs + 2 books. £24 (ST, PC, BBC).

MEGA MATHS

NEW

A-level step-by-step course of 24 programs. Full screen graphics for calculus. £24 (ST, PC, CPC, BBC).

HOME COLLEGE

Micro maths or French with VHS video £49.99 (ST, PC, PCW, CPC, BBC).

"...LCL are producers of some of the best educational software for the ST..." NEW COMPUTER EXPRESS

Send coupon and cheques/PO's or phone orders or requests for free colour poster/catalogue to:
LCL (DEPT ST) THAMES HOUSE, 73 BLANDY ROAD,
HENLEY-ON-THAMES, OXON RG9 1QB



or ring 0491 579345 (24 hrs)



Name
Address
Title
Computer

HAL COMPUTING

"The Five Star PD Service"

FREE CATALOGUE ON DISC

- Disc magazine format, easy to use, easy to read
- Includes free sample programs

To receive your free disc catalogue send either a blank disc + SAE or Cheque/PO for £1.00

*Printed catalogue still available
Send SAE or phone*

The Five Star Service includes:
GUARANTEED same day service; YOUR CHOICE double sided discs; help + advice; Reasonable prices and much more!

HAL COMPUTING

Dept DM1, 15 Regent Terrace, Leeds LS6 1NP
Tel: (0532) 435805 10.00am-5.00pm

ONE of the greatest recent advances in home computing is the advent of the wimp environment. The ST uses the standard Gem protocol, which means that, theoretically at least, all programs should share a common user interface.

In other words, the look and feel of any given program will be consistent to help the user quickly get to grips with any new package.

From the programmer's point of view there are both pros and cons to using a standard operating system such as Gem.

On the one hand, all the work of designing a custom interface has now been already done; on the other, actually writing a program to make use of Gem is far from simple.

Take the Basic language as an example. Basic is the most popular computer language ever, having recently overtaken that old stalwart Cobol for the number one spot.

It is a real workhorse, and with compilers readily available, professional quality software is entirely feasible. However, if there is one thing that Basic is not very good at, it is talking to operating systems such as Gem.

On the ST, GFA Basic is a popular alternative to the various other Basics available, and comes in two flavours; an interpreted and a compiled version. Both are very powerful languages, ideal for writing anything from games to spreadsheets. However, as you might expect, accessing Gem has always been difficult.

This means that programmers have been faced with the dilemma of spending a great deal of time trying to integrate their program with Gem – at the same time attempting to remain sane – or else chickening out and developing their own front end from scratch.

To help alleviate this problem, GFA has released a package aimed specifically at that strange, masochistic person who enjoys a challenge: The Basic programmer who wants to use Gem. GUP – or Gem Utility Package – works in conjunction with either flavour of GFA Basic (but requires version 3.03 upwards), and supplies a veritable plethora of features in the form of a programming framework.

The special Gem communication routines are all based around a main loop at the start of the Basic program. They are of three kinds – those which cannot be called directly, those which can, and those which are really extras, to be deleted if not required, so saving some space. Unless you are an

Guppy I ♥ ve

John Kennedy
explores a powerful
new Gem Utility
Package for
GFA Basic

advanced GUPpy – or just asking for trouble – you will rarely need to make any changes to these procedures, so they may be treated as simply extensions to Basic's repertoire.

The use of GFA's locked procedures means that all the extra code appears as several more lines at the end of your program, and you are protected from the coded horrors that dwell within.

Your own GFA Basic routines are easily tacked all around the main loop and called when necessary. Suddenly your program has developed a Gem environment. Well, not suddenly, because before you can get your Basic underway you will have to complete a large list of procedures to introduce

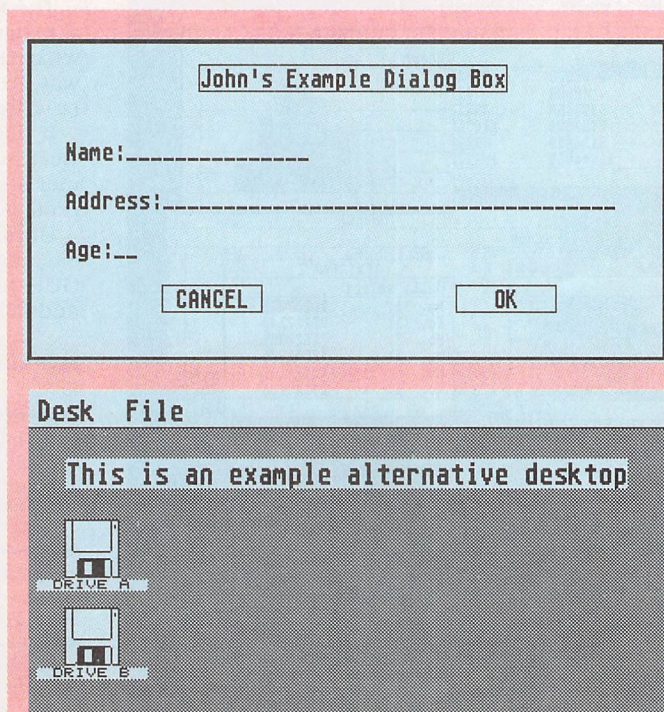
yourself to the Gem way of things.

However, there ain't no such thing as a free lunch, and so some limitations must be taken into consideration. Once Gem has been introduced to a program, several Basic commands suddenly become obsolete. Well-loved favourites such as PRINT, INPUT and the now-classic MOUSEX and MOUSEY are suddenly meaningless, being replaced by Gem counterparts.

For example, PRINT is now superseded by the TEXT function which also automatically positions the text in the current window. To allow users to INPUT information, a dialog box must be opened and provided with editable text. The loss of these commands is the price paid for Gem compatibility.

Up to six windows may be active at any time, but the way in which they are allotted at the start of the program means that the specific exit routine must be accessed to leave everything neat and tidy.

This obviously presents a problem if the program crashes midway through its execution, as the exit routine will be missed. If this happens, the only way a program can be restarted involves saving it to disc, quitting Basic to return to the Desktop, and re-starting. An



Accessing Gem from GFA Basic is now quite simple, thanks to GUP. Here is a simple dialogue box and an alternative desktop

utter nuisance if ever there was one.

To get a feel for the new commands now available, let's look at how to go about creating an example program and the output produced. A common element in Gem is the dialogue box, and because it do can do almost anything, it is also among the most complicated.

To use a box, the programmer must first create a resource file. Within these files – created with a special resource editor – the make up of the dialog box is defined in graphical form by means of cutting and pasting tools into place. A suitable editor is supplied with the GFA Basic interpreter, so you will have no worries on this account.

Once the box exists in the resource file, it may be accessed from within the Basic program by means of our new GUP commands. The example listing will set up a box to extract a name, address and age from the user.

The first half of the listing selects which box is being used, and the various fields required, before passing control directly to Gem. Once Gem has finished with the box – usually because the user has finished entering text – control is returned to the Basic program and the information remains in the internal global variables. From here Basic variables can easily be assigned to the new values typed into the box. Ideal for a Gem-based address book.

So what does the typical GUPpy look like? Who would want to use this package? Well, not the novice, that's for sure. The documentation supplied assumes the programmer is not totally new to either programming in Basic or with Gem. You will need a very good

```
GOSUB rscaddress(demobox&,0)      'Find the address of our dialog box
GOSUB set text(d name&,name$)      'Set up name field
GOSUB set text(d address&,address$) 'Set up address field
GOSUB set text(d age&,STR$(age&))  'Set up age field
GOSUB dialogbox (d name&,3)        'Start the box working

'To get past this point it is assumed the user pressed the 'EXIT'
'button in the dialog box and filled all fields

GOSUB editedtext(d name&,TRUE)      'Remove blanks from text
LET name$=edtext$                  'and assign text to string variable.
GOSUB editedtext(d name&,TRUE)      'Remove blanks as before
LET name$=edtext$                  'and assign text to string variable
GOSUB editedtext(d age&,FALSE)      'Blanks irrelevant in this field
LET age&=VAL(edtext$)              'change text to numeric value
```

The listing to produce the dialogue box on the previous page

grounding in advanced programming before large portions of the example listings appear nothing more than gobbledegook.

There is no point thinking that just because you can program in Basic you can easily add a Gem environment with this package – you will need a good book that explains what Gem is and how it works before you can achieve worthwhile results.

GFA itself just happen to publish suitable books on the subject, and for all would-be Gem programmers, this is an essential read.

The manual is comprehensive, but being translated from German means it lacks readability in places and is also very dull. Take this sentence as an example: "If you want to use Gem in the most efficient way, you should have some experience with Gem."

The first part of the documentation concentrates on the ethos of Gem, and how to go about making things as easy for the user as possible. This is a very

professional approach to programming style, and goes against the natural tendencies of many programmers to make things as easy as possible for themselves.

The second part of the guide details all the procedures in turn, giving parameters and examples. This part will become well-thumbed (with the help of the index, thank goodness) until you can remember the sometimes endless list of numbers which must follow each new procedure call.

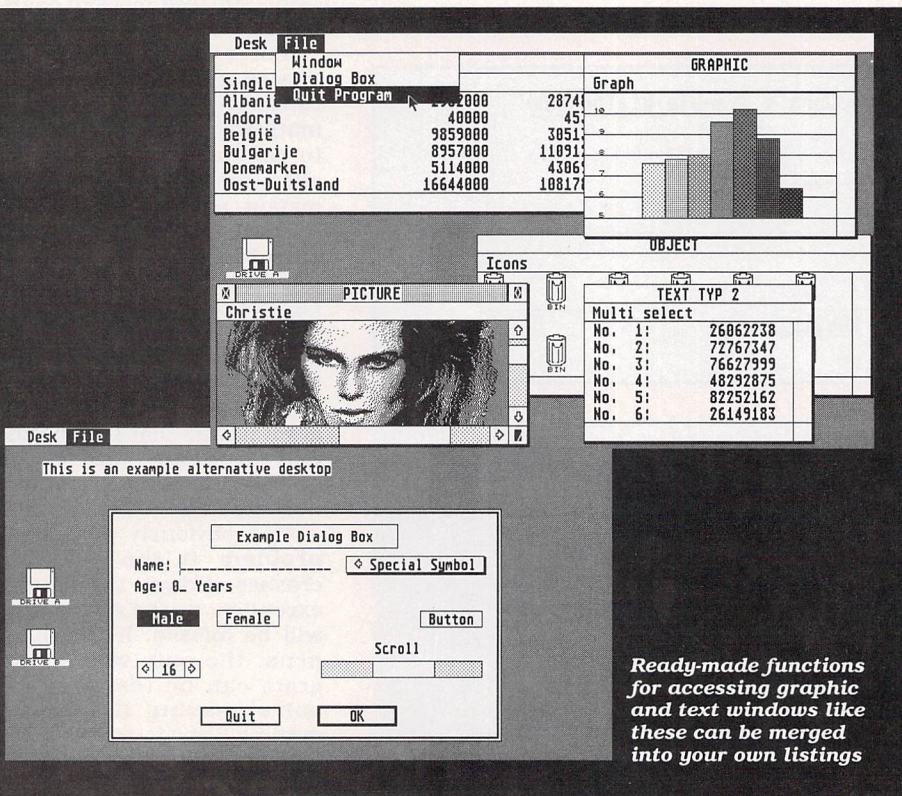
Undoubtedly the best way to learn how to use this package is to roll up your sleeves and get stuck into the demonstration file. This will open six windows to allow text to be highlighted and selected, graphics displayed and so on, but you will need a monochrome monitor.

Two versions of the GUP framework program are supplied, one with copious amounts of comments, and one without. Obviously the commented version is a good place to start, the stripped down version being reserved for hardened hackers.

The ideal GUPpy would already have a program developed, be conversant with Gem, and be waiting for some way to integrate both without having to write an entire library of routines.

If this is the case, GUP will provide a worthwhile addition to any programmer's collection, providing maximum professional finish with minimal effort.

Unfortunately, a beginner will easily become swamped when trying to use GUP, and should stick to using PRINT and INPUT, at least for the time being.



Ready-made functions for accessing graphic and text windows like these can be merged into your own listings

FACT FILE

Product: Gem Utility Package

Price: £00.00

Supplier: GFA Data Media, Box 121, Workingham, Berkshire RG11 9LP.

Tel: 0734 794941

POINTS FOR:

Powerful. At last Gem programs from Basic are feasible..

AGAINST:

Manual and examples could be better. Even experienced programmers will feel lost at first



SOFTWARE

!!!!ATTENTION!!!!

EDUCATIONAL GAMES

The Real Spelling Game 16.99
Launch code. Spelling Game 16.99
Caterpillar Spell 16.99

WORD UPDATE DISK (1) 6.99
WORD UPDATE DISK (2) 6.99

Darts (Maths Game) 16.99

GAMES

Road Run (Arcade Car Game) 17.99
Capture (3D Arcade Platform Game) 17.99

Buy 2 educational games and get a FREE Arcade game

M.B. SOFTWARE, 19 KENNION ROAD, ST GEORGE, BRISTOL, BS5 8BZ

P&P ADD £1.00

ALL CHEQUES AND POSTAL ORDERS MADE PAYABLE TO M.B. SOFTWARE

KAD-SOFT UK

THE NEW NAME IN ST PD

KS 1 - THE STE DEMO
KS 2 - THE UNION DEMO!!! Not STE
KS 3 - HACK - Superb Graphic Adventure
KS 4 - CHESS & American Football
KS 5 - HANOI S Sensori Triple Yahtzee
KS 6 - COLOSSAL CAVE Classic Text Adventure
KS 7 - WIZARD'S TOWER Text & Graphic Adventure
KS 8 - MONOPOLY Backgammon, Laser Chess
KS 9 - FLOYD THE DROID Very Good Shoot 'em up
KS 10 - UNDER BARKWOOD Massive Graphics Adventure
KS 11 - NEOCHROME + Slides Brilliant Art Package
KS 12 - ANI ST Brilliant Animation Package was Aegis Animator worth £80. Very easy to use
KS 13 - QUICKDRAW Pictionary by another name
KS 14 - PALLETTE MASTER One of the Best Art Packages
KS 15 - 16 VOICE SEQUENCER Brill Full Midi Prog. As Good as Any Commercial Prog.
KS 16 - BAT DANCE Sample Demo
KS 17 - DIGITAL DRUM Turn your ST into a Drum Machine
KS 18 - ST WRITER ELITE 'THE' Word Processor for the ST
KS 19 - D-B MASTER Very Simple and Very Good Database Program
KS 20 - VIRUS KILLER 'Doctoring The House'. Brilliant

KS 21 - MAIL MERGE for ST Writer. Loads of Features
KS 22 - DESK PACK Clock, Diary, Phone Book, Back Pack Type
KS 23 - AUTOROUTE Demo
KS 24 - TINY ART UTILITIES
KS 25 - SHEET 2 Spreadsheet. Best on ST
KS 26 - YOUR SECOND MANUAL FOR THE ST. A Book on a Disk
KS 27 - QUICK DISK UTILITIES, Q find, Q info etc.
KS 28 - EASY TEXT DTP Prog., very easy with Docs.
KS 29 - STOS UPDATE to 2.5 STE compatible
KS 30 - KID Graph, Grid, Music, Notes & Piano
KS 31 - KID Sketch Polato, ABC, Story
KS 32 - KID Song
KS 33 - KID Publisher
KS 34 - KID Rebus, Writer
KS 35 - 'C' COMPILER by M. Johnson - very professional
KS 36 - SHEET ONE original sheet spreadsheet but single sided
KS 37 - STOCKS stocks and shares trading game
KS 37 - UTILITIES DISK Rat trap, new word etc. etc.

ALL DISKS - £2.50 inc P&P
Ring for Free Catalogue
Overseas please add £1.25

We stock the entire range of Budge software including STE compatible programs and special offers on new utilities Sritemaster, Electronic Bank, 68000 Routines, New moving bytes program
1-3 disks - £3.75 each, all four - £14.00

DISKS
3.5" 135 tpi DD/DS Disks Unbranded (KAO, Sony)
100% error free. Certified very high quality will format to 880k easily.
10 £6.80 20 £12.85 50 £28.50 100 £54.00
All prices include P&P, Labels
No quibble Money Back Guarantee

ACCESSORIES
Disk Boxes
80 cap - £5.15
120 cap - £7.50
Mouse Mats - £4.00
Mouse Holders - £4.00
Mouse Joystick Ext - £4.80
ST/STFM Dust Covers - £5.00

1 mouse holder
FREE with every
10 P.D. titles

All commercial software
at 30% discount. Please
ring for details



We also stock a full range of Atari Computers
and Software at VERY SPECIAL PRICES.
Please phone for details.
Open 8am - 10.30 pm

Send Cheques & P/O's payable to
KAD-SOFT, 2 EBOR PADDOCK, CALNE WILTS. SN11 0JY
TEL: 0249 817174



OUR GUARANTEE

SOFTWARE

COMPUTER SOFTWARE PHONE/MAILORDER

Will not charge credit card customers for goods until day of dispatch.
We do not charge extra for phone orders, we will quote prices over the telephone, and send price list with every order if required - price list on request - large S.A.E. required.

3D Pool.....	£13.69	Ivanhoe.....	£13.99	Weird Dreams.....	£16.99
7 Gates of Jambala.....	£13.99	It came from the Desert.....	-	Xenon 2.....	£16.99
Alterburner.....	£16.99	Jack Nicklaus Golf.....	£16.99	Space WQuest 2.....	£16.99
Altered Beast.....	£13.99	Keep the Thief.....	-	Star Wars Trilogy.....	£16.99
Austerlitz.....	£16.99	Kick Off.....	£16.99	Stunt Car Racer.....	£16.99
B of Power.....	£16.99	Leisure Suit Larry 2.....	-	Time of Lore.....	£16.99
Batman the Movie.....	£13.99	Leisure Suit Larry.....	£16.99	Turbo Outrun.....	£16.99
Battlechess.....	£16.99	Licence to Kill.....	£13.99	Waterloo.....	£16.99
Beach Volley.....	£13.99	Live & Let Die.....	£13.99	Wings of Fury.....	£13.99
Bloodydych.....	£16.99	Lost Patrol.....	£13.99		
Bomber.....	£19.99	Manhunter.....	£19.99		
Cabal.....	£13.99	Microptose Soccer.....	£16.99		
Chase HQ.....	£13.99	New Zealand Story.....	£13.99		
Continental Circus.....	£13.99	North & South.....	£16.99		
Cyberball.....	£13.99	Onslaught.....	£16.99		
Damocles.....	£16.99	Operation Thunderbolt.....	£13.99		
Day of the Viper.....	£16.99	P47.....	£16.99		
Delux Strip Poker.....	£13.99	Police Quest.....	£16.99		
Double Dragon.....	£13.99	Populus.....	£16.99		
Dungeon Master (1 Meg).....	-	Powerdrome.....	£16.99		
Dungeon Master.....	£16.99	Quartz.....	£16.99		
Elvira.....	£19.99	Rally Cross.....	£13.99		
Elite.....	£13.99	Robocop.....	£13.99		
European Superleague.....	£13.99	Running Man.....	£13.99		
F-16 Combat.....	£16.99	Shadow of the Beast.....	-		
F-29 Retaliator.....	£16.99	Shinobi.....	£13.99		
Future Wars.....	£16.99	Sim City Maxi.....	-		
Galaxy Force.....	£16.99	Grid Iron.....	£16.99		
Ghostbusters 2.....	£16.99	Hard Driving.....	£13.99		
Ghouls & Ghosts.....	£13.99	Honda R.V.F.....	£16.99		
Indiana Jones (Adv).....	£16.99	Test Drive Duel.....	£16.99		
Infestation.....	£16.99	Triad 2.....	£16.99		
Interceptor.....	£16.99	Untouchables.....	£13.99		

BUSINESS SOFTWARE

Home Accounts.....£20.99
Personal Accounts Plus.....£28.99
Small Business Account.....-
Small Bus. Account Extra.....£99.99
K Comm 2.....£42.99
K Data.....£42.99
Superbase Personal 2.....£85.99
Fun School 6-8/over 8/under 6.....£16.99
Digital.....£34.99
K Spread 2.....£68.99
Protex V4.....£85.99
Degas Elite.....£20.99
First Word Plus.....£68.99
VIDI.....£99.95
Delux Paint 3.....-
Branded Disks 3.5" DS/DD Sony £9.99
5.25" DS/DD TDK (48TPI) £8.99
Unbranded Disks 3.5" DS/DD £7.49
5.25" DS/DD £6.99

All prices correct at time of going to press

MANY MORE SOFTWARE ITEMS AVAILABLE. SEE OUR GUARANTEE

All prices phone/mail order only, goods subject to availability or release date, above prices include VAT and P&P UK only. For European prices divide by 1.15 + £2.00 P&P per item, games only. Mail order, please make cheque/PO payable to Software, 41 The High Street, North Tawton, Devon EX20 2HG. Please allow for cheques to clear (5 working days) before goods despatched.



0837 82846
FOR PHONE ORDERS



PUBLIC DOMAIN

★ FREE DISKS ★ FREE DISKS ★ FREE DISKS ★

There is something in the Public Domain for everybody
FOR EVERY 3 DISKS YOU BUY, YOU MAY CHOOSE ANOTHER DISK ABSOLUTELY FREE
Just a small selection from our catalogue

GAMES	MUSIC	BUDGIE
G49 - Tennis Simulation G44 - Flight Simulator G45 - England Team Manager G43 - Treasure Search G38 - Wizards Tower G27 - Backgammon G19 - ST Vegas	M7 - 16 Track Sequencer M14 - Midi Scope M13 - PSS 680/780 Voice Ed M8 - MT32 Voice Ed M9 - TX812 Voice Ed M15 - Synth 50 M10 - FB01 Voice Ed	YOU HAVEN'T SEEN THE BUDGIE RANGE ? Order our FREE catalogue for full details
ART + GRAPHICS	UTILITIES	INFORMATION
A1 - Palette Master A3 - Master Painter A24 - ANI-ST A19 - Easy text Plus A20 - Fractal Zoom A22 - Movie Constructor A30 - Doodle	● Disk Copiers/Formatters ● Virus Killers ● Bulletin Board Systems ● Desk Accessories ● Football Pools Prediction ● Typing Tutors ● and much much more	P14 - Gem Information I1 - ST News I5 - Music Matrix I6 - Stuffed Magazine I7 - Stampede Mag P8 - C Tutorial P18 - Assembly Language
EDUCATION	BUSINESS	DEMOS
G9 - Spelling Made Easy G16 - Maths Made Easy G22 - Kidpotato/KidsABC Kidsketch/Kidstory G23 - Kidson/Kidpublisher G36 - History File G41 - Kidsmusic/Kidgraph	W1 - ST Writer Elite U12 - DB Master U9 - First Base U40 - Inventory Pro U42 - Opus Spreadsheet V17 - Home Accounts V13 - Data Handler	D39 - Nebulous - playable D15 - Auto Route D12 - STOS D30 - Space Ace D18 - Steinberg Pro 24 D40 - Cuddy Demo D60 - The Prisoner

--- BLANK DISKS ---

● Highest Quality ● Doubled Sided Double Density ● 135 TPI ● Protective Wallets
● Labels ● 100% Error Free
10 DISKS - £7.99 25 DISKS - £18.99 50 DISKS - £34.99
★ ★ ★ 100 DISKS - £59.99 ★ ★ ★

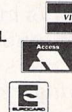
BOOKS - Buy a book and choose a FREE Disk of PD software

MTS - MT SOFTWARE

Woodstock House, 14 Lanes End, Totland, IOW, PO39 0AL

Tel: 0983 756056 9am - 8pm Mon - Fri
9am - 6pm Sat

HELP AND ADVICE FREELY AVAILABLE. Same day despatch



SEND SAE OR RING
FOR OUR FREE
CATALOGUE

WHEN the home computer was first launched on to an almost unsuspecting public, the standard method of storing programs and data was cassette tape. Tape is still used today, although mostly by games players on 8 bit machines such as the Atari XE.

In those far gone days of computing, cassette tape was the state of the art. Since then most serious users have upgraded to floppy disc, the advantages of increased speed and random access being essential for most serious applications.

Floppies, however, are easily lost or damaged, and even on the ST can only hold up to 720k of data. They can also be noticeably sluggish when used with software that requires constant disc access, for example a database package.

And so today many of us are probably seriously considering or have already opted for a winchester hard disc. A hard disc controller, and the drive, can be bought from several sources for approximately £300. So the immediate future would seem to lie in hard disc storage, at least for those who require more and more performance from their machines for applications such as DTP and CAD.

Advances in storage technology have produced advantages which will be felt most keenly by those applications which rely heavily on the storage of large amounts of data, mainly databases and database related software, but also including CAD and other image manipulation software which tend to be storage intensive.

However, there are still many applications requiring mass data storage which up until now have not been suitable for computerisation. Applications such as component catalogues, such as car parts, require not only text to be stored in the database, but also large amounts of diagrammatical or pictorial data, for example an outline diagram of a complete exhaust system for each make and model of car.

Further examples would be medical records, which may include X-rays and other applications requiring photographic detail, such as lists of properties available in an estate agency or reference material on natural history subjects such as birds, animals, plants, fish, trees, and so on.

CD-rom

Philips, the Dutch electronics company, has for several years been at the forefront of optical storage technology. The first result of its research was the release, with Sony, of high quality compact discs and players for audio use.

Sound information is converted to digital data and stored as a series of zeros and ones on the disc surface, thus allowing exceptionally high quality reproduction of music and vocals.

In 1986 – 900 years after William the Conqueror and the Domesday book – the BBC together with Acorn and Philips completed a two-year project known as the Domesday system, which will be familiar to many educational readers.

Philips' contribution featured the LaserVision videodisc player, developed especially for the project and thus heralding the era of optical disc computer storage.

The system uses a 12in optical disc holding 300 megabytes of data on each side of the disc. Information stored includes text, the software to control the system, Ordnance Survey maps of the whole of the UK, more than 50,000 photographs, sound and video sequences. This technology is commonly referred to as CD-rom, although Philips refers to its system as LV-Rom.

The Domesday system is controlled from a standard PC – or alternatively, RM Nimbus or BBC Master – so that, in theory at any rate, it could be run from an Atari ST with a PC emulator. The complete system, consisting of computer, software and LaserVision CD-rom player, is available for around £4,000. A number have been installed

in libraries, schools and by some courier services. Extra discs are available for approximately £400 each.

The original system contains two laser discs. Since then several additional ones have been produced,

including topics such as ecology – a video tour of a nature reserve – with video sequences of actual volcano eruptions on land and sea, and industrial and management training packages. These discs open up a whole new world of interactive video to users.

Recently we have seen the introduction of compact disc video, which reproduces not only high quality sound but video output also, so now you can listen to Dire Straits in high quality sound and watch them on high quality video.

As with CD audio, the quality is greatly enhanced due to the fact that the data is stored in digital format. For instance, still frames are of the same standard as the moving video sequences. All of this is now available for about £600 or so from your local

STreak



Atari's CD-Rom player was too far ahead of its time and never caught on. Is it time to relaunch it?

hi-fi and video shop.

The same type of disc is used to store data for CD audio, CD video and for CD-rom, although the 4in to 12in disc sizes vary. The disc is manufactured of moulded polycarbonate plastic with a reflective aluminium coating on either side. Pits are created in the surface during manufacture which cause a reflective or non-reflective spot, or pit, in this aluminium layer.

Each bit of data – zero or one – is represented by one of these pits, more than five million of which can be stored on a single disc.

This data can be read from the disc by a low power laserbeam, enabling the data bits to be placed very close together – only 0.6 micrometres apart (the average integrated circuit has circuit lines more than one micrometre apart). This makes a storage capacity of more than 500 megabytes per disc possible.

The discs cannot be written to by users, hence the term Compact Disc – Read Only Memory and are therefore mainly suitable as a publishing/distribution medium. In other words only pre-recorded information such as a catalogue, or the type of information available on the Domesday system,

can be accessed using them.

It is not possible to use CD-rom for personal data storage unless you are willing to pay to have your data pressed on to CD-rom.

There is still quite an advantage, as the discs themselves only cost about £5 each and can store a large amount of information. A typical CD-rom will store 250,000 pages of text, which is the equivalent of 1,000 floppy discs. Future developments will increase this by four times to 1,000,000 pages – enough to fill several filing cabinets.

Applications such as component and automotive parts catalogues can be updated regularly and cheaply by sending a new disc in the post and the information can be accessed much more quickly and efficiently than with the older microfiche type of storage. Library and public records catalogues can be maintained in the same way.

For those interested in buying a CD-rom player, Atari made an interesting development early in 1988. It has taken a standard CD audio player and added the extra error correction circuitry which is required to enable computer data to be stored with accuracy.

The odd erratic bit on your CD audio

will not be detectable by the human ear, but the same error in your computer files could cause havoc. The player was originally launched at around £400.

This player, known as the Atari Optofile CDAR 504, retains the ability to play audio compact discs as well as computer information. Unfortunately for us, this machine has only been released on the Continent so far, and even there it has not really taken off, being a little bit ahead of the market demand. As interest grows in CD-rom there could be a case for the machine being launched in the UK.

Another machine that may be of interest to ST owners with a PC emulator is the CD-rom drive supplied by NeXT Technology. The company manufactures the NeXT Computer, the first micro to use erasable optical storage and the latest machine from Steve Jobs, creator of the Apple Macintosh.

Its CD-rom drive will operate with any PC or AT-compatible machine capable of CGA, EGA, VGA or Hercules graphics and conforms to the industry standard High Sierra specification. That is, it can read standard audio CDs.

The drive can be fitted externally or, in place of a second disc drive, internally. Software available on CD-rom includes the Oxford English Dictionary, British Books in Print and Images from Space.

Another product which may interest Atari ST owners is the range of genlock systems available from Third Coast Technologies. These allow ST text and graphics to be mixed with the external video pictures from video tape, videodisc or camera, using PAL on Scart socket and PAL and RGB on connector.

The mid-range model also allows full fader control and VHS Super compatibility and the top-range model will accept all formats – VHS, Beta and so on – providing broadcast quality output.

Imagine, however, being able to use your computer to control your music and eventually also video. Games could be marketed on CD-rom which would make use of high quality sound and music, still and moving video frames, and computer graphics – all controlled by software stored on the same, uncorruptible disc.

Worm

Better still would be a system which allows data to be written to the disc as well as retrieved. Worm discs – Write Once Read Many – can be written to only once but can be read over and over again. They behave, therefore, in a very similar way to Prom devices and cannot be erased.

The optical drive on a Worm system contains two lasers instead of one. The high powered laser is used to write to

The technology is here, but where's the software?

of light

Much has changed since the days of using cassette tape for storage of data.

Raymond McCullough looks at the changes and what the future holds



EALING

COMPUTER CENTRE

No.1

Place for ATARI ST Computers
in West London. All prices inc. V.A.T.

This Months Special Promotions

NEW 520 STE Power Pack £359
(Includes mouse, joystick, games +
business software)

NEW 520 STE Explorer Pack
+ 4 games + joystick
£289

Hardware

FREE Hyperpack with all 520 STEs. Includes
Hyperdraw, Hyperdraw, Hyperpaint, Borodino
and a £50 voucher for games.

Atari 520 STE Power Pack £359
(£450 of software inc. Music, Organiser +
Joystick)

Atari 1040 STE (mod. TV) £449

Mega ST1 MB £489

520 STE Explorer pack (+ 4 games +
joystick) £289

Atari SM124 Monitor £119

Star LC24-10 Printer £239

Mannesmann Tally 81 £129

Hard Disk 30 MB Megafile £439

Ram Upgrade ST-no Soldering £99

Philips 8833 colour monitor inc. cable £229

Star LC10 £159

Star LC10 Colour £209

Panasonic KXB11 24 (24 pin printer) £279

Cumana 1MB external drive 3.5" inc PSU £89

DDL 1 Meg External Drive 3.5" inc PSU £78

Software and Disks

TIMEWORKS (30% off RRP)

Data Manager Prof. £49 £29

Desktop Publisher £69

Publishing Tutor £25

Word Writer £35

Partner ST £35

ANTIC (up to 30% off RRP)

Spectrum 512 £42 £29

Cyber Studio £56 £39

Cyber Control £42 £29

Cyber Paint £49 £39

Cyber Sculpt £56

Cartoon Designs £25

Video Titling Designs £25 £19

3D Developers disk £25

GST

1st Word Plus vers. 3 (new) £59

All above software in stock

DISKS

3.5" DS DD 10pcs KODAK £13

3.5" DS DD BULK 25pcs £20

19 Queens Parade, Ealing London W5 3HU. Tel 01-991 0928

Prices include Delivery for Software and small items. Next Day Delivery of Hardware £6.99, UK Mainland only. Above
prices for Mail Order, Shop Prices may vary. All offers subject to availability. E. & O.E. We are at the corner of Hanger
Lane (North Circular) & Queens Drive. Easy Parking. Most models in stock. VISA and ACCESS

10 DISKS 3.5" DS DD ONLY £5.99

with any purchase of
£100 or more.
Lowest price in UK?

3 1/2" Disks for 50p

Minimum quantity of only 10 disks
880k Certified error free D/S
135 tpi Disks including labels
Lifetime replacement
guarantee

- 10 or more Disks - 50p a disk
- 100 or more Disks - 49p a disk
- 250 or more disks - 48p a disk
- 500 or more disks - 47p a disk
- 1000 or more disks - 45p a disk

Make Cheques or Postal Orders Payable to
Seven Disk

All prices include VAT and Postage
Send a SAE for price list/order form

Seven Disk. Digswell Water Lodge.
Digswell Lane. Welwyn Garden City.
Herts. AL7 1SN

Seven Disk



(0438) 840 456 (24 hrs)



ALL OUR PRICES INCLUDE CARRIAGE & VAT

HSV COMPUTER SERVICES LIMITED (STU)

23, Hampstead House, Town Centre, Basingstoke, RG21 1LG.

3 1/2" DS/DD Disks Bulk - Fully Guaranteed

<u>25</u>	<u>50</u>	<u>100</u>	<u>250</u>	<u>500</u>	
*69p	*63p	*61p	*59p	*57p	*per disk

SONY 3.5" DS/DD
branded disks
£13.95 per
box of 10

Lockable Disk Boxes

50 x 3 1/2"	£5.95
100 x 3 1/2"	£7.95

Stationery... Stationery... Stationery...

Micro-perf all edges	<u>500</u>	<u>1,000</u>	<u>2,000</u>
9.5" x 11" 60gsm		£9.50	£15.95
True A4 70gsm	£8.50	£12.95	£23.95
True A4 80gsm	£8.95	£13.95	£25.95
True A4 90gsm	£9.75	£14.95	£27.95

Labels	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>
3.5" x 1.5" (1 across)	£5.25	£9.50	£17.95
3.5" x 1.5" (2 across)	£5.75	£10.50	£19.95
4.0" x 1.5" (1 across)	£5.75	£10.50	£19.95
4.0" x 1.5" (2 across)	£5.75	£11.95	£22.95
2.75" x 1.5" (3 across)	£4.75	£8.50	£15.95

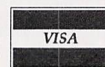
Accessories

3 1/2" Cleaning Kit	£4.95
Atari ST 1040 Dust Cover	£4.95
Atari 520 FM Dust Cover	£4.95
Atari 520 STFM Dust Cover	£4.95
Mouse Mat (Foam)	£5.95

External Disk Drive

3 1/2" 1 Meg External Drive
NEC Mechanism, Complete with PSU
Slimline Case, 12 Month Guarantee
£77.95

Order Hotline
(0256) 463507



Orders under £8 in value carry a small order charge of £2

➤ previously unused areas of the disc by burning pits into the disc surface. The information recorded is read using the normal low power laser as with CD-roms.

Using Worm drives for data storage will result in many permanent copies of files, which can be an advantage in some applications, for example to maintain an audit trail in company accounts.

Regular, hourly backups can be made to a hard disc, or floppy, with a final, optical backup at the end of each work session providing a permanent and incorruptible copy for security purposes.

In practice, although many files are created, it will take a long time to fill 500 megabytes of storage. When the limit is reached it is simply a matter of copying the most recent version of each file on to a new disc and carrying on from there, with the former disc remaining as an archive copy.

Bulletin boards

Worm drives are now available for PC compatibles – PC emulator users take note. Some enterprising sysops are employing them to store their main bulletin board database of news and information. Try John Lambon's Lamplight BBS on 0705 811531 for an example of this.

This system uses a Panasonic Worm drive with a double sided capacity of 400 megabytes. Although mainly an MSdos service the ST area is growing rapidly.

Magneto/optical

There is yet another type of optical system, the magnetic/optical drive, referred to as MO. These discs behave like an ordinary floppy or hard disc and can be written to over and over again. The process is very similar to

the operation of an eeprom but instead of an electrical signal a magnetic field is used to rewrite the data.

Again, two separate lasers are employed. The magnetic field is switched to represent zeros and a high powered laser is used to melt a very small area of disc surface, which then aligns itself magnetically with the existing field. The molten area solidifies immediately and is permanently set to zero.

All of the bits in a specific sector are set to zero and the field is then switched through 90 degrees so that the ones can be written in the same manner. As with previous methods, the disc is read using a low powered laser.

The disc is not susceptible to damage from magnetic fields after it has been written to and can be stored near a speaker or monitor without danger of corruption.

At present these MO drives are available almost exclusively for mainframe and mini computers and are extremely expensive – £9,500 for the Infinity system from Alphasatronics, running on Vax and Microvax equipment. The drives use a 5.25in removable cartridge with a 650 megabyte capacity.

Third Coast Technologies of Wigan, suppliers of ST hard drives, is currently investigating the possibility of a magneto optical drive for the ST and possess a 900 megabyte Sony read/write drive. If you happen to have £5,000 spare then you might like to talk to Jason Miller at the Wigan office.

The future then, would seem definitely to include optical storage, and we may well be using CD-rom, Worm drives or even MO storage in the very near future. This will have the effect of opening up many new areas to computing and should make a big impact on training and education, which is an increasingly important area of the Atari ST market. Interactive video is

already becoming popular for commercial and industrial training, where the learner, for example a trainee doctor, can make

his or her mistakes without endangering life and property. Further educational establishments should already be investigating this technology if they wish to compete in the training market of the future.

For those of us with personal computers the day may well come when we will use one erasable optical storage device to record music, videos, photographs, and all our computer software and data. We could then write simple programs to play back our own selection of sound, video, graphics and so on.

Family photographs could be scanned and a database set up using the scanned images, which could then be centred, enlarged and otherwise manipulated by software. Sequences of still frames could be put together to give an impression of movement. Video shots could be included, if available, and suitable stereo music and graphics added to complete the overall effect.

Interactive video games may become available, enabling much more reality to be incorporated into arcade and adventure games. Home videos using compact discs will be of much higher quality and could be edited and enhanced easily using the computer.

Reference books and catalogues may be supplied on CD-rom, enabling an incredible amount of information to be held on a home database.

The National Educational Resource Information Service (Neris) educational database is one example of the coming use of optical storage.

The database, of reference material for teachers, is available online for those with modems and a high disregard for telephone bills. It is also available on CD-rom disc for those with IBM-compatible machines.

Incidentally, Neris is a good source for information on interactive video releases and project material on a wide range of topics.

Predictably, more and more of this type of material will be made available in optical format in future, as the number of CD-rom users expands. This should have the effect of reducing prices so that ordinary users can consider investing their hard earned cash.

The one thing which we can hope for at this stage is that a standard format is agreed upon internationally, so that all of our optical media can be played on any of these machines, be they CD-rom player, Worm drive, or erasable magneto/optical drives. With CD-audio and video common sense has prevailed so far, so we can but hope.

Emigration database

In Northern Ireland there is considerable interest in a project currently under way at the Ulster American Folk Park in Omagh, County Tyrone. The staff there is using a high capacity Worm drive on a Digital Vax system to store details of emigrants from Ireland to North America and other parts of the world, particularly during the peak emigration period of the Irish famine during the last century.

Data is collected using a PC-compatible and stored on a second Worm drive for transfer to the main database. Sources used include newspaper advertisements from that period, old letters, journals, books and shipping lists.

Details of each source are stored on hard disc, along with a transcript of the document, and the Worm drive is used to store an A4 laser scanned image of the original document.

Librarian and system manager, John Winters says that the park hopes to set up an interactive search facility using micros to enable the public to access the main Worm drive as part of the main indoor display.

There are a number of sources, at prices ranging from about £2,500, such as the Panasonic LF-5200 which stores 200/400 megabytes each disc. As demand for this type of storage increases, so the price should become more reasonable. We have already seen this happen with both floppy and hard drives.

3 1/2"

**BENCHMARK
DISKS AND
BOX OFFER**

20 3 1/2" DS/DD 135TPI	
+ 80 Cap. Box	£20.00
40 3 1/2" DS/DD 135TPI	
+ 80 Cap. Box	£34.50
50 3 1/2" DS/DD 135TPI	
+ 80 Cap. Box	£40.00
70 3 1/2" DS/DD 135TPI	
+ 80 Cap. Box	£54.00
All disks 100% certified & guaranteed 135TPI	
All boxes inc Lock & Dividers	

3 1/2"

**BENCHMARK
DISKS AND
DS/DD 135TPI**

25	£17.80
50	£34.80
100	£63.25
200	£117.88
400	£223.68
600	£319.13
1000	£503.13

**DISK
BOXES**

3 1/2" - 100 Capacity Lockable	£6.95
3 1/2" - 80 Capacity Lockable	£6.50
3 1/2" - 40 Capacity Lockable	£5.25
3 1/2" - 10 Capacity Library Case x 5	£4.75
3 1/2" - 10 Capacity Wallet Type Library Case x 5	£4.75

ACCESSORIES

Mouse Mat Rigid	£4.50
Mouse Bracket	£2.50
Parallel Printer Cable	£7.25
25 Pin M - 25 Pin M Cable	£7.25
36 Pin M - 36 Pin M Cable	£8.25
2 Way 25 Pin Data Switch	£12.50
2 Way 36 Pin Data Switch	£14.50

3 1/2"

**UNBRANDED
DISKS DS/DD
135TPI**

25	£17.00
50	£32.00
100	£58.00
200	£109.00
400	£210.00
600	£298.00
1000	£471.00
2000	£892.00
5000	£2097.00
Inc Labels	

ALL DISKS SUPPLIED ARE 100%
CERTIFIED + GUARANTEED MIN WRITE
TO READ CLIP 60% INDUSTRIES
STANDARD IS 40%

ALL PRICES INCLUDE VAT & P&P. UK & BFPO ORDERS ONLY

Cheques and Postal Orders to:



24 HOUR ORDERLINE 0597 87784

**M
C
S**

Manor Court Supplies Ltd Tel: 0597
87792
Dept. STU6, Glen Celyn House, Penybont, Llandrindod Wells, Powys, LD1 5SY

EDUCATION AND GOVERNMENT ORDERS WELCOME

MONTHLY PAYMENTS TERMS ARE NOW AVAILABLE THROUGH LOMBARD TRICITY

**ATARI 520 STFM
DISCOVERY PACK**

Atari 520 STFM with built in 1mb Disk Drive,
Mouse, Owners Manual Sourcebook/Tutorial,
Metacom Basic, First Basic, Neochrome, ST Tour
Tutorial, STOS, Outrun, Carrier Command, Space
Harrier, Bomb Jack, Manuals.

ONLY £275.95

Plus FREE! A software starter pack including
wordprocessor, Spreadsheet, Word Count, Home
Accounts Program, Mono Monitor emulator,
Database, Tower of Hanoi, Virus Killer, Sensori
Fruit Machine Simulation

**ATARI 520 STFM
DISCOVERY PACK PLUS**

Contains all the items listed in the discovery pack
above plus !! Vinyl Computer Cover, Mouse Mat,
Twin Joystick Extension Lead, Ten DS/DD Disks,
2nd Joystick

ONLY £299.95

Includes our free software starter pack
as detailed above

**ATARI 520 STE
DISCOVERY PACK A**

Atari 520STFM with built in 1mb Disk Drive,
Mouse, Owners Manual Sourcebook/Tutorial,
Metacom Basic, 20 Game software pack,
Business Organiser, First Basic, First Music

ONLY £359.95

Includes our free software starter pack
as detailed above

**ATARI 520 STE
POWER PACK B**

Contains all the items listed in the Power Pack A
above plus !! Vinyl computer cover, Disk box for
80 disks, Mouse Mat, Twin Joystick extension
lead, Ten DS/DD blank disks, 2nd Joystick

ONLY £389.95

Includes our free software starter pack
as detailed above

**ACCESSORIES
PRINTERS**

Panasonic KXP1081	£169.95
Panasonic KXP1180	£189.00
Panasonic KXP1124	£279.00
Star LC10 (UK)	£169.95
Star LC10 Colour (UK)	£209.95
Citizen HOP45	£369.95
Citizen 120D	£138.00
Citizen 180E	£158.00
All Printer prices include connecting lead	

MONITORS

PHILIPS CM8833 Colour Monitor
ONLY £259.95 including lead

Atari SM 124 £109.95

DISC DRIVES

Cumana CSA354 1mb £92.95

New Mail Centa 1MB External 3.5"
Disc Drive ONLY £79.95

ABACUS BOOKS

ST Internals	£16.95
Gem Programmers Ref	£16.95
Machine Language	£16.95
Tricks and Tips	£16.95
Intro to Midi	£16.95
ST Basic to C	£14.95
3D Graphics Prog	£18.95
Disk Drives In/Out	£18.95

ACCESSORIES

Mouse Mat	£4.95
Twin Joystick Ext	£5.95
Mouse Pocket	£2.95
Printer Stand (2 piece)	£9.95
Contriver Mouse	£29.95
Sony 3.5" Disks Box 10	£12.95
3M 3.5" Disks Box 10	£10.95

SPECIAL OFFER

50 blank DS/DD 3.5" Disks for the
Atari ST series only £29.95

FINANCE ON ALL PURCHASES OVER £150.00 PLEASE RING FOR DETAILS

JOYSTICKS

Professional	£13.95
Professional +	£15.95
Cheetah 125+	£6.95
Cheetah Mach 1	£9.95
Konix Speedking	£9.95
Konix Speedking Auto Fire	£10.95
Konix Navigator Auto Fire	£11.95
Crystal Red or Green	£10.95
Crystal Turbo Red/Green	£12.45
Cruiser Clear Autofire	£10.95
Cruiser Multicoloured	£8.95
Cruiser Black	£10.95

SERIOUS SOFTWARE

First Word Plus	£58.95
Wordwriter	£36.95
Home Accounts	£18.95
Hisoft Basic	£59.95
Power Basic	£32.95
Fast Basic (Rom)	£69.95
Degas Elite	£18.95
STOS	£20.95
STOS Compiler	£13.95
STOS Maestro	£16.95
STOS Maestro Plus	£59.95
STOS Sprites	£10.95
Mavis Beacon Typing Tutor	£22.95
Lets Make Series	£8.95
Greetings Cards	£8.95
Signs and Banners	£8.95
Calendars and Stationery	£8.95
Art Library 1 or 2 (State)	£8.95

EDUCATIONAL SOFTWARE

Fun School 2 Under 6 Years	£13.95
Fun School 2 6-8 Years	£13.95
Fun School 2 Over 8 Years	£13.95
First Paint over 8 Years	£10.95
Jigsaw 5-8 Years	£10.95
Magic Maths 4-8 Years	£17.95
Maths Mania 8-12 Years	£17.95
Three bears 5-10 Years	£17.95
Learn to read with professor 4-9 Years	£20.95
Answer Back Junior Quiz 6-11 Years	£13.95
Answer Back Senior Quiz over 12 Years	£13.95

**ATARI 1040 STE
PROFESSIONAL PACK**

Includes: 1040STE with TV modulator,
mouse, manual, basic, sourcebook/tutorial,
Wordup Word Processor, K Spread 3
Spreadsheet, Superbase Personal Database

ONLY £469.95

VINYL COVERS

Atari 520ST	£5.95
Atari 1040ST	£5.95
Philips CM8833	£6.95
Panasonic KXP1081	£4.95
Star LC10	£4.95
Star LC24/10	£4.95
Citizen 120D	£4.95
Atari SM124 Monitor	£6.95
Atari SM125 Monitor	£6.95

FLIGHT SIMULATORS

Flight Simulator 2	£24.95
Jet	£24.95
European Scenery Disk	£10.95
Japanese Scenery Disk	£10.95
Hawaiian Scenery Disk	£10.95
Scenery Disk 9	£10.95
Falcon	£17.95
Falcon Mission Disk One	£14.95
F16 Combat Pilot	£16.95
Bomber	£21.95

STRATEGY GAMES

Borodino	£20.95
Armada	£20.95
Dungeon Master	£17.95
Chaos Strikes Back	£17.95
Ultima V	£20.95
Midwinter	£20.95
Fire Brigade	£20.95
Waterloo	£17.95
Austerlitz	£17.95
Red Storm Rising	£16.95
Bloodwych	£17.95
Bloodwych Data Disk	£10.95
Balance of Power	£16.95

MAIL-CENTA

17 Campbell Street, Belper, Derby DE5 1AP. Tel: 0773 826830

All prices include VAT and Delivery in UK. However, for orders under £10.00 please add a 50p handling charge.
Personal callers welcome at our retail shop but please bring this advert as prices may vary. Closed Wednesdays.

All items despatched same day whenever possible. Cheques may require a seven day clearance period.

Proprietor Martin Bridges





COMPUTERWISE BRIGHTON

ATARI ST SPECIALISTS

WE HAVE 100s OF SOFTWARE TITLES (MANY ARE NOW DISCOUNTED), BOOKS

AND PERIPHERALS IN STOCK AT ALL TIMES.

CALL IN TODAY FOR YOURS

£1000 INSTANT CREDIT AVAILABLE
TO PERSONAL CALLERS

0273 674626

OPEN 10 AM TO 5.30 PM MONDAY TO SATURDAY
44 GEORGE STREET, KEMPTOWN, BRIGHTON
OPPOSITE THE AMERICAN EXPRESS BUILDING



PRODUCT DESCRIPTION PURPOSE PHILOSOPHY

ST MUSIC MATRIX
MIDI DISK MAGAZINE FOR ATARI ST.
TO AID THE ST MUSICIAN TO UNDERSTAND AND WORK WITH MIDI
TO AIM TOWARD NEW HORIZONS FOR MIDI MUSICIANS

Educational by design. Covering every aspect of the MIDI and MUSIC data available for the ST computer. Each issue has files with Synth Editors, New Voices, News, Reviews, MIDI & MUSIC tutorials. Complete WORKING sequences. (1&7). Along with these extensive files each issue includes MFS SEQUENCES. YOU become the ARRANGER/PRODUCER of the music. E.g. Eroica Passage (Issue 1). ALGORITHMIC MUSIC GENERATORS - MIDI Demos. MIDI Software written in Basic. Series starting from scratch WITH EXAMPLE MIDI PROGRAMS in ST, FAST, GFA, POWER, HISOFT and STOS basics also TEACHING MIDI in 68000 Assembler. (Issue 5) Issue 7 NEW 16-TRAK SEQUENCER which supports MIDI THRU and EDITING, a KAWAI K1 Editor with new voice banks and KORG M1 DEFAULT VOICES. JUST RELEASED - ISSUE 8 With 50 NEW KORG M1 VOICES also 32 NEW KAWAI K1 VOICES, many Original MFS Sequences.

New CD quality sampling on the ST 16 bit, 45 KHz sound sampling on the ST.

German breakthrough makes it possible for under £250.

Midi compatible with sequencing and sample editing software.

Sound Libraries available to complete your sampling package.

Phone for latest details.

The MUSIC MATRIX costs £10 per Issue OR Any 4 Issues for £35.

ALL PRICES ARE INCLUSIVE OF VAT, P&P AND 1st CLASS MAIL DELIVERY



Available only from The Music Matrix, 14 Main St., East Wemyss, Fife KY1 4RU
PHONE 0592 714887 - 24 HOURS or PRESTEL mbx 21-9999-427

See us at
The Midi Music Show
London April 7-8
Stand No. 154

FORM PROCESSOR HORSE RACE ANALYSER

Form Processor is a powerful computer based race analyser, harnessing the power and speed of the computer to calculate the winning potential of each horse. Form Processor has been tried and tested over several seasons to produce a very accurate forecasting programme.

- No specialist knowledge of racing required
- No records to keep. Operates on a daily basis.
- Uses 29 different elements of form to arrive at a rating figure.
- On screen advice on whether or not to bet; and tells you why not.
- Will rate most types of race.
- Between 5-12 bets per week following selected top rated.

The ratings can be incorporated on your own systems or just used by themselves, which has shown a very good return over the past few seasons.

Form Processor can be operated every day or only at weekends, without any effect on the overall success rate of the programme.

Send £32 for the complete rating programme.

Available for Atari ST, Amstrad & IBM compatibles.

Please state make of computer.

**SD
SOFTWARE**

51/53 London Road
West Croydon
Surrey CR0 2RF

ATARI ST USER Classifieds

Use this space to sell your unwanted
Atari products to our readers. They're
all looking for a bargain!

- Wanted. 1st Word Plus 3 or above. Sheet feeder for star LC10C printer. 0742 430772.
- Blake's 7, Dr Who, Star Trek, ST databases, full episode guides, pics etc, £5 each or all £10. M. Cowley, 1 Severn Road, Stonehouse, Glos, GL10 2DJ.
- Atari 520ST £250 worth of games, Multiface, joystick, £275. Call Nik on 0362 850743
- Wanted. Teletext adaptor for Atari 520STFM. Phone 0268 756909.
- 20Mb hard disc system for Atari ST. As new, unused (original price £295) for sale, £200. Tel: 0488 683730.
- 520STFM, 2nd drive, Pro-Sound Designer sound sampler, Vidi ST video digitiser, games, 3 basic languages including STOS, Compiler, Quartet music program, magazine cover discs. All worth over £1,000, asking £650 for a complete professional user's set. Contact Stuart on Coventry (0203) 673866.
- ST1040, colour monitor, books, software, joystick, £475. Hi-res monitor, hi-res/low-res switch, £80. Buyer collects. Hants, 0705 256699.
- Genuine legitimate software. APL68000, £60. Signum II, £75. power Basic, £18. Wercs, £20. Stos, £15. GFA Basic, £10. Send cheque payable to M.F. Hammon, with total confidence. 20 Pine Tree Gardens, Cowplain, Hants, PO8 8AE - if not first will not be cashed.
- Atari ST software, all boxed half price. Tel: 0702 547602.
- Atari 1040ST, Amiga Commodore 1081 colour monitor, joystick, over £400 worth of games, scarcely used, £600. Tel: 0803 605164.
- For sale. Star LC24-10 printer, £200. Micro peripheral MP135 printer, £100. Both with spare ribbons. 0222 750568 evenings.
- Atari 520STFM, one meg ram, one meg disc drive, one year old, games, PD discs, word processor, £299 the lot. Herts, Shepherd. 044282 4393.
- Atari 520STFM 1 meg, Philips CM8833, Panasonic XP1081 printer as new, still boxed, hardly used. £400. John 0705 520316.
- Hand held Atari Portfolio computer together with parallel interface, two manuals, £200 ono. Evenings 0375 675757.
- Wanted. September 1989 issue of Omni magazine. Call Shipman 0454 773169
- Atari 520STFM with 1Mb internal drive plus Atari Summer Pack (20 games collection) and 5 PD discs including Neochrome and 1st Word. All boxed and in excellent condition, £199. Tel: 021-472 7805
- Printer for Atari, 9 months guarantee, Citizen 120D, £85. Swanwick, Derbys (0773) 602248.
- Pro Sound Gold only £30. ST games from only £3. Sae for list, guaranteed all originals. Ian, 26 Lowdell Close, Wiewsley, Middx, UB7 8AZ.

Ads will be accepted under the following conditions:

- This service is EXCLUSIVELY for the use of private readers. No trade ads will be allowed.
- To avoid encouraging software piracy, all ads will be carefully vetted before they are accepted.
- Ads can only be accepted on this form (or a photocopy of it).
- There is no maximum to the number of words you include. If there is insufficient room on the form, continue on a separate sheet of paper.
- The cost is 20p per word, with a minimum of 10 words.
- We GUARANTEE your ad will go in the next available issue of Atari ST User.

PLEASE PRINT THIS AD IN
THE NEXT AVAILABLE ISSUE

Cheque enclosed for £ (minimum £2 for 10 words), payable to Database Publications Ltd.

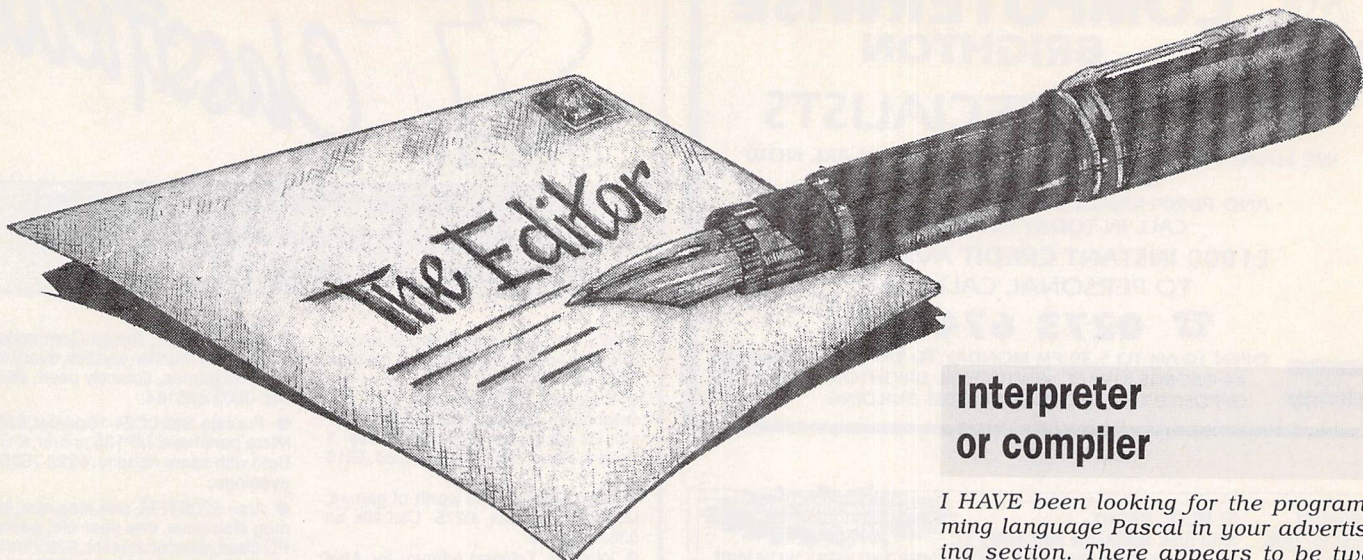
Name _____

Address _____

Daytime telephone number _____

POST TO: Atari ST User Classifieds, Europa House,
Adlington Park, London Road, Adlington,
Macclesfield, Cheshire SK10 4NP.

ST5



Somewhere, over the rainbow

I OWN an Atari 520STFM, a Philips 8833 colour monitor and a Star LC-10 colour printer. I have been trying to get the printer to output a screen in colour using the Alternate and Help keys, but so far have only managed to get a black and white print.

I configured the printer using the ST Language disc selecting the Install Printer Menu as follows:

Printer type	Dot
Colour	Colour
Pixels/Line	960
Quality	Final
Printer	Printer
Paper type	Feed

Pressing the Alternate and Help keys, as instructed in the User Manual, produces no response.

If I select black and white instead of colour I get a printout of the screen.

How can I print screens in colour? Does the Atari need a special colour dump program?

My second problem is with my communications package. I am using the ST with a MicroLink dual speed modem and K-Comm II software. On Prestel and Micronet the screens are extremely good but I get distortion in some frames. Please advise.

My Atari is two years old and I converted it to a double sided 1Mb disc drive. – **Michael Allison, Ware, Herts.**

● The ST can't dump a colour screen to the printer using the Alternate+Help function. You must load the screen into an art package such as Degas Elite and dump the screen from there.

Several printer drivers are supplied with Degas, and more are available in the public domain so you should be able to find something suitable.

The distortion on Prestel screens is due to the fact that K-Comm II can't exactly reproduce the teletext character set.

Interpreter or compiler

I HAVE been looking for the programming language Pascal in your advertising section. There appears to be two versions available at the moment – HiSoft/OSS Personal Pascal and Prospero Pascal. There was a third, Metacomco Pascal but this does not appear to be available any more.

I am trying to obtain an interpreted version of Pascal as opposed to a compiled version as I believe that this is far easier to use for the beginner.

Both Atari and the local Atari stockist seem to know very little about the available Pascal packages and I would be grateful for your recommendations on the most appropriate version. – **A.J.W. Roberts, Bristol.**

● We haven't heard of any commercial or public domain interpreted versions of Pascal, only compiled ones. Both compilers you mention are excellent in their own ways, but Prospero is probably better for a novice programmer because of the superb documentation supplied with it.

However, OSS Personal Pascal has a quicker edit-compile-run-edit cycle and produces more compact code. If money is no object buy both!

Installing the ram disc

ON the Cover Disc of the November 1989 issue of Atari ST User, is a ram disc application entitled RAMDISC.TTP. I cannot find any documentation either in the magazine or on the disc to enable me to install this on my Mega 2.

When the dialogue box asking for TTP parameters comes up on the screen I have tried various combinations of commands, to no avail.

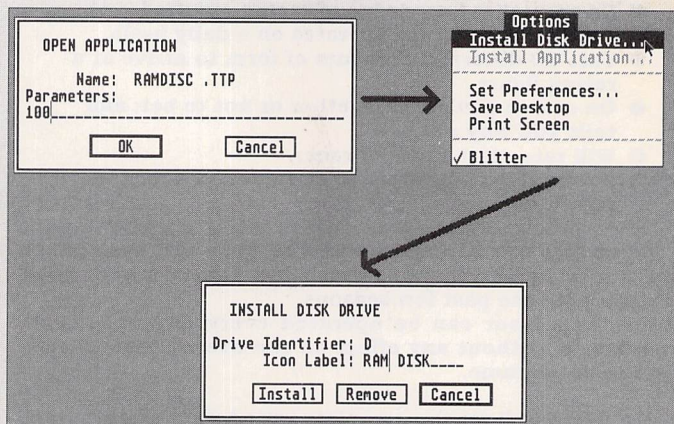
By keying in a capacity in kilobytes I can get the program to give me the message: "Ramdisc of ***k bytes installed". But when I try to use the ramdisc I get the error message: "This disc does not exist".

I have managed to install an icon for the ramdisc and save it to the desktop so that it reinstalls with the next bootup, but no ramdisc to utilise it. I

would appreciate it if you could give me the information I need to use this ramdisc. – **Michael Wassil, Ontario, Canada.**

● This tiny utility occurred several times on the Cover Disc and instructions can be found in the August and September 1989 issues of Atari ST User. You need to double click on RAMDISC.TTP and type in the size (in k) of the ram disc you want. It will then be installed.

You can't access it yet, however, as you need to install a disc drive icon as



shown in the illustration above. Click once on a drive icon, then pull down the Options menu on the desktop and select Install Disk Drive. Change the drive identifier to D and the icon label to RAM DISK then click on Install. The ram disc is now ready to use.

Blow your mind with an STE

JUST before Christmas I bought an Atari 520STE and after already being the owner of two STs previously, the first thing I did was to upgrade the memory to one megabyte. It only cost £60 and took the shopkeeper 10 minutes to fit.

Shortly after Christmas I found every magazine pulling my beautiful computer to pieces. Quotes: "The blitter chip is a waste of time"... "mono emulators don't work"... "medium res doesn't work"... "PC format is no good" and "1st Word Plus doesn't work".

Well 1st Word does work because this letter was written with it.

Also I have a very good monochrome emulator that works perfectly, and if you save the desktop while in monochrome to any disc you want to boot in medium resolution it will end the medium resolution boot problem.

If the blitter is such a waste of time how is it that every Gem-based program I have is speeded up tremendously? Also a friend of mine works with PC computers and has tried discs formatted on my ST and has had no problems.

Why oh why is everyone so eager to pull the STE to pieces when it is such a powerful, fully specified machine, with which I am more than happy?

I brought a nice amplifier and good quality speakers from a second-hand shop for £25, the price of a game, rigged it up via the phono sockets and wow! Mind blowing! Absolutely brilliant! Roll on stereo software. – **Richard Cundell, Leicester.**

Right one for the STE

AS my Atari ST User subscription includes a double sided cover disc I decided to change my ageing single sided STFM with a new STE.

I was, therefore, very concerned to read in the March issue of software compatibility problems, and was totally amazed to find these problems on your Cover Disc. I refer to Death Star, which will load without problems on the STFM but not on the STE. In fact I find I cannot load any software written in STOS. This includes Fun School 2 from Database Educational Software.

Is there a remedy to this problem and can you suggest any way of ensuring future software I buy is compatible? I would appreciate your help. – **K. Rice, Wigan.**

● Death Star was supplied by a freelance programmer and unfortunately

Each month we select a letter of the month and the sender receives the program which our reviewers have rated Atari ST Star game. This month E. Thai will receive Escape from the Planet of the Robot Monsters, which is reviewed on Page 22. Letters on every subject are welcome. Send them to the Editor, Atari ST User, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP.

I, LIKE many other not so rich ST owners, cannot afford the deluxe hand held scanners, and therefore turned to the cheaper IMG unit. I am sure some people are experiencing difficulty in attaching this scanner to the printer head securely so that it will not fall off in use.

I have discovered a way of installing it so that it won't wobble and can easily be installed and removed without having to adjust the position of the scanning head. I used the old ribbon cartridge for my Star LC10 printer, a small hacksaw, superglue and a screwdriver. Here's what to do:

Using the screwdriver, remove the top of the ribbon cartridge, making sure you don't damage it. Throw away the ribbon and any other loose parts, but keep the casing. Saw away the right-hand corner of the top and bottom parts as shown in the illustration.

Take the top clip and pass the scanner tubing half way through –

Scan it with superglue!

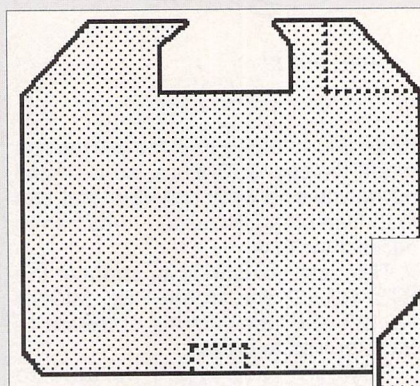
ATARI
STAR
USER GAME

you won't need the bottom clip. Place the bottom half of the ribbon cartridge into the printer as normal.

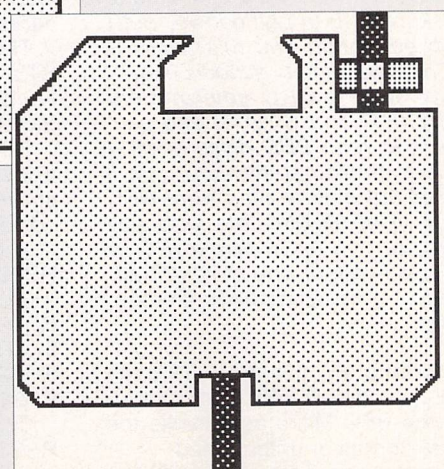
Place the clip and scanner head into the ribbon cartridge so that the scanning optical fibres poke out through the side corner you cut out. To achieve this one quarter of the clip may be hanging out, so make sure the fibres reach the print drum.

Take the cartridge out of the printer, make a mark on it and superglue the clip on. Place the cartridge and scanner in the printer and adjust it so that it is as close to the drum as possible. Place the cover on the cartridge so the lead comes out through the hole you cut. Make any final adjustments necessary then you are ready to scan.

You now have an easily installable and removable scanner cartridge. The cable can easily be pushed forwards or backwards through the clip and you can be sure that it won't fall off during scanning. – **E. Thai, Ramsgate, Kent.**



Cut along the dotted lines



Thread the scanner cable through the cartridge

wasn't tested on the STE. The reason this, and other STOS software, won't work is that the programs were written with an old version of STOS that was released before the STE became available. A STOS upgrade utility is available in the public domain.

Database Educational Software will exchange Fun School 2 for an STE version free of charge. Post your copy to them at Freepost, Europa House, Adlington Park, Adlington, Macclesfield, SK10 4BY. No doubt other software houses will offer a similar

service, but contact them first.

Software publishers will now have had the new machine for quite some time, so new software should be compatible with it.

Many happy returns

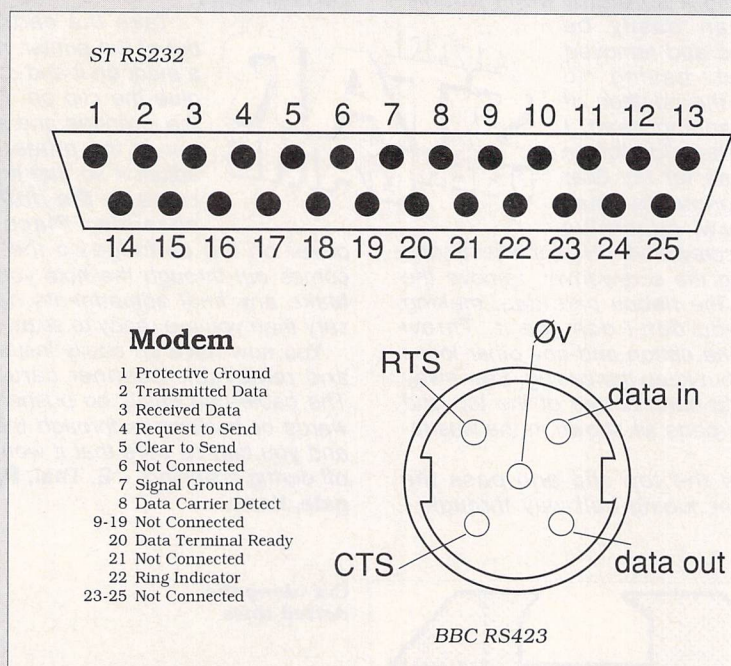
I RECEIVED an Atari STE Power Pack for Christmas and am very impressed with it. I'm also impressed with your

cool, mega Atari ST User.

But I have to say that your magazine would be much better if you had the disc on the front cover, rather than having to send off for it. Don't worry though, I'm still going to buy it. – Niel Anderson, Ross-on-Wye.

● Thanks for the letter Neil, and thanks to everyone else that wrote on that subject. The disc is obviously very popular, so we decided to bring it back. Let us know how what you think of it – do you prefer demonstrations, games, utilities or public domain programs?

Reading BBC Micro discs



CAN you help? I have a 1040STE with a 40/80 track switchable 5.25in drive attached. I would like to be able to run BBC software on it from time to time. I know it is a comedown, but I work in education and this micro is what Cheshire primary schools use.

I have tried a BBC environment emulator (BTMsoft STDFS) and cannot get it to read BBC discs at all. I remember reading somewhere that it can read the picture files from BBC discs. Is it at all possible with any emulator or is a fix available (PD or other)? Can you, or one of your readers help? – R. Burgess, Crewe, Cheshire.

● Unfortunately, the Atari ST can't easily load software from discs formatted on the BBC Micro as it thinks the discs are corrupt or unformatted.

A few experiments with HiSoft's

Knife ST revealed that the ST can be made to read BBC discs, so it should be possible to write software that can load files off a BBC disc – if someone cares to write it.

The best solution is to connect the ST's RS232 port to the BBC Micro's RS423 and use comms software to transfer files and data.

However, you won't be able to transfer the majority of commercial software due to the protection methods employed.

The figure shows the RS423 and RS232 sockets on the BBC Micro and Atari ST. Connect the Data In of the RS423 to the Transmitted Data pin of the RS232 and the Data Out of the RS423 to the Received Data of the RS232.

Connect the RS423's Ov to the RS232's ground. The RS423's CTS and RTS can be linked together.

Slipshod service

I WAS certainly not surprised to read of the problems C. Benham encountered in receiving a reply from companies (Letters, March 1990) since I have experienced similar problems.

I am currently hoping to buy a hard disc, and in January wrote to 10 companies asking them to send details of any appropriate 20 or 30Mb discs that they sell.

With only one exception (Frontier Software) I had to write a further letter two weeks later requesting a reply, in some cases pointing out that I needed the information urgently to enable me to buy the disc by the middle of February.

It is now well past that date and well over four weeks since I sent out the second batch of letters, and five companies have not given me the courtesy of a reply.

Of the five that did reply, Frontier Software wrote me a personal letter and actually supplied me with what I wanted – a product specification fact sheet and not just a catalogue of all its products.

After the second attempt, Power Computing sent me a fact sheet and Silica Shop a personal letter, but without specific details beyond price.

I think this exercise shows that a lot of companies would benefit from proper marketing as this was an opportunity for the sale of an unspecified number of hard discs.

It takes very little to persuade a potential customer who is in searching to buy, and what persuades me is reasonable service and full details of products that I ask about.

Since there may be genuine reasons why I did not get the required level of service from the other companies – resources, postal problems and so on – and I have no desire to give adverse publicity based on a one off, I have only mentioned the companies that gave me satisfactory response. – K. Bolton, Oxford.

SUBSCRIBE

AND RECEIVE UP TO ISSUES FREE!

7

YES – you will only pay for 24 issues when you take out a subscription for the next 31 issues of Atari ST User. *That means SEVEN issues completely free!*

And if you take out a 15 month subscription we'll only charge you for 12.

What's more, as a subscriber you'll also be able to take advantage of our many exclusive money-saving offers which will be posted to you every month.

But note: This particular offer **MUST** end on June 30 – so complete the form alongside and return it without delay!

If you are a current subscriber you haven't been forgotten. Take advantage of this unrepeatable offer by asking for early renewal of your subscription, which will then be extended as necessary.

ATARI ST USER

SUBSCRIPTION

ORDER FORM

Valid to June 30, 1990
Please tick the appropriate boxes

Please register my subscription to Atari ST User
– including
my **FREE**
monthly disc!



15 MONTH SUBSCRIPTION (UK only)

		New	Renewal
UK	£29.95	<input type="checkbox"/> 9366	<input type="checkbox"/> 9367
Europe & Eire	£34.95	<input type="checkbox"/> 9356	<input type="checkbox"/> 9357
Overseas Airmail	£49.95	<input type="checkbox"/> 9358	<input type="checkbox"/> 9359

31 MONTH SUBSCRIPTION (UK only)

		New	Renewal
UK	£54.95	<input type="checkbox"/> 9368	<input type="checkbox"/> 9369
Europe & Eire	£63.95	<input type="checkbox"/> 9362	<input type="checkbox"/> 9363
Overseas Airmail	£91.95	<input type="checkbox"/> 9364	<input type="checkbox"/> 9365

Orders received by May 23 will commence with July issue

Payment: please indicate method (✓)

<input type="checkbox"/>	Cheque/Eurocheque made payable to Database Publications Ltd	Expiry Date	<input type="text"/>
<input type="checkbox"/>	Access/Mastercard/Eurocard/Barclaycard/Visa/Connect	No.	<input type="text"/>

Name Signed

Address

Post Code

Daytime telephone number in case of queries

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

Order at any time of
the day or night

Orders by phone: 051-357 1275

Orders by fax: 051-357 2813

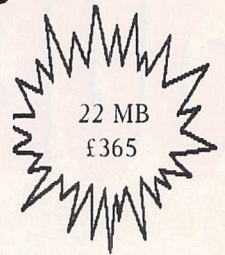
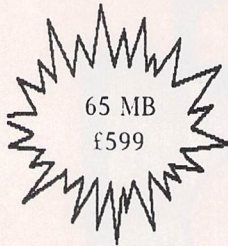
Orders by MicroLink: MAG001

Don't forget to give your name,
address and credit card number

General Enquiries: 051-357 2961

THIRD COAST TECHNOLOGIES

ATARI HARD DISKS & TAPE BACKUP DEVICES



FEATURES

FASTER THAN ANY OTHER COMPETITOR
AUTOBOOT & AUTOPARK
BATTERY BACKED REALTIME CLOCK, CALENDER
UPTO 128 USER PARTITIONS
DMA IN & OUT ALSO SCSI OUT & IN
COMPATIBLE WITH ATARI ST, PC AND MAC
HIGH SPEED PROGRAMMABLE CACHING SOFTWARE
MATCHED IN ATARI GREY WITH AIR BRUSHED LOGO
SUPPORTS A SECOND DRIVE & TAPE BACKUP#
65 WATT CASED ASTEC PSU WITH AIR COOL FAN

FEATURES

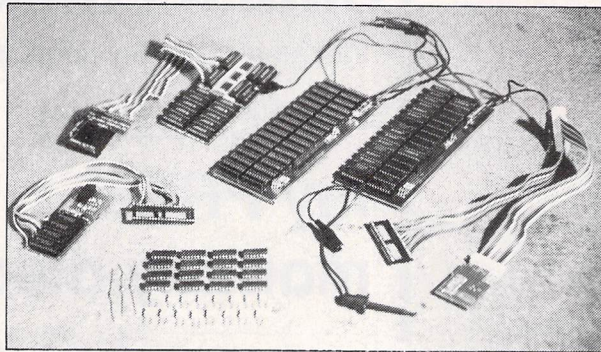
155M/BYTE TAPE BACKUP
BACKS UP 20 MEGS IN UNDER 1.5 MINUTES
SUPPORTS INTERNAL SCSI DRIVE
EXTERNAL SCSI ID SELECTORS
PORTABLE BETWEEN DIFFERENT ATARI,S
USES INDUSTRY STANDARD CT 600N TAPES
BACKS UP ALL NON GEM FORMATS
COMPATIBLE WITH ALL HARD DRIVES
OFFERS ALL FEATURES & UTILS AS TCT HARD
DISK DRIVE

£699.99

PRICING

22M/BYTE SCSI 49 MILLI	£369.99
22M/BYTE SCSI 38 MILLI HEAD PARK	£399.99
32M/BYTE SCSI 48 MILLI	£439.99
32M/BYTE SCSI 25 MILLI HEAD PARK	£479.99
45M/BYTE SCSI 25 MILLI HEAD PARK	£499.99
50M/BYTE SCSI 25 MILLI HEAD PARK	£525.99
65M/BYTE SCSI 25 MILLI HEAD PARK	£599.99
85M/BYTE SCSI 25 MILLI HEAD PARK	£699.99
106M/BYTE SCSI 15 MILLI HEAD PARK	£899.99
150M/BYTE SCSI 15 MILLI HEAD PARK	£1250.99

ATARI RAM UPGRADES

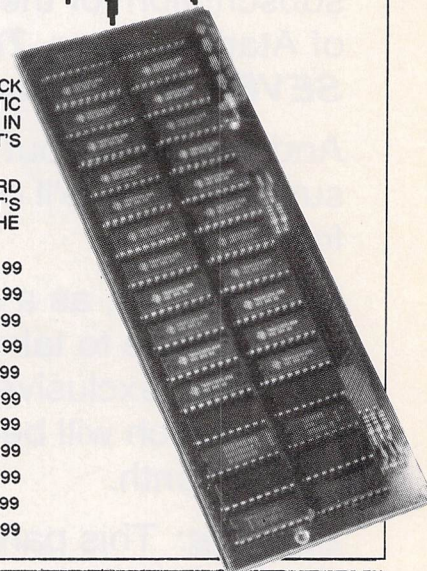


THIRD COAST ANNOUNCE A SERIES OF FULLY SOLDERLESS PLUG IN RAM EXPANSION BOARDS

PLUG IN BOARDS ARE AVAILBLE WITH OR WITHOUT RAM CHIPS. OUR BOARDS REQUIRE NO SOLDERING OR TRACK CUTTING AND ALLOW A USER TO FIRST UPGRADE TO 1MEGABYTE & THEN TO 2.5 MEGABYTES AND UPTO A REALISTIC 4 MEGABYTES. WE OFFER A COMPLETE SOLUTION FOR ATARI'S WITH SURFACE MOUNT MMU'S AND HAVE PLUG IN BOARDS ESPECIALLY DESIGNED FOR THESE TYPES OF ATARI MACHINES. OUR BOARDS FIT ALL ATARI ST'S (520ST,520STFM, 520STE, 1040STF,1040STFM, MEGA 1&2

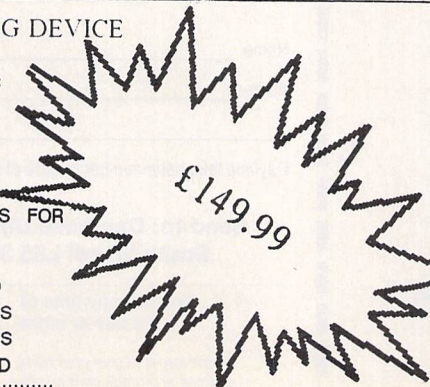
TRULY THIS IS A PRODUCT THAT OFFERS NO MORE MEMORY HEADACHES AT 0.5 MEGABYTES OR 2.5 MEGS. THIRD COAST ALSO OFFER BOARDS THAT PLUG UNDER THE ST'S SHIELDING AND THUS RFI WILL NOT AFFECT THE ST'S MONITOR. ASK FOR THIS TYPE OF BOARD, MORE IMPORTANTLY ASK OUR COMPETITORS IF THERE BOARD BREAKS THE AMERICAN RADIO FREQUENCY INTERFERENCE LAWS.

520-1040 RAM UPGRADE KIT REQUIRES SOLDERING (16D-RAMS & KIT + MANUAL)	£49.99
520-1040 RAM UGRADE BOARD PLUG IN NO SOLDERING EXPANSION POLICY TO 4MEGS	£94.99
520-1040 RAM UPGRADE BOARD DESIGNED FOR ATARI'S WITH SURFACE MOUNT MMU	£99.99
520-2.5MEGABYTES NO SOLDERING EXPANDS TO A FULL FOUR MEGS	£289.99
520-4.0MEGABYTES NO SOLDERING OR TRACE CUTTING	£499.99
1040-2.0 MEGABYTES REQUIRES MINOR SOLDERING (TAKES 32 256K-D-RAMS)	£199.99
MEGA1-MEGA4 REQUIRES NO SOLDERING PLUG IN & GO	£399.99
MEGA2-MEGA4 RAM UPGRADE BOARD REQUIRES NO SOLDERING PLUG IN & GO	£289.99
MEGA2-MEGA4 UPGRADE KIT REQUIRES SOLDERING FULL DOCUMENTED ALL COMPLETE	£249.99
520-1040 PLUG IN BOARD UNPOULATED (TAKES 4*256*4 D-RAMS) (SURFACE MOUNT OK)	£49.99
520-4.0 MEG BOARD TAKES 16/32 1*1D-RAMS ALLOWS 2.5 MEGS OR FULL 4.0MEGS	£69.99



THE ULTIMATE ST COPYING DEVICE

BACKUP/COPY ALL ATARI, AMIGA & PC
SOFTWARE
NO EXTERNAL DRIVE REQUIRED
READ & WRITE MAC DISKS ON THE ST
REALTIME CLOCK/CALENDER OPTION
CONNECT UPTO 4 FLOPPY DRIVES FOR
MASS DUPLICATION
FLOPPY TO FILE TRANSFER ALLOWS
PROGRAMS TO BE EDITED & MODIFIED
REGULAR SOFTWARE UPDATES MEANS
YOU CAN ALWAYS BACKUP NEW TITLES
OVER 50 COPYING ROUTINES SUPPLIED
HAPPY WILL BACKUP ANYTHING!!!!!!!!!!!!!!



ST FORMAT "THERE IS NO
COMPETITION"

REALIZER COLOUR ST DIGITISER
DIGITIZE OR FRAME GRAB
MONOCHROME & COLOUR
DIGITIZE FROM A CAMERA OR VIDEO
RECORDER

SCREEN RES HIGH,MEDIUM & LOW
RESOLUTION £149.99

THIRD COAST TECHNOLOGIES LTD
UNIT 8 BRADLEY HALL INDUSTRIAL ESTATE
STANDISH
LANCASHIRE FAX 0257 426577
WN6 OXO TEL 0257 472444 (8 LINES)
THIRD COAST RESERVE THE RIGHT TO CHANGE ALL PRICING E&OME

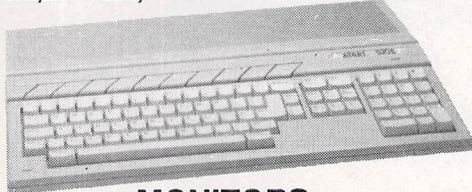
ATARI Hardware Offers

520 STFM/E POWER PACK

Amazing value, all-new special ST package from Atari, includes 520STFM with 1 Meg drive, joystick, mouse, user guide, plus an incredible selection of chart-topping software worth over £500. Software included is:

R-Type
Afterburner
Double Dragon
Super Hangon
Space Harrier
Overlander
Pacmania
Starglider
Super Huey
Eliminator
Predator
Bombjack
Out Run
Bombuzal
Xenon
Gauntlet II
Black Lamp
Starway
Nebulus
Stargoose
First Music
First Basic
Organiser

All for **£349.00**
only inc VAT



MONITORS

Philips 8833 (In stock) New type stereo sound with stereo output	£269.00
Atari SM124 Hi Res	£106.99
520STFM Explorer Pack	£259.99
520 STE Explorer Pack	£279.00
520STFM Power Pack	£349.00
1040 STE	£389.00
1040STFM (without monitor)	£449.00
1040STFM + SC1224 Monitor	£670.00
1040STFM + SM124 Monitor	£499.00
1040STFM + Explorer Pack + Monitor	£499.00
1040STFM + Explorer Pack + SC1224	£696.00
1040STFM Professional Pack	£449.00
Mega 1 + Mono SM124	£599.00
Mega 2 + Mono SM124	£899.00
Mega 4 + Mono SM124	£1199.00

Happy ST copier backs-up all software £149.00

NEW PRODUCTS

3 GENLOCKS NOW AVAILABLE

**GENLOCK
ATARI ST**

GENLOCK

Features:

Encoded resolution capability 625 lines video signal, PAL on scart, output signal, PAL + RGB on connector. Key enable switches computers image. Key invert.

£499.00

Full Fader Control + VHS Super Compatible. All the above plus many more features

£849.00

Broadcast Quality Genlock works with all Formats, Beta, Philips, VHS, VHS Super. Too many features to list. Call for details.

£1795.00

**NEW
PRODUCTS**

Megafile 44 Cartridge Drive (includes 1 cartridge)	£799.00
Megafile 30	£425.00
Megafile 60	£539.00
PC-Speed (fitted)	£249.00
520-1040 Ram Upgrade	£69.99

520-1040 Ram Upgrade (fitted) £94.99

New Full Colour Turbo Digital ST (Digitiser) £199.99

Optional Retouche Software £129.99

Professional Monochrome Digitiser, low, medium and high res

digitising £149.99

Digitisound Professional Sampler £79.99

Beat Box ST (Drum machine and sequencer, a new concept in Digital

Sound) £29.99

4096 Colour Board Expands ST's, Colour Palette from 512 to

4096 £49.99

(Requires additional shifter, includes sample software)

Professional Video Digitiser including colour S/W £149.99

2.5 M/b Upgrade 520 (will go up to a 4 M/b) £299.99

* Network now available for all Atari's - very low cost - call for details)

Processor accelerator 16MHZ (not hypercache), will support MC68888

co-processor, blitter, fast TOS 1.4 roms Average speed increase 50% ..

£99.99

Blitter upgrade board now available for all ST's with Blitter £99.99

(Will work with machines without Blitter slot or motherboard)

THIRD COAST TECHNOLOGIES

Unit 8, Bradley Hall Trading Estate
Standish, Wigan WN6 0XQ

Tel: 0257 472444

Third Coast Technologies reserve the right to alter any prices.

All prices are correct at time of going to press. E +0E

Fax: 0257 426577

WeServe

of Hampshire

Star LC10



Black ribbon 4.60 inc.
Colour ribbon 6.90 inc.

Mono

£155.00 (£143.87 + VAT)

Colour

£203.00 (176.52 + VAT)
(with Cable & Paper)

Panasonic KXP1081

with cable & paper

£144.00 (£125.22 + VAT)

Star LC2410

(24 pin) with cable & paper

£229.00 (£199.13 + VAT)

Panasonic KXP1180

with cable & paper

£155.00 (£134.78 + VAT)

Star XB2410

with cable and paper

£455.00 (£305.65 + VAT)

Panasonic KXP1124

(24 Pin) with cable & paper

£259.00 (£225.22 + VAT)

Citizen 120D

with cable and paper

£125.00 (£108.70 + VAT)

Printers

Citizen 180E	£149.00
Citizen Swift 24 (24 pin)	£305.00
Epson LX400	£159.00
Epson LQ400 (24 pin)	£255.00
Epson LQ550 (24 pin)	£325.00
Swift 24 Colour option	£36.00
XB24-10 Colour upgrade	£37.95
Printer prices inc. cable & paper	

Philips CM8833

£234.00 (£203.48 + VAT)

Atari SM124

with ST cable

£109.00 (£94.78 + VAT)

LOW ST PRICES

520 STE Discovery Pack	£268.00
520 STE Explorer Pack	£295.00
520 STE Power Pack	£359.00
520 STE +1M Ram	£369.00
1040 STE	£429.00
Power pack £64.00 SM124	£105.00
Super pack £44.00 CM8833	£226.00
Hyper pack £10.00 Pro Pack	£23.00

MM5000

Music Keyboard

£57.50 (£50.00 + VAT)

1M Drive

internal 1m ST drive

£57.50 (£50.00 + VAT)

Disc Drives

Cumana CSA 354 1M	£95.00
Q Tec EX 320 1M	£75.00
Atari Megafile 3.0	£439.00
Internal 1M Drive	£57.50

Accessories

Joystick/Mouse extension	£4.60
4 Player Adaptor	£5.75
ST Dust Covers	£4.60
ST to ST Serial lead	£10.95
ST Mono Monitor lead	£7.80
ST RGB Monitor lead	£9.95
STE Stereo RGB Monitor lead	£10.95
ST Monitor plug to free end	£9.50
ST Printer lead	£6.90
Mouse Pocket	£2.95
Mouse Mat (thick soft type)	£4.95
Genius GM7 mouse for ST	£24.95
Atari Mouse	£25.00
Full range of Joysticks	£4.99 to £13.95

Software etc.

Source Book & Tutorial	£4.60
Flight Simulator II	£29.95
1st Word Plus	£59.00
Xenon 2	£19.50
P.C. Ditto	£62.00
Superbase Personal	£29.00
Personal Finance Manager	£24.95
Timeworks DTP by GST	£74.50
AB Zoo	£13.50
Fun School 2 (all versions)	£15.50
Hard Driving	£15.95
Chase HQ	£14.50

Phone for ST Software catalogue.
Many titles inc. Educational.

Printer/Monitor Ass.

Tilt/Swivel Monitor Stand	£15.95
Star LC10 Sheet Feeder	£59.00
Star LC2410 Sheet Feeder	£59.00
Citizen 120D Sheet Feeder	£69.00
SLM804 Drum Unit	£169.00
SLM804 Toner Pack	£39.00
Copy Holder Angle Poise	£17.95
Mono/Colour Switch box	£22.00

Printer Ribbons

Atari SMM804 Black	£5.95
Amstrad Original DMP3000	£5.75
Citizen 120D Black	£4.60
Epson LX800 & FX800 etc.	£2.65
Epson LQ-800/500 Black	£4.98
Epson LX-80/86 Black	£2.45
HP Desk Jet Ink Cartridge	£13.80
Juki 6100 Multi-strike	£2.50
Juki 6100 Single-strike	£1.50
Panasonic KXP1124 black	£9.95
Panasonic KX-P1080/81 etc.	£4.30
Star LC-10 Colour	£6.90
Star LC-10 Black	£4.60
Star LC-2410 Black	£5.75
Star NB-15/NB24-15 Black	£9.00
Star NL/NR/ND-10 Black	£5.52
Star NX/ND/NR-15 Black	£9.00
Taxan & Canon Black	£3.70

DISKETTES

(lifetime warranty)

(100% certified error free)

10 3.5" 135tpi DS/DD	£6.50
50 3.5" 135tpi DS/DD	£30.25
100 3.5" 135tpi DS/DD	£59.70
50 Disk box hinge and lock	£5.95
100 Disk box hinge and lock	£6.95

Phone for our best price before placing your order
EDUCATIONAL AND GOVERNMENT ORDERS WELCOME

All products have a 12 month no quibble guarantee.

Prices subject to variation without prior notification.

We are closed Saturday afternoons.

Postage 92p (80p + VAT) Securicor £6.90 (£6.00 + VAT)

Larger items delivered
by Securicor

ST/U Dept
128 West Street,
Portchester, Hants.
PO 16 9XE
Tel: 0705 325354



Low-cost... High-speed... Error-free...



This is what the EuroLink package offers . .

- ★ Fully automatic operation – you don't need any prior knowledge
- ★ A multi-speed modem – 2400, 1200, 300 and 1200/75 baud, offering MNP error correction
- ★ Easy-to-use comms software
- ★ FREE registration to MicroLink*

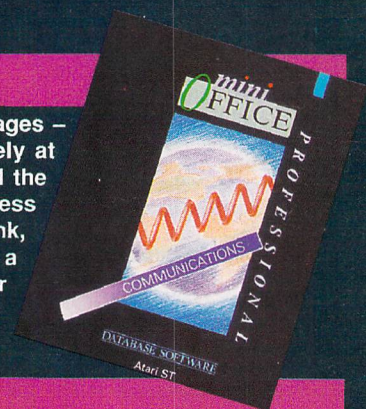
... all for
£259.95 VAT
incl.

THE MODEM

The EuroLink modem is a robust and sophisticated device which turns data from your Atari ST into signals which can be sent along a telephone line. It can handle speeds up to 2400 baud – about 40 words a second. Although it has many powerful features, it is simplicity itself to use when combined with its accompanying software. Built into the Hayes-compatible modem is MNP error correction – your guarantee of a corruption-free connection. Its wide range of other features include auto dial and auto answer, auto redial, baud rate scanning, auto terminal baud rate sensing, 32-entry number store, internal loudspeaker, call progress monitor, bell tinkle suppression, external plug mounted power supply unit and built-in 'watchdog' circuitry.

THE SOFTWARE

Accompanying the modem is one of the ST's best-selling comms packages – the complete Mini Office Professional Communications. Sold separately at £24.95, it simplifies connection to MicroLink. Two mouse selections and the rest is automatic – straight to the service you require and with all the access formalities taken care of. After that you can move freely around MicroLink, capture text on disc and send pre-prepared documents – all with a minimum of keystrokes. It can also be used to access Prestel and other services in addition to MicroLink. Included in the software is a text editor and other desk accessories.



WHAT YOU CAN DO WITH MICROLINK

With MicroLink any ST can be turned into a complete communications centre. Without any additional expenditure it becomes a telex machine, a fax machine, an electronic mail terminal.

- ★ You can use it to send a letter for next-day delivery to any address in Britain, send a telegram to anywhere in the world, or even send flowers without moving from your ST.
- ★ It's also a retrieval tool that lets you search out and store data from the world's leading electronic libraries.
- ★ It gives instant access to the credit status of many thousands of companies all over the UK... and it lets you embark on exciting adventures – in real time! – with like-minded enthusiasts in faraway places.
- ★ It keeps you up to date with the latest news, sport and weather.
- ★ It gives you free entry to a wide range of telesoftware from time saving utilities to exciting games – that you can download directly into your own ST.



YES – the long-awaited breakthrough in data communications has finally arrived!

Now you can use your Atari ST (plus phone) to talk to MicroLink and other computers anywhere in the UK – or all round the world* – using the very latest in modem technology.

Today there are hundreds of MicroLink telephone points throughout the British Isles. This means that the majority of subscribers access the service for the price of a local call.

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.

**The EuroLink modem and its accompanying software can also be used to access other information services such as Prestel/Micronet, Telecom Gold and CompuServe, as well as innumerable other databases and bulletin boards in the UK and overseas.*

It's all you need to become part of a very friendly and helpful online community

ORDER FORM

Please send me a EuroLink modem with MNP error correction plus ST lead, power supply and Mini Office Professional Comms – all for the special offer price of £259.95 (incl. VAT)

☐ I am already a member of MicroLink ☐ I am not a member of MicroLink. Please send details

I wish to pay by:

☐ Cheque/Eurocheque enclosed made payable to EuroLink
☐ Access/Mastercard/Eurocard/Barclaycard/Visa/Connect

Expiry
Date

No.

Name Signed

Address

Post Code

Daytime telephone number in case of queries

Send to: EuroLink, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP

PHONE ORDERS: 0625 878888. FAX ORDERS: 0625 879966

ST6

READER OFFERS

Grab graphics like never before

... with the Vidi-ST Digitiser

Robmo's Vidi-ST is a fully featured digitiser consisting of a plug-in cartridge, sophisticated picture manipulating software and a comprehensive manual.

As well as grabbing single images from TV or Video for use with art programs or DTP packages, the Vidi can actually capture pictures and display them in real time – at up to 25 frames a second!

This is the essential package for anyone who wishes to make use of the full graphics potential of their ST. With a saving of £15 off the retail price this is an opportunity you shouldn't ignore.

RRP £99.99

OUR PRICE

£84.95

Increase YOUR wordpower with

The essential enhancement for your word processor

Now you don't have to go hunting backwards and forwards through your thesaurus when you're looking for alternative words, because Keyword from Swift Software is a complete word finder – on disc!

At the touch of a button you can instantly select up to 70 synonyms in any of 1,000 categories – giving you an effective vocabulary of up to 70,000 words.

And it's so easy to use. Simply type in the first few letters of a word and you'll be shown all the entries in the dictionary that start with those letters. Then using the cursor keys (or mouse if you have one), just pick the word that's nearest to the one you're looking for and you'll be presented with a comprehensive list of synonyms.

If you ever find yourself stuck for words, Keyword is the answer! Send for your copy today and you'll never be tongue-tied again

ONLY £19.95

WHAT THE REVIEWERS SAY

"As a word finder for everyday use it is excellent. ... Next time I am stuck for a word I shall be using Keyword rather than reaching for the thesaurus on the bookshelf."

– The Micro User

"There is no doubt that this is a useful and powerful piece of software ... Give me convenience every time."

– Electron User

"Keyword will interest anyone who uses a word processor for more than notes to the milkman."

– New Computer Express

DUST COVERS

Keep you ST free from dirt and dust with these smart dust covers. Made from rugged PVC, bound with strong cotton and sporting the distinctive Atari ST User logo, these are the perfect way to protect your micro

ONLY £3.95

BINDERS

Using a system of strengthened steel rods these handsome binders will hold 12 issues of your favourite magazine securely in place. Why rummage through cupboards and book cases for dog-eared back issues when you can keep them safely together in one place?

ONLY £4.95

DISC BOXES

These sturdy closeable boxes will protect your discs from damaging dust particles. Each one also features the Atari ST User logo and can hold up to 50 discs

ONLY £4.95

GET YOURSELF ORGANISED WITH THESE EXCLUSIVE ITEMS FROM ATARI ST USER

PROGRAMS GALORE!

ST Compendium II –

packed with useful assembly language listings, C programs, Fast, GFA and ST Basic programs, several demos and some superb public domain graphics demonstrations.

Only £9.95

GILBERT

Gilbert's spaceship, The Millenium Dustbin, has had certain important parts of its sanitation extraction system removed and spread around the planet Drill. You, Gilbert, have to find the missing toilet before 24 hours have elapsed.

The game play in the for of an arcade adventure as your journey through the Drillian State of Chaos, the Dry Drillian Desert, underwater and through sewers, in search of the lavatorial parts.

During play you are presented with a number of coin-op machines which you must play, and beat, to succeed in your mission.

The combination of features and gameplay on offer in this program are guaranteed to keep you coming back again and again. And if you buy it from us, we'll knock £7 off the recommended retail price!

RRP £19.99

OUR PRICE

£12.99

Need some extra discs?

There's always a demand for spare ST discs – and at Atari ST User we have lots we will be happy to sell off at a really exceptional price. They are all discs that have been prepared as monthly cover discs, but they are brand new and have never been used, so you can safely reformat them and use them for any purpose you like. Look at these prices:

5 for £7.50!

25 for £20!

WordPerfect

This is THE word processor for the ST. It features all the power and flexibility of the PC version, and is specially adapted to the strengths of the ST itself.

SAVE £50

WordPerfect works the way you do. It can be controlled with either the mouse or function keys, and you can display up to five text columns, side by side on a screen.

Plus, all the extra features so often missing from other word processors are fully implemented – such as footnotes, endnotes, a thesaurus, spelling checker, mail merger, over 200 printers supported – and FREE SUPPORT is available should you need it.

If you're in any way serious about word processing WordPerfect is the program you need. And with a £50 saving it represents excellent value for money.

RRP £228.85

OUR PRICE

£178.85

Home Accounts *plus* Day by Day

Home Accounts has been designed to make full use of the Atari ST's features, giving you the widest range of home accounting facilities available at this price.

The program lets you set budgets and control up to 13 separate accounts, with optional printouts of any data. Within seconds of loading you data disc you can check your budget or any account, and even display or print the data in bar or pie charts.

Day by Day replaces your manual system for diary, business organiser, notepad, planner, reminder and so on.

It's suitable for both business and home applications, including numerous useful functions which serve every requirement.

Written in the easy-to-use Digita style, Day by Day is certainly one program that once you've bought it you'll wonder how you ever managed without it.

Among its many features are:

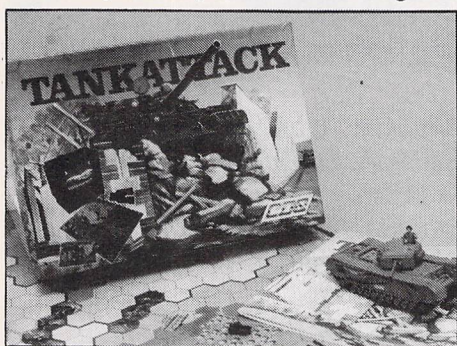
- ★ Calendar/diary/planner
- ★ Updating of regular appointments
- ★ Categories such as bills, birthdays and letters
- ★ Comprehensive search facility
- ★ Appointment sorting
- ★ Automatic reminders
- ★ 'Urgent' notice board
- ★ At-a-glance week and month summaries
- ★ 'Overdue' notice board
- ★ Print option
- ★ Advance notice of forthcoming events
- ★ Grouping of related messages

Both of these powerful programs are excellent value on their own, but if you buy this exclusive combination package we'll knock £20 off the combined retail price.

RRP £54.90
OUR PRICE
£34.90

TANK ATTACK

The unique computerised board game



Tank Attack is a computerised board game for two, three or four players, where each one takes the role of a General commanding a country's Tank Corps of one of more armoured divisions.

Your objective is to capture the enemy headquarters, which will require the planned strategic deployment of your forces and regular fire duels between your own and enemy units.

Weather, morale, skill, judgement, planning foresight, careful management of rebuild and repair facilities and luck all play a part in deciding the result of each game.

- Control a full division of tanks and armoured cars
- See all the fighting 'live' on your computer
- Superb board and fully detailed playing pieces
- Real time graphics
- Play as allies or enemies
- Suitable for all ages

RRP £22.95
OUR PRICE
£19.95

Only £19.95 genuine leather personal organiser

Worth over £30, the personal organiser is crammed full of pages of information including year planners, first aid tips, international holidays, mileage charts, dialing codes, weight and measure conversions and locations of motorway service areas.

There's also a daily diary section for 1989, 1990 and 1991, maps of the UK and the London underground, an appointments schedule, several pages for notes, a personal finance organiser, expense sheets, a telephone index, and much, much more!

Each section is marked using plastic tabs - making it easy to find the page you need. There are special pockets for your credit and business cards, and you get a handy plastic ruler which you can also use to keep your place.

So get yourself organised on us. Order today and we'll mail your personal organiser by return!



Just some of the personal organisers information-packed pages

READER OFFERS

Flight Simulator II

SAVE £10!

Put yourself in the pilot's seat of a Cessna 182 single-engine aircraft and head for the skies! - Or fly a Gates Learjet 25G. High speed 3D graphics provide a spectacular panoramic view as you practice takeoffs, landings and aerobatics.

Complete documentation gets you airborne quickly - even if you've never flown before. And when you're ready you can test your flying skills with the World War I Ace aerial battle game

RRP £45.95
OUR PRICE
£35.95

SAVE £8!

Flight Simulator II Scenery Discs

A set of two discs to enhance Flight Simulator II. They cover all Western Europe and Japan.

Once you've got to know the scenery in Flight Simulator II, these will give you even more weeks of entertainment.

RRP £39.90
OUR PRICE
£31.90

Flight Simulator II + Scenery Discs

SAVE £20!

Save an extra £2 when you buy both together!

RRP £85.85
OUR PRICE
£65.85

**SAVE
£25**

SBA Xtra

SBA Xtra is designed for the many small businesses with both credit and cash customers, who need a system for providing quick lists of Debtors and Creditors and individual account histories, without the effort of keeping a complicated Sales and Purchase ledger system.

Among its many features are:

- ★ Profit and loss statements
- ★ Balance sheet
- ★ Trial Balance
- ★ Budgets
- ★ Full audit trail
- ★ Day books
- ★ VAT reports
- ★ Account group reports
- ★ Transaction listings by batch or account heading
- ★ Constants on-screen update of cash position and profit figure

What the press say

"SBA Xtra is a winner in the low-cost accounting stakes." - What Personal Computer

"If you're running a small business, SBA Xtra should be just fine for you." - PC User

RRP £114.95
OUR PRICE
£89.95

**TO ORDER
PLEASE USE
THE FORM
ON PAGE 121**

Boost you micro's sound output with an **ST Soundblaster**



The essential peripheral for all games players and musicians

Take advantage of the ST's superb sound capabilities by routing the output through the Soundblaster's high quality amplifier and speakers.

The amplifier has been designed specifically for the ST and implements the latest microchip technology to produce an ear-shattering five watts output. Twin volume controls enable you to adjust the output and balance to suit.

The quality 50 watt speakers consist of a 3in woofer for thumping bass output, a 2in mid-range unit for crisp music and effects and a tiny 1in tweeter which pumps out the highest frequencies the ear can hear.

The package comes complete with mains adaptor and full instructions.

No soldering or opening of the ST's case is required – simply plug in, boot up your favourite software and turn up the volume

**ONLY
£34.99**

Order today, using the form on Page 121

Steve Davis World SNOOKER

**SAVE
£5**

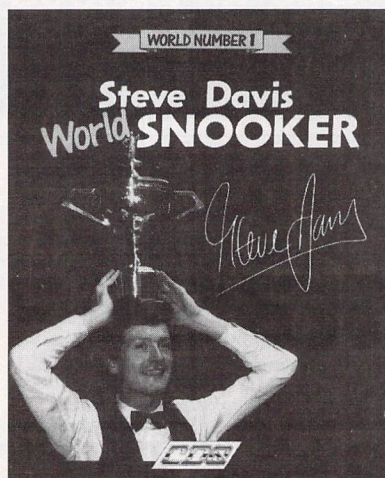
Play Steve Davis at his own game in the most popular snooker simulation the home computer has ever seen

**Go on,
give it
some
stick!**

RRP £19.95

OUR PRICE

£14.95



- Snooker, 10 ball or 15 ball
- Billiards, English or French
- Pool, American or English
- Smooth, fast movement
- Six skill levels
- Trick shots
- Table editor
- Magnify option
- Digitised pictures and sound

It's the perfect game for billiards and snooker fans of all ages, a game you'll come back to again and again, year after year

"A classic game..." –
Amiga Computing, July 1989

WHILE STOCKS LAST USE THE FORM ON PAGE 121



Back issues

* Includes cover disc † Add £3 Europe & Eire/£7 Overseas

(see Page 110)

(see Page 110)

(see Pages 118-119)



(see Page 118-119)

(see Page 118-119)

(see Pages 118-119)

ST6

ATARI REPAIRS

Atari Approved Service Centre

All Atari products repaired, Computers, Printers,
Monitors, Disk Drives etc
Atari trained engineers
All work fully guaranteed
Free estimates
Full range of ST's repaired

AVON MICRO CENTRE

Unit 4, Western Road Industrial Estate,
Stratford-upon-Avon, Warwickshire CV37 0AH
Telephone: 0789 292269

REPAIRS

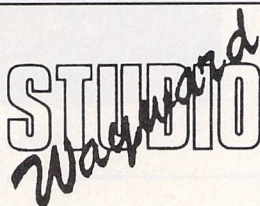
FULLY QUALIFIED ENGINEERS ON
SITE TO UNDERTAKE REPAIRS OF,
**COMPUTERS, DISC-DRIVES,
PRINTERS AND MONITORS.**

ALL WORK GUARANTEED FOR
3 MONTHS. FREE ESTIMATES.

Tel: MARK OR MARTIN (0527 85) 3374
BUSINESS HOURS Mon-Sat 9am to 8pm

AMPOWER COMPUTER REPAIRS

15a ALCESTER ROAD, STUDLEY, WARCS B80 7AG



North West based Midi Production and Demonstration Studio

All Steinberg products now in stock

All other Atari ST and Amiga music programs
and Synth Editors available

Please ring for demonstration and price enquiries

Wayward Studio, 23 Tracks Lane, Billinge, Wigan. WN5 7BL
0695 632239
Vat. reg. no. 483 7114 38

ADVERTISERS' INDEX

Ampower	122	LCL	100
Anco Software	13	Mail Centa	108
Arnor	58	Manor Court Supplies	108
Atari (UK)	62	MB Software	103
Atari World	93	MD Office Supplies	51
Avon Micro Centre	122	Merlin Express	36
Bargain Software	26	MicroLink	61
B-Soft	89	Microtext	89
Beaujolly	6	Micro APL	79
Best Prices	84	Miles Better Software	84
Boscad	98	MJC Supplies	73
Byteback	78	MPH	81
Cambridge Business Software	69	MT Software	103
Castlesoft	89	Music Matrix	109
Castle Software	99	Overseas Media	3
Casual Computers	77	Perrymere	100
CMV Computers	66	Power Computing	16 & 17
Computerwise Brighton	109	Prospero Software	96
Digicom	14	P-Dom	8
Ealing Computers	106	School Software	65
ESP Software	65	SD Software	109
Evesham Micros	82, 83	Seven Disk	106
Eurolink	116	Silica Shop	33
Floppyshop	79	SK Marketing	10
Frontier Software	124	Softmachine	94
Gasteiner Technology	41, 55	Softsellers	39, 76
GFA Data Media UK	94	Softville	96
Gould Computer Services	89	Softwise	103
Hal Computers	100	ST Club	100
Hi-Soft	123	Star Software	69
Homebased Business	122	Third Coast Tech	114 & 115
HSV	106	Titan Games	98
Impac	81	Turbosoft	70
Infogrammes	2	Upbeat Psychotechnolgy	81
Joy Of Life Arts	79	Waywood Studio	122
Kad Soft	103	Weserve	115
Kosmos	98	Wizard PD	89
Ladbroke Computers	46 & 47	WTS Electronics	122

COMPUTER REPAIRS

ATARI ST/AMIGA

Simply send your machine along
with a £15 diagnostic fee and
you will be sent a written
quotation for the cost of
repairing your machine.



★ TYPICALLY £45. 1 WEEK TURNAROUND ★

W.T.S. ELECTRONICS LTD, CHAUL END LANE, LUTON, BEDS, LU4 8EZ
0582 491949 (4 LINES)

FIRST AID
FOR
TECHNOLOGY

But Seriously

Programming

Do you want to use your Atari ST for things other than games? Want to learn more about how computers work? How about writing your own computer programs? HiSoft has a wide range of easy-to-use, yet very powerful computer languages to suit most people's tastes and pockets!

HiSoft BASIC & Power BASIC are modern, fast, interactive compiler systems that produce very quick-running stand-alone programs at the press of a key.

HiSoft C is an interpreter which makes this package ideal for learning the popular but difficult C language.

Lattice C 5 is the ultimate C compiler system: packed with features, producing exceptionally fast code and at a special introductory price until 1 June 1990.

DevpacST is the standard assembly language development system, used by all the top software houses.

FTL Modula-2 combines a super-fast (6000 lines per minute) compiler with a host of extra tools to give the most comprehensive Modula-2 system available for the ST.

Personal Pascal has a friendly environment, makes GEM programming easy with many high level routines and produces fast, compact code - all at a very reasonable price.

HiSoft FORTH is a multi-standard compiler with a complete set of GEM libraries and is even available as a desk accessory.

New!

We have acquired an invaluable guide to your Atari ST; *Your Second Manual* is packed with essential facts aimed at first time users and comes complete with a disk full of useful software for you to use immediately ... and at a snip of a price!

Utilities

In addition to providing top quality programming languages, we also offer a wide range of utilities to increase the power and the usefulness of your Atari ST.

Tempus 2 is the editor of choice for many people with lots of features, an incredibly fast display & all totally configurable.

TurboST, the software blitter, transforms your ST by speeding up the display of text & lines and of text scrolling, all in a very clever way so that it works with virtually all programs.

KnifeST is the ultimate disk recovery and disk editor system. Works with many types of floppies, hard disks and even ram disks - it is all you need to recover lost data.

Harlekin is a comprehensive set of ram-resident tools that is always available to you; word processor, scrapbook, disk editor, terminal emulator, calculator and much more.

WERCS allows you to create and edit dialog boxes, menus, icons and alert boxes with ease - and with a great manual.

Craft 2, a powerful and flexible programming environment based on the popular UNIX C shell plus a flexible editor.

Finally, **ProFlight**, a slight diversion for us and, we hope, for you too. A supremely accurate and therefore fun-to-fly Tornado flight simulator. Software that matches the hardware!

All software is STE compatible

HiSoft

• Best Software House, Best Customer Support,
Top Programming Language (DevpacST)
ST World Awards 1989.

Please rush me the following HiSoft Atari ST software by first class post:
(all prices include 15% VAT and postage and packing within UK. Please phone for export details)

- | | | |
|--|---|--------|
| <input type="checkbox"/> Power BASIC | @ | £49.95 |
| <input type="checkbox"/> HiSoft BASIC | @ | £79.95 |
| <input type="checkbox"/> HiSoft C | @ | £49.95 |
| <input type="checkbox"/> Lattice C 5 | @ | £99.95 |
| <input type="checkbox"/> DevpacST | @ | £59.95 |
| <input type="checkbox"/> FTL Modula-2 | @ | £99.95 |
| <input type="checkbox"/> Personal Pascal | @ | £79.95 |
| <input type="checkbox"/> HiSoft FORTH | @ | £39.95 |
| <input type="checkbox"/> HiSoft KnifeST | @ | £29.95 |
| <input type="checkbox"/> HiSoft WERCS | @ | £29.95 |
| <input type="checkbox"/> Tempus 2 | @ | £39.95 |
| <input type="checkbox"/> CRAFT 2 | @ | £49.95 |
| <input type="checkbox"/> TurboST | @ | £34.95 |
| <input type="checkbox"/> Harlekin | @ | £49.95 |
| <input type="checkbox"/> ProFlight | @ | £39.95 |
| <input type="checkbox"/> Your 2nd Manual | @ | £14.95 |

Name: Date:

Address:

I wish to pay by: ☐ Cheque/POs ☐ Access ☐ Visa

Card No:

Expiry Date: Signature:

HiSoft
High Quality Software

The Old School, Greenfield
Bedford MK45 5DE UK

Tel: (0525) 718181
Fax: (0525) 713716

No More 'Out Of Memory' Headaches

With Frontier Software's XTRA-RAM, you can do away with those nasty 'Out Of Memory' messages which seem to come up just when you are in a hurry to finish your latest creation - whether it's a page of desktop published brilliance, a piece of superb artwork or a spreadsheet which contains all of the information which your bank manager has been demanding since last week.

• No Need To Send Your ST Away

Upgrading the RAM memory of your Atari ST (whether it's a 520ST, 520STM, 520STFM, 1040STF, 1040STFM, Mega 1ST or Mega 2ST) usually means sending your ST away or doing a large amount of delicate nerve-racking soldering yourself. Frontier's XTRA-RAM is installed by you, in your own home or office *without* the need for any soldering whatsoever (The XTRA-RAM even fits STs with surface-mounted MMU^{oo} or RAM chips)

• Easy To Install - No Soldering

The installation process takes around an hour (the XTRA-RAM simply plugs into two places inside your ST) and is carefully explained in a detailed 32 page manual which is written with the non-technical ST user in mind. If you have any problems during the installation process, Frontier's technical staff are always available on the phone to offer assistance.

• No Need To Stop At 1MB

Most RAM upgrades leave you with your 1/2 MB ST upgraded to 1MB and that's it! If you need any extra memory at a later date you are expected to go out and buy a Mega ST - Not so with the XTRA-RAM. The XTRA-RAM has been designed to take two sizes of industry-standard RAM memory chips. With sixteen 256Kbit RAM chips the XTRA-RAM will upgrade your 1/2 MB Atari ST to 1MB, making it totally memory compatible with the 1040ST and Mega 1ST. When you decide that you need more memory you can change those sixteen RAM chips for sixteen 1Megabit chips (again with no soldering whatsoever) in around ten minutes and your ST will be expanded to 2 1/2 MB (520ST, 520STM, 520STFM, 1040STF, 1040STFM and Mega 1ST will be expanded to 2 1/2 MB, Mega 2ST will be expanded to 4MB).

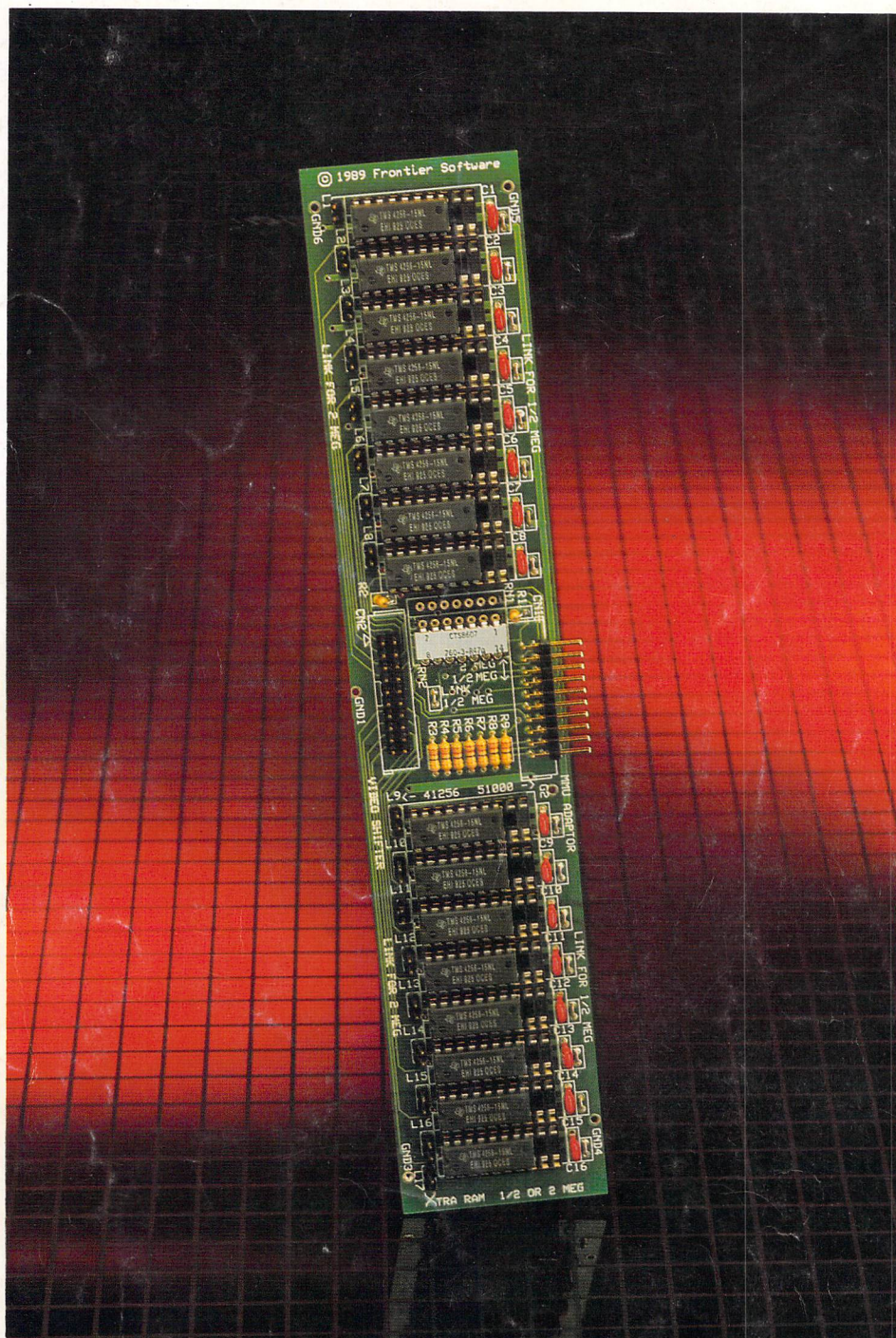
• Totally Compatible

The extra RAM memory that the XTRA-RAM gives you is totally compatible with all of your Atari ST programs. The ST's memory controller chip 'logs' in the extra memory and makes it available for your programs. You will automatically get more memory for DTP, word processing, MIDI, running the Atari Laser printer and everything else that you use your ST for.

• Software Included

Every XTRA-RAM upgrade is supplied with a free

^{oo}The XTRA-RAM must be fitted to STs with surface-mounted MMU chips by Frontier Software. You can fit the XTRA-RAM to STs with surface mounted RAM chips with no soldering as long as the MMU and Video Shifter chips are in sockets. Call Frontier for more details.



RAM testing program (so that you know with *certainty* that your installation has worked), RAM disk and printer spooler software.

• Satisfaction Guaranteed

The XTRA-RAM is supplied under Frontier's ten day money back guarantee, which means that if you don't like the XTRA-RAM, for any reason, you can return it for a full refund within ten days of purchase. The XTRA-RAM also carries a full twelve months' guarantee.

• Available With Or Without RAM Chips

Frontier supply the XTRA-RAM in three ways:

- (1) Unpopulated (with no RAM memory chips, so that you can purchase your own),
- (2) Populated with 16 256Kbit RAM chips (taking any 1/2 MB ST to 1MB. This, of course, can take your ST to 2 1/2 MB whenever you wish simply by changing to 1Megabit RAM chips)
- (3) Populated with 16 1Megabit RAM chips (to take any keyboard ST or Mega 1ST to 2 1/2 MB or any Mega 2ST to 4MB).

• Prices

XTRA-RAM Unpopulated	£69.99
XTRA-RAM Populated to upgrade a 1/2 MB-ST to 1MB (can later upgrade to 2 1/2 MB simply by changing RAM chips)	£99.99
XTRA-RAM Populated with 16 1Megabit RAM chips to upgrade keyboard STs and Mega 1STs to 2 1/2 MB and Mega 2STs to 4MB	£299.99

All prices include VAT. Please add £2.30 postage and packing to all orders under £120.00. Frontier accepts payment by Visa or Access.

Available from your local dealer, or direct from:



Frontier Software

P.O. Box 113, Harrogate, North Yorkshire HG2 0BE.
Telephone (0423) 567140/530577. Fax (0423) 522874.