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ATARI

ST USER

July 1992 • Issue 77

● **Assembler programming** ● **Public domain** ● **Beginners' guide**

HOME AND AWAY!

**How the ST
can improve
your lifestyle**

NO DISK?

**SEE YOUR
NEWSAGENT**

Plus

- **Software buyers' guide**
- **Accelerators**
- **Hard drive review**

also inside

GAMER

**24
pages
of games**

euromPRE
PUBLICATION



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On the disk: Top file selector with tutorial inside

POWER COMPUTING

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Use of your cartridge port with the Power Clock. This compact device contains a full calendar and clock which ensures that your files are always dated correctly. Various utilities are included to set the time in your computer and examples are given of how to use the clock from your programs. A thru'port is available so you can plug in your existing cartridges.

Power Clock with thru'port £17.95

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of RAM
3 1/2" disk drive
Hz clock speed
3 Internal hard drive
interface
High resolution monitor

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PC720P

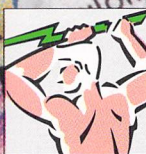
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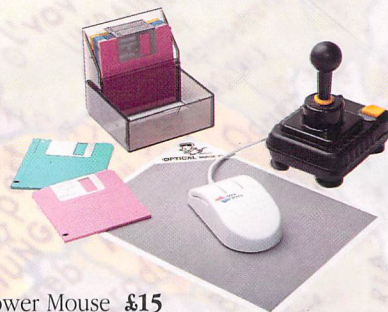


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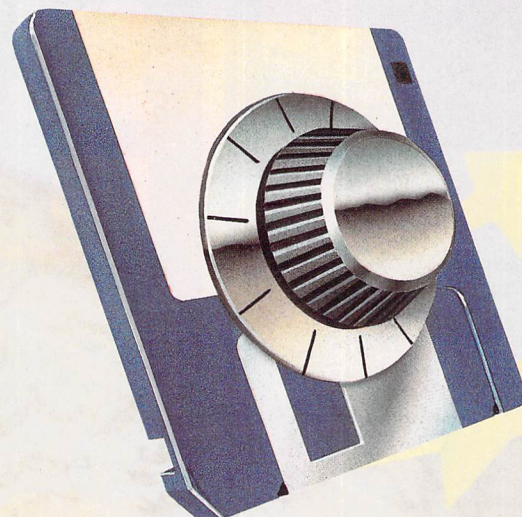
The unit is supplied with the 'PowerScan ST' software-a powerful and user-friendly utility boasting features normally only found on far more expensive products including:

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*Still being finalised, may not operate at all resolutions

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- | | |
|-------------------------------|-------------------------------|
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| Print memory | Examine formats |
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| Disassemble to disk | File editor |
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| Search for graphics | Formatter |
| Search for sprites | Break and restart function |
| Edit screen configurations | Search for infinite lives |
| Set up colour palettes | Look for music |
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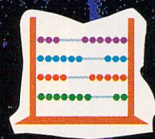
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For over six years Atari ST User has been the leading magazine for ST enthusiasts. As a key member of the Europress magazine group, Atari ST User promises to inform, educate and entertain its readers each month with the most dedicated coverage of the ST available.

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Computer Trade Weekly • N-Force
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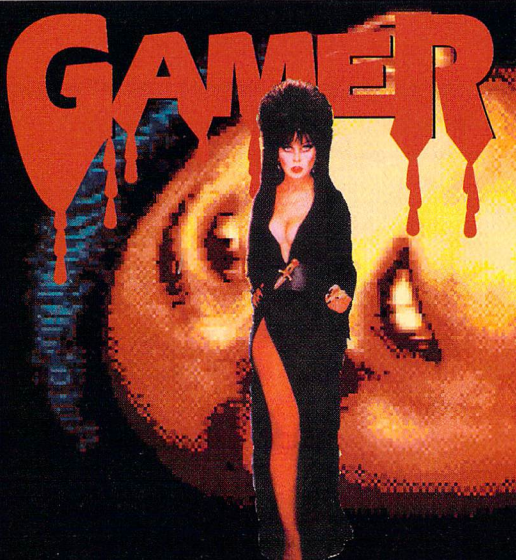
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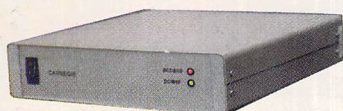
pages of game reviews, news and cheats

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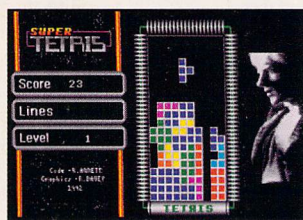
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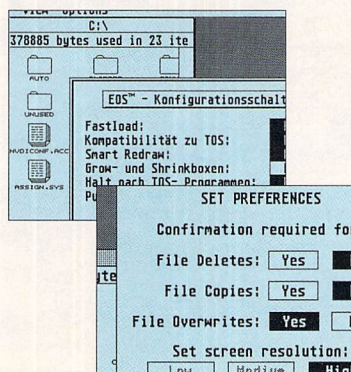
Scanners, disk drives and mice abound in the ST User land of plenty, just waiting to be won by our lucky readers...

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There's no shortage of file selectors for the ST. This month's PD tutorial looks at how to get the most from one of the most popular shareware programs, The Little Green Selector



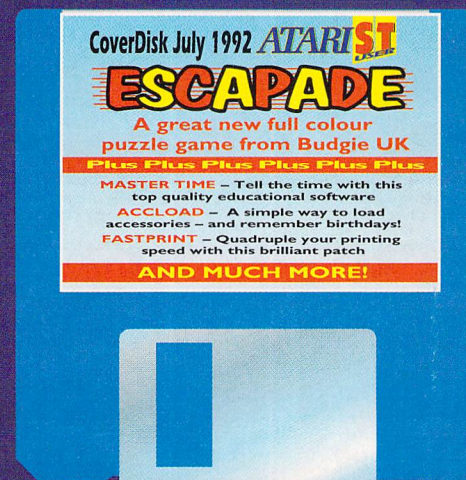
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Positively packed with programs aplenty, including:

- **Escapade** a mind-blowing puzzle game fresh from the Budgie stable
- **Master Time** - The shareware version of a fun and worthy education package
- **HandyAcc** - A selection of useful utilities to keep your ST running smoothly

And many more interesting, entertaining and useful games and utilities

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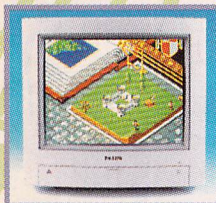
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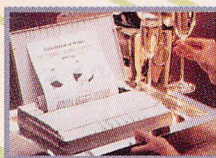
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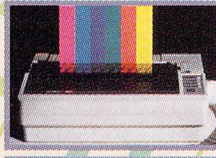


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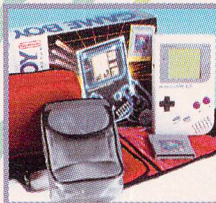


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The screenshots are arranged vertically, each showing a different screen from the software 'The Music Machine'. The screens are as follows:

- THE MAIN CONCERTO SCREEN:** Shows a piano roll with a single note on a staff.
- THE SCORE EDITOR SCREEN:** Shows a piano roll with multiple notes on a staff.
- THE DRUM EDITOR SCREEN:** Shows a piano roll with notes on a staff.
- THE GRID EDITOR SCREEN:** Shows a piano roll with notes on a staff.
- THE STEP TIME EDITOR SCREEN:** Shows a piano roll with notes on a staff.
- THE EVENT EDITOR SCREEN:** Shows a piano roll with notes on a staff.
- THE ARRANGE EDIT SCREEN:** Shows a piano roll with notes on a staff.
- THE SYNTH SCREEN:** Shows a piano roll with notes on a staff.
- THE MIXING DESK SCREEN:** Shows a piano roll with notes on a staff.
- THE SAMPLE EDITOR SCREEN (S/E ONLY):** Shows a piano roll with notes on a staff.

CONCERTO is a powerful but friendly music program with which you can compose and arrange any type of music from Classical to Rock, Pop, New Age and Jazz. Use it with any MIDI instrument. Simple, step-by-step instructions help you set up the program and equipment. **CONCERTO** is mouse-driven with keyboard short-cuts for most operations. It has easy-to-use GEM-like controls but with many advanced tags over GEM such as the instant scroll function of the scroll bars and optional pull down (rather than GEM's pop down) menus. The unique Card Tab Index system gives you instant access to nine control screens. Making music has never been easier. The Patterns together in the Arrange Window win a few simple mouse clicks to form a complete Song.

In **CONCERTO** you can record music on up to 24 Tracks and assign them to 100 Patterns. Link the Patterns together in the Arrange Window with a few simple mouse clicks to form a complete Song. Making music has never been easier.

CONCERTO has five Editors:

- Editor 1 shows music on the stave in traditional notation. Notes can be clicked into place on the score and stored into GEM tags such as the instant scroll function of the scroll bars and optional pull down (rather than GEM's pop down) menus. The unique Card Tab Index system gives you instant access to nine control screens. Making music has never been easier.
- Editor 2 is ideal for entering difficult music lines a note or a chord at a time directly from your keyboard. It has easy-to-use GEM-like controls but with many advanced tags over GEM such as the instant scroll function of the scroll bars and optional pull down (rather than GEM's pop down) menus. The unique Card Tab Index system gives you instant access to nine control screens. Making music has never been easier.
- Editor 3 is ideal for users who don't read music. A cross-hair cursor makes it easy to get the pitch and rhythm of any event in your music with surgical precision.
- Editor 4 adds the creation of drum patterns making it easy to program rock steady, funk, jazz, and any other style you want. Programable pauses (Famata) hold steady.
- Editor 5 is ideal for creating sequencers costing up to ten times as much as any other music program. It has easy-to-use GEM-like controls but with many advanced tags over GEM such as the instant scroll function of the scroll bars and optional pull down (rather than GEM's pop down) menus. The unique Card Tab Index system gives you instant access to nine control screens. Making music has never been easier.

In CONCERTO you can
Window with a few simple m
CONCERTO has five Editors:
Score Editor shows m
ions let you con

The
instructions
The Step-Time
notes from an
The Grid Ed
right.
the Dr

win

CONCERTO has many features only previously found on sequencers costing up to ten times as much:

- In the Mixer Window you can mix live effects into your song including tempo, pitch bend and Controller data.
- The innovative Synth Window can hold details of up to eight synthesizers. Select sounds by a
- Synth Converter automatically converts mass one synth's set of sounds and drums to a
- The Control Drawer lets you draw tempo and Controller data onto the screen with the m
- even if your keyboard doesn't have a pitch bend or modulation wheel.

Producers
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CONCEPT

Concerto - The Composer

- Volume Changer - find and select notes
- Find - find notes
- Pitch - fill a section of a Pattern with a specified value
- Force - convert or sequence lines and drums
- Remap - convert pitches, velocities and notes
- length -
- Note Pad - store important details about your song
- Transpose - alter not only pitch but also velocity values

CONCERTO has many powerful editing and processing facilities:

- programmable Tempo Change (Accelerandos and Ritardos)
- programmable Volume Change (Crescendos and Decrescendos)
- find and optional replace
- find and optional replace

- store important details about your song.
 - alter not only pitch but also velocity values.
 - compress or expand a pattern to half or twice its
 - needed lines and drum patterns.
 - pitches, velocities and note lengths to a
 - pattern with a note of a specified
 - and optionally replace notes of
 - -rescendos and
 - -trandos and
 - -bessing
 - -sting.
 - -Clock - store
 - -ning.
 - -Other useful built
 - -Folder and Rename
 - -CONCERTO has a wi
 - -The MIDI Filter will filter out
 - -CONCERTOS special effects
 - -separate MIDI channels
 - -The powerful Systems Exclusive
 - -voice data from your synths.
 - -The MIDI File Converter converts
 - -CONCERTO format giving you access to vast li
 - -recorded music. You can also pass or your music
 - -one with a MIDI file-compatible sequencer.

Concerto - The Complete MIDI Sequencing Solution

Click - shows exactly how long the 'taps' has been running.
Other useful built-in features include Disk Format, New Folder and Rename file operations.
CONCERTO has a wide range of powerful MIDI tools:-
The MIDI Filter will filter out unwanted MIDI instructions and board SPI's special effects.
MIDI Splicer will splice two halves of any keyboard record on a MIDI channel.
Virtual Systems Exclusive function can save and load your synths.
Converter converts Standard Mid Files into a format giving you access to vast array of pre-compiled sequences.
You can also pass on your music to any compatible sequencer.



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Concerto is £39.95 . Post and Packing is £1 . All Prices Include V.A.T

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By John Butters

TOS 2.06 upgrade arrives



Old STs can now have the Mega STE's Desktop

OPERATING system upgrades now available from Silica Systems enable STfMs to run the latest version of TOS, 2.06, and an adaptor for STE owners is due soon.

The Atari-manufactured product "piggybacks" on to the ST's 68000 processor to give many of the features found in Mega STEs, including the improved Desktop and a faster computer.

Other peripherals such as emulators can be plugged on top of the upgrade, and an expert told *Atari ST User* that the ST's lid can still be replaced once these are fitted.

"There are a great many ST users who want the benefits of the latest ST operating system yet are worried about compatibility issues," said Silica's Andy Leaning.

"Our upgrade keeps the customer's existing TOS, making it fully compatible with all their software."

Leaning added: "With a quick software switch they have an ST running the very latest ST operating system and all the advantages available from this."

Priced at £69, a fitting service is available from Silica at a small extra charge. The company can be telephoned on 081-309 1111.

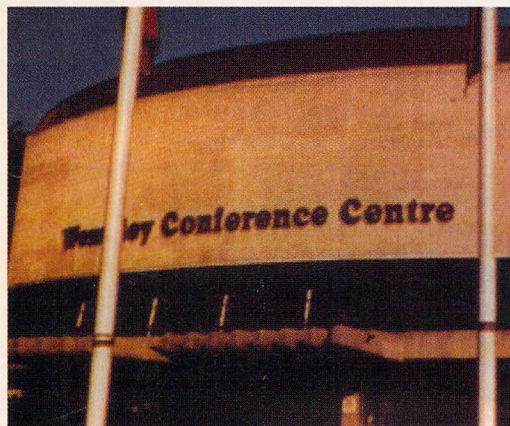
Falcon specs confirmed

FALCON, Atari's new computer, was shown to developers at a recent show in Toronto, Canada. Its specifications match those reported exclusively in the May issue of *Atari ST User*.

Visitors to the show also report that the next generation of STs will be available with internal hard drives and that pre-production models are housed in 1040STE-style cases.

American magazine *Atari Interface* reports that the machine will be available in the US before the end of the year and could cost between \$800 and \$1,000.

Show shapes up



These Wembley halls will be filled with fun for all ST users at the International Computer Show

THERE'S something promised for every ST user at the forthcoming 6th International Computer Show, sponsored for the first time by Europress Publications.

More than 180 firms will pack into the show halls and many have promised to unveil new ST software and hardware for the first time.

But unlike many computer shows, it won't be just a shopping event.

Atari ST User and its sister magazines have pulled

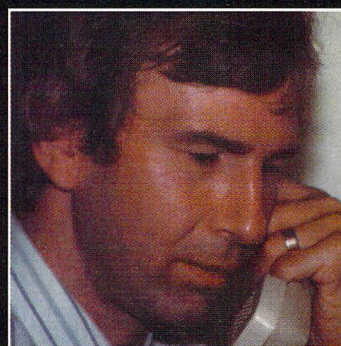
all the stops out to ensure that every visitor is entertained. An advice centre will offer free five-minute sessions on buying a new computer, software or upgrades, and a clinic manned by ST experts will give sound advice on your problems.

And for the less serious visitors there will be a special *Gamer Challenge*. They can compete against another driver in Gremlin's top racing game Lotus Turbo Challenge 2.

Fifty copies of the game are being given away to high scorers and the top driver at the end of the three day event will be sent a fantastic package of games worth over £500.

All this and more will be happening at the Wembley Exhibition Centre, London from July 10 to 12.

HiSoft take Kuma software



Link expands HiSoft with ST applications

David Link. "They consolidate our position as the leading supplier of high quality packages for the popular 680X0 computers."

Kuma boss Tim Moore: "We have traded with HiSoft since 1982 and have the utmost confidence in the company and David Link, their managing director, to care for our product range."

"We found, as our commercial interests broadened, that it made increasingly good sense to license our products to this specialist company."

"Our software fits naturally with David's without overlap and HiSoft's success is guaranteed with major products such as the K-Spread 4 professional spreadsheet."

Kuma aim to expand in other areas such as book publishing which, they say, have overtaken software development. The UK distribution of utilities package Mortimer 2 remains with Kuma.

Telephone HiSoft on 0525 718181 or Kuma on 0734 844335.

HISOFT have signed a deal to exclusively manufacture and market Kuma Computers' range of application software and promised they will extend the products to take advantage of new machines.

Technical help will be offered by HiSoft to existing users of Kuma software through the firm's Silver and Gold support schemes.

"Kuma's office application packages are a natural extension to our existing software," said HiSoft's

Pricing up the phone



Fonecost enables you to keep an eye on the cost of your modem

FONECOST, a simple utility program aimed at modem users to keep track of telephone charges, has been improved to give it extra features.

Among them is a Logging function. Details and costs of up to 20 calls can be stored in an Ascii file for printing or loading into a wordprocessor.

Ainley Publishing & Communications sell v2.2

for £7.50. They are at 16 Copyground Court, Copyground Lane, High Wycombe HP12 3HG.

The earlier program remains as shareware and can be obtained through many public domain libraries.

Extra ST reading

TWO books have been added to Kuma Computers' (0734 844335) growing range of titles this month.

C-manship Complete is a step-by-step guide to C programming on the ST, taking readers from the basics of the language through to the creation of GEM application programs.

And users interested in the leisure aspect of the ST are being targeted for *Corish's Computer Games Guide 3rd Edition*.

The 750-page guide uncovers backdoor codes left by developers, cheats and tips for more than 1,250 games and 200 adventures.

Price £14.95 each.

Cheap keyboard repairs

A KEYBOARD interface allowing PC keyboards to be used with the ST has just been announced by HCS (081-777 0751)

It proves a cost-effective replacement for faulty ST keyboards, selling for £55. A keyboard can also be bought from the firm for £25.

New office for Oxxi

OXXI UK, formerly Precision Software, have moved offices. The new address is 171 Bath Road, Slough SL1 4AA.

Golden Image continue

RUMOURS of the collapse of Golden Image have been dismissed by the firm's UK supplier as "totally inaccurate".

Golden Image Distribution UK (0772 203166) have been granted exclusive rights to distribute the peripheral manufacturer's products in the UK from their Preston head office.

Library tunes in to music

MUSICIANS can now buy ST music software from a public domain library dedicated to their business.

Melville Marriott Music Media hope to take and translate much of the German software which has previously been unusable by many people in this country.

"There is a significant amount of very good German PD music software available once the translation problem has been overcome," said company partner Jeff Lloyd.

Although other libraries will be able to distribute the software itself, the copyright on translated documents will remain with us.

"We firmly believe that by introducing this software into the UK, we will be giving the music PD user, material which would otherwise have remained inaccessible."

Each disk costs £2.50 and there is a "small additional charge" for translation. The library can be telephoned on 0993 779500.

Mozart turns to Midi

MOZART'S 40th Symphony is the first of at least 20 titles due in a new Classical Midi library from Oscar Music Productions (071-377 6294).

It took more than three months for it to be recorded, with every note being entered, edited and checked individually by hand. Supplied as either a Midi or Notator file, it costs £49.99.

The firm will also be running a music technology section at the first Classical Music Show to be held at the London Barbican on September 24 to 27, where the ST will be featured.

Affordable colour nears

AN AFFORDABLE hi-res colour graphics card for use with colour desktop publishing systems is to be distributed in the UK soon by System Solutions (0753 832212).

Manufactured by TKR in Germany, Crazy Dots can show resolutions up to 1,280 x 800 pixels with 256 colours on-screen out of a palette of 16.7 million.

With mono or 16 colours on-screen, a resolution of 1,664 x 1,200 pixels is possible.

System Solutions say that almost all software works with Crazy Dot and claim it has been approved by DMC for use with Calamus SL.

Two versions of the card are available, one for the old Mega ST with a maths co-processor slot and the other is for the Mega STE and TT. Both costs £389.

Third Coast close

ST ACCESSORY firm Third Coast Technologies have ceased trading. The closure was announced in a local newspaper in the north of England.

Replacing MS DOS with TOS

FOR the first time users of PC-compatible computers can run ST software, using a new emulator from an America.

Developers Branch Always Software claim that most 386- or 486-based PCs fitted with Emulator are almost fully ST-compatible.

Up to two versions of the TOS operating system can be plugged into the emulator and it can be made to multitask ST software by running Microsoft Windows on the PC.

It costs US\$199 from Branch Always Software, 14150 NE 20th Street, Suite 302, Bellevue, WA 98007, USA.

DIARY DATES

10 to 12 July 1992

6th International Computer Show
Organiser: Westminster Exhibitions
(081-549 3444)

Venue: Wembley Exhibition Halls
The year's second 16-bit Computer Show, promising plenty of ST support.

6 to 8 September 1992

European Computer Trade Show
Organiser: Blenheim PEL
(081-742 2828)

Venue: Business Design Centre, London
The second trade-only event of the year for the computer leisure industry.

19 to 22 November 1992

Christmas Computer Shopper Show
Organiser: Blenheim PEL
(081-742 2828)

Venue: Olympia, London
Promised to attract several ST exhibitors.

OVERSEAS

21 to 23 August 1992

Atari Messe
Organiser: Atari Germany
(010 49 61 42 2090)
Venue: Dusseldorf Fairground
Atari's new computer could be shown.

25 to 27 September 1992

Atari Expo Benelux
Organiser: InterExpo & Media
(010 31 40 464601)
Venue: Eindhoven
Part of a multi-format event.

• If your company is organising a show relevant to the Atari ST and it's not listed, let us know so we can include the information in the diary.

DO YOU KNOW SOMETHING WE DON'T?

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

Sorry!

MUSIC Pro Import's (081-789 8641) new graphic universal editor, Lizard, costs £165, and not £1,645 as stated in last month's Midi Music Show report.

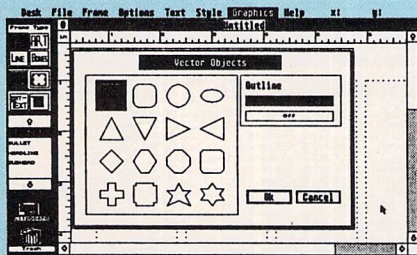
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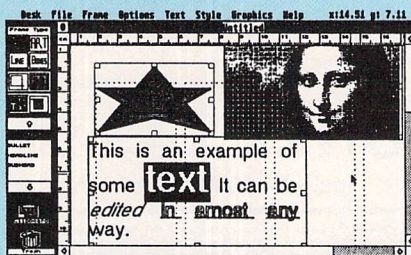
From zzSoft

out approx July '92, £39.95 inc p&p
Upgrade from Easy Text Plus – £25.00 inc p&p

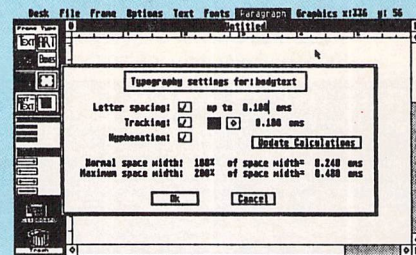
Import and resize: .GEM (metafiles); import, resize and crop: .IMG, .TNY, .PI3, .PC3 art files. Column guides; snap to guides; link frames; paragraph tagging, user definable tabs and line spacing (leading), inter-paragraph spacing, tracking, letter spacing, word spacing. Group frames, and resize. Plus many other features.



Resizable pre-defined vector objects dialog box.



Main screen showing text being edited, a filled vector object & a resizable bit image.



Typography settings dialog box— with exceptional text formatting options.

E & O excepted. All prices and dates are approximate, and subject to revision at the discretion of zzSoft and/or its authorised agents. Easy Text Professional is designed to run under GEM on a 1 Meg (or more) Atari ST(E), in mono and med res. © 1991, zzSoft

EASY TEXT PLUS Desktop Publishing Version 1.4, £20.00 inc p&p

For: any ST or STE, 520, 1040. Runs in high or med res under GEM. A complete package— nothing more to buy! Please state s/s or d/s disk drive and printer when ordering. **"Surprisingly versatile", ST Format (rating 89%). Outstanding Output** to any 9-pin (120*144 dpi) or 24-pin (180*180 dpi or 360*360 dpi) Epson compatible dot matrix printers, eg Star LC10, Citizen 120d, Star LC24-10, bubblejet, etc, and any HP Laserjet compatible laser, & HP deskjet. Laser/deskjet needs ST with 1 Meg or more & a hi res monitor or emulator. **Text:** Left, right, centred, or full justification. Import text from most word processors, inc 1st Word, ST Writer. Columns of text easily created, etc. **Fonts:** variety of GDOS fonts supplied with program, up to 48 points high. Extra fonts disk £5.00, inc p&p. **Graphics:** 36 fills, 6 line types, 3 line endings, boxes (rounded & square), 3 line thicknesses. Boxes can be filled with any graphic fill and/or text. Import DEGAS clip art. Many other features. Comes with illustrated 88 page User Guide. Telephone support.

IMPrint, for quality colour printouts.

For: any ST or STE, 520, 1040, or Mega. Runs in high, med or low res under GEM. Cut-out the screen area you want printed and vary the printout size, or print the full screen. Portrait and landscape. Converts DEGAS (PI3, .PI2, PI1), .NEO & .TNY picture files automatically to the current screen resolution. Label the final printout with a choice of six text sizes and six styles (bold, italic, underline, etc in any combination). Text automatically justified. Choice of 3 density levels. Unique 'outline' mode, flip x or y-axis. Choose the number of print head passes for greater control over the final printout. Full set of drawing tools: a mini art program included! Draw lines, circles, fills, etc. Free technical support, and it comes with a 40 page comprehensive User Guide.

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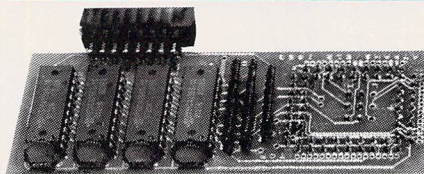
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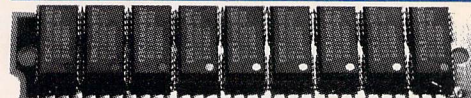
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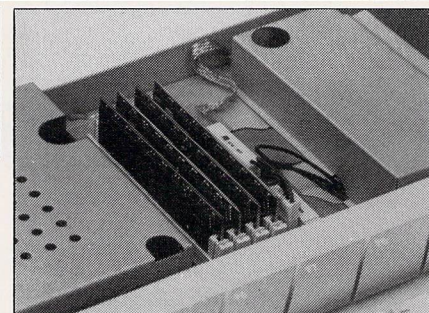
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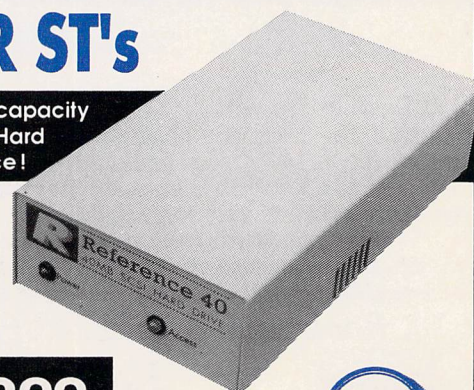
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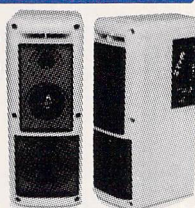


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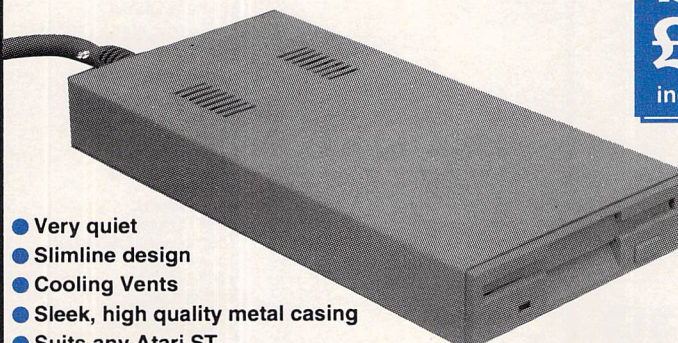
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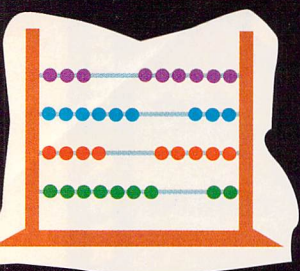
GOODS USUALLY SENT OUT THE SAME DAY WHEN

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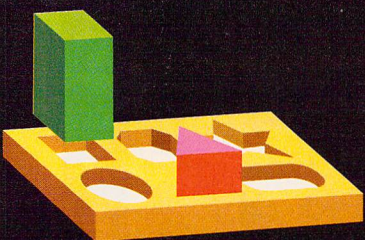
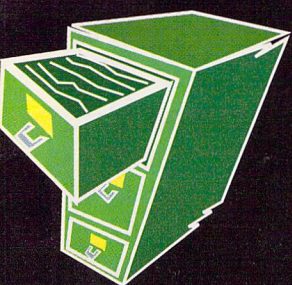
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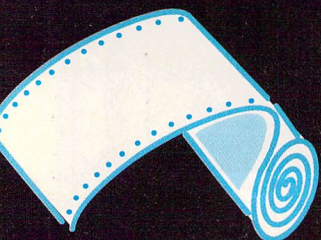
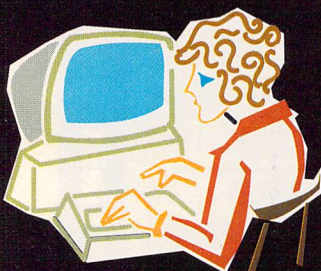
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hello



ABCDEF
PQRSTU
KLMNOP



The ST is good for far more than just games. Did you know that you can use your computer to keep perfect tabs on your bank account, including allowances for cheque clearance time and direct debits?

Did you know that your investment could be making money for you, by helping you to produce leaflets and brochures for local shops and businesses? That it could be helping with your kids' education, tidying up your letters, cataloguing your recipes?

If not, you've been missing out on a lot of help which the ST can bring to a wide range of household activities. Over the next five pages, I'll be looking at just why your Atari might well be the ultimate home-help!

Accounts

With your ST and some suitable accounting software it's possible to keep an eye on all your accounts. This won't necessarily stop you going overdrawn, but it will help you know when this is likely to happen and perhaps do something to avoid the situation and the inevitable bank charges.

The simplest accounting programs generally do no more than keep a copy of your bank account. This is the sort of thing you probably do already either in your cheque book or in your head, but with increasing use of hole-in-the-wall machines there is a tendency to lose track of your balance.

Transactions

A simple bank account program will allow you to record all your transactions and compare them to those shown on your statement when it arrives. This reconciliation (comparison) is often facilitated by the program allowing you to tag items in your records as they appear on the statement.

This information is saved back to disk so that when the next statement arrives, your records already have a list of items left over from the previous month.

That's probably the simplest application, and can be used not only for bank current accounts, but any other type of account too. More sophisticated programs allow a number of accounts to be held together and sums to be transferred between them. This might be simply

Desk File System Account Edit Report									
Regular Transactions									
Start Date	Exp Date	Type	F	From	To	Details	Debit	Credit	
15 Jan 88	15 Dec 88	MORT	M	MC	MC	Mortgage	200.00		
20 Jan 88	20 Dec 89	TRAN	M	MC	MD	Regular Savings	40.00		

Regular transactions like standing orders for mortgages and savings will be processed

the transfer of a regular amount of savings to a deposit account, or standing orders for gas, electricity and so on.

Regular monthly payments generally only need to be fed into the program once. From then on the software will simply make the entries as they fall due. It's very easy to forget "invisible" payments like these, so the facility is one to look out for.

Another handy facility is interest cal-

culation. If you're considering taking out a loan it's worth shopping around for the best rates. But working out which rate is best isn't easy, as various "standard" figures used for comparison are anything but standard.

Variations

APR, for instance, is calculated in the same way each time, but depending upon the starting figures and dates used, the rate can vary quite considerably. Software which allows interest calculations helps you to find out the true rate in your particular circumstances so that a loan with an apparently higher rate of interest may turn out better for you.

Before committing yourself to long

The ultimate

*Bored with
arcading and
adventuring?
Pat Winstanley
shows how your
ST can make a
real contribution
around the home*



Desk File System Account Edit Report													
Report Budget Details													
Budget Details													
Type	Acc	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec Totals
CL	MC	100	50	50	75	60	60	60	60	60	60	75	785
WF	MC	150	150	150	150	150	150	150	150	150	150	150	1800
WISC	MC	100	100	100	100	100	100	100	100	100	100	100	1200
MORT	MC	200	200	200	200	200	200	200	200	200	200	200	2400
PTSL	MC	50	50	50	50	50	50	50	50	50	50	50	600
SAVE	MC	40	40	40	40	40	40	40	40	40	40	40	480
Press Any Key To Continue													
Withdrawals: _____ Current Deposit: _____													

Well this is the theory of a year's spending, but will it work out in practice?

choosing a program, go for one that has rather more facilities than you think you will need. It's surprising how fast your requirements for ever more detailed informa-

tion grow once you let the computer take the work off your hands.

Setting the program up to your particular circumstances can take a little while, but once that is accomplished all you need to do is make a few entries once a week or so to keep your finger on your finances.

Comms

Computing can be a pretty lonely business at times. If you don't have friends nearby who share your interests, your main source of fellowship and information will be magazines like this one.

However there is a way to talk instan-



taneously with fellow enthusiasts all over the world, and that is by using a modem. In the same way that you talk to friends over the phone, modems allow computers to talk to each other.

A modem is a box of tricks which is connected between the computer and phone line, and with the use of suitable software allows you to call other similarly equipped computers all over the world.

Bulletin boards

Although it is possible – and sometimes very useful – to talk directly to another user's computer, the greatest benefit of a modem is the ability to call bulletin boards of various kinds.

A bulletin board (BBS) is a computer which is set up to act as a sort of switchboard which other computers can call. Boards are effectively large databases which allow callers to retrieve information, messages and files, or add their own for the benefit of other callers.

There are many different types of board. Some are run on an amateur basis from home, and are available only during the night when the household isn't using the phone for other purposes.

A board like this is generally referred to as a local BBS. The only charge for calling will be your phone costs, which at evenings and weekends is very small for a local call. You can call boards fur-

gradually work its way around the country, even the world, and will be seen by thousands of people.

At the other extreme, there are enormous systems which are available 24 hours every day of the year. These often make a charge for the time you are online – ie connected – and this needs to be added to the cost of calling the board.

In addition, unless you happen to live close to the board – or have local call facilities available – the charges can add up very rapidly. However, large boards offer the chance to talk directly to companies and individuals where the only alternatives are letters and phone calls.

Many software and hardware companies have accounts on these boards and offer technical help, up-to-date news and the chance to offer feedback about their products. This can be particularly useful if the company you want to speak to is based in another country.

Chatting

What else can you get from the boards? If you like chatting to other users, or need help setting up a piece of hardware or software, or perhaps need a cheat for a game, the messaging system will put you in touch with hundreds of people, many of whom will see your message and answer you. It's rather like an enormous magazine letters page.

The other big attraction is the facility to obtain files, be they games or text information, at any time of the day or night. Shareware and PD files are available on many boards, and can often be obtained more cheaply this way than by sending off to PD libraries.

The advantages are that you can get exactly what you want when you want it, and if you have problems there are plenty of people willing to help you in the messaging systems.

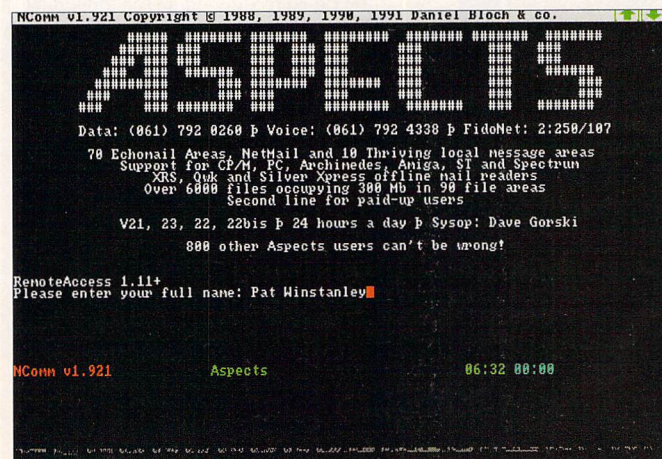
Comms can become a fascinating hobby in itself, or simply a useful tool

home

help

ther away if you wish to talk to people in other areas, but there is usually no need due to an Echo system.

This system links a large number of local boards together by passing on the messages received to the next board in the chain and in turn receiving messages from the one behind. In this way what you send to your local board will



The opening screen of a local BBS showing all the details needed to set your equipment

to help your general computing activities. With care the costs aren't too high, and are easily outweighed by the benefits.

Databases

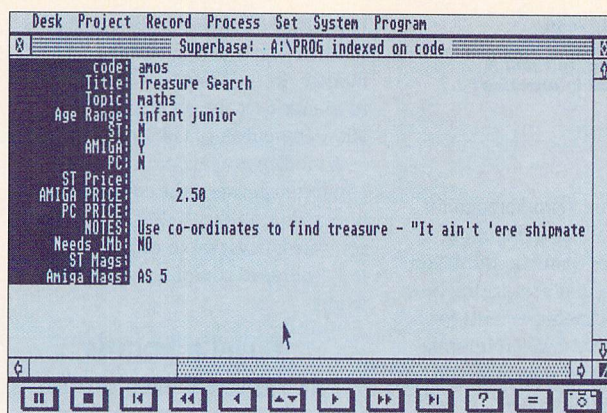
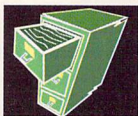
Anyone who collects things needs a way of keeping track of the items in their collection. These items can be virtually anything from addresses to butterflies and there are many time-honoured methods of recording and retrieving such information.

At its simplest, a database stores and controls a collection of information on a subject. For instance, the data might be a set of names and addresses, information about videos or books or even a collection of recipes.

Automatically

Whereas such data might be held manually in a card index and items sorted and searched by hand, a database program will do such tasks automatically.

As an example, let's look at a database of recipes. Suppose you have



Keeping track of educational programs using Superbase. This the entry screen showing all fields

friends coming to dinner and have been warned that one of them is allergic to eggs. Now ploughing through cookbooks hunting for suitable recipes, and checking the ingredients list for each, is a pretty time-consuming business.

How much easier it would be to simply tell the computer to do it for you – list all the recipes that don't include eggs.

And what if someone else at the dinner party won't eat any kind of shellfish? Same again – search the database for dishes which don't contain that ingredient.

Most databases will allow this sort of "all except" search and many will do both operations in one go – "all except eggs or shellfish".

Simple

Still with the example, what if you aren't likely to have time to cook on the day, and want dishes which can be prepared in advance and then frozen? Your "filter" command then would read something like "freezable and doesn't contain eggs and doesn't contain shellfish". Imagine trying to do that from recipe cards in a box, or even worse, original cookbooks.

However in order for the database to work as you wish, all the data must be typed in, and – more importantly – laid out in a standard form for each item.

Databases work with files, which are simply collections of information about particular groups of items – in this case, a collection of recipes. Items in the file are called records – here the individual recipes would each have their own record.

Within each record are a number of fields, each of which hold a particular type of information about the item in the record.

Fields in a recipe database would be something like the name of the recipe, cooking time, suitability for freezing, individual ingredients, comments about previous results with the recipe, preparation method and perhaps comments as to the most suitable wine to go with it.

You might even find a field which identifies the dish as a main course and a suggestion as to complementary

starters and sweets. When the database is searched as in our example, the program will look at the "ingredients" field in each record.

Any in which it finds either eggs or shellfish are discarded from its temporary list. Similarly, any record which has a negative in the "freezable" field will also be discarded. The records aren't erased, and can be pulled back into the reckoning at any time.

The public domain is a rich source of both general and specific databases. If you haven't used one before, this is a good place to start as not only are the programs cheap to obtain, the specific ones usually have a file ready filled in for you.

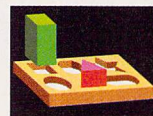
The more you pay for a database, the more facilities you are offered, but don't be tempted to lay out hundreds of pounds on a package offering all the bells and whistles for big business unless you know you will use them. The extra facilities are likely to simply get in your way.

Education

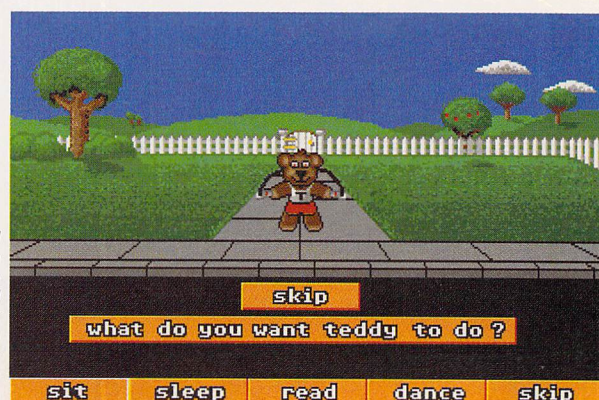
The ST is well catered

for in the field of home education, with most of the major educational software publishers offering their products for it. And there's a huge variety to choose from too. Every age from one to 90 has something specifically for them.

Educational software falls into three broad categories. First there are the pro-



A simple word recognition game for pre-school and infants – click the word to make Teddy perform the action



grams which simply offer a set of exercises such as a list of sums. These have the user enter the answer to the question and then simply mark it right or wrong.

At the other extreme are programs which cleverly hide the educational elements behind a really good arcade or strategy-style game.

In between are the hybrids which show their educational intent but combine this with varying degrees of gameplay and fun.

Within these broad categories lie the more specific educational aims. Some packages are very broadly based offering a variety of subjects such as English, maths, science and art all within a suite of programs. Others concentrate on a single topic such as French or German.

Age groups

And there is yet another subdivision – that of age groups. Some packages aim at a specific and very narrow age group, while others include degrees of difficulty to cater for the wide range of abilities found in families.

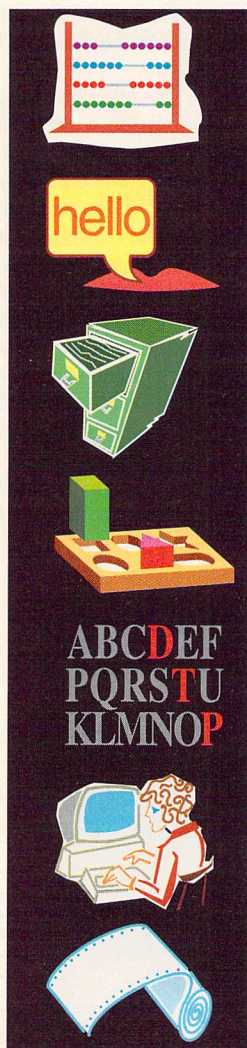
So with the range on offer, what should you choose? To some extent this depends upon the character and learning potential of your child.

Some children rapidly become bored with programs which are educationally sound, but offer little in the way of action. Joystick jockeys need plenty of colour, music and animation to keep their interest.

On the other hand, children less used to the computer, and perhaps a little shy and wary of it, would do well with a simple program which lets them take their time and presents little in the way of distraction.

A good place to begin is one of the packages which offers a suite of different programs. Let your child loose on one of these and you'll soon see which topics and approaches are most suitable in terms of ability and interest.

From here you might choose a dedicated program for one of two reasons. The child might be obviously in need of extra number practice, so buy a package dedicated to maths which has a variety of different approaches to the subject.



**YOU KNOW THE
COMPUTER
YOU'VE ALWAYS
DREAMT
ABOUT?**

Don't take too much notice of age guides, either. They are simply guides and your child might benefit from a program aimed at a younger as well as an older age target.

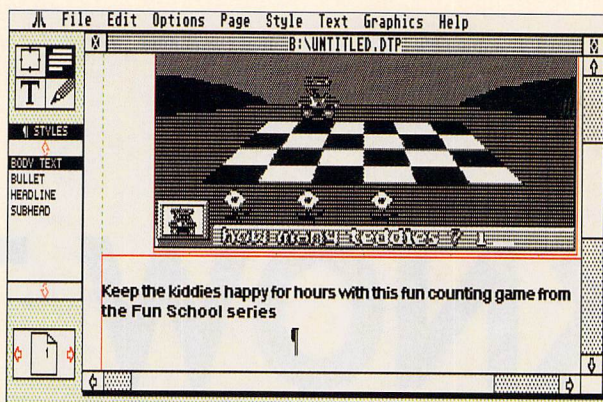
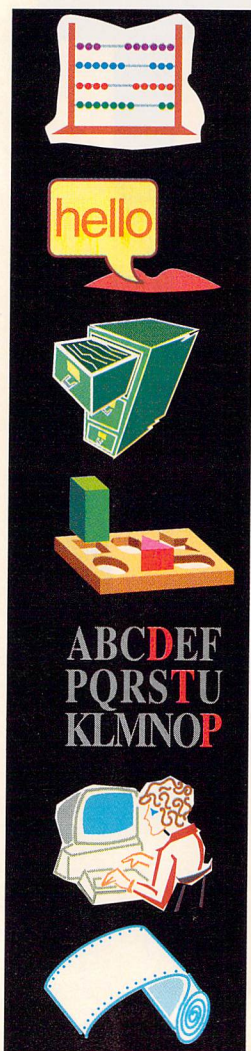
The other reason to choose a dedicated product is if the child shows an intense interest in a particular topic, so much so that the game is quickly outgrown.

This might perhaps happen with a simple music game where the child can play along using the keyboard. Such games are intentionally simple and you may find your child really gains from the purchase of a dedicated adult beginner's music package.

Forced

Whatever you choose, don't forget that when children come home from school they are the same as you after a hard day. A child will gain nothing from being forced to use a program they don't like or are simply too tired to bother with.

Use encouragement by all means, but one of my tester's most often heard comments about a new program is "boring – just like school". On the other hand, some educational programs have them persevering as much as the latest arcade offering.



Mix text and graphics with a DTP package – here a Degas screen grab has a caption added to it

So the golden rules are – let the child(ren) decide, observe their progress and allow interest to be fostered, don't force an unwanted game down their throat and generally be sensible.

Oh yes, the last golden rule is to keep all drinks away from the computer (including yours) – kids get extremely lively with exciting educational games, not just arcade ones!

DTP

The term desktop publishing covers all sorts of refinements, but in essence a DTP package is simply a fancy wordprocessor which allows the use of different fonts (letter shapes and sizes) to be used in conjunction with graphics.

Simple wordprocessors produce output like that from a typewriter. In order to add graphics, the page must be printed out then literally cut into pieces with scissors and stuck to another sheet of paper.

Pictures too must be physically pasted into place. While this is fairly simple to do, it is messy, time consuming and really doesn't produce a very attractive result. How much better then to allow the ST to take care of all the fiddling about while you concentrate on the design of a page.

Text and graphics

This is exactly what happens with a DTP program. While facilities on offer in such programs vary more or less directly according to the price of the software, all will do the task of mixing text and graphics and allowing them to be juggled on the page before ever committing printer to paper.

Don't be tempted to think that you must have the latest, biggest and best equipment for simple jobs – it doesn't always follow.

Although laser printers with their associated quality are becoming more affordable, many people are still using a basic ST setup to produce a wide range

of copy. At this point it's worth mentioning that the output from a 9-pin printer can be greatly enhanced by reducing a page before photocopying. A4 (standard size) pages reduced by a half result in much clearer print than trying to use a smaller font size initially.

Have a look in your local shop. Many of the apparently printed adverts there are produced with simple DTP packages, then run through a photocopier. Perhaps you are a member of a neighbourhood watch scheme. That too is likely to use DTP software for its circulars.

The possible uses of DTP are too many to list here, but what about designing your own Christmas cards, a sponsorship form for the local Cub pack, flyers for your daughter's dance troupe to publicise her first ever performance? The possibilities are endless.

Profit

DTP can also offer the route to profitable part time work. Your local shop may be prepared to pay you for designing a leaflet promoting their latest special offer, to be run off and delivered around the estate.

When you first use a DTP package there is a great temptation to use every available font in every available size, all on a single page. While this is great fun to do, it's horrendous to read. The golden rule of DTP is restraint.

Choose a couple of fonts and stick to them. Be sparing with the sizes you use too. If you are designing a booklet or

newsletter, try to be consistent from one page to another. If the reader can become accustomed to a standard page layout they will find it much easier to locate the item they want to read.

Graphics too should be used with restraint. It's generally better to aim for simple line drawings as illustration – especially if you are working in black-and-white only. If you have no suitable line graphics and can't draw for toffee, look in the public domain where there are oodles of clip art disks available.

With the help of these you should have no problems devising and designing menus for the local pub, flyers for the hairdresser or leaflets for the local taxi firm. Just use your imagination.

Wordprocessors

What's the use of getting a wordprocessor if you can't type?

Answer – you need a wordprocessor precisely because you can't type!

Have you ever written a complaining letter to the bank, the local shop, the council perhaps? And then they come back and say they've never received it, what did it say? With a wordprocessed letter there's no problem answering – simply call it back from disk and either tell them what it said, or run off another copy and send that in.

What if you can't type? Well that's where the wordprocessor really makes its mark. No more wasted paper or gallons of correcting fluid – with a wordprocessor there's no need to commit words to paper until you are entirely happy with them on the screen.

The only skill you need to use a wordprocessor is the ability to find the letters you want on the keyboard.

From the simplest PD programs to those costing hundreds of pounds, certain features are always available. All have facilities for saving your work to disk, printing it out and editing as needed.

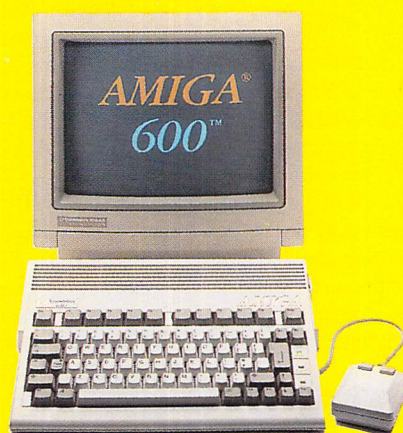
Cheaper programs don't give a great deal of help with editing, and can be



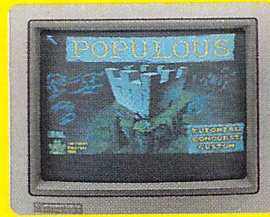
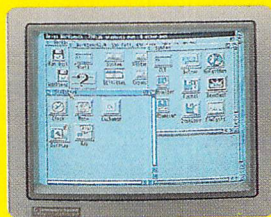
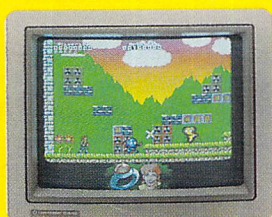
The highly popular Protex simply bristles with commands

PROTEXT	Document	COMMAND.HLP	51K	MM	Authn	SCR	F3	for Menu
Page 2	Line 2	Col 1	Insert	Mks	34	7		00:01:40
PRINTON (PRON)	:	echo all command mode screen output to printer. Turn off with PRINTOFF						
QUIT (Q)	:	ends the Protex run.						
CALC (CA)	:	calculates simple expressions.						
HELP (H)	:	gives information on specified subjects and individual commands - e.g. BLOCK, TEXT, FILE, NAMES, PRINT, BACKGROUND, MACROS, MENUS, PPD.						
TEXT	:	Text handling from command mode.						
SWAP (SW)	:	switches between the two documents in memory.						
CLEAR (CL)	:	clears the text from memory.						
FORMAT (FT)	:	re-formats entire text according to configuration, rulers and stored commands.						
FIX (F)	:	fixes text, so that it cannot be further re-formatted.						
COUNT (CT)	:	counts the words in the text.						
GOTO (G)	:	enters edit mode with cursor on specified row, page or column.						
FIND (F)	:	searches for any string (any sequence of letters or symbols).						

WELL, STOP DREAMING



THE NEW AMIGA 600 HAS ARRIVED



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For example, it incorporates the very latest "Smart Card" technology which means quicker and easier loading than ever before.

What's more, the Amiga 600 will also run existing Amiga software titles – by far the largest range available for any 16-bit machine.

Of course, coming from the legendary Amiga family, the outstanding graphics, mind-blowing stereo sound and 1Mb RAM (expandable to 8Mb) will come as no surprise to anyone.

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very unfriendly at times, but as you move up the range you'll find things like a spelling checker and thesaurus included in the program.

These are a boon, but too often are assumed to do the whole job for you. While spelling checkers will pick up on words not in their dictionaries, they won't catch words correctly spelt but in the wrong context. These mix-ups – such as those between “it's” and “its” or “there” and “their” – are all too common. Don't rely on a spelling checker – read the text through too.

Another common feature is search and replace. This facility is useful when you realise that throughout the novel you are writing you have given the hero brown eyes instead of blue.

Surreal

Search and replace will find all occurrences of the word “brown” and change it to “blue”, without you having to do a thing. However, as with spell checkers, some care is needed, otherwise you are liable to end up with blue tree stumps in a field with blue cows!

A big problem with many wordprocessors is that they use their own internal standards when saving text. This unfortunately means that when loading

the product of one wordprocessor into another you are likely to end up with a screen full of utter garbage. Because of this, most programs have the facility to save and load files in Ascii format. This is also useful for programmers who need to type their program in plain text. Since this is usually simpler with the editing facility of the wordprocessor rather than the limited abilities of much programming software, budding coders should ensure the Ascii feature exists.

Moving text

One very useful editing facility to have is the ability to mark a block of text and make multiple copies of it, or move it to another place in the document, or even to another document altogether.

This can be handy if you have half a dozen or so addresses which you use regularly. Instead of typing them up every time, save them all as a document then load and grab them as required.

In a similar vein, save a letterhead with your own name and address, then every time you want to write a letter, load it back in and just carry on typing.

These are just a few of the features to be found in modern wordprocessors, and probably the most useful to most people. Other features to be found include indexing, a variety of fonts, macros, drawing facilities and much more.

The line between wordprocessors and DTP packages is blurring constantly, with wordprocessors able to incorporate graphics and DTP with excellent text editing facilities. You'll need to do a little research first, but somewhere in the range will be a program to suit you.

Spreadsheets

Have you ever tried to work out a household budget? If so, the chances are that you will have ended up with lots of sheets of paper, a maze of figures and acres of crossings out.

While this is fine at the time, when you know how you arrived at your answer, try showing it to the bank man-

Part of an invoice ready for printing out

Worksheet Range Copy-Move File Print Graph Data Macro Quit									
CHD	READY	OK	CALC	SCRL	END	NOTE	HELP		
D8: (C2) (U) +D3+D4+D56+D6									
NEW-A									
HOME	A	B	C	D	E	F	G	H	I
1	ITEM	QUANTITY	NET	TOTAL NET	VAT	TOTAL			
2									
3	Widgets	1	£100.00	£100.00	£17.50	£117.50			
4	Digits	7	£25.00	£175.00	£30.63	£205.63			
5	Wallys	3	£13.00	£39.00	£6.83	£45.83			
6	Dollies	1	£35.00	£35.00	£6.13	£41.13			
7									
8	TOTAL DUE			£400.00	£54.25	£364.25			
9									
10									
11									
12									
13									
14									

ager and demonstrating how you arrived at the final figure. If this is you, then think about using a spreadsheet.

A spreadsheet is the electronic equivalent of a large sheet of paper ruled horizontally and vertically to produce boxes. Horizontal lines are called rows, vertical ones columns while the boxes formed where they cross are known as cells.

Information

Each cell can hold a different piece of information. For instance, one cell might hold a text heading while the cells below it might contain a set of figures. The purpose of a spreadsheet is to allow figures to be manipulated automatically to produce “what if?” results.

In the example of a household budget, the top row would hold the names of months, the left-hand column titles of income and expenses, while the cells they point to would hold the relevant figures for the categories for each month.

In addition to the basic figures, you would also have running totals for the balance at the start and end of each month. All this could, of course, be done with paper and pencil, but imagine the chaos caused to all the running totals if just one or two figures were to be changed.

A change in the mortgage rate or perhaps a rise in an insurance premium will mean the whole set of totals will have to be recalculated. This is where the power of a spreadsheet lies. Instead of having

to go through all the figures laboriously by hand with a calculator and rubber (and the inevitable errors), a spreadsheet allows you to recalculate the whole set of figures in one go.

Use of a spreadsheet involves understanding cell references. These are where instead of entering a figure in a cell, you enter the name of one or more other cells. Each row has a reference number, and each column a letter.

So any individual cell can be identified by a two-element code such as A1, F35, Z104 and so on. To use cell references in another cell, a formula is employed.

For instance, say you wanted the cell D7 to contain the result of adding together the contents of cell B3 and cell T56. Instead of entering the answer into D7 by hand you would enter a formula like B3+T56.

Arithmetic

When calculation or recalculation takes place, the program will grab the relevant values from any cells in the formula, perform the arithmetical or statistical operation indicated and enter the result in D7 instead of the formula.

Formulae can usually be tagged with a prefix to show whether they are to be calculated every time there is a recalculation, only once or never. Dates and times can be manipulated and entries sorted into date or alphabetical order.

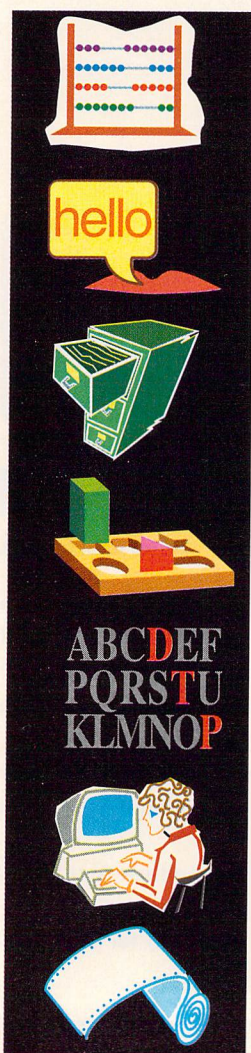
Text too can be manipulated with simple string handling usually available such as converting between upper and lower case, finding the Ascii value of a character, chopping up text strings and so on. It isn't just budgets where spreadsheets can be used. They are infinitely flexible and allow all sorts of applications.

For instance a database can be created, or an accounting package with full double-entry ledgers. Records can be kept of stock levels for a business, or stocks and shares for that matter.

While spreadsheets are intended for business use their very versatility means they are equally suitable for applications in the home.

File Options Data Window Dbase Print Global Macro KSpread v4.16									
---	Fn	Fn	Fn	Fn	Fn	Fn	Fn	Fn	Fn
Value Fmt..	OK	U	G	U	R	R			
Formula Fmt..	OK								
Label Fmt..	OK								
Lead/Trail..	OK								
Preformat..	OK								
Recalc..	AR								
Global Fmt..	OK								
Trace Cells..	OK								
Prime Cells..	OK								
Range Names..	OK								
Col Widths..	AM								
Row Heights..	AM								
Clear Data..	AZ								
Copy..	AC								
Move..	AM								
Delete..	AD								
F1 C. EDIT	F2 EDIT	F3 NAMES	F4 TABS/REL	F5 GOTO	F6 TRACE	F7 QUERY	F8 TABLE	F9 RECALC G	F10 RECALC R
									CRS SOLID

An empty spreadsheet ready to go. Notice the F-key short-cuts at the foot of the screen



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MASTER TIME

More educational software for the little ones

Programmed by B.Ware

Configuration:
all STs, colour only

Filenames:

A – Data file
R – Data file
FASTRMD – Temporary RAM disk program
EXT_MT.PRГ – Self-extraction program

Master Time was first released as commercial software and has enjoyed huge success. It has now been released as shareware, exclusively through *ST User*, which means that you can try it out before you buy it.

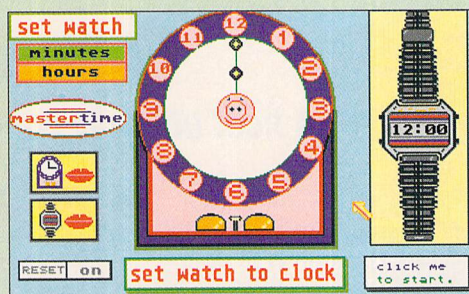
It sets out to teach children to tell the time – with full colour graphics and digitised speech!

Master Time is fully archived to save space but B.Ware have added a clever little self-extraction program to make things even simpler for you.

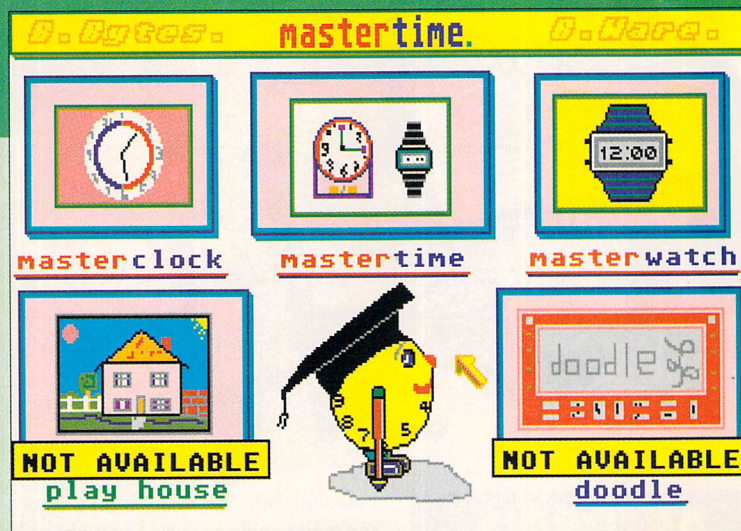
The self-extraction program, EXT_P.SP.PRГ, can be run straight from the CoverDisk – but have a blank disk ready before you start. Don't bother formatting it – the program will even do that for you!

The program file MASTERTI.PRГ will initially be inside an AUTO folder on the disk that you've just de-archived Master Time on to. It can be run from the Desktop by double clicking if you have 1Mb or more of memory but 520 owners must boot with the Master Time disk.

When you have read the opening screen press a key to carry on. You will then be taken to the main menu to select one of the three available modules. Registered users will receive the missing modules when they register but they aren't part of the Master Time package. Clicking on the bar that runs across the top of the screen will bring up an



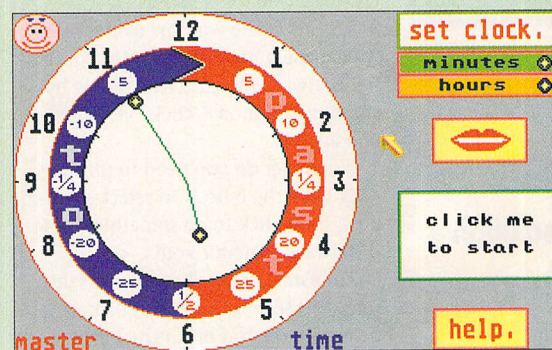
There's no excuse not to go and buy the little dears a watch now, is there?



The opening menu – registration gets you the rest

Options menu that will allow you to tailor the program to suit your child.

Both analogue and digital time telling is involved and there are various parameters to make it easier or harder. For full details see the complete set of instructions in the READ.ME file.



Colourful and instructive – it's also lots of fun!

ACCLOAD and REMINDER

A quick and easy way to start the day

Programmed by John Connor

Configuration:
all STs, med- or hi-res only

Filenames:

ACCLOAD – Folder
ACCL222.PRГ – Accessory loader
ACCLOAD.DOC – Manual
REM_20.PRГ – Reminder program (GEM version)
REM.RSC – Resource file
REM_TOS.TOS – TOS version of reminder
REMINDER.DOC – Manual

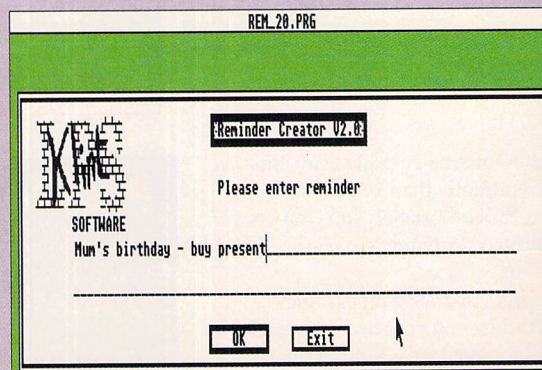
Accload is a small program that does several things when your ST boots up. It can set the time and date, remind you of any appointments, anniversaries or birthdays on that day, enable you to choose precisely which desk accessories you want to load and set up the GEM Desktop the way you want it.

It will run straight from the CoverDisk but to make use of it properly, it needs to be installed in an AUTO folder on your boot disk. On booting your ST, all available accessories are displayed on-screen and all you have to do is select them using the cursor keys and the mouse. You can create as many differ-

ent Desktop setups as you want and rename them to reflect their purpose. For example, you could have a MEDDESK.INF for med-res and LOWDESK.INF for lo-res.

All you need to do is tell Accload where to find them and it will present you with a menu every time you boot up. The various versions of Reminder let you create notes for yourself and save them in the AUTO folder. When you boot with Accload, Reminder will check the files and display a timely message.

The full instructions for Accload and Reminder are on disk in the respective text files. Read them carefully or better still print them out and read them at your leisure.



Just what I need...

FIRST WORD DRIVERS

First Word proved very popular so...

Configuration:
Any ST
Filename

1ST_DOT – Folder containing printer drivers with .DOT extender

First Word, our giveaway wordprocessor on the April CoverDisk, proved so popular that we just had to add a folder full of printer drivers in response to the many letters we received.

You're right – we didn't put many on the disk with the program due to lack of space, but here is a good collection for those of you who have been having problems.

To make use of the new driver, select the one you want and copy it across to your First Word disk. Rename the existing driver just in case and then rename the new driver to 1ST_PRNT.DOT.

THE CoverDisk



AUTORAIS

A handy little utility to boost your productivity

Programmed by
Annius Groenink

Configuration:
all STs, any resolution

Filenames

AUTORAIS - Folder
AUTORAIS.ACC - Desk accessory
AUTORAIS.DOC - Documentation

I love this one. We found it on CiX, the increasingly popular communications and conferencing system, and downloaded it to try out. Now we're all using it so we thought we'd share it with you!

Autorais is a simple little desk accessory that makes working on a crowded Desktop a lot easier. It ensures that the window over which the mouse button is currently pointing is always the current window by simulating a mouse click every now and again.

No longer do you need to physically click the button to select a window, then click to do something in it. It's always done for you!

To install it, simply copy it to the root directory of your boot disk. It can be turned on and off in the normal way by selecting it from the Desk menu.

FPRINT

A stunning little patch - drives most parallel printers up to four times faster

Programmed by Frank Pawlowski

Configuration:
all STs with parallel printer

Filenames

FPRINT - Folder
FPRINT.PRg - AUTO folder program
FPRINT.TXT - Text file

Another gem downloaded from CiX. FPrint patches into the Trap 13 vector and output characters to the printer port much more efficiently than TOS does.

It seems to work particularly well with Hewlett-Packard Laserjets and Deskjets but will probably work with most parallel port printers, including dot matrix machines.

Try it and see - I did and it prints PageStream pages up to five times faster!

The .PRg file needs to be installed in the AUTO folder on your boot disk, preferably after all the others have run. This shouldn't be a problem as most of them are fighting to be first, not last!

HANDY ACC

A small, easy to use accessory for the little things in life

Programmed by
David Tones

Configuration:

All STs

Filenames

HANDYACC - Folder
HANDYACC.ACC - Accessory
HANDYACC.DOC

HANDYACC.ACC should be copied to the root directory of your boot disk. After resetting the ST and selecting HANDYACC from the Desk menu, the options will be presented.

Essentially, you can switch between 50 and 60kHz modes, change the Desktop colours, toggle verify on or off, check free RAM and disk space and generally look after your ST. Full instructions are on the disk.

CMPFILE

A neat utility to compare files

Programmed by Gordon McNeil
Configuration:

any ST, med- or hi-res

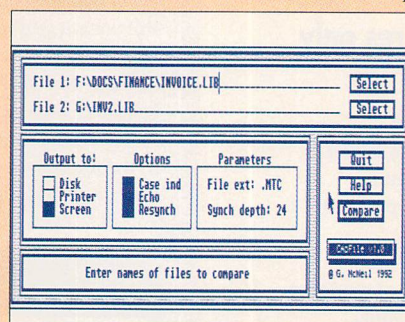
Filename:

CMPFILE - Folder
CMPFILE.PRg - Program
CMPFILE.RSC - Resource file
CMPFILE.TXT - Text file

Cmpfile is a very powerful text file comparison program. It was designed primarily as an aid in managing programming projects but it could equally be used for any purpose which requires standard Ascii text files to be compared, such as two versions of a source code file to determine whether any errors have been introduced into the code.

Cmpfile features an easy to use GEM interface, intelligent comparison routines and many user-definable options. It can compare files of any length.

To use it, double click on CMPFILE.PRg (straight from the CoverDisk if you like), enter the names of the files to be compared in the fields at the top of the form and press Return. The program will produce a list of any lines which differ, outputting to the screen or printer. Press any key to pause the listing or Esc to abandon it. A full description of the options available is given in the comprehensive text file on disk.



Comparing files couldn't be easier

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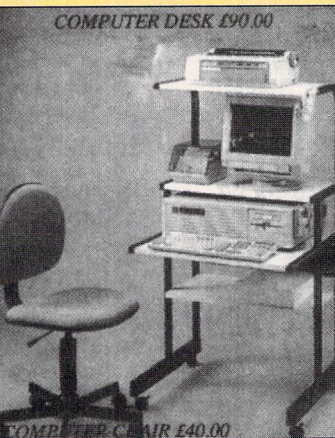
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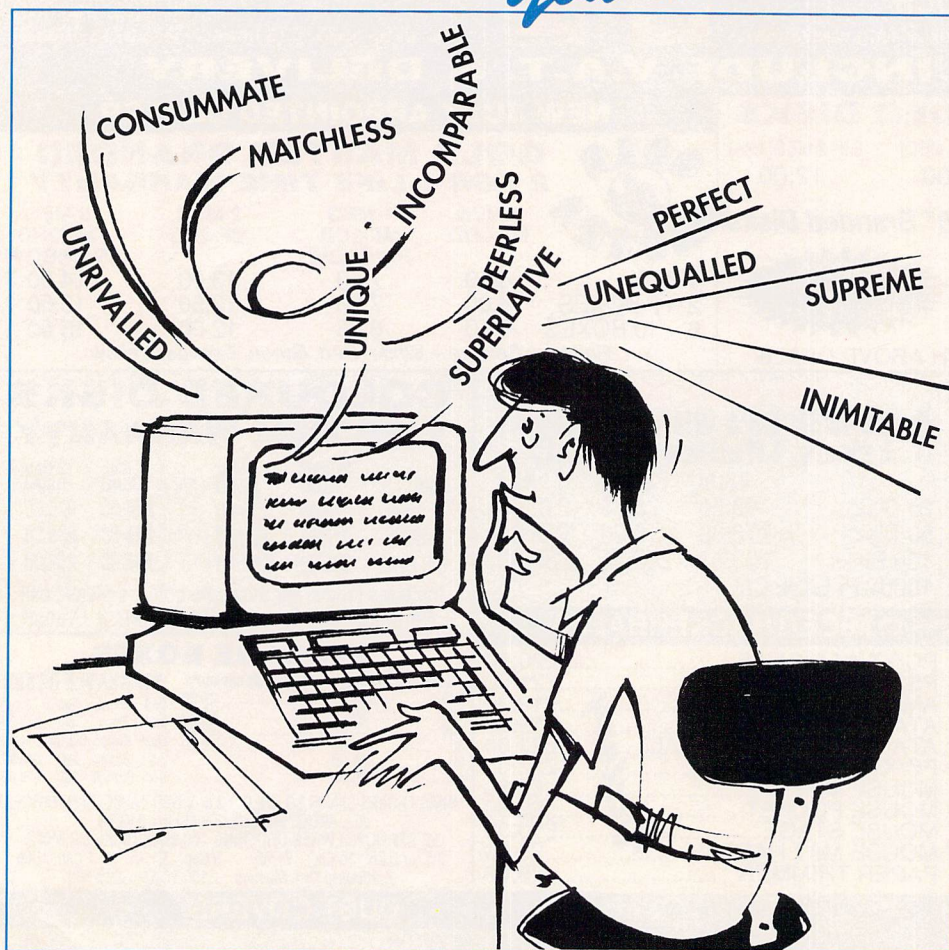
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New document analysis features provide a wealth of information about your text. You can examine a list of all the words used - alphabetically or by the number of occurrences. Other statistics shown include average word length, average sentence length and a table of the number of lines on each page.

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Back 2 Back

Backing up a hard disk has always been a chore. Andrew Wright looks at Diamond Back II, a new backup utility designed to make the job easier

The ST is very poorly served by good hard disk management utilities, probably because the majority of users don't have hard disks. Many probably don't even aspire to owning one but the indications are that hard disk drives are gaining steadily in popularity, especially as prices drop.

Things are different in the PC world, where most IBM-compatibles come with internal hard disk drives already installed. Anyone familiar with PCs will know just how good the backup programs are – hard disk backup with the Windows versions of Norton Utilities or PC Tools is an absolute dream.

Here on the ST side, the choice has been limited to a few PD or shareware offerings such as Vault and Turtle, neither of which are particularly inspiring.

Neither are they particularly fast, and this is probably the root of the problem. Slow backup software puts users off making regular backups and the intervals get longer and longer until disaster finally strikes and valuable data is lost forever.

A real Diamond

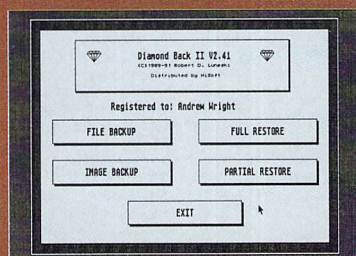
DB2 is fully ST/STE/TT compatible. It comes boxed, with a thin 48-page spiral-bound manual and a single floppy disk. The manual is fairly short and well endowed with screenshots and eye-catching subheadings.

As a result, it tells you all you need to know within minutes, taking you step by step through the process. What's more it provides plenty of help by telling you why you should select certain options instead of simply outlining what the choices are.

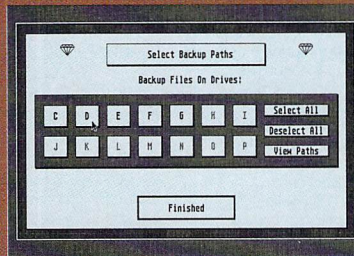
DB2 offers file and image backup and full or partial restore. File backup is the normal approach, saving data file by file, but image backup can also be useful. Image backup means saving a hard disk

Backing up a hard disk with Diamond Back II

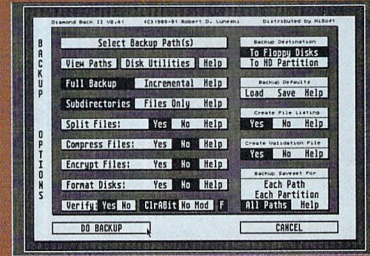
Once you have chosen the parameters such as compression, verification, security, etc, click on Select Backup Path(s). Any masks, using wildcards if necessary, can be added directly into the file selector.



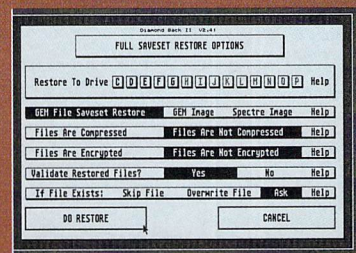
The opening screen – select full backup and off we go



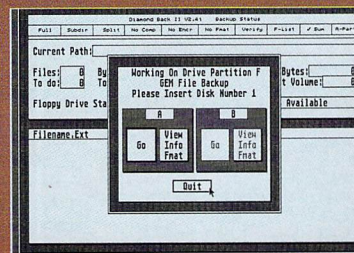
Choose which drive you wish to back up and click on the relevant button. The TOS (or replacement) file selector will then appear, allowing you to specify the individual files or folders to back up.



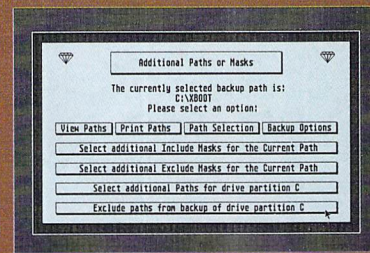
The various options are listed and can be selected using the mouse. Online help is available for most options. Notice the high level of information available in the way of validation files and file lists.



Assuming the backup went well, there may well come a time when you want to restore the data. The flexible restore screen gives you plenty of options from restoring everything exactly as it was to restoring a single file to a different location.



Selecting Do Backup from the main backup menu brings the dialogue box requesting a disk. There are still options available – you may want to look at the disk in case it has data on it or you may want to format it.



After selecting a backup path, you are presented with another dialogue box asking whether you want to add other paths or masks. Click on Finished to finish with this partition and return to the main backup menu.

partition to floppy disk sector by sector instead of file by file.

Full restore simply restores all the backed up data on to the hard disk while partial restore lets you restore individual specified files. This can be extremely useful if one file on your hard disk becomes corrupt – partial restore lets you put back one file quickly and easily.

Even Spectre partitions can be backed up on standard ST disks, but only in Image mode.

Search masks and wild cards can be used when backing up and there are plenty of options to choose from, such as include and exclude masks. DB2 also offers validation as the process is carried out which ensures that the file is put back exactly as it was by checking for CRC errors.

Full or incremental backups are also supported, so you can do a full hard disk backup once a month, for example, and an incremental backup by archive bit or date once a week or even more often.

To aid you in the process, backup sets can be saved and called up whenever

necessary, including the paths and parameters.

Files can be compressed or not as required, and disks formatted by the program or simply erased and written over. This is a useful feature as the type of format does not matter – standard ST disks can be mixed with extended format disks without any problem.

If a problem occurs on a disk, the program recovers and lets you insert a new disk without ruining the backup set.

It's also very fast – it takes around 75 seconds to fill a floppy disk without verification when doing file backups (which is pretty quick by any copier's standards) and image backups are twice as fast, taking around 36 seconds per disk on average.

Unfortunately, it isn't perfect. It doesn't recognise whether data is compressed or not when restoring unsaved backup sets, which forces you either to remember or guess. Also, you can accidentally write over earlier disks in the set if you're not being careful.

On balance, however, DB2 is a superb piece of software and HiSoft's claims

about its position certainly seem justified. If you've got a hard disk, it's well worth investigating.

Bottom line

FEATURES: Flexible backup options and quite fast.

EASE OF USE: Very easy to use with an excellent, down to earth manual.

Features
Excellent
Good
Average
Bad
Appalling

Ease of use
Excellent
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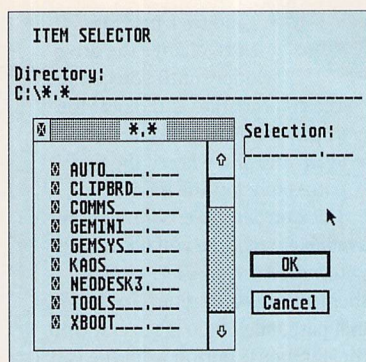
Last month's tutorial covered the famous boot-up program Superboot, which lets you load up sets of accessories and AUTO programs quickly and easily. Once you're up and running, however, there are still a lot of improvements that can be made.

This month's guide takes you through the installation and use of a replacement file selector – something which will benefit every single one of you, whether you have a single floppy disk drive or a 200Mb hard disk.

Data file

The file selector is the dialogue box that appears whenever you try and load a data file from within a program. Try running First Word, given away on the April CoverDisk. Whenever you select Open from the menu bar, the file selector appears.

If you've got an ST with TOS 1.2 installed, it will look pretty spartan. If you need to change the path from drive

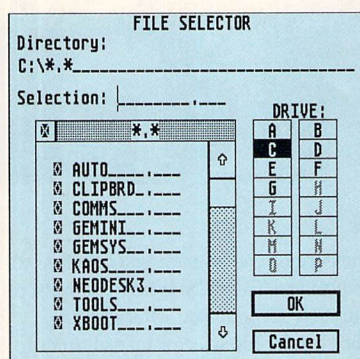


The file selector on TOS 1.2

A to drive B, for example, you have to erase the top line and type in a new path, including folders.

It seems that Atari actually listened to their users when they redesigned TOS and came up with v1.4. Yes, I know it's far-fetched, but there had to be some reason why they changed it.

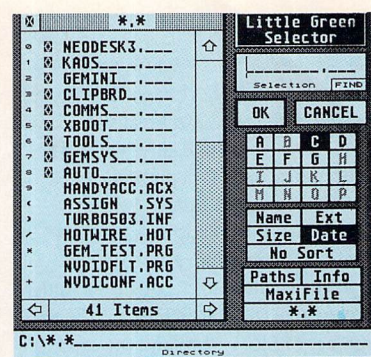
The TOS 1.4 file selector has a row of buttons which allow you to change drives very easily. You can also correctly enter search masks (look for files with a specified extender such as .DOC).



The better TOS 1.4 version

The improvements were welcome, of course, but they came too late – several programmers had also spotted the need for a good multi-purpose file selector with the result that there are several alternatives available today.

One of the best and easiest to use is the Little Green Selector, hereafter called LGS, which you will find on your



The Little Green Selector

CoverDisk lurking in the folder called AUTO.

LGS is really a system "patch" – it is a short program that stays in your ST's memory (until you turn it off) and replaces some of the operating system by intercepting calls made to it.

For example, whenever you click on Open in First Word, the program instructs the operating system to display the file selector. If LGS is installed, it hijacks this instruction and redirects the operating system to display the LGS instead.

Let's assume that you are running your wordprocessor, First Word, with LGS installed. What can it do for you?

The LGS dialogue box is divided into two parts. It resembles the TOS selector quite closely apart from the additional command buttons.

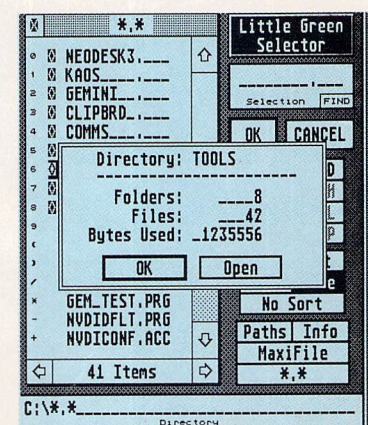
On the left is the file window where the contents of the various disk drives selected will be displayed. On the right is a series of buttons.

The Drive Selector box is the four by four square grid on the right-hand side. Clicking on one of the valid drive letters will cause the drive window to reflect the contents of that drive.

Holding down Alternate or Control at the same time will force TOS to update

Selecting files the easy way

Replacement file selectors can make your life an awful lot easier. Andrew Wright looks at one of the most popular shareware replacements, the Little Green Selector by Charles F Johnston



Reading the free space on a drive using the right mouse button on a Drive Selector box

the contents of the window, for example, when you have changed floppy disks and your ST hasn't realised.

Clicking on a drive letter with the right mouse button depressed causes LGS to read the contents of the drive and display information about space used and remaining.

In the same way, clicking on a folder in the drive window will reveal the total number of files within and the space it takes up.

Beneath the Drive Selector box is a set of sort buttons which allow you to sort the files in the drive window in the same way as you can on the GEM desktop – by name, date, size or extension. They can also be unsorted which is useful for checking the order of program execution in AUTO folders.

Four buttons

At the bottom right there is another box of four buttons. The Info button reveals which version of LGS you have (in this case 1.8C, the latest version) and the Maxifile button provides a direct link with Codehead's file handling utility, Maxifile, if it's installed.

The Paths button presents you with a menu showing 18 blank lines and some default extensions. You can set up some commonly used paths here, making hard disk navigation much simpler.

For example, let's assume that you are using a DTP program and the text files to be imported are stored in a folder called DOCS on drive E. The graphics are stored in various folders on drive D, named IMG, DEGAS and TIFF.

When you try to import a text file,



the current system path will be changed to point to E:\DOCS. When you want to import a graphic, you will need to click on the file selector several times to get to the right folder. Do this several times and it can get tedious in the extreme.

Using LGS, you set the drive window until you can see your text files, then hold down the Alternate or Control key

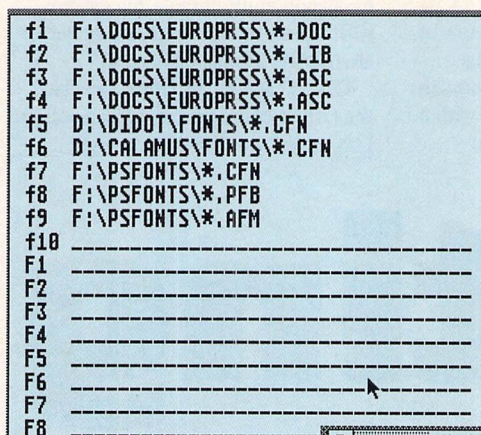
and click on Paths.

Next, change the drive window until you can see the graphics files and repeat the procedure. Now click on Paths again and you will see the two paths stored in the menu.

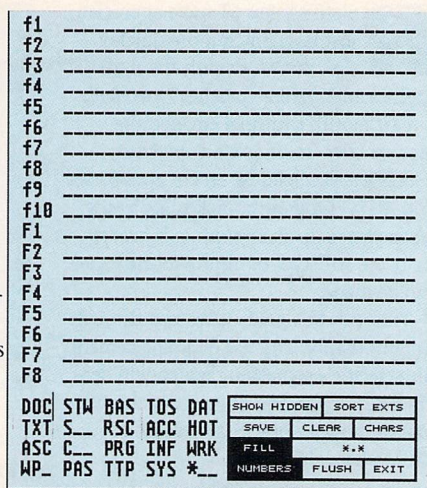
Click on Save to ensure they are available next time you boot up (or you could click on Clear to erase them all). Now, to return to the original path, all you do is select it with the left mouse button from the Paths menu and you will be returned to LGS main menu, with that path already set up.

The other options on the Paths menu are as follows. When Show Hidden is selected (black background), hidden files will be shown.

Clicking on one of the default filename extensions returns you back to the main menu with that extension selected as a "mask". In other words, only files with that exact extension will be shown. This is particularly useful when searching for documents to go with a certain program.



Entering some commonly used paths and storing them in LGS



The Paths button produces this option

Similarly, the box below Maxifile, *.* to start with, is used to switch the mask on or off. Clicking on it replaces the current search mask with the wild-card mask *.* and the current search mask is placed in this box. Clicking the box again returns you to where you were before.

Returning to the main menu, there is another search option. The small button labelled Find enables you to enter as much of the filename as is known in the adjoining selector box and then click on Find to search for a match.

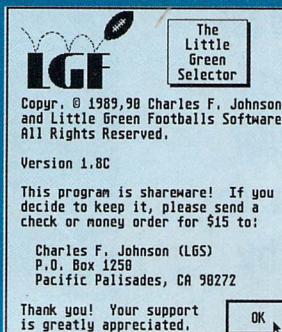
Getting up to speed

I'd recommend you spend some time working through the features discussed so far. These are the simplest and the most useful but that doesn't mean there aren't many more!

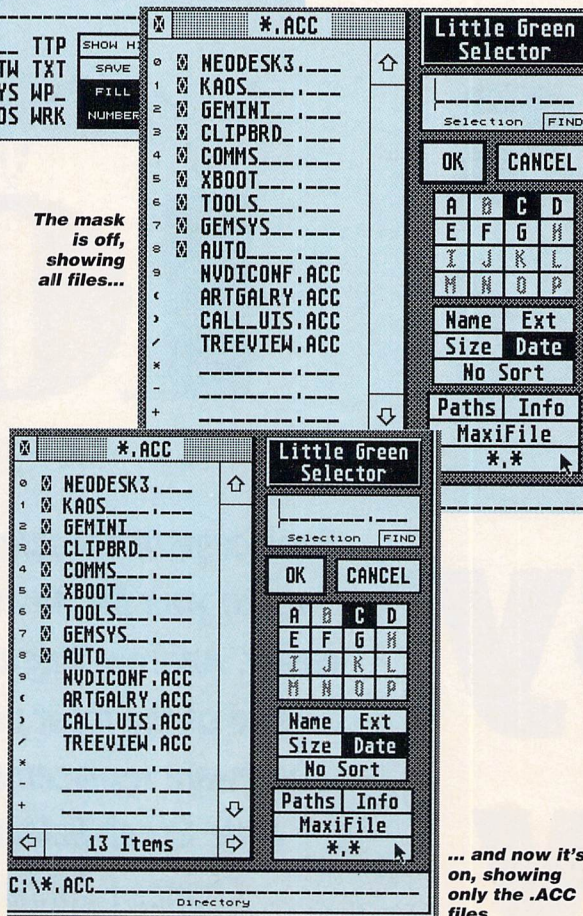
On the CoverDisk you'll find a comprehensive text file, LGSELECT.TXT, which is well worth reading for more detailed information. LGS is shareware, written by one of the most able and prolific ST programmers there is.

If you like the program and start to use it regularly, then you're expected to register by sending \$15 to the address in the text file. If you do, perhaps he'll be encouraged to write more programs! Good luck in getting up to speed – selecting files will never be the same again!

Need I say more?



The mask is off, showing all files...



... and now it's on, showing only the .ACC files

Initialisation

You don't need to de-archive LGS from the CoverDisk. All you need to do is put the CoverDisk in drive A and double click on LGSELECT.PRG. Choose Install and LGS will load itself automatically.

Now you'll want to have a look at it. Double click on CMPFILE.PRG, the file comparison program in the folder called Compare. On the opening screen, press one of the buttons marked "Select" (top right) and the replacement file selector will appear.

In fact, if you now insert any other program disk, run an application such as a wordprocessor and then try and load a file, LGS will appear again!

In order for LGS to be installed every time you boot your ST, it will have to be in the AUTO folder on your boot disk, although if you forget to load it this way, simply double clicking on LGSELECT.PRG and choosing the Install option will ensure that it is present when you need it. Whenever you reset your computer, it is necessary to re-install it.

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Which computer(s), if any, do you own?79

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HCS STE memory upgrade kits come complete with full instructions designed for the amateur. The complete job should take no longer than 15 minutes. 2 and 4 megabyte kits come with free utilities disk and multitasking software.

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Xtraroom Deluxe plug to upgrading system fits inside the computer. It can upgrade your computer in stages to 1Mb, 2.5Mb and 4Mb. The kit comes with comprehensive instructions designed for novices. The kit uses SIMMS, so is easily upgradeable.

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Quality SIMM upgrading system

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Solder In Kit

The solder in kit will upgrade the 520ST to 1Mb. Electronics experience is required as much soldering is needed. Check your RAM chip configuration before ordering: 4 or 16 chips, SMD or DIL.

Solder in kit (all versions)£25.00

REPLACEMENTS

The HCS power supply and disk drive upgrades come complete with fitting instructions and plug straight into the ST without soldering. The Power supply produces less heat than the original so is more reliable.

Replacement power supply£39.95
Double sided disk drive kit£47.00

ACCELERATORS

The AD Speed made by ICD fits in place of your microprocessor. It uses a 68000 chip running at a switchable 16MHz with cache or standard 8MHz to give virtually 100% compatibility. The 68030 SST for the Mega ST gives phenomenal speed with a 68030 running at 50MHz!! The SST has space for 8Mb on board RAM, TOS 2 included.

AD Speed ST£145.00
AD Speed STE.....£165.00
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Fitting for above£35.00

INTERFACES

The "AdSCSI ST" ICD host adapter gives SCSI output from the ST's DMA port, complete with full documentation, DMA cable and hard drive formatting software. Keyboard interface allows the use of PC compatible keyboards on the ST. Multirez allows the ST to display all 3 ST resolutions on the multisync monitor. The forget me clock sets your ST's time and date with cartridge-through port.

AD SCSI£69.99
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Keyboard Interface£55.00
Multirez.....£44.99
Forget Me Clock.....£16.99

MODEM 9600

HCS modem 9600 has FAX capability with 2400 baud MNP 5 error correction and compression, with autodial for all computer formats.

Modem 9600 MNP level 2, 3, 4, 5.....£139.99

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14" super high resolution 0.28 dot pitch Multisync monitor is compatible with the TT, PC VGA/SVGA and Multirez. SM144 is compatible with all monochrome ST software, all normal controls at the front. Both have picture size and position adjustment.

Multisync colour monitor£280.00
SM144 14" FST Monochrome.....£115.00

PC EMULATORS

PC emulators fit onto the microprocessor in the ST. The computer can then be switched between PC and ST mode. For fitting on the STE or Mega please contact technical by phone.

AT Speed C16£205.00
AT Speed 8£135.00
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Fitting for above.....£30.00

The Vortex 386 emulator runs at 16MHz and allows true multitasking in PC mode on the ST. Space on board is provided for a 387 Co Processor and 512K of FASTRAM. Norton factor 15!

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The Spectre GCR cartridge allows the ST to emulate the Mac giving 20% more speed than the Mac plus with 30% bigger screen area! It is fully compatible with ST hard drives. When used in conjunction with the SST it can beat the fastest Macs. The megatalk board fits the Mega ST to allow connection to Mac specific peripherals, LAN network and Mac SCSI.

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Flack over lack of Hak-Pak

I would like to know what has happened to "Hak-Pak", which you started a few months ago.

I ordered and received the Hak-Pak Filofax and collected each page from every issue since then.

But when I received my May 1992 issue of *Atari ST User*, the Hak-Pak page wasn't there.

Why have you stopped a brilliant idea which many people were enjoying, including me?

I hope common sense will prevail and it will be returned to the magazine.

On the whole, I think the magazine is great, with a few exceptions.

R M Underwood, Kendal

Ooh, don't some people annoy you by not being sufficiently explicit! I dearly wish you'd spelt out exactly what those "few exceptions" are.

But seriously, as the demise of Hak-Pak is undoubtedly one of them, I'll confine myself to replying about that. Hak-Pak started life on cardboard.

Unfortunately, three months of Hak-Pak on card proved a very expensive exercise (though we were happy to provide you with the best for as long as possible, dear readers!), and the decision was made to print Hak-Pak on the normal Gamer pages.

Some people complained that this was simply not good enough after such high-quality cardboard jobbies, and after a few more months, we decided to drop them, at least for a while, to see

what reaction we got. Although a few people, like yourself, have taken the trouble to write in bemoaning their passing and seeking their reinstatement, the response so far has not been sufficient for us to take action.

However, no Hak-Pak means more room for Gamer's regular Cheat Mode. Although you'll have trouble fitting

that into you Filo-Fax, it is the number one guide to cheats and strategies.

Giveaway not good enough?

Many thanks for Harlekin on the May CoverDisk – it had been on my shop-

ping list for quite a while, so I've saved myself about £50. Or have I?

Unfortunately, you have not provided any instructions or tutorial whatsoever and with such a powerful and complex program, a user guide of some sort is essential.

You rival magazine has devoted many pages to the basic operation of their "complete package" coverdisks, including explanatory screenshots so at least one can make reasonable use of the program immediately.

With Harlekin, I'm left confused by various features such as the Scrapbook and have no choice but to buy the manual at a very hefty £20 when a tutorial might have been adequate.

Bearing in mind that HiSoft have been selling off full versions at computer shows for £25 complete with manual due to the release of Harlekin 2, your giveaway is not as wonderful as first appears. On the basis that the CoverDisk adds about £1 to the price of *ST User*, one is left with a saving of £4!

I hope that in future issues with complete packages, you will reserve some pages for basic operating instructions so that expensive manuals are optional rather than essential.

Stephen Aizlewood, Chesterfield

Well, Stephen, as you probably noticed if you bought our June issue, we devoted two pages to a Harlekin tutorial. We're sorry this came later than you had hoped. This was an isolated occasion when production of our CoverDisk got a little too far ahead of our editorial production rate!

As regards your point about saving

Feeble excuses from games companies

What are the big software companies playing at? I mean, what's so bloody special about the Amiga that the STE cannot match?

Companies like Psygnosis and US Gold release on average two to three games on the Amiga for every one on the ST. They then come out with a feeble excuse, saying that games do not sell on the ST as it is a diminishing market.

Absolute crap. Look at the sales figures for magazines like *ST User*, which sells an average of 40,000 copies per month. Surely that means at least that number of people own STs. Even if only ten per cent were to buy a game, would that not cover the cost of converting to an ST?

It really angers me that games like *Monkey Island 2* and *Civilisation* are unlikely to see the light of day on an ST, even though thousands bought *M11* and *Railroad Tycoon*.

We give the companies £35 for a game and what do they do? They cut the throats of all ST owners by declining to even port Amiga games to our superior machine.

It's not the owners who are causing the decline of our games industry but the companies, by their refusal to convert ST capable games.

Oh, I know we should all raise our arms in protest and write to the software houses with our complaints, but to be perfectly honest, what good will that do?

They look at the letters and throw them out, not even bothering too respond. I speak from first-hand experience with an unnamed company. I

think it is up to magazines like yours to use your weight and force the offending houses to rethink their opinions, and support the ST. Finally, on a lighter note, I'd like to thank the staff at Riverdene PDL for their lightning-fast and exceptionally helpful service. Why can't every PD library be the same?

Thanks guys.

Graham Baxter, Edinburgh

We're right behind you on the games issue, Graham. The launch of ST Gamer, our games magazine-within-a-magazine, is evidence enough of our own commitment to the ST games market.

Unfortunately, the games software companies are more interested in their market research, which at present does tend to show that sales of ST games are lagging behind not only Amiga games, but those for the PC as well.

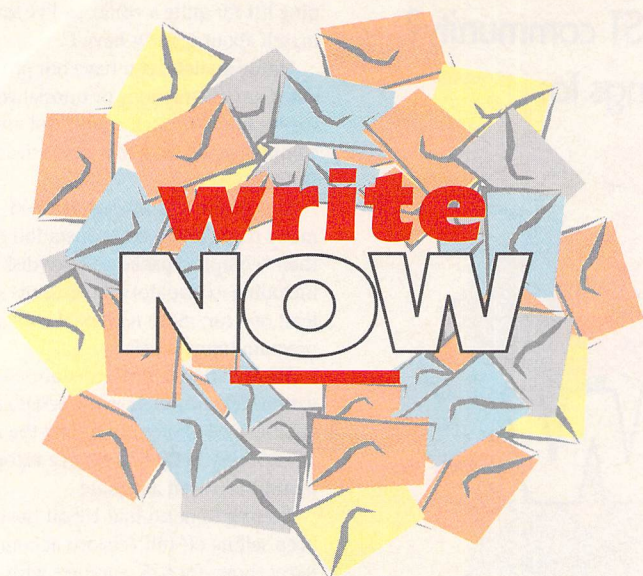
But then, if some of the best games are not being ported to the ST, it could partly be a case of a self-fulfilling prophecy.

Apart from ourselves, the people who can really make the games companies wake up to the significance of the ST are Atari themselves, who have allowed their prestige to sag in recent times.

With still better marketing and a new, ST-compatible machine reportedly coming along in the not-too-distant future, Atari could reverse the perceived decline.

As far as Riverdene are concerned, we are always keen to hear of companies providing a first-rate service, and glad to pass on the news to other readers.

**£10
prize
letter**



► *money, all we would say is that more than 40,000 ST users now have a valuable piece of software which cost them nothing more than the price of a magazine.*

And when you take into account the fact that certain other ST magazines costs nearly £1 more than Atari ST User, we believe that represents good value for money.

A manual can obviously do more justice to a large suite of programs like Harlekin than we can in the magazine, and obtaining one – or upgrading to the newer version with manual – makes sense for those who decide the program is invaluable to them.

But we're not twisting anyone's arm.

How to beat a CoverDisk problem

I had a problem with one of the programs on the CoverDisk of issue 75 (May). The program I'm talking about is The Ivory Dragon Packer.

In your instructions, you say that first of all, you should double click on the program README.TOS. Well, it doesn't

work at first. To get it to run, you have to use RECONVERT.TOS on it and then, to read the packed help files, you have to run DEPAK_V4.TOS, which is actually called DEPAK_V4.PRG on the disk.

After I had done this, I was able to read the instructions for the packer, but this was only after quite a lot of work and frustration.

Maybe you could print this letter so that other people who haven't worked it out yet can get it to work.

Jody Belka, West Lothian

Yes, it does seem there is a problem with README.TOS when trying to run it on an STE. Our technical wizard assures me, that all other files do work.

Many thanks, Jody, for explaining so clearly how the problem can be solved. I hope other ST User readers who own STEs will benefit from your instructions. I can only apologise for the error, and hope it didn't detract too much from what was otherwise one of the best CoverDisks we've ever done.

I'm missing my music demo

When my family and I got our first ST, some PD software freebies came with it. One of them was a "music demonstration" called Micro Mix 2. I loved this demo, but when I tried to make a backup copy, I foolishly used the GEM Desktop and didn't heed the warning, and now it's been erased. Please, does anyone know where I can get it again?

Tom Baines (11), Birmingham

Oh dear, Tom. Sorry you had to learn about things like this the hard way! We don't know of this particular demo, but some of our readers are bound to, and with them being such generous types, I expect your plea will result in piles of copies of it arriving on my desk for forwarding to you any day now.

ATARI ST USER
online

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

Speak to John Butters on the following services:

CiXstuser
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SAVE THOSE SAEs!

Please don't send us SAEs, we can't promise to reply to every letter so it really is a waste of your stamp. Sorry!

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VISA

Following on from last month's guide which explained the benefits to be had from disk accessories, we'll be looking this time at what you can do to extend the capabilities of the operating system.

The ST's operating system is, as we all know, a wondrous thing capable of doing everything from burning the toast to making your tea (well maybe just a slight exaggeration, but you get the point).

It's a very powerful, easy-to-use system. However as your computing experience grows, you may find that in some areas it is a wee bit limited for your requirements.

After all, the developers had to make a trade-off between ease of use and sophisticated features and in a few areas ease of use got the upper hand.

Tweaks

So what do you do if you find you want a feature or ability that's not there? For instance you want further graphics abilities – maybe multiple fonts on-screen at once – or you want to boost the performance of the hardware?

The answer is a relatively simple one, not that far removed from the concept of desk accessories that we discussed last month. Essentially what you do is to install something that is called a "patch" into the operating system.

This is basically a way of enhancing the operating system by "patching" little bits of extra software – the improvements – on top of the built-in software. Alternatively these bits of software can be used to patch up the holes – otherwise known as bugs – in the operating system.

The patches are loaded at startup time and like accessories they remain in memory until the system is reset or turned off.

While in memory they sit around



Patching the holes

Andrew Baker on what patch software is for, and how to avoid the dreaded crash

waiting for their chance to burst into life and do their thing.

Examples of patch programs are the mouse accelerator found in the control panel and Atari's graphics extension, otherwise known as GDOS. So how do you use these patches?

The following is more for the technically-minded, and can be skipped if you're not interested. When run, they enter a loop and wait for an event or something to happen.

Typically this event will be the activation of a part of the operating system that needs to be improved or changed. Once they've been used they go back and start all over again. Normal applications run, do something and then quit.

The patch pro-

grams themselves are very similar to normal applications. To use a patch program you must first create a new folder on your startup disk. This folder must have the name AUTO and must not be inside any other folders (see Figure I).

Hidden

Once you've created an AUTO folder, you copy the patches you have into it. Now, next time you turn on or startup the ST, it will go through its boot procedure and then just before it goes to the Desktop it will load the programs in the AUTO folder. The patches within it will now be running, hidden in the background.

You may have noticed that when you turn the ST on there is a short period of time during which a blank screen

appears. This is the time when the operating system (TOS) is looking for AUTO programs.

If such programs are present they will normally display a message in text directly on-screen without any dialogue boxes or windows – see Figure II.

Interestingly, even though patches are not normal ST applications, you can make normal applications autoboot and run automatically on startup. This is done via the Install Application command.

Automatic

By clicking once on an application, selecting Install Application and then clicking on the Auto button next to Boot Status, you can set any program to be run automatically when the ST is started up – see Figure III.

This technique will work with GEM or TOS programs. Earlier STs could not run GEM programs automatically, but by placing TOS and TTP extension programs into the AUTO folder you could get away with limited auto-starting programs.

The reason they couldn't run GEM programs this way was that by the time the ST got around to running the programs in the AUTO folder, GEM itself wasn't ready – still starting up, if you like.

As a result, trying to run a GEM program tended to crash the system. Some programmers cheated, by using a TOS program which loaded automatically at startup time, waited until GEM was ready and then ran the program required automatically. This wasn't perfect, but until the STE came out it was the only way possible.

As we mentioned earlier, one particular patch or extension is Atari's own graphics extension called GDOS. When GEM was first developed, it was written for other computers and could have multi-

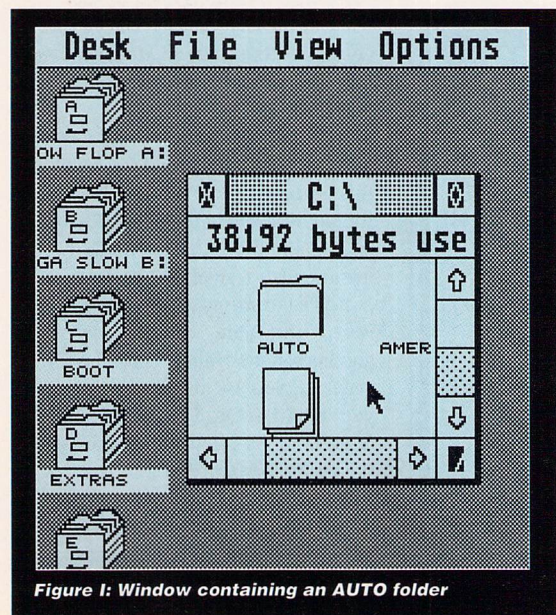


Figure I: Window containing an AUTO folder



Figure II: AUTO applications displaying text directly to screen

ple fonts (see Figure IV) on-screen.

It also allowed programs to save files in a universal file format and to address a wide variety of output devices (printers, monitors and so on) in the same way, thus making life easier for software developers.

Unfortunately, when Atari developed the ST version of GEM they had to do so to a budget – to keep eventual prices down – and one of the things that got left out was the ability to do these things.

Atari later released an upgrade giving these facilities and this upgrade was

ventative steps and give you a couple of tips to help in the advent of a crash. Anyone who has used a computer for a while will know that, contrary to scientific belief, computers have a life of their own, and an evil life it is too. Every so

crashes can be disastrous. Not only can you lose all your work since you last saved, but also if you are really unfortunate you could lose your documents completely – regardless of whether they've been saved. So what steps can you take to avoid such crashes?

Well firstly ensure that the hardware environment you are working. If you have any internal upgrades fitted make sure that they are fitted securely – if possible try to get a professional engineer to install them.

A loose, internally-fitted accessory may still allow the ST to work but give undesirable side effects - like random crashes.

Reliable software

Once you are sure of the hardware, the next area to cover is software. Writing software that is one hundred percent reliable and doesn't crash or have bugs is impossible.

So it's not feasible to use programs that don't cause problems, although you can get software for the ST which is more dependable and less prone to crashing. Your dealer will be able to advise you of the better, more sturdy applications.

Once you've amassed a collection of software, the next step is to ensure that you don't use any other programs that may interfere with your main applications. Desktop accessories and AUTO programs are prime candidates for this.

These programs typically work by

rewriting parts of the operating system. Occasionally these rewrites aren't as compatible with the original operating system and react differently to some situations. Hence when an application calls on GEM to do something and the AUTO folder rewrite does something differently it's easy to see why a crash can occur. You should therefore try to keep the number of AUTO folder programs to a minimum, or only use those that you know from experience to be reliable.

Having established a solid hardware system and stable software base, you will have minimised the potential for crashes to occur. But it's still possible. Most crashes will only affect the information held in the ST at the time of the

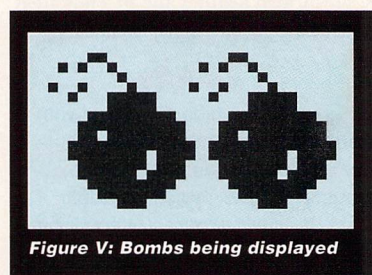


Figure V: Bombs being displayed

crash, so save frequently. Some crashes will, however, affect the files stored on disk. This is particularly so if the software crashes while the machine is actually saving or loading a document.

You should, therefore, try whenever possible take backups of your data, preferably on a different disk to the one where the original data is kept.

If you do have a crash, you've at least got a backup. The more frequently you make a backup, the less work you'll have to do to return to the level of data you had before the crash.

Unusable

In the really unfortunate scenario of the crash damaging your disk and thus rendering your data unusable, there are few options open to you. Some of the larger dealers offer a recovery service, but there are no guarantees that they will be able to get your data back.

If all this talk of crashes and lose of data is scarring you, don't let it. I wrote this because it's important that you should be aware of the possibility of crashes and preventive methods, not because it's a regular occurrence.

I'd like to stress a point. Not all software is unreliable – there are some very good programs available on the ST. In general if you use mainstream programs you should be OK. The point I'm making is that you can't be too careful and there is no harm in being so.

That's me over for another month. In the meantime, spend some money with your local dealer (they'll be ever so grateful) and save the change for the next ST User!

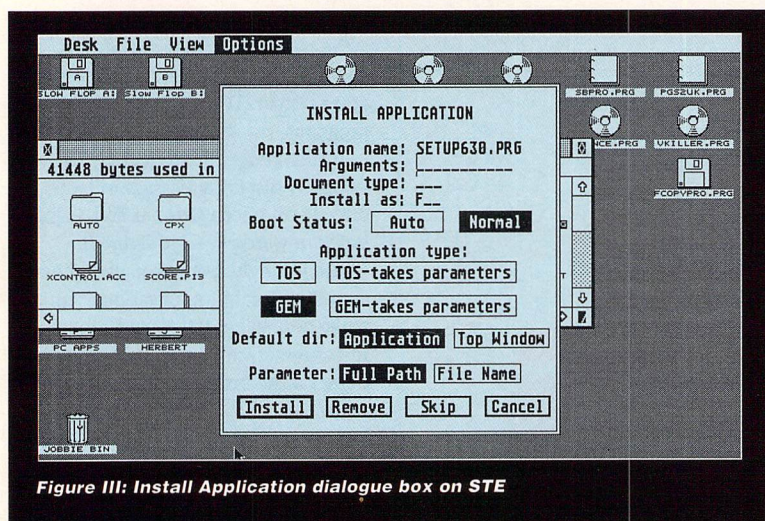


Figure III: Install Application dialogue box on STE

called GDOS. As such, GDOS is the perfect example of a typical AUTO program.

Other examples are the DIABLO 630 emulator supplied with Atari laser printers and Atari's new GDOS version with gives outline screen fonts (very smooth fonts with no jagged edges). All three of these sit in the background waiting for a specific operating system action.

In the case of the DIABLO, whenever you print it takes over, and the two versions of GDOS jump in when certain graphics operations are carried out.

Third-party

It's interesting to note that several of the new features found in STEs and other new Atari systems weren't originally supplied with GEM – it was left to third-party developers to write AUTO programs to give users these facilities.

That wraps it up for auto-starting applications. For the remainder of this month's guide I'll cover an area which all computer users come across at one time or another – the dreaded crash.

This recently happened with a non-ST computer I occasionally use and the people it happened to lost a very important document. If they'd only taken a few precautions, they needn't have lost anything. So I'd like to cover the pre-

often (very often if you're unlucky) the software you're using will crash and lose you everything you've been working on.

On the ST these crashes result in small little graphics, shaped like cartoon explosives (see Figure V) being displayed in the centre of the screen.

If you are playing games, these crashes – apart from being very frustrating – will do little harm.

If however you happen to be working with serious applications, then such

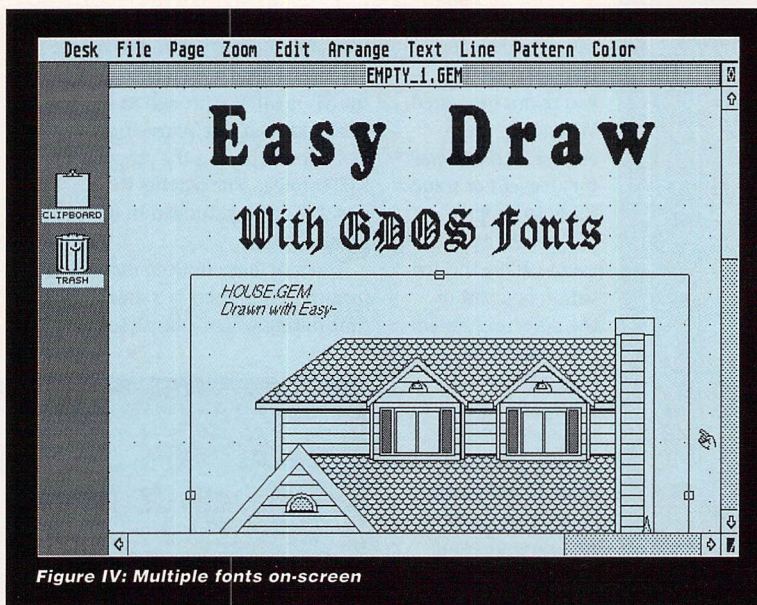


Figure IV: Multiple fonts on-screen

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Acceleration is the name of the game these days – most of us want to squeeze every ounce of speed out of our 8MHz STs and there are plenty of good products to help.

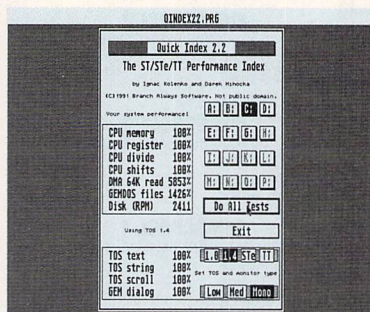
There are software “blitters” such as Quick ST which speed up the screen display, or nVDI which bypasses some slower parts of the ST’s operating system and boosts performance all round. Most of these products come relatively inexpensive and do a good job.

Unfortunately, hardware accelerators have largely been ignored by most users. After all, they’re a bit unstable, aren’t they? Well, if they’re not, they’re completely incompatible, of course. You can’t run your favourite software, can you?

And what about the price? Who wants to spend an arm and a leg on something that you only notice when you’re calculating complex polynomials or manipulating 3D spreadsheets? Well,

Turbo

*What do a Porsche Turbo and an
you fit an accelerator,*



The standard Mega 4 ST running TOS 1.4

now there are stable, 68000-compatible hardware accelerators for the ST that won’t break the bank – and they will do the job much better than a software patch.

For little more than the price of a new, bog-standard 520STE, you can make your existing machine run any program two or three times as fast as

before. Screen displays and updates can even be improved by a factor of ten or more!

I have to be honest here and confess that my previous feelings about accelerators were largely due to listening to too many rumours (plus a smattering of sheer ignorance, of course).

However, it only took one day in London at System Solutions’ workshops to change all that. My ageing Mega ST was fitted with the top of the range Turbo 20/25 accelerator – and all of a sudden, life would never, ever be the same again.

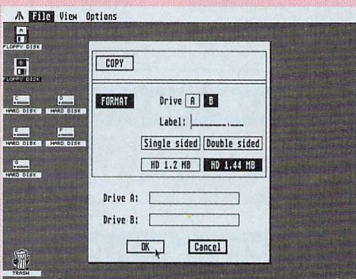
The System Solutions’ Turbo 20/25 board owes its existence to newly developed wafer technology which, for the first time, allows 68000 processors to run at clock speeds in excess of 16MHz. The standard ST, incidentally, runs at 8MHz.

There are 16MHz accelerators available, of course, including AdSpeed and Hypercache, and the new Mega STE can run at 16MHz, if required. Performance improvement ranges from 170 per cent to almost 200 per cent for most programs and operations except disk input and output.

To get even more performance, however, developers had to look at substituting more sophisticated 68000 series processors such as the 68030. This caused plenty of headaches because the 68030 uses slightly different instructions

Give your ST a brain transplant

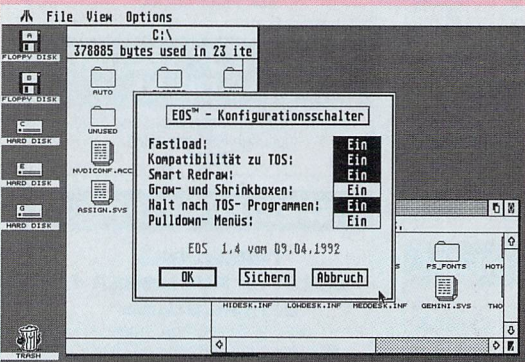
Not content with whipping your ST into a frenzy, you can give it a brain transplant. System Solutions are now marketing the German replacement



Built-in hard drive support

TOS, called EOS – the Enhanced Operating System. It is a totally compatible with TOS 1.4 and it fixes every known bug in TOS 1.4 while adding a number of additional features to make it much more user friendly.

EOS offers plenty of benefits for both



The EOS configuration accessory

the power user and those looking for an upgrade from TOS 1.2, particularly if you’re wary of the TOS 1.4 bugs and inadequacies.

When installed there is about 13k more system memory and the screen

displays and dialogue boxes are considerably faster. The combination of EOS With something like NVDI or Quick ST, plus the Turbo 20/25 makes for a pretty impressive turn of speed.

All the TOS bugs appear to have been fixed, making EOS very smooth in operation. There are different icons for floppy disks and hard disks, plus a new icon in the GEM window bar both on the Desktop and inside GEM applications.

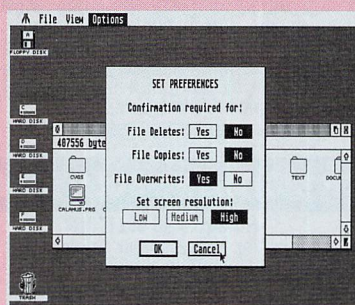
This new feature allows the user to quickly cycle through windows or put the topmost one to the back. It’s a pity that it couldn’t have incorporated application icons on the Desktop or more than four windows but it does run well with KAOSDESK, which provides some of that functionality.

Other features include built-in support for high density floppy drives (and it works), the ability to resize windows a pixel at a time and the reset-proof system clock.

There is also a choice of pull-down or drop-down menus for those that like compatibility with the Mac. Hard drive booting is also easier thanks to the built-in and user definable delay which lets you switch on both ST and drive

together. The ST then waits until the drive is up to speed before booting.

In all, EOS is a stable, fast TOS replacement. For speed and compatibility it beats the alternatives hands down.



The new-look EOS Desktop

Bottom line

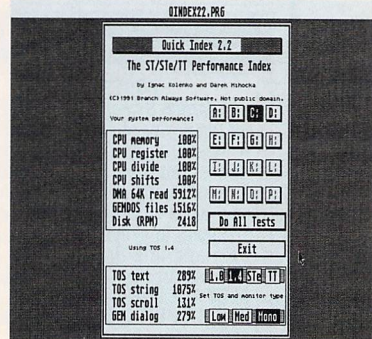
FEATURES: Much faster, easier to use and highly compatible

EASE OF USE: Manual nice and technical, very easy to use once installed. 8MHz again!

Features
Excellent
Good
Average
Bad
Appalling

Ease of use
Excellent
Good
Average
Bad
Appalling

Product: EOS
Supplier: System Solutions,
Suite 47/48, Windsor Business
Centre, Vansittart Road,
Windsor SL4 1SE
Telephone: 0753 832212
Price: £99 in ROM,
£39.95 on disk.
Configuration: All ST models
except STE



...the same machine with NVDI fitted...

and the operating system has to be changed to reflect it. Once this is done, software compatibility starts to become a major problem.

The Turbo 20/25 is based on a 68000 central processing unit (CPU) running at 25MHz. As it is a 68000, there are no compatibility problems.

argued!

ordinary ST have in common? Very little until as Andrew Wright discovered...

Running at 25MHz, it makes a standard 8MHz ST looks pretty sick. CPU performance is increased by up 300 per cent or even more when compared with an 8MHz model – in other words, it does most things three times as fast!

The Turbo 20/25 replaces the old 68000 CPU in your ST or Mega ST. It needs to be fitted by an expert, unless you really do know what you are doing. The reason is that certain sub-standard components on the ST's motherboard may well need replacing if the ST is to be ramped up to full 25MHz power.

Only an expert can spot which ones are likely to cause trouble, but fitting charges at System Solutions are pretty reasonable.

Manual switching

A hardware switch is also fitted, enabling you to switch manually between standard 8MHz mode and turbo-charged 25MHz mode. You can also do it through software, if required, by running a short program from the GEM Desktop. Once you've experienced life in the fast lane, though, you'll never want to switch to 8MHz again!

Most readers will have tried a software accelerator at one time or another. Early versions of QuickST have been released into the public domain and offer screen redraw speeds up to twice as fast as normal.

Obviously, software accelerators don't affect other areas of computer performance. Only a boost in CPU performance can speed up your ST across the board and even then the input/output bottleneck still slows down the system-hard and floppy disks can only access data at a given speed.

I just wasn't prepared for the blinding turn of speed that the Turbo board gave me. Although the CPU benchmarks such as quick Index and others reveal that the increase in CPU performance is over 300 per cent, I expected my relatively slow hard disk to knock that down a fair bit, not to mention the ST's relatively slow RAM chips.

In fact, the drop-off is minimal and most programs carry out their tasks at least 250 per cent faster.

Archiving a 200k set of files took 45 seconds in 8MHz mode – under 18 sec-

onds with the Turbo. Converting a bitmap image with Avant Vector took an exhausting 127 seconds normally, but only 49 seconds at 25MHz.

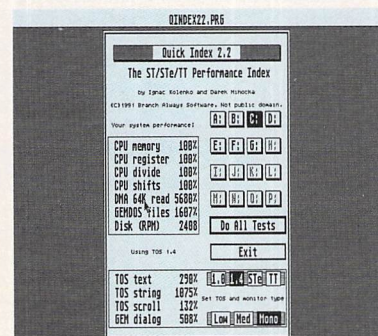
Even a search and replace operation and a spelling check on a 20,000 word document showed the same improvement, averaging between 240 and 260 per cent improvement.

After three months of constant use, I still haven't found a program that won't run at 25MHz. As far as I can see, everything from Didot Professional, Avant Vector, Calamus, Reprostudio and Retouche, right down to the humblest of PD utilities, work perfectly.

Actually, "perfectly" is the understatement of the year – they all run between two and three and a half times faster! Even the slower programs such as Calamus and PageStream become positively inviting!

Games, of course, don't like 25MHz unless you're some kind of masochist looking for a real challenge.

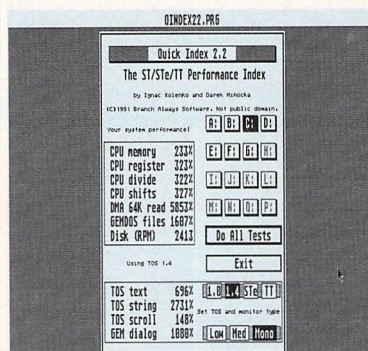
The reason is that the time limits seem drastically shorter and some of the



...now swap EOS for TOS...

sprites move far too fast to be able to see them let alone shoot them. Another bonus is that the usual slowing down of the system caused by installing desk accessories (especially large ones such as Harlekin) and AUTO folder programs, is barely noticeable. Alternative desktops also become easier to use as they load and run much more quickly.

The Turbo 20/25 is a truly unbelievable bit of hardware. For what it does, the price is incredibly low. Three months ago, I just wouldn't have believed that a 25MHz ST could be so stable or so totally compatible – there just isn't anything that won't run, as far



...put the Turbo in and just look at that thing go!

as I can tell.

The only people I wouldn't recommend it to are those with heart trouble – the amount of adrenalin the Turbo 20/25 generates might just be too much!

Bottom line

FEATURES: Indescribable performance - it really has to be used to be appreciated

EASE OF USE: Once fitted, it couldn't be easier. But switch it on and you'll never want to work at 8MHz again!

Features
Excellent
Good
Average
Bad
Appalling

Ease of use
Excellent
Good
Average
Bad
Appalling

Product: Turbo 20/25 accelerator

Supplier: System Solutions, Suite 47/48, Windsor Business Centre, Vansittart Road, Windsor SL4 1SE

Telephone: 0753 832212

Price: £299

Configuration: All ST/STE models, any resolution

Do I need an accelerator?

The most obvious savings in time are when you would normally be gazing uselessly at the screen. Next time you watch the asterisks crawl slowly across the screen when you're de-archiving the CoverDisk, think how nice it would be to see them positively zoom across!

If you use your ST for work, whether it's writing, desktop publishing, programming or simply running a business, there are countless ways in which an accelerator could make a difference. And when time is money, it can pay its way in no time at all.

Documents are archived and de-archived much faster – if you run a PD library, that in itself will save you time. If you regularly send large DTP files across to a bureau via modem, think how much time that would save. As a programmer, how long do you spend waiting for long programs to compile? Even if the answer is only a matter of several minutes every day, the time saved will soon add up.

In DTP and graphics, the savings are probably the most noticeable of all. Loading large greyscale images is much faster (despite the input/output bottleneck), converting them and manipulating them faster still.

Font conversion and bitmap to vector to conversion are also a lot easier and there is always the psychological aspect – if it takes several bor-

ing minutes to do something, you're less likely to try it out several times to get the right effect.

More mundane jobs are made a lot easier too. Program loading is definitely a little quicker, although the main hold-up is the speed at which the ST can read from disk.

On the other hand, packed programs speed up markedly, taking less time to read from disk and decompressing into memory that much faster.

Even wordprocessing is quicker. If you have a slow wordprocessor such as First Word Plus or Word Writer, it becomes as fast as something like Redacteur or Protext. Of course, you actually have to slow down Redacteur and Protext or every time you hit the Backspace key, you lose five minutes work!

I do a lot more archiving and de-archiving than most people and I also do small amounts of DTP work, including image processing and font conversion, as well as database administration and program testing.

I reckon the Turbo accelerator saves me at least 10 to 20 minutes a day directly – that's time I don't have to stare at the screen – and at least another ten minutes indirectly (just running programs more quickly).

That's between two and three hours a week. At just moderate professional rates, it wouldn't take long for a Turbo board to pay for itself.



SOFTMACHINE

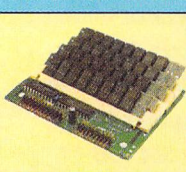


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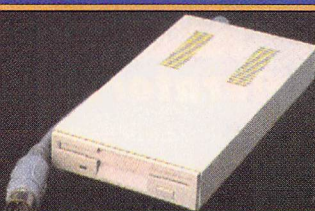
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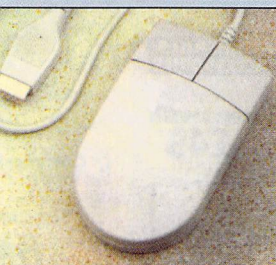
AT-Speed is a PC-AT emulator board for your ST. It has an 80286 processor running at 8MHz. Ideally suited to running PC applications from a working environment in the home.

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Hunter Business Systems are a relatively new name in ST hard disk drives. The big question is, in an already overcrowded market-place, do they have anything to offer over and above the competition?

I recently had the opportunity to get to know the middle model in the Hunter range, the Hunter Carnegie, a 100 Mb hard disk drive.

First impressions are always important, and the Carnegie is no let down. It is smartly encased in grey metal with matching plastic trimmings. It measures around 280mm wide by 280mm deep – just the right size to hold a standard Atari monitor – and it stands a reasonable 70mm high.

The on/off switch is situated on the left of the front panel and there is an access light on the right-hand side indicating drive activity. According to Hunter, the very latest models will also have a power on light.

The power supply is built in to the drive and the power lead has the standard detachable "kettle"-type connector. It also has a plug already fitted, which is always to be applauded.

Inside the case sits a Rodime embedded SCSI disk drive unit with an ICD AdSCSI host adaptor fitted. The SCSI device selector switches are internal on the model reviewed, but those shipping now will have external SCSI selector switches – a welcome upgrade long overdue.

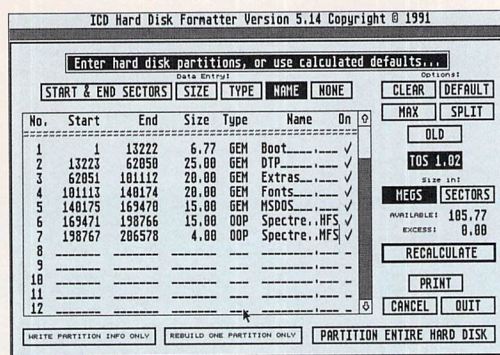
Onboard clock

One distinct benefit of having an ICD card fitted is the presence of an onboard clock which can be used to transparently set the ST's internal clock with a software utility provided.

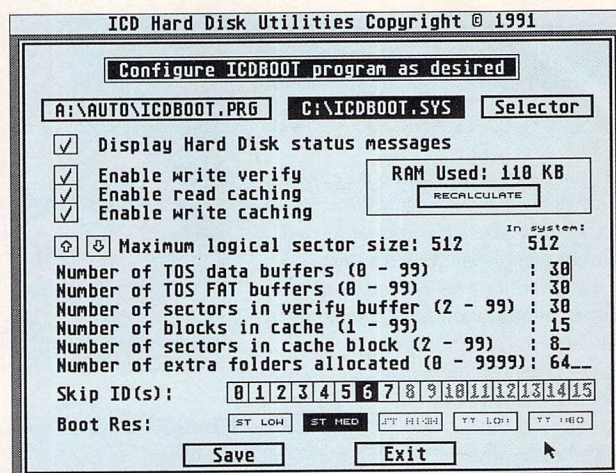
The drive is auto parking, which means that whenever it is switched off, the heads are safely positioned out of harm's way, allowing the drive to be transported easily or just moved around the desk without fear of damage. Many drives require the user to run a short program to do the same.

The ICD software provided (v5.4.2 was supplied with this drive) is arguably about the best a hard disk can have, with the possible exception of Protar's Graphical Manager software.

The software is essentially a suite of utilities which cover just about every aspect of life with a hard disk, except for backup software. This isn't a major problem as

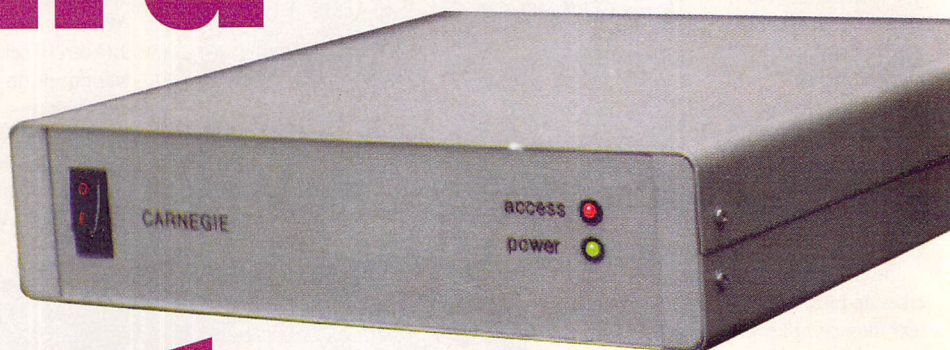


Partitioning the Carnegie using ICD utilities



Configuring the hard disk driver

Hard to beat



Andrew Wright looks at a new drive from Hunter, one of the newest names in the business

backup software is readily available in the public domain.

Although the drive is supplied ready to use, most users will want the pleasure of formatting and partitioning it to suite themselves. Setting up the drive in this way is a matter of running the hard disk formatting utility and selecting the number and size of partitions required.

With TOS 1.4, the limit is normally 32Mb (16Mb with TOS 1.2) but larger partitions are possible if you accept some restrictions such as the inability to auto-boot from a large partition. The ICD software is very easy to use.

The software also lets you check for and map out bad sectors – sectors which are unusable due to minor defects in the manufacturing process – but the drive supplied had none.

The next stage is to set up and configure the hard disk driver, a sophisticated little program that sits on your boot partition and enables you to load accessories and AUTO programs from the hard drive instead of from a floppy.

Again, the ICD software is quick and easy to use. There are plenty of options, all of which are explained in the 60-odd page ICD host adaptor manual. Auto-booting can be enabled or disabled (and bypassed if necessary by the Control-Shift-Alternate

key combination), and various other parameters set according to taste. For example, read and write caching can both be turned on or off, as can Write Verify, which makes a sizeable difference to copying and filing operations. Leaving Write Verify off speeds up disk access by up to 20 per cent.

Caching is setting aside an area of RAM in which an additional number of consecutive disk sectors are read into memory to improve the effectiveness of hard disk access.

Effectiveness

The effectiveness of caching is difficult to measure accurately as it depends upon the type of disk operation being carried out. In some cases it can even slow the system down.

In action, the Carnegie drive is moderately fast and very quiet in comparison to most hard drives. Using RATEHD.PRG, the ICD utility usually used to measure performance, the data transfer rate averaged out at around 770k per second with a calculated mean access time of around 21ms.

The drive gets up to speed very quickly and announces its readiness with a click-click-whirring noise. The rocker switch on the front sounds as if sparks are flying

inside but it stood up to the long-term test well enough.

The drive has a marked tendency to get hot after just an hour's running, although it has withstood many a 16-hour disk-intensive session without causing any problems.

The ICD AdSCSI host adaptor is a well-respected piece of hardware and the accompanying software is excellent. There is no specific manual for the hard drive itself, but the detailed AdSCSI manual more than makes up for it.

This is by no means the fastest drive on the market but it offers better than average data handling without the high noise level that first time hard disk users can find so offputting.

Bottom line

FEATURES: Good performance and exceptionally quiet.

EASE OF USE: Easy to set up and a pleasure to use.

Features
Excellent
Good
Average
Bad
Appalling

Ease of use
Excellent
Good
Average
Bad
Appalling

Product: Hunter Carnegie 100Mb
Supplier: Hunter Business Systems,
 Unit 8, Meadow Mill,
 West Hendersons Wynd, Dundee
Telephone: 0382 28245
Price: £449 (70 Mb = £399,
 200 Mb = £749)
Configuration: All ST/STE models

Idealist

Floppyshop

I know I keep saying this, but I'm going to say it again. Once in a while a real cracker of a program comes along that gets me completely carried away.

Last month it was System Solution's XBoot, but this month it's something a lot cheaper – in fact it's free!

The program comes from Floppyshop, it's available on Disk UTL 3021 and it's called Idealist.

Idealist is basically a printer driver, but it's got so many bells and whistles that it really is worth looking at if, like me, you regularly print out lots and lots of text files.

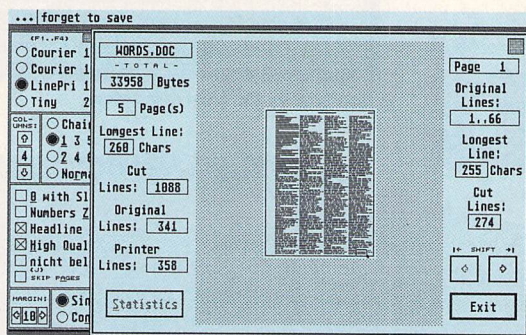
In addition it supports all the best printers – the Deskjet, Laserjet, Atari SLM804 and dot matrixes.

Idealist isn't a small program – it takes up most of one disk with several text files, complex printer drivers and even an accessory version. But once you've seen it in action, you'll find a space for it somewhere.

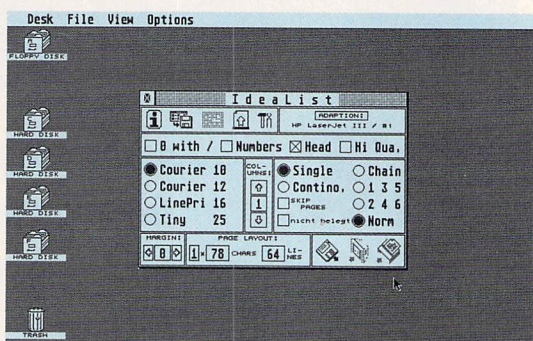
Idealist is a public domain program written in a combination of Pascal and assembler by German programmer Christoph Bartholme. The substantial manual is in English and tells you all you need to know to get started.

Loading the program presents you with a nicely designed interface, similar to GEM, in which the various menus can actually be moved around the page with the mouse.

The heart of the program is some-



The Page Preview function in Idealist

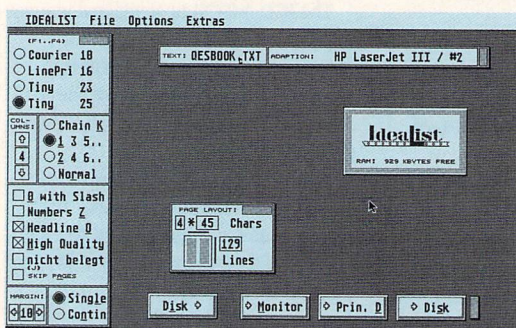


The accessory version works in the background

thing called an "adaption" file – basically a printer driver – for which there are four apiece for the Deskjet and Laserjet III, each using a selection of different fonts.

There are even downloadable soft fonts for certain dot matrix fonts and the Laserjet III, including "Tiny" fonts at

The mouse driven, icon interface of Idealist, one of the nicest printer programs around



Public Sector

Some really high quality software hits the Public Sector pages this month...

23 and 25 cpi. There are four different fonts available for each printer.

Once a document is loaded (either Ascii or First Word format) the adaption file can be selected and the various printout parameters chosen.

Text can be printed in varying numbers of columns (up to nine) and page lengths with options

for line numbering, headers, chaining and margins. The printout is clear and accurate and the word wrap is well handled, ensuring that even very narrow columns are as readable as possible.

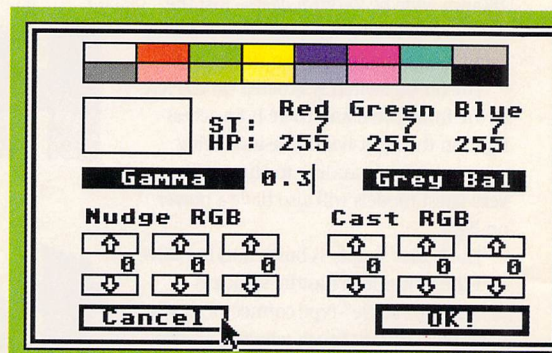
Three and four column printing works best but my only grumble is that there is no

means of altering the gutter (the space between columns), making the gap a little too close for comfort on some lines of text.

Configurations can be saved for quick access – the accessory version is particularly good for hurried printout jobs and even works in the background.

The program is completely mouse driven and most commands can be accessed from the Desktop icons. It runs on any ST as far as I can tell and in both med- and hi-res. The Page Preview mode only works in hi-res, however.

On the whole, the program is well worth a look – what's more, it should save a few trees...



The colour options are pretty varied

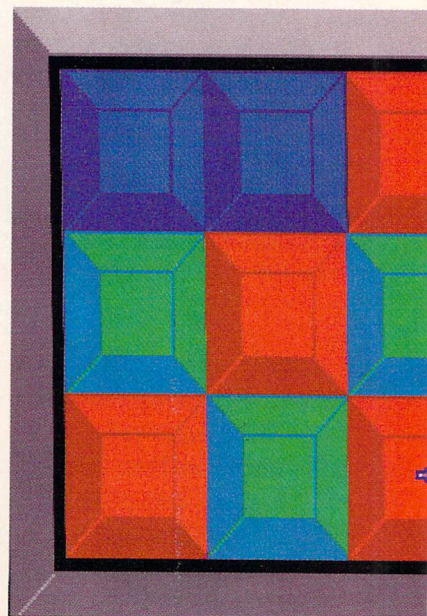
HPChrome

South West Software Library

Colour printers are coming right down in price – quite a few readers are going straight for 24-pin colour models when they buy their STs, and HP's latest colour version of the Deskjet looks set to win over quite a few converts.

If that's not enough, a standard Deskjet can be equipped with a special colour kit which allows it to print in full colour.

The only problem is suitable printer

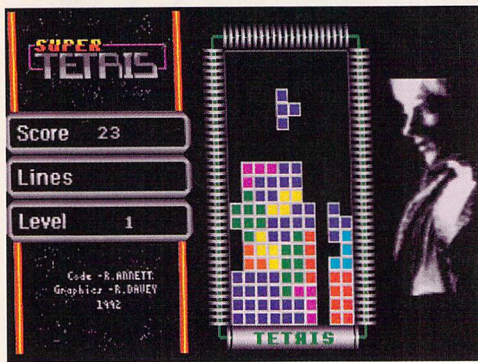


Jiggers – nice but infuriating

Where to get them...

- Arrow PD, 6 Kent Orchard, Perry Street, South Chard TA20 2QB
- East Midlands PD Library, 53 Watnall Road, Hucknall, Nottingham NG15 7LE
- Floppyshop, PO Box 273, Aberdeen AB9 8SJ Freaks, 29 Leap Valley Crescent, Downend, Bristol BS16 6TQ

- MT Software, Greens Ward House, The Broadway, Totland, Isle of Wight PO39 0BX
- Riverdene PDL, 30a, School Road, Tilehurst, Reading RG3 5AN
- SW Software Library, PO Box 562, Wimbourne BH21 2YD



Super Tetris

and NEO formats. It offers a choice of size and position on the page, with accuracy to 0.003in (0.08mm). Page layout can be either portrait (upright) or landscape (sideways).

The whole image, or just a section of it, can be printed at

draft, normal or best quality. Colour-correction can be applied, to compensate for the differences between screen and paper colours.

The program is shareware but PD options will be made available. The author, Martyn Dryden, is also working on an accessory version so that Degas users can print straight from the program. For more information contact the South West Software Library (it's not yet in the catalogue).

drivers and not many have yet appeared for the colour Deskjet. A bit of co-operation between one of the biggest PD libraries, the South West Software Library, and *ST User*, has resulted in the first colour printer driver for the Deskjet – a program called HPChrome.

HPChrome works with Hewlett-Packard's DeskJet 500C, or a standard DeskJet, DeskJet Plus or DeskJet 500 fitted with a colour kit (available from Systems Insight on 0707 276913). It works in any resolution.

Although I'm a confirmed Deskjet-aholic, I haven't yet tried the colour kit, but it was used in the development of HPChrome and ought to work.

I was lucky enough to be able to try out the program on a colour Deskjet (full review in a future issue) and the results were astonishingly good. The pictures can be cropped and stretched and the colours can all be altered using the various correction menus.

Unfortunately, it's in the nature of colour printing that what appears on the screen rarely matches that on the page, but with some trial and error the best settings can be obtained. Everyone's perception of colour is different, so the ability to tinker is very important.

HPChrome prints 16-colour picture files in Degas (normal or compressed)

Jiggers Digital Dimension

Digital Dimension are a new group of shareware programmers with, it seems, a liking for games. At a recent computer show, they launched two brand new shareware titles, Jiggers and Fruit Pursuit.

The group hopes to make the same impact as other shareware success stories such as B.Ware Software (Supercard and Master Doodle) and Llamasoft (Mutant Camels and Llamatron). Users who register will receive a further exclusive game and regular newsletter.

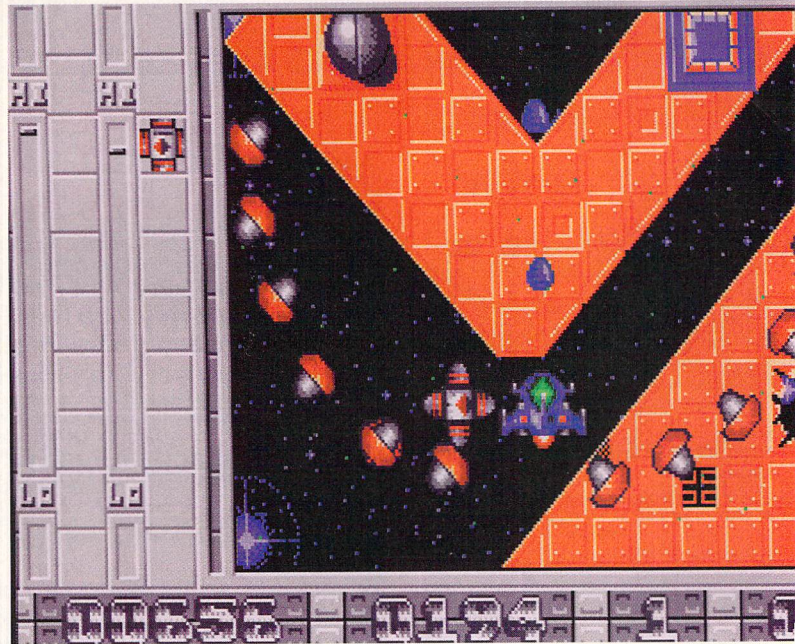
Jiggers is a rather nice puzzle game. Actually it's really infuriating. I'm supposed to pretend that I've been to the umpteenth level and back just so this is a fair review – well I couldn't get past the first level, but that doesn't mean I didn't try.

It's a genre that's very popular at the moment and is similar to Flipped which featured on a recent *ST User* CoverDisk. It requires mouse control only to change all the colours in a grid in groups of four or more at a time, and runs on any ST in colour. The game should be available

MT's fat cat

Isle of Wight-based PD library, MT Software, have just released a new 60-page catalogue containing hundreds of public domain, licence-ware and shareware disks.

The catalogue is available free of charge by writing to MT, telephoning 0983 756056 or asking by fax on 0983 755800.



Peace and harmony for a new age? Nahh, it's Violence

from most PD libraries but if you have trouble, write to Mark Pearson at 160, Great Meadow Road, Bradley Stoke South, Bristol BS12 8DA.

Super Tetris East Midlands PDL

A new version of an all-time favourite can't be ignored, especially as it's a version of Tetris. This time it's called Super Tetris and it comes from East Midlands PDL as the first in a new collection of licenceware titles. Ask for it by name.

The authors, Talos Software, have tried hard for a new angle and they appear to have succeeded with the two-player option.

Pulling down your own pieces quickly accelerates the descent of your opponent's too! A good way to lose friends but it's better than smashing up bus shelters, I suppose.

The game works on any ST with any disk drive but the two-player option will require a second joystick in the mouse port. Worth a look, especially for Tetris fans.

Violence

Riverdene PDL

Yes, we all like a bit of violence and this game is no exception. It's hardly original but it's particularly well done – the graphics and sound are nice and the game play is challenging and exciting. I liked this one a lot – in fact I couldn't stop playing it!

It's a variation on one or two themes – I can't put a name to them but I'm sure the screenshots will remind you of

a few. The object is to shoot the hordes of weird and wonderful thingies, collecting points as you go along.

The nice thing is that these points can be traded in for even more dastardly weapons and so you can shoot even more of the thingies. A bit like world politics really.

The game is available from Riverdene PDL on disk 982ST. It runs on all STs in colour only.

Arrow goes one up

Arrow PD has just announced an exclusive four-disk set of Midi music containing over 125 song titles from Hill Street Blues to classical pieces such as Beethoven's 5th (all of it?).

All four, disks MID 13, 14, 15 and 16, can be bought for a Midi pack price of just £5. All files are ready to run and can be loaded into any ST program that will accept Midi files. Another exclusive disk, MID 17, contains some of the same files in Cubase format.

The new Somerset-based library claim to have over 400 disks, of which 17 are Midi-oriented. It also offers The Ultimate Collection – four double sided disks of all the best rated PD and shareware utilities.

Quite a claim, but I can't fault most of the selections – Fastcopy III, DBMaster One, Opus 2, Gemini and Vanterm are all there. Well worth it for newcomers – and we might well be covering one or two of the program's in our regular tutorial slot.





Emulators

PC Speed(XT)	£ 90
Please state version you require, STFM or STE.	
AT Speed	£ 149
Includes DR DOS	
AT Speed C16	£ 229.99
Includes DR DOS 5, Socket for 80C287 Co-Processor, Norton factor of 8.2	
Adaptor board to fit AT speed to STE	£ 24.99
Adaptor board to fit AT Speed to Mega	£ 24.99
Our service department can fit the above emulators for £30 including courier pickup and return.	

Disks



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100 Bulk disks	£ 41.13
0 Sony Brand	£ 5.99
0 High Density	£ 12.99
3.5" Disk Boxes	
0 Capacity	£ 1
20 Capacity	£ 1.99
40 Capacity	£ 4.99
60 Capacity	£ 7.99
20 Capacity	£ 9.99
Disk head cleaner	£ 5.99

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Wire printer stand	£ 8.99
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C10 Colour ribbon	£ 7.99
C24/10 ribbon	£ 7.99
C200 Col ribbon	£ 14.99
C24200 Col ribbon	£ 14.99
Starjet SJ48 ink cartridge	£ 15.99
GLM804 Toner	£ 39.99
200 sheet printer pack with Citizen drivers	£ 19.99
C200 Dustcover	£ 7.99
C24200 Dustcover	£ 7.99
ST Dustcover	£ 3.99
8833MKII Dustcover	£ 7.99
Forget Me Clock II	£ 17.99
Vidi ST	£ 99.99
4" Monitor Stand	£ 14.99

STE Packs

The 520STE Discovery Extra Plus Pack includes: 9 lives, Escape from the planet of the robot monsters, Final fight, Sim City, ST Tutorial, Neochrome art package & 1st Basic, mouse.	
520 STE Discovery Xtra Plus Pack	£ 239
1Mb STE Discovery Xtra Plus Pack	£ 249
2Mb STE Discovery Xtra Plus Pack	£ 289
4Mb STE Discovery Xtra Plus Pack	£ 359
The 1040STE Curriculum Pack includes 3 packs of Educational software catering for 5yrs to GCSE. 1 Business pack consisting of wordprocessor, spreadsheet and database, and 1 creativity pack consisting of Hyperpaint and Music maker software.	
1040 STE Curriculum Pack (while stocks last)	£ 299
The new Mega 1 STE features, Detachable keyboard, Switchable 16/8MHz CPU, 44Mb 35" floppy, Maths co-processor socket, LAN ports, TT styling, VME bus. We can fit extra RAM and Quantum Hard drive mechanisms (9ms access time) controlled by ICD host adaptors to the Mega 1 STE to give superior specification than Atari-Mega 2 or 4.	
Mega 1 STE	£ 539
Mega 1 STE with 52Mb Hard drive	£ 849
Mega 1 STE with 105Mb Hard drive	£ 969
4Mb Mega 1 STE with 52Mb Hard drive	£ 939
4Mb Mega 1 STE with 105Mb Hard drive	£ 1099
4Mb Mega 1 STE with 240Mb Hard drive	£ 1349
Our engineers can fit PC emulators and/or security devices to any of the above. Phone for details. Phone for details of the new Atari SM146 mono monitor.	

Atari Monitors

Atari SC1435 Stereo Colour Monitor	£ 219.99
Stereo, Colour, monitor, includes green screen feature, cable, and tilt/swivel stand.	
Philips 8833MKII Stereo Colour Monitor	£ 219.99
Stereo Colour, monitor, includes free cable F19 and 12 months on site warranty.	
Atari SM144 14" Hi-Res Monochrome Monitor	£ 139.99
Atari SM124 12" Hi-Res Monochrome Monitor	£ 139.99
Atari SM146 New Hi-Res Monochrome Monitor	£ POA
Philips 15" Scart, Fastext, Cube TV	£ 269.99
Includes: FST, remote control, Scart input (giving near monitor quality display), 60 tuner presets, sleep timer and Fastext. Comes with cable.	
Philips 15" Scart TV	£ 229.99
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When ordering please specify cable type (ST or STE).	

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star	<u>Star LC24-20</u>	<u>Star LC24- 200 Colour</u>	<u>Starjet SJ-48</u>
	<u>£194.99</u>	<u>£289.99</u>	<u>£239.99</u>
	24 Pin printer	24 Pin printer	48 nozzle Bubblejet printer
	210 cps high speed draft/64cps LQ	222 cps	Fully portable
	10 Resident LQ fonts	5 Resident LQ fonts	Epson & IBM compatible
	Accepts font cartridges	Accepts font cartridges	186cps/2 Resident LQ fonts
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	Advanced Paper parking	Paper parking	feeder available
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Citizen 120D+	£ 119.99	Citizen Swift 9 192/48cps	£ 184.99
Citizen Produt 9 300/60cps	£ 209.99	Citizen Swift 24E 216/72cps	£ 289.99
Citizen PN48 portable thermal	£ 239.99	Citizen PRO-JET 360/120cps	£ 404.99
HP Deskjet 500	£ 389.99	HP Deskjet 500 Colour	£ 569.99

Ricoh LP1200 400Dpi Laser Printer £779.99

- ✓ Fully HP Laserjet III compatible
- ✓ 400Dpi Resolution
- ✓ Serial and Parallel ports
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- ✓ 2Mb RAM on board
- ✓ 1 Year on site warranty

All Star printers come complete with 12 months on site warranty (Mainland UK) and a free ST/Amiga/PC compatible centronics cable.

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Lynx 2 (Console only)	£79.99	Lynx 2 Power supply	£11.99
Lynx soft cases	£9.99	Comlynx cable	£6.99
New Battery pack	£9.99	Lynx 2 survivor	£5.99
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Psion 3

Psion 3 128K	£ 189
Psion 3 256K	£ 234
The Psion 3 pocket computer is a 16 bit computer with graphical windowing Multi tasking operating system. It has 2 slots for additional plug in, solid state memory up to a total of 4Mb. Built in applications include fully featured Word Processor with style sheets, Database, Calculator, To Do Manager, Time and Alarms, World Information (dialling codes etc), Agenda and OPL programming language.	
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Serial RS232 i/face	£ 64
Psion 3 PSU	£ 14
128K RAM SSD	£ 74
512K RAM SSD	£ 184
1Mb RAM SSD	£ 274
128K Flash SSD	£ 37
256K Flash SSD	£ 64
512K Flash SSD	£ 109
1Mb Flash SSD	£ 184
2Mb Flash SSD	£ 274

Portfolio

Atari Portfolio	£ 129
The Portfolio Pocket PC has 128K RAM expandable externally to 640K, MS-DOS 211 compatible operating system, 5 built in applications including Lotus 123 compatible Spreadsheet, Calculator, Text editor, Address book and dialler and a Time manager.	
Pocket Modem	£ 219
1200 baud Hayes compatible modem, Auto answer & wake up modes, telephone lead supplied.	
Serial RS-232 i/face	£ 55
Parallel interface	£ 39
Portfolio PSU	£ 11
64K memory card	£ 84
128K memory card	£ 129

Cables

Centronics printer	£ 4.99
STE Scart cable	£ 14.99
STFM Scart cable	£ 14.99
STE 8833MKII	£ 14.99
STFM 8833MKII	£ 14.99
Null Modem lead	£ 9.99
Mouse/J/S ext	£ 5.99
Monitor switch box	£ 24.99

Scart cables listed only compatible with Philips TV's/Monitors.

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Our Service department can repair ST's in minimum time at competitive rates. We can arrange for courier pickup and return delivery of your machine to ensure it's safety. We even have a same day service which will ensure your machine is given priority and subject to fault, completed the same day. We can fit memory upgrades, PC Emulators, Security devices, ROM upgrades, hard drives to Mega STE's etc. We offer a Quotation service for £15 for which we will examine your machine and report back with an exact price for repair. If you do not wish to go ahead with the repairs then just pay the £15. However if you do go ahead then the charge is included in the minimum charge. Please note: The minimum charge covers labour, parts are extra.

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Courier return	£ 6
Same day service	£ 15
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TOS Switch	£ 10
52Mb Quantum Hard drive upgrade for Mega 1 STE	£ 299.99
105Mb Quantum Hard drive upgrade for Mega 1 STE	£ 399.99

ST Secure

ST Secure is a hardware protection system for the Atari ST which stops unauthorised use of your computer and any hardware connected to it. ST Secure measures just 1 inch square and can be installed without soldering in about 30 minutes. Once installed ST Secure will allow approximately 45 seconds of computer use before resetting the computer. If during this time the password is entered correctly then ST Secure is disabled until the next power up.

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The Data-Pulse range has recently been re-designed. The Data-Pulse Plus range now offers a more compact case that cuts down on noise even more, all ports are marked, an extensive range of software utilities are now included and our range of special offer utilities has been expanded confirming our commitment to future support.

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Data-Pulse Plus 120Mb ICD	£ 529.99
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The Data-Pulse Plus 120 and 240 incorporate the new Quantum mechanisms which feature 256K Read & Write disk cache, faster access time and improved reliability. All Data-Pulse Plus drives include Quantum mechanisms which include 2 year warranty from date of manufacture.

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Data-Net is a high speed network solution for the ST/TT. Ladbroke's Data-Net hardware can transfer data at up to 10 Megabits per second. Connection is via the cartridge port of the ST and nodes are connected via Coaxial cable. The Multi tasking network software allows the sharing of Hard drives and Centronics printers anywhere on the Network. Nodes can also Auto boot accessories from a host's hard drive.

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The starter pack includes 2 nodes and Universal Network software.

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Universal Network Starter Software	£ 219.99
Universal Network Node software	£ 99.99

Silhouette

Silhouette is a bit image and vector graphics drawing program with Auto tracing. The package offers Auto-Tracing, Beziers, B-Splines, High resolution, gray scales. Supports: IBM, DOS, requires IBM ST or TT. High resolution. Imports: IMG, DEGAS, TNY, MacPaint, GEM, SGF. Exports: IMG, GEM(13), SGF, DXF, EPS(Postscript).

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Please check configuration before ordering

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The Aries Upgrade board is an in house designed, Multi layer board utilising high density ZIPP RAM chips. The board has been designed to allow progressive upgrading from the base 512K up to 4Mb. The board does require some soldering but once installed is very reliable. The board is hand assembled in our workshops by skilled technicians and is fully tested before despatch. It also comes complete with fitting instructions and test software.

Our technicians can fit the board to any ST for a small fitting charge. We can arrange courier pickup and return to ensure fast turn around. A same day fitting service is also available. Please phone for further details of courier and same day service.

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STFM	£ 24.99

Please check the configuration of your machine before ordering. These chips are not surface mount.

Golden Image

GI Hand Scanner £119.99

The Golden Image Hand Scanner for the Atari ST features a 105mm scanning head, variable contrast control, user selectable scanning resolutions of 100, 200, 300 and 400 Dpi, one letter mode for high contrast B/W images and 3 photo modes for various shades of grey. The high quality hardware is backed up by two of the most respected graphics packages around. Migraph's Touch Up for scanning and editing hi-res and grey scale images and Deluxe Paint art package for lower resolution colour.

- ✓ 100, 200, 300, 400 Dpi scanning resolution
- ✓ 105mm scanning head
- ✓ 1 letter mode, 3 photo modes
- ✓ Includes Touch Up
- ✓ Includes Deluxe Paint

Coming soon: Silhouette, Auto tracing/line art package which converts bit images to Vector images at the incredible price of £60.

GI External drive £59.99

The Golden Image External 3.5" Floppy drive for the Atari ST features 720K formatted capacity, double sided double density, LED track counter, Through port compatibility for older ST/STM machines, external power supply unit.

- ✓ 720K Formatted capacity
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- ✓ External Power Supply
- ✓ Daisy Chain Through Port

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- ✓ Mouse mat included
- ✓ Switchable ST/Amiga

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The Golden Image Opto/Mechanical Mouse offers 290 Dpi resolution, 2 Microswitched buttons for greater reliability and crisper, more positive response, Anti-static silicone rubber coated ball. Also includes a Golden Image mouse mat.

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Jin Mouse

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When designing any program, whether in assembler or any other programming language, it is usually fairly easy to split the program into a number of discrete steps first.

Once this is done, each of the steps may then be further split into smaller steps. For large programs this may need to be repeated several times before we are ready to start programming in earnest (I thought we were learning Assembler – Ed).

As an example, take a simple Bat and Ball program. We may first split the program into a few small steps:

1. Draw the screen
2. Draw the bat and ball
3. Get input from the joystick
4. Calculate new bat position
5. Calculate new ball position
6. Go back to step 2.

Now each of these steps may be split into smaller steps. For example, step 1 may become:

- 1a. Load Degas picture
- 1b. Set colour palette

With a high level language, this may be as low-level as we need to go, as there will be commands available to load a file from disk, and set the colour palette.

With assembler, however, we have only just started!

We could simply sit in front of our monitor and start programming. However, if we do, our code will almost certainly end up like a mass of spaghetti. A far better method is to split each of the steps we have identified into subroutines.

Subroutines

A subroutine is simply a discreet piece of program which is executed within the body of the main program. In our examples above we would probably write "Load Degas Picture" as a subroutine, and "Set colour palette" as another.

Obviously we need an assembler instruction to tell the program to execute a subroutine. There are, in fact, two similar commands we can use - BSR (Branch to SubRoutine) and JSR (Jump to SubRoutine).

The two differ in only a small way - BSR actually acts in the same way as the Branch instructions discussed last issue - it holds not an address to jump to, but a count of the number of bytes to branch. JSR, on the other hand, does hold an actual address, which will need to be relocated when the program is run.

Of course we also need a method of telling the computer when a subroutine has finished, so that it can carry on with the rest of the program. Whether we used BSR or JSR, the same instruction is used to end a subroutine - RTS - ReTurn

Marc Young continues his assembler programming series with a look at program structure

from Subroutine. It is not necessary to understand the workings of the subroutine instructions in order to use them, but it can be helpful, especially when debugging a program, to be aware of what is going on.

The JSR instruction simply places the address of the instruction following it onto the stack, and then jumps directly to the address specified. The BSR instruction places the address of the instruction following it onto the stack, and then Branches to the address specified.

You may guess from this that the RTS instruction merely removes the address, placed by JSR or BSR, from the stack, and, in effect, jumps straight to the address. So you can see that the following two programs are equivalent:

```
* Program one -
* the normal way!
    JSR sub01
label:
* Do some more processing....
sub01:
* The subroutine does some work...
    RTS

* Program two -
* the silly way!
    MOVE.L #label, -(SP)
label:
* Do some more processing...al = sub01:
* The subroutine does some work...
    MOVE.L (SP)+, A0
    JMP (A0)
```

In the second program, one new instruction format is encountered - JMP (A0). This simply forces the program to JuMP to the address held in A0.

Obviously, you would not normally use the second method, as it is much less readable, and slower, than the normal way of doing things.

On this month's CoverDisk I have taken PROG0006 from last month, and reorganized it into a number of subrou-

LEARNING Assembler Part 5

Programming the 68000

tines as PROG0007. If you take a look I think you will agree that it is easier to follow.

The looping portion of the program is now only a few lines long, so now we can almost ignore what is in each subroutine (as long as it is working). With small programs the advantages are less obvious, but take, for example, the equivalent program using sprites.

The code necessary to display a sprite on screen can be, to say the least, long and complex. Once written and debugged, you can bung it in a subroutine, and simply "BSR sprite" to draw a sprite.

Parameters

One thing which is very useful, when using subroutines in any programming language, is the ability to pass parameters between them. A parameter is one of those things which is easier to show by example, rather than attempt to describe!

Again taking the program PROG0007 from this month's CoverDisk - look in the subroutines hide: and show:. Both use GEMDOS 2 to print to the screen.

The subroutine hide: prints a space while show: prints the letter o. If we were to write a subroutine to print a character on the screen using GEMDOS 2, we would have to have some way of telling the subroutine exactly what it is that we want it to print. We do this by passing a parameter.

The simplest and fastest way of passing parameters is to use one of the registers. We can move the Ascii code for a space into, for example, D6, and then execute a "print" subroutine. This subroutine simply has to move the contents of D6 onto the stack, and call GEMDOS 2. Now when we want to print an "o", we can put the Ascii code

for the letter into D6 and then execute the subroutine again.

So far so good, but registers are precious. We can call one subroutine from another, which can then execute yet another. If each one requires one or more parameters, it won't be long before we actually run out of registers. There are two main solutions to this problem.

One method is to use specific areas of memory to hold our parameters. In the above example we could use a label "letter:" in place of D6. In fact our program already uses this method with the two labels y_pos and x_pos.

The alternative method is to pass parameters using the stack. This does tend to make for less easily readable code, but makes position independence easier to achieve, and also has the advantage of only using the exact amount of memory required at the time.

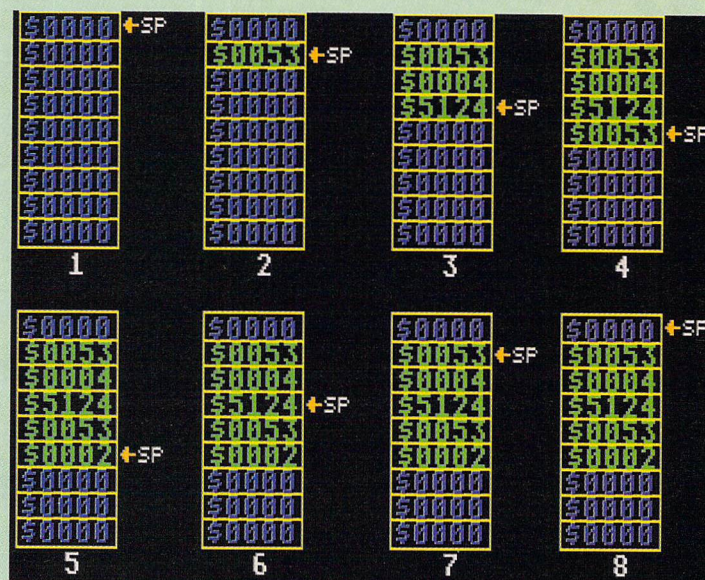
Using this method, we would MOVE.W #'o', -(SP) to put our parameter onto the stack, and ADD.L #2, SP after the subroutine to correct the stack. Recognise it? Yes, it's the same method used by the Trap routines. But how do we look at the parameters from within the subroutine?

Take a look at PROG0008 on the CoverDisk. The program simply prints the letters ST on the screen - hardly exciting stuff. But look at the method used.

The subroutine print: has been created to print any letter whose Ascii code is moved onto the stack. It uses GEMDOS 2 to print the character, and GEMDOS 2 expects the character printed to be at the top of the stack when it is called. Hence the instruction MOVE.W 4(SP), -(SP). Break the instruction down

A Graphic representation of the Stack during execution of PROG0008

1. - The stack at the start of the program
2. - After MOVE.W #'S',-(SP). \$53 is the Ascii code for S.
3. - After BSR print. This assumes that the subroutine print was assembled at address \$45124
4. - After MOVE.W 4(SP),-(SP)
5. - After MOVE.W #2,-(SP)
6. - After ADD.L #4,SP (there is no change after the TRAP statement)
7. - After RTS
8. - After ADD.L #2,SP



and see if you can work out what it actually does. Obviously it moves something. In fact it moves a word. The word is found four bytes into the stack (hence the 4(SP)). This word is moved onto the top of the stack, which is first adjusted to accommodate it (the -(SP) portion). But why does it look for the word four bytes into the stack? Well, do you remember what BSR does to the stack? It moves an address onto it.

The address is four bytes long. Hence our Ascii code to be printed has been moved four bytes down the stack. Wait - I feel a diagram coming on! Take a look at graphic representation of the stack at each point in PROG0008.

Macros

Using subroutines can help to make your program easier to read (and debug!) but you can go too far. In order to use a subroutine, the processor obviously takes a little time to put addresses onto the stack, and remove them when processing is over.

Although executing a subroutine once may make little overall difference to a program, this can make a difference where a routine may be required to be executed thousands, or even millions, of times.

You will get used to using certain trap functions, such as GEMDOS 9 to print a string, or GEMDOS 1 to get a keypress. Unfortunately, it is not particularly obvious - unless you comment your programs well - what is going on, especially if you haven't been working on a program for some time.

So what is the solution? Well, if your assembler package supports them, macros can be very useful. As ever, I will try away from a verbal description, and

LEARNING Assembler

instead show by example what a macro does:

```
printA MACRO
MOVE.W #65,-(SP)
MOVE.W #1,-(SP)
TRAP #1
ADD.L #4,SP
ENDM
```

As you can see, the instructions MACRO and ENDM surround what looks to be a normal section of program, in this case it simply prints the letter A (Ascii 65) using GEMDOS 2. Once the assembler has "seen" the Macro, it allows us to use the label (printA in the example) as an instruction.

Every time it encounters this, the assembler will automatically insert the instructions between the MACRO and ENDM into the program. So the program:

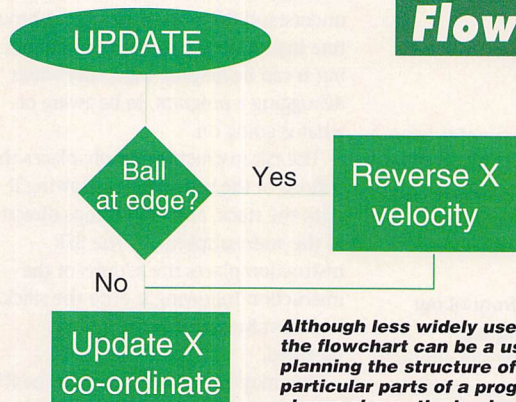
```
printA
printA
printA
```

would print three As on the screen. If we looked at the actual machine code produced, though, you would see that the same four instructions have been assembled three times. A bit of a waste!

The true flexibility of Macros comes into play when parameters are used. A Macro can be defined as having a number of parameters, then every time it is used, a slightly different set of instructions will be assembled depending on the parameters passed.

Program PROG0009.S on the

Flowcharts



Although less widely used in recent years, the flowchart can be a useful method of planning the structure of a program, or particular parts of a program. In the section shown above, the beginning of a flowchart for an update routine of our ball-bouncing program is shown.

CoverDisk demonstrates the use of parameter passing in macros by using the macro print with a parameter of the letter to be printed. Again a trivial example, but using them regularly can greatly speed program development.

Recommended

As some assemblers do not support the Macro facility, I will not be using macros for the remainder of this series. However, I would strongly recommend their use for large program development.

If your assembler supports macros, try to go back through the example programs and see if there are any places you

can use a macro. Some assemblers include example macros as part of the package, so you may be able to use some of these.

Whether you decide to use macros or not, make sure you understand the concept of a subroutine. In particular you should ensure you understand the difference between a macro and a subroutine.

Next month I will be stepping up the pace a little by using subroutines with little explanation. This will enable us to use more complex programs on the disk, without having to take half of the - already bursting at the seams - magazine to explain each step.

Glossary

Macro - An instruction to the assembler to start defining a list of instructions which can be assembled by using the macro name as an instruction.

Parameter - A variable or constant value passed to a macro or subroutine.

Subroutine - A discrete set of instructions which can be executed using the BSR or JSR instruction.

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Cyber Sculpt	£79.95	Electric Dist.	v1.1	1Mb	c/m	A 3D object modeller allowing any shape to be generated. Includes 2D cross-section, editing and curves may be smoothed using splines
Cyber Texture	£49.95	Electric Dist.	v1.1	1Mb	c/m	Allows 2D pictures and animation sequences to be mapped onto 3D objects for use with Cyber Studio
DrawArt	£49.95	Electric Dist.	v1.0	512k	c/m	A collection of high-quality line art images in GEM format. Ideal for use in DTP production. Includes subjects such as food, animals and transport

General graphics packages cont.

Product	Price	Supplier	Version	RAM	Mode	Comments
Easy Draw 2	£59.95	Electric Dist	–	512k	m	Drawing package for producing line drawings, technical illustrations and graphics. Offers full page wysiwyg, cut and paste between windows and a range of tools including flip, rotate and mirror
Supercharged Easy Draw 2	£99	Electric Dist	–	512k	c/m	Enables the line art from Easy Draw 2 to be combined with bit images from paint packages. .IMG files can be loaded from a scanner or digitiser, then retouched using the pixel editor
Easy Tools	£39.95	Electric Dist	–	512k	c/m	A desk accessory providing tools such as angulator which allows the measurement of length and angles, rotator which lets you rotate an object around its own or a user-defined axis
Future Designs Disk	£19.95	Electric Dist.	v1.0	512k	c/m	A disk full of CAD 3D objects and modules. Allows you to join various objects to create spacecraft and space stations. Also includes hints and tips on joining using CAD 3D.
GFA Raytrace	£49.95	GFA Data Media	v2.1	512k	c/m	A raytracing system for creating lifelike images using time-intensive mathematical calculations. Use the resulting pictures in your own programs
Imagic	£150	Signa Publishing	–	1Mb	c/m	Powerful animation and presentation creation package incorporating a controlling script language and a wide variety of pre-defined visual effects, Midi-controlled multi-monitor "video wall" facility
ScanArt	£39.95	Electric Dist.	–	512k	c/m	Collection of high quality images for use in DTP and graphics programs that can import IMG files. Includes subjects such as animals, holidays, office and sport
Sprinter	£29.95	HAT Software	v1.0	512k	c	A pattern/replication design tool intended to take the hard work out of designing repeat patterns for silk screen printing
Video Titling designs	£19.95	Electric Dist.	–	512k	c/m	Create an animated intro to record onto the beginning of your holiday video. Includes 3D fonts objects designed specifically for titling effects
3D Developers' Disk	£19.95	Electric Dist.	v1.0	1Mb	c/m	A disk of accessories for use with CAD 3D. Comprehensive documentation on disk on how to write your own accessories to take control of the CAD 3D system
Architectural Design Disk	£19.95	Electric Dist.	–	512k	c/m	Cyber libraries for architectural designs
Border Pack	£29.95	Electric Dist.	v1.0		c/m	A collection of clip art borders in GEM file format
Clip Art for DTP 1 to 5	£14.95	Microdeal	v1.05	12k	c/m	More clip art images for use in DTP
Molgraph	£12.95	ST Club	–	512k	c/m	Molecular modelling program. Allows you to rotate and scale molecular models
Pro Sprite Designer	£19.95	Power Computing	–	512k	c	Design and animate your own sprites for inclusion in your own programs
STOS Sprites 600	£14.95	Europress Soft.	v1.0	512k	c	A collection of sprites ready to use in your STOS games

Business and presentation graphics

HyperChart	£129.99	Atari UK	v1.00	512k	c/m	A sophisticated presentation and graphic slide show generation package. Can use numerical information from most ST and industry-standard spreadsheets
Mailshot Plus	£49.99	Digita Inter.	–	512k	c/m	A good label printing program with lots of features. Has good wysiwyg label display
Mini Office Prof.	£24.95	Europress Soft.	–	512k	c/m	Feature-packed value for money package. Features include five graph types (pie chart, bar, line), 12 brush styles and bullet types and auto or manual scaling
System 3	£59.99	Digita Inter.	–	512k	c/m	Three business tools make up this versatile package - stock control, invoicing and sales ledger and a cashflow controller. Simple and user friendly
System 3E	£79.99	Digita Inter.	–	512k	c/m	Extended version of System 3 providing doubled capacity for customer accounts and stock items

CAD, design and drafting

Stereo CAD 3D 2	£24.95	Electric Dist.	–	1Mb	c/m	A powerful package which is at the heart of producing 3D images for use in the Cyber series. Has full animation facilities
Campus CAD	£305.50	Power Computing	–	1Mb	m	A feature-packed, versatile CAD package with a well designed user-interface
HyperDraw	£39.99	Atari UK	–	512k	c/m	A GEM-driven object-based drawing program. Uses GDOS to give access to font files and a wide range of printers. Drawings utilise the full resolution of the output device

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Citizen Swift Colour.....£5.00

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Atari Basic Source book & Tut.£4.50
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Protex V4.3£49.00
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CAD, design and drafting cont.

Product	Price	Supplier	Version	RAM	Mode	Comments
Easy Draw 2	£49.95	Electric Dist.	–	512k	c/m	Powerful drawing program for producing professional looking line drawings, technical illustrations and graphics. Full wysiwyg ability. Tools include copy, rotate, mirror and flip
Outline Art	£79.99	Halco	–	1Mb	m	A powerful design tool for manipulating fonts and pictures. Complements Calamus with v2 for use with Calamus SL
PC Board Designer	£135	DTBS	–	1Mb	m	CAD package for designing printed circuit boards and component layout with Calamus SL
Supercharged Easy Draw 2	£79.95	Electric Dist.	v2.35	1Mb	c/m	An extremely versatile drawing program with all the capabilities of Easy Draw 2, but also includes the ability to combine Easy Draw 2 line art with bit images
Technobox Drafter/2	£199	Silica Systems	–	1Mb	m	Reasonably fast with good quality output. Good range of features although is fairly difficult to use

Financial packages

Cashbook Controller	£59.99	Digita Inter.	–	512k	c/m	Replaces cash and petty cash books and also lets you enter credit sales and purchases. It will complete double-entry routines
Final Accounts	£39.99	Digita Inter.	–	512k	c/m	This package takes information prepared by Cashbook Controller and produces reports including trial balance, trading and profit and loss account as well as balance sheet
Home Accounts	£29.99	Digita Inter.	–	512k	c/m	A low-cost finance manager for home use
Home Accounts 2	£54.99	Digita Inter.	–	512k	c/m	An advanced version of Home Accounts. Features include sophisticated reporting function with graphics and special options such as VAT and loan calculations
Payroll	£99.95	Microdeal	v2.0	512k	m	Very easy to use and comprehensive package for keeping track of personal finances
Personal Finance Manager	£29.95	Microdeal	–	512k	c/m	A good value-for-money package
Personal Fin Man Plus	£39.95	Microdeal	–	512k	c/m	An improved version of Personal Finance Manager

Spreadsheets

3D-Calc Spreadsheet	£29.95	Microdeal	–	512k	c/m	A new and powerful spreadsheet with lots of features
DGCalc	£39.95	Digita Inter.	v1.2	512k	c/m	Budget spreadsheet with a good list of features. Allows for menu or command line operation. Ascii export and multi-window mode
LDW Power	£129.99	Atari UK	–	1Mb	c/m	Fast with Lotus 123 compatibility. Up to four worksheet windows. Macro recorder/language. GDOS drivers allow for sideways printing
Mini Office Prof Spreadsheet	£24.99	Europress Software	–	512k	c/m	A reasonably powerful package at a down-to-earth price. 255 rows by 255 columns, sideways printing, import Ascii files and more


Utilities – disk

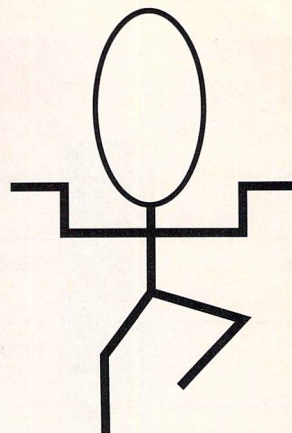
Diamond Back II	£39.95	Hisoft	–	512k	c/m	A powerful hard disk backup utility. Feature packed with support for TOS 1.04. Special features include backup of Spectre GCR partitions, support for 1.44Mb high density drives
Hard Drive Turbo	£29.95	Microdeal	–	512k	c/m	A collection of hard disk utilities for fine tuning your hard disk's performance
Saved!	£34.95	Hisoft	v2.22	512k	c/m	A useful collection of disk utilities via this desk accessory
KnifeST	£34.95	Hisoft	–	512k	c/m	A comprehensive and powerful disk editor. Enables you to recover deleted files, analyse FATs and works with hard- and RAM-disks. Everything you will ever need in a disk editor
Universal Item Selector	ST Club	£14.95	v3.32	512k	c/m	A replacement file selector accessory with improved file handling utilities and multiple drive selector buttons. Superb

Utilities – general

CompoScript	£199	Compo Software	–	1Mb	c/m	A PostScript emulator which takes PostScript fonts and prints them on virtually any printer. Hard disk essential. Includes PostScript fonts
Day By Day	£29.99	Digita Inter.	–	512k	c/m	An interactive diary/organiser. Simple and easy to use

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Nirvana
Abdul, Paula
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Simply Red
Minelli, Liza
Erasure
Genesis
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1573 Love Thing
1577 America: What Time is Love
1578 Save The Best For The Last
1582 Hold On My Heart
1585 To Be With You
1586 Human Touch
1587 My House
1609 I Wonder Why

Pet Shop Boys
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Clapton, Eric
Wet Wet Wet
Shakespear's Sister
Clapton, Eric
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Turner, Tina
KLF
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Madness
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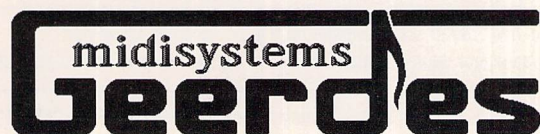
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Utilities – general cont.

Product	Price	Supplier	Version	RAM	Mode	Comments
DC Desktop	£20	Softville	–	512k	c/m	It is a improvement on the normal Desktop and allows you to add features you require through modules, but Neodesk is a better alternative
DC Utilities	£20	Softville	–	512k	c/m	A collection of nine utilities of general use. Includes RAM disk and screen grabber. A good quality manual is included
Harlekin	May ST User Disk	Hisoft		512k	c/m	A very versatile desk accessory comprising many utilities covering comms, RAM disk and text editor. Given away free on the CoverDisk of ST User's May '92 issue
Harlekin 2	£59.95	Hisoft	–	512k	c/m	A much improved update including a powerful Manager which replaces the Scrapbook in Harlekin
Juggler 2	£24.95	Microdeal	v2	512k	c/m	A program switcher. Struggles to be as reliable as some others
Lookit & Popit	£29.95	Codehead	v1.0	512k	c/m	A combination of a file viewer and hot-key caller. The hot-key caller allows you to call up a desk accessory at the press of a key/s
Multidesk	£49.95	Atari Workshop	–	512k	c/m	This program allows you to bypass the restriction of only six desk accessories at once. Once installed you can load or remove 96 accessories at once (memory permitting).
Neodesk 3	£39.95	Electric Dist	–	512k	c/m	A feature-packed replacement Desktop program. Extras allow desktop "reminder" notes to be placed on the Desktop, recoverable trashcan, CLI window, custom Desktop icons. Excellent
Quick ST 3	£12.95	ST Club	–	512k	c/m	The software blitter. Speeds up text and graphics screen redraws. Includes a number of other utilities such as Desktop Customiser
Utilities Plus	£29.95	Microdeal	v1.0	512k	c/m	A variety of utilities. Some are very useful but some aren't. Good manual and lots of programs for the price

Basic programming languages

GFA Basic 3	£50	GFA Data Media	v3.5	512k	c/m	A powerful and fast Basic interpreter with a comprehensive command set allowing low-level access to the ST's operating system
GFA Compiler	£30	GFA Data Media	v3.5	512k	c/m	With this compiler you can convert GFA Basic 3 source code into fast machine code programs. C source code can also be linked in
GFA GUP	£30	GFA Data Media	v1.0	512k	c/m	A collection of useful pre-written routines making GEM programming easier. It consists of a GEM program "skeleton" framework which you can customise and add to
Hisoft Basic 2	£79.95	Hisoft	–	512k	c/m	An extremely powerful Basic compiler. Excellent multi-window editor and integrated tools. WERCS resource constructor included. Full ST/STE/TT OS libraries. Can produce 68000/68020/68030 code
Power Basic	£39.95	Hisoft	–	512k	c/m	A fast interactive compiler, easy to use and excellent value for money. Closely modelled on Microsoft QuickBasic for compatibility
STOS	£29.99	Europress Soft.	–	512k	c/m	A powerful language geared towards games writing. Utilities, wordprocessors and video titling effects are a few applications which have been written using STOS

Programming general

Craft	£99.95	Hisoft	v2.08	512k	c/m	Unix-like shell environment
DevpacST 2	£39.95	Hisoft	v2	512k	c/m	The most powerful and easy to use assembler for the ST. Excellent integrated editor/assembler/debugger. Motorola standard macro support. A very fast two-pass assembler
FTL Modula-2	£69.95	Hisoft	–	512k	c/m	A fast compiler language. features include library manager, menu creator and 68881 maths co-processor support
FTL Modula-2 Developer	£99.95	Hisoft	–	1Mb	c/m	The developer version with extra features such as a program profiler and symbolic debugger. Also includes the WERCS package - a resource editor
HighSpeed Pascal	£99.95		–	512k	c/m	Designed to be compatible with Turbo Pascal v5.0 on the PC. GEM-based interface, integrated editor. The compile time is very fast. Probably the leading ST Pascal package
Mission Control	£20	GFA Data Media	v1.0	512k	c/m	A program launch and linking utility for hard disk users

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Star LC24/200	£4.95
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Citizen Swift 9	£4.95
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Programming general cont.

Product	Price	Supplier	Version	RAM	Mode	Comments
Prospero Pascal	£102.11	Prospero Software	—	512k	c/m	GEM-based system conforming to the ISO Pascal standard for the ST. Includes full bindings for all the GEM, AES and VDI routines with each one being fully commented
Prospero Fortran	£102.11	Prospero Software	—	512k	c/m	This implementation of Fortran conforms fully to the ANSI X3.9-1978 standard. The programming environment is fully GEM-driven making the edit-compile-link process easy and quick
Prospero Dev' Toolkit	£70.05	Prospero Software	—	512k	c/m	A collection of tools for Prospero C, Pascal and Fortran. Includes a macro assembler, resource editor, Make program and many other utilities
ST68881 Co-roc. lib. (C)	£70.05	Prospero Software	—	512k	c/m	C Library routines for utilising the 68881 co-processor
ST68881 (Pascal)	£70.05	Prospero Software	—	512k	c/m	Pascal library routines for accessing the 68881 maths co-processor
ST68881 (Fortran)	£70.05	Prospero Software	—	512k	c/m	Fortran routines for the maths co-processor
WERCS	£34.95	Hisoft	v1.23	512k	c/m	A utility to make the creation of dialogue boxes, alerts, menus and other GEM objects
WERCS Plus	£49.95	Hisoft	v1.21	512k	c/m	WERCS bundled with a GDOS kit. Includes extra documentation

Comms

FastCom	£49.99	Atari UK	v1.66	512k	c/m	A bit long in the teeth but still a good package. Excellent GEM-driven environment makes using it very easy. Lacks Y and Zmodem support
Flash	£24.95	Electric Dist.	v1.1	512k	c/m	A powerful comms program. Built-in text editor and a sophisticated scripting language. Separate Zmodem module available
Mini Office Pro. Comms	£24.99	Europress Software	—	512k	c/m	Has good Viewdata support and a RAM resident text editor. Two different screen modes. Tries to hide the technicalities from the user. Has no Zmodem support
Michtron BBS	£49.95	Microdeal	v3	512k	c/m	Set up your own bulletin board with this system
ST Terminal Emulator	£39.95	Atari UK	v1.0	512k	c/m	A basic VT_100 terminal emulator on a cartridge

Font and type

C-Font	£9.99	Compo Software	—	512k	c/m	A utility to convert the popular Calamus font formats to GEM bitmap font format
Fontkit plus 3	£19.95	ST Club	—	512k	c/m	The best font designer package for the ST. Lots of features including the ability to load Calamus fonts and has a variety of drawing tools
Trimfont	£9.95	ST Club	—	512k	c/m	A GEM font manager. Features include font compression, change and list font ID numbers and the ability to optimise fonts by removing unwanted foreign characters

Education

AB Zoo	£3.99	Microdeal	v1.0	512k	c	An Alphabet education package
Algebra 1	£3.99	Microdeal	v1.0	512k	c	A fun way to learn algebra
Astronomy Lab	£19.95	ST Club	—	512k	c/m	For the Patrick Moores among you, this program is a complete astronomy exploration package
Fun School 2 Under 6s	£20.99	Europress Software	—	512k	c	Most popular education packages available. Good coverage of all age brackets and sales of Fun School 2 have exceeded 170,000.
Fun School 2 6-8s	£20.99	Europress Software	—	512k	c	Collection of eight programs including Number Train, Bounce (teaches angles) and Caterpillar (word building)
Fun School 2 Over 8s	£20.99	Europress Software	—	512k	c	Eight more teaching programs such as Build a Bridge (shape fitting), Code Boxes (binary arithmetic) and Passage of Guardians (anagrams)
Fun school 3 Under 5s	£24.99	Europress Software	—	512k	c	All Fun School 3 packages feature six programs. The under 5s package features a teddy bear. The games teach counting, matching letters, shape matching and reading
Fun School 5-7s	£24.99	Europress Software	—	512k	c	Time-telling tutor, Funtext, Collect (guide the frog across the logs to solve puzzles) and Journey (teaches all about directions)

Education cont.

Product	Price	Supplier	Version	RAM	Mode	Comments
Fun School 3 over 7s	£24.99	Europress Soft.	—	512k	c	Featuring Treasure Search (follow compass directions to find buried jewels), Word Search (pick out words hidden in the grid) and Sentences (correct spelling, punctuation and grammatical mistakes)
Fun School 4 under 5s	£24.99	Europress Soft.	—	512k	c	All Fun School 4 series feature six programs. The under 5s package features Teddy Paint (create pictures with different shapes), Addition (count dolls cars balls and other objects)
Fun School 4 5-7's		Europress Soft.	—	512k	c	Six more fun programs. Opposites (learn new words by matching opposites), Shopkeeper (teaches kids the value of money), Basketball (teaches number and letter series in the gym)
Magic Storybook	£29.95	Soft Stuff	v1.0	512k	c	An interactive story generation package allowing children to create animated stories with sound
The Shoe People	£25.99	First Class	—	512k	c	A fun learning package with the Shoe People characters from the TV series. Topics include matching colours and objects, simple number arithmetic, recognising letters and words and a colouring book

Sound sampling

Master Sound 2	£39.95	Microdeal	—	512k	c	A good budget sampler. A good introduction to sampling. Includes STE-specific functions
Playback S Output car.	£29.95	Microdeal	—	512k	c	Enables STFM's to play stereo samples created with Stereo Master
Quartet	£49.95	Microdeal	v1.5	512k	c	Good polyphonic sound sample editor and sequencer
Replay 8	£59.95	Microdeal	—	512k	c/m	A popular and capable sound sampler with good editing facilities
Replay Professional	£99.95	Microdeal	—	512k	c/m	High-end sampling package with good sound processing controls
Stereo Master	£39.95	Microdeal	—	512k	c	A stereo sampler with some unique functions for manipulating an incoming signal in real time

Databases

Product	Supplier	Price	Current version number	Ram required	Colour/Mono	Fully relational	Programmable	Integral mail merge	Dedicated label printing	Graphic form design	Record display/print filter	ASCII import and export	GEM Environment	Comment
Data Manager Prof.	Electric Dist.	£39.95	1.1c	512k	c/m				•	•	•			A rather middleweight database package. Some pseudo-relational. Good value for money
DG Base	Digitia Inter.	£49.99	1.62	512k	c/m			•	•	•	•	•		Good graphics form design functions with field validation and calculation. Multi-file but not fully relational
Mini Office Prof Data	Europress Soft	£24.95	—	512k	c/m		•				•			Value for money from the Mini Office series. Features include powerful search routines to extract selected data
Prodata	Arnor	£99.87	1.1	512k	c/m			•	•	•	•			Non-GEM, but fast and fairly sophisticated visual form designs are possible. Password protection and Undo feature

C programming languages

Product	Supplier	Price	ANSI compatibility	GEM-based shell	ST-specific OS dos	GEM editor	Assembler included	Compile from editor	Source-level debugger	Unix-like tools	Resource editor	Make facility	Optimiser	Comment
GST C	GST	£19.95		•	•	•	•	•						One of the first C compilers released for the ST. Not as sophisticated as today's compilers and is also slow and lacks features
Hisoft C	Hisoft	£59.95		•	•	•		•						A C interpreter which speeds the process of learning the language. Integrated editor makes operation easy. s
Lattice C 5	Hisoft	£149	•	•	•	•	•	•	•	•	•	•	•	A fast multi-window, GEM based compiler claiming the fastest generated code of any C compiler for the ST.
Mark Williams C	Elec. Dist.	£117.44			•	•	•	•			•		•	Has a non-GEM Unix-like programming shell. Lots of useful Unix-type tools. Excellent manual
Prospero C	Pros. Soft.	£102.11	•	•	•	•	•	•				•	•	Very easy to use compiler. Excellent documentation but slow compile time and less than compact generated code

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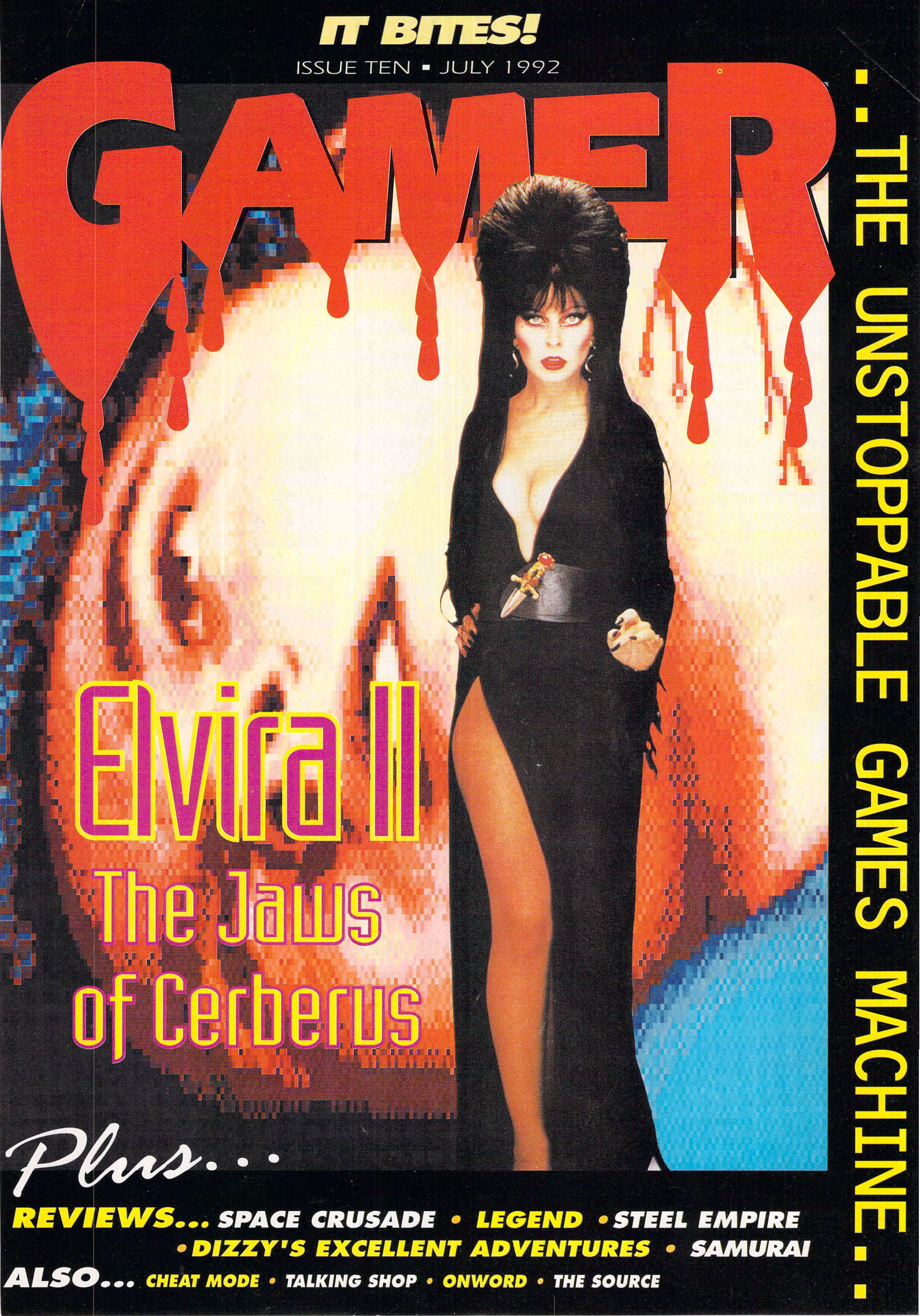


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IT BITES!

ISSUE TEN ■ JULY 1992

GAMER



Elvira II The Jaws of Cerberus

Plus...

REVIEWS... SPACE CRUSADE • LEGEND • STEEL EMPIRE
• DIZZY'S EXCELLENT ADVENTURES • SAMURAI

ALSO... CHEAT MODE • TALKING SHOP • ONWORD • THE SOURCE

..THE UNSTOPPABLE GAMES MACHINE..

INNER VISION

Yes, we have no bananas...

LEGEND4

"3D dungeoneering in a Shadowlands stylee. Respect" says Normski

STEEL EMPIRE6

Your chance to simulate the excitement of a Sheffield steelworks

DIZZY'S EXCELLENT ADVENTURES8

The ovoid anti-hero jumps on the Bill and Ted bandwagon. Way!

SPACE CRUSADE12

We roll out the usual Aliens cliches, just for old times' sake

SAMURAI14

Blood, guts and stir fry rice? You should be so lucky

ELVIRA 2: THE JAWS OF CERBERUS16

Our cover gal stars in this worthy sequel



ONWORD2

"What's going on?" as Marvin Gaye might say. If he wasn't dead

TALKING SHOP3

Penguin: It's the Kids' choice for chocolatey fun

THE SOURCE10

The dank, draughty world of Castles is explored. Oooooeooo

CHEAT MODE19

Auntie Mabel says "What happened to that nice Elvis chappie?"

GAMER SURVEY22

What do you think of the show so far?

More sporty stuff...

As well as Empire getting all sweaty with International Sports Challenge, our frog-chomping pals across the pond at Loricel are also releasing a sporty compilation.

It features Turbo Cup (a spooky driving game, viewed from a sort of elevated angle type thing), Tennis Cup (well, go on and guess) and Panza Kick Boxing.

It has to be said that Panza Kick Boxing is by far the best beat-'em-up ever written, as it features over 50 user definable fighting moves and animation based on real kick boxers.

Add to that a replay facility, training option and a wonderful "beat up your friends" mode.

It should be worth buying for that alone! Hopefully we'll have a full review next ish, so keep you're eyes peeled.



God is not dead

No! He is alive! And he's currently kicking up a storm in Populous II. And by a bizarre twist in the time/space continuum, we happen to have a spare copy of that self same computer blockbuster lying around the office.

And we want you to have it. Well, obviously not all of you, just one lucky reader can walk away with this once in a lifetime, rare vintage copy of Poppie II.

If you're a regular reader - if not, why not? - you'll know that whenever we have one of these crazy urges to give away our best games we usually ask you to carry out some easy peasy task, just to prove your worth. And this time is no exception.

To be in with a chance of getting a spookily big Jiffy bag through the post, just write in and tell us what disaster Bullfrog should've put in Poppie II. Anything at all.

Repeats of Willy Rushton reading Winnie The Pooh on Jackanory, for instance. Or it could be even worse. The funniest and/or most fiendish will earn its sender the goodies.

Send it to I've Seen The Light (And By Jingo, It's Bright) Compo at the usual ST User address, and we'll pick the winner when you least expect it. Ha ha ha ha.

Members of Bullfrog cannot enter (not that they'd want to), and neither can anyone who works here. And neither can Lionel Richie.

master of funk - richard "prince" williams
 hairy boundings - daniel "goatee" whitehead
 deep down clean - jonathan "radion" maddock
 nothing at all - darren "too busy" evans
 smuggling - phil "semaphore" morse
 arty bits - terry "s-xpress" thiele
 alan "bomb the bass" jones
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 put the freshness back

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THE DREAM TEAM

climax

next month: can waxing ruin your disks? whatever happened to Quattro fizzy drink?

ONword

"An everyday tale of riverside folk"



The Empire strikes back

Currently sweating away for the coveted title of "Busiest Software House in Basildon" are Empire. As we speak they've got three new releases tumbling down the pipeline towards the dusty shelves of software-ville.

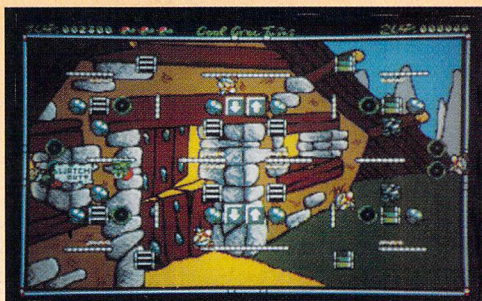
To tie in with the current bout of Olympic fever sweeping the nation like a janitor on steroids, those Empire boffins are a-tapping away putting the finishing touches to International Sports Challenge.

It is, oddly enough, a sports game with loads of muscle-straining events for you to jiggle your stick with. Priced

at £29.99, it should be out at the end of May.

Also waiting in the wings is the cutesy platform romperama, Cool Croc Twins. Playing in a Mario platform style, it sees Funk and Punk Croc trying to catch up with their mutual girlfriend, Crocette.

Quite how this randy twosome think they can get away with sharing a girlfriend is beyond me. Crocodiles, eh? Nice, crisp cartoony graphics and oodles of cool should be ready for a mere £25.99 even before you finish this sentence...



Hudson! We are leaving!

Yup, coming soon to a cinema near you is the third instalment in the ongoing battle between Warrant Officer Ellen Ripley and numerous slimy monsters.

Alien 3 is currently being trailed in cinemas up and down the country, and also at the beginning of the rather gnarly Aliens - Special Edition video.

Rumours have been buzzing around for yonks about the film. It's cost too much say some. It's crap say others. Whatever it's like, you'll be able to join in the fun on your ST thanks to those gorgeous fun-bundles at Accolade.

We can't wait to get a peek at it, so you're guaranteed to hear all about it soon.

talking shop



This month

Last month

1	▲	2	Formula One Grand Prix	Microprose	£34.99
2	▼	1	First Division Manager	Code Masters	£7.99
3	▲	NE	Manchester United	GBH Gold	£9.99
4	▼	3	Rainbow Islands	Hit Squad	£7.99
5	▲	14	New Zealand Story	Hit Squad	£7.99
6	▲	19	Parasol Stars	Ocean	£25.99
7	▲	NE	Lotus Turbo Challenge	GBH Gold	£9.99
8	▼	4	James Pond	GBH	£7.99
9	▶	9	Paperboy	Encore	£7.99
10	▲	NE	Epic	Ocean	£29.99
11	▲	NE	Super Off Road	Tronix	£9.99
12	▲	RE	Jimmy White's Snooker	Virgin	£29.99
13	▲	NE	Magic Land Dizzy	Code Masters	£7.99
14	▼	11	F-16 Combat Pilot	Action 16	£9.99
15	▲	NE	Shadow Warriors	Hit Squad	£7.99
16	▼	7	Robocop 3	Ocean	£25.99
17	▼	5	World Cricket	Zeppelin	£7.99
18	▲	20	Fantasy World Dizzy	Code Masters	£6.99
19	▲	U	Wacky Races	Hitec Software	£7.99
20	▲	NE	Turrican 2	Kixx	£7.9

Eight new entries this month, four climbers, six fallers, one non-mover and one re-entry. Roll the drums because there is a brand new number one - Formula One Grand Prix by Microprose.

It was held off by First Division Manager for ages and ages, but now it's there I think it'll be quite a while before it loses pole position. My little brother bought it a few weeks back and hasn't stopped playing it since - that's how good the game is because my little bro' does have a short attention span and is well, to put it bluntly, a little dim. Ooops, sorry bruv.

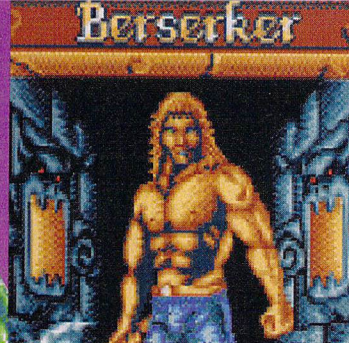
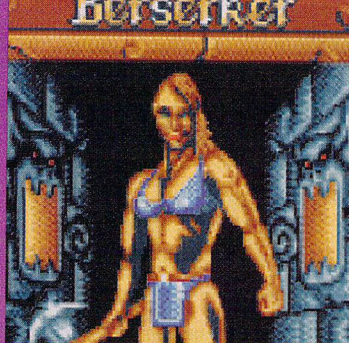
Well what other notable new entries are there this month? There's Epic by Ocean which received rave reviews in the computer press and is surely going to be up there next month challenging for the top spot.

Jimmy White's Snooker makes a surprise return to the charts - it was number one way back in December and no doubt the World Snooker Championships had something to do with its chart position. The budgets still outweigh the full prices with 15 games to five.

It's that wild, wacky and downright zany prediction time again! Hmm a bit of a tough one this month. Right, well I think Formula One Grand Prix will still be at number one, but the game most likely to knock it off its spot is probably Epic, or maybe Parasol Stars.

Well that's it for another month - hope you enjoyed it and don't forget to tune in next time when we'll have an in-depth look at cottage cheese and how it effects the industry...NOT!

Jonathan



Bandwagonesque?



LEGEND

MINDSCAPE ■ £25.99 ■ 512k ■ Mouse ■ Out now

Oh dear, it's one of those festering role-playing games, well hoo-bloomin'-ray. It just so happens that I'm not very good at these bothersome RPGs, in fact Daz is our resident adventuring expert, and because Mr Trainee Technical Editor is so busy doing other things, it means that I have to review Legend.

Legend is Mindscape's supposedly newest and bestest RPG yet, hmm we shall see, we shall see.

Now hands up class, who remembers a game called Bloodwyche? I do sir, it was quite a good Dungeon Master clone. Well done Timmy, have a gold star. Thank you sir, but isn't Legend done by the same chaps who brought you Bloodwyche? Timmy?

Yes Sir. Timmy, I'll have that

gold star back, no-one likes a smart arse. Boo hoo.

Well you learn something new every day, don't you? Now over the last few issues of Gamer we have had a whole plethora of RPGs reviewed - Nightmare, Space Crusade, Elvira 2...

So by now I'm not so fond of these little blighters. My head is swirling with dexterity levels, fireball spells, dungeons, angry demons and high priests.

One question that needs to be answered is - why are there so many RPGs available at the moment? Well the answer is... err well OK I don't actually know the answer, but it was a damn fine question, wasn't it?

All I can do is plead to software companies not to jump on the bandwagon and wait ages before they even think about releasing an RPG.

Ha, that's my games industry whinge for the day over and done with.

Legend is a 3D isometric role-playing game. Right, that's it. I can't be bothered writing anything else, that's all you need to know anyway.

What? You want to know more? Hmm, well OK but don't say that I don't do you any favours. Guess what? I'm going to start off on one of my story tales again.

It is a time of dread, a time of

woe. Cor, bit dramatic that eh? The land of Trazere is in chaos. The land of what? Trazere. Why do all the characters, spells and land names in RPGs have to be unpronounceable?

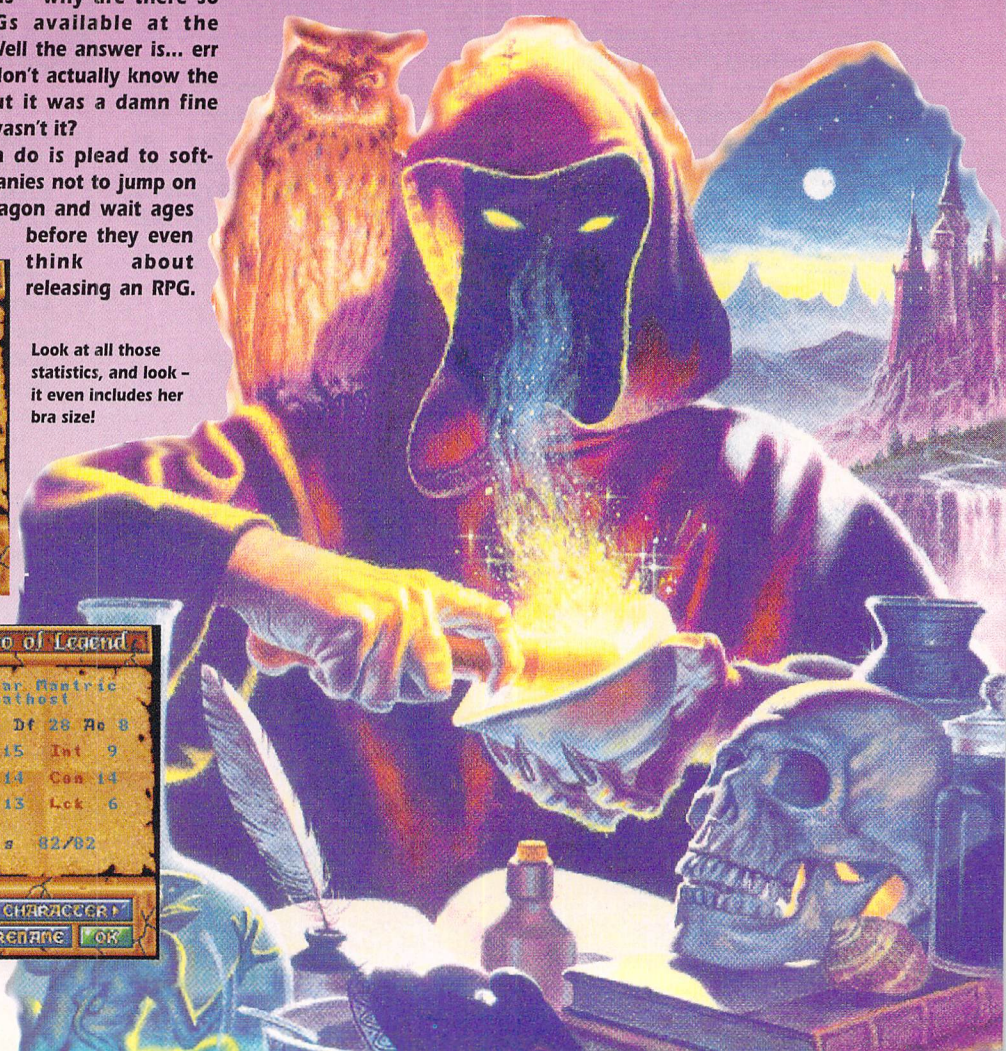
Oops I'm straying away from the point again. On with the mystical tale that is Legend. A strange and powerful and very smelly entity as old as the world is stirring in its sleep. The people of the Ancient Realm are being transmuted into hideous beasts

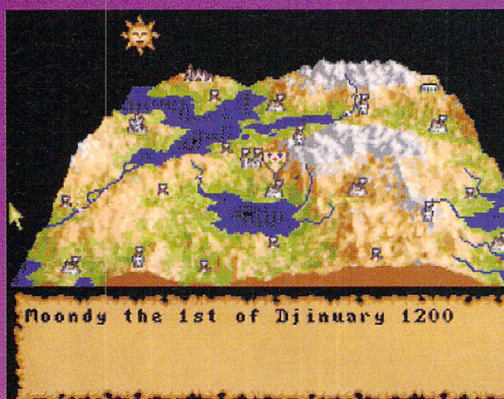


Look at all those statistics, and look - it even includes her bra size!



Hey wait a millisecc, isn't he one of the Chippendales?





For all you map fans out there, here's a picture of a map



No I don't want to talk to anyone - all I want is some booze!

by some power and are roaming the land, slaying and ruining everything in their paths.

Now for the King of this world this is not good news. In fact, the only thing worse than this is probably Lovejoy being back on the box. So the King has done the best thing - forsaken his subjects and run off somewhere much nicer.

"Oh, what a personal disaster!" cried his subjects, "what on earth can the people do to stop this terrible tragedy?" Nothing, but they know four adventurers who can.

From the North came a mighty Berserker, a fearsome killing machine. From the South, a Rune-master armed with magical spells.

A Troubadour (look, it's unpronounceable, arf arf) armed with magical, err, songs came from the West. Carrying his Ned's Atomic Dustbin and Senseless Things tapes, the Troubadour was not a force to be messed about with.

And from the Far East came an intelligent Chinese Assassin just to even things out. Could these be the heroes save the land? Or will they die just like everyone

else? Will they form a band and get ten consecutive number ones? Well it's up to you and how you get on in Legends...

Right, story over. Before you start the game you have to decide the gender of your characters. You have a

as clever as a turnip. The first thing you see when you start a new game is the land map of Trazere. This is used when your posse wants to move to another village, town or keep.

When at a village or town or wherever, your team may want to purchase equipment for their mission, or they might simply want to get legless down at the local ale house.

Other places they can visit include the blacksmith's, the artificer (sells goods that are not armour or weapons) or if they are in a particularly religious mood they can visit a holy temple, but apart from prayer, you can resurrect players who might have died, or you can simply heal your team.

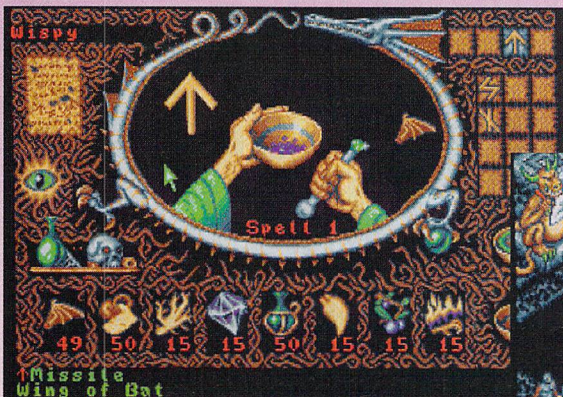
Other places on the map of interest to tourists include Moonhenge and the Dark Tower, or you can even go and visit The Unshrine - that's if you can find it because it has a nasty habit of disappearing. Hey, that's medieval culture for you.

Right, once you've had a fiddle around in the villages, you have to make your way to The Guild. Once there you can train levels, rename your characters, reclothe your bods to suit your own tastes - or you can enter the, the, the Cellar (sharp intake of breath

whole bucket-load of statistics in front of you.

You can change the levels of these statistics, so for instance if you want to make one of your characters very strong, you increase his strength level, but at the cost of another ability, say intelligence for instance.

So you'll get a big beefy strong adventurer. Unfortunately he'll be



Remember kids, when mixing spells always have a parent present to supervise

Ding ding, round one. It's fight night down in the Legend dungeon



VISION



Nice graphics that give the game that RPG feel.

AUDIO



Naff intro tune and the sound FX aren't much good either.

PLAYABILITY



Easy icon system, but nothing that stands out.

ADDICTION



You'll come back to it, but not very often.

78%

time). Once selected you will find yourself in the 3D isometric dungeon. It is the first dungeon you will have to battle through, so don't try searching for more dungeons because there aren't any until you do this one.

To survive, you have to search rooms and corridors, take items, uses items, unlock doors, mix and cast spells, fight monsters and generally live just long enough to reach the next dungeon.

There are a lot of things that you can do in Legend, but I won't tell you about every little option because you'll get bored and fall asleep.

But I will tell you about the Elliot the Dragon option. Elliot sits up in the top left-hand corner of the screen - wait a sec, just have a look at the screenshots. Did you see him? Well, the daring dragon dude draws a handy little level map for you as you progress.

Overall Legend is not bad. The graphics are quite good, the gameplay's quite good, in fact everything's quite good, but unfortunately it's come out at the wrong time. When compared to other RPGs it pales in comparison.

Unless you are a big RPG fan then this won't appeal to you. Sorry Legend, it was close, but not close enough. Then again everyone will probably buy it just to make me look silly. You never can tell these days.

Well I think it's worth 78 per cent, so there, and if you think different, outside under the fighting tree right now.

Jonathan

Please read this review on Thursday at seven o'clock – you'll find out why later. Steel Empire is a strategy game – in fact, the box tells me it's a futuristic game of strategic conflict, and strategy games require a lot of thinking.

So I ask myself, why have I been given the task of reviewing Steel Empire? I have the intelligence of a small grape when it comes to strategy games. Dan said: "I'm the editor and I get all the easy games," so there you have it – us poor lowly staff writers are just mere pawns in a big industry game of chess.

What it all boils down to is that I still have to review Steel Empire or I get sent back down to the Gamer dungeon, so onward I go.

Now to be honest I'm not too fond of strategy games, mainly because I find them boring, but that's only my opinion. There is never actually anything interesting to do – no blood, no violence, no fantastic car chases, no sexy babes, in fact, no nothing.

What there invariably is, though, is a huge novel of a manual normally in 36 different languages. Luckily, the Steel Empire manual is a mere pamphlet, so I donned my reading specs – and yes, before you all write in, I can actually read.

Steel Empire is a futuristic war simulation, where you have to compete against five great military industrial powers for complete domination of the planet Orion.

On Orion they make, err Orions, and as Supreme Commander of one of the powers you must plan and conduct a strategic campaign, expanding from a single territory to finally crush the rival empires.

You must build fortifications (whatever they are?) and armaments factories as you advance, territory by territory, to

join battle with rival cyborg armies. You must construct, command, conquer and, err do lots of other things that don't begin with the letter C. I'm sorry about the lack of a dramatic story, but Millennium decided not to write one.

The game is almost entirely controlled using the mouse and involves a lot of clicking on icons, a guide to which you can see on the opposite page.

Remember I said, ooh about one sentence ago, that the game is almost entirely controlled by mouse? Well in Steel Empire there is an arcade battle sequence too.

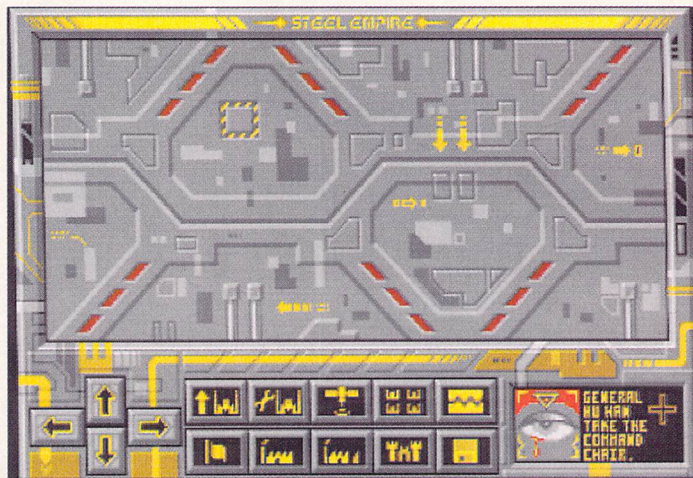
Now before all you die-hard strategy fans scream and tear your hair out, calm down, because it's a battle sequence with 16,000 layers of parallax scrolling and fantasmagorical graphics...not!

Yes, the so-called arcade sequence is slightly uninteresting and might even bore the pants off you strategy fans, but thankfully you can play a different

Smells like Steel spirit...I don't think!

STEEL

MILLENNIUM ■ £29.99 ■ 1Mb ■ Mouse/joystick ■ Out now



Well there's not much going on here, is there?

game where the battles are played out for you. Right, because I'm a generous kinda guy and haven't got anything better to do, I'll take you through an average game of Steel Empire.

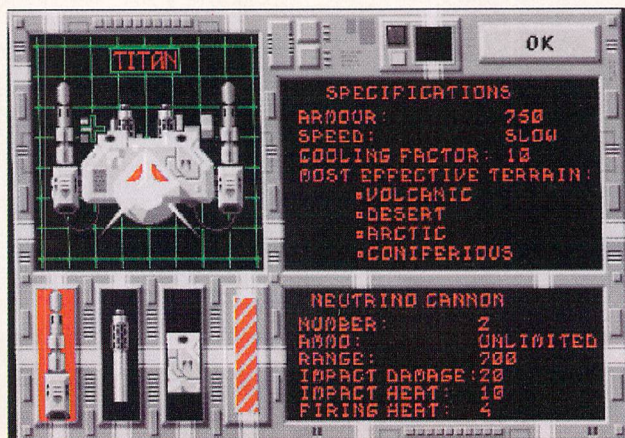
Before you thrust yourself into battle

you must do several things like choosing your empires, entering players' names, setting the computer difficulty level and so on. Next job is to build a factory, because the first thing you need are battle cyborgs, and guess



Well it's the status screen and I'm not doing very well...

Ahh that's better and look at that little flag, that's me that is...



Wow it's Terminator 3, well sort of....

It's the fortification screen where you get a choice of three forts

VISION

GGG●●●

Graphics that serve their purpose, nothing outstanding.

AUDIO

GG●●●●

Dismally boring, depressing tune with bobbins sound FX.

PLAYABILITY

GGG●●●

Easy icon system, but the game is for strategy fans only.

ADDICTION

GG●●●●

Someone will keep coming back to it, won't they?

50%

EMPIRE

what the factory does? There are a couple of choices to be made first, like which type of factory do you want to build – the cheap factory that can only build one cyborg at a time or the more expensive one where you can build four at a time?

A "cyborg" is the ultimate synthesis of human flesh, modern robotics and advanced weaponry. Your run-of-the-mill cyborg stands between 10 and 40 metres in height and weighs between 30 and 750 tonnes.

The construction of a cyborg can be a long process and might take several months – up to five turns! – depending upon the class of cyborg. Once the

cyborgs have been built you can move them about, but you can only move one square at a time, so it takes rather a long time before you get stuck in blasting cyborgs away. Never mind – you strategy freaks like waiting for ages before anything decent happens, don't you?

Well that's basically it – you can do other things like enhance factories so you can make cyborgs faster and cheaper, but apart from that all you do is construct, command and conquer.

Steel Empire is unfortunately a bit of a disappointment. The graphics are OK, but they just serve their purpose. The

actual battle arcade sequence is a bit hard and I found myself struggling even with the largest and bestest cyborg. You simply find yourself doing the same things over and over and over again. As the game is 1Mb only, I was

expecting a lot more than what I found. In all, Steel Empire is for die-hard strategy fans only, which is a shame when you think of what it could have been.

Jonathan



Yes, there's going to be a right scrap here and about time too...



The rough guide to the icons



This permits you to move cyborgs from one adjacent country to another. Really quite useful, arf arf



This delightful little icon allows you to repair damaged cyborgs. Remember, in these troubled financial times, repairing cyborgs is cheaper than having to buy new ones



This is for all you peeping toms out there – for spying on other countries or checking up on how well or badly you are doing, of course



A very handy icon this it allows you to build your Arnie Schwarzenegger lookalikes – the cyborgs



This icon lets you start and end your turns. Isn't that nice?



This allows you to purchase capitals and if you buy one within three minutes and collect the tokens you will get a free Steel Empire dressing gown and slippers



Cor, this icon will allow you to purchase a factory to build your cyborgs, except if your name is David, because there is a David clause in the contract for buying factories. Sorry!



This factory enhancement icon will allow you to purchase enhancements for your factories. Wow, isn't this fun?



This is the fortification icon and it will allow you to build a, yes you've guessed it. It will however defend your country from any violent attack from the enemy. Hurrah!

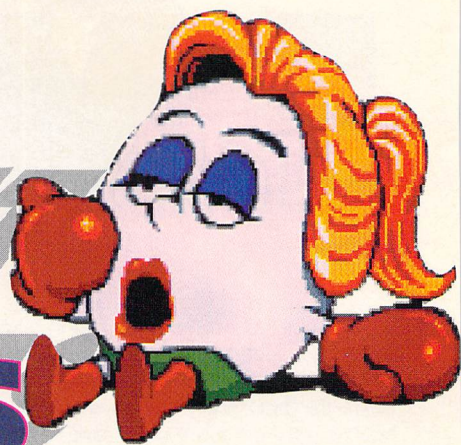


Click on this little baby and you will be able to save and even quit games of Steel Empire

Where's Vic Reeves and The Wonder Stuff, because here's...



DIZZY'S EXCELLENT ADVENTURES



CODEMASTERS ■ £25.99 ■ 512k ■ Joystick ■ Out now

Dizzy, I'm lost for words. How do you explain Dizzy and his exploits to someone who's never heard of him, on just one page? I don't think you can. Perhaps someone should publish a book about him.

I can tell you what he is, that's dead easy. Dizzy is an egg with arms and legs. He's rather like Humpty Dumpty, but far more hip and trendy, if you know what I mean. Well, just look at the screenshots if you want to know what he looks like. Right, now that's done, what next?

Err, well I'll ask you some questions. What's so fascinating about an egg? Why has every single Dizzy game cluttered up the charts for months and months on end? Why have Codemasters made so many games featuring our eggy chum? Why are they all really cute and make you want to puke?

Why bother? Why does your toast always land butter side down? Why does Alex Ferguson still think he can win the championship next year? Why does Bobby Davro think he's funny? Why? Why? Why?.

I'm not telling you the answers, I'm asking so you can tell me, because God knows if I've got any idea.

You might have guessed already that Codemasters have released another Dizzy game. Well you're almost right. The fact is that those ridiculous chaps and chapesses have released five of 'em all in one pack for a measly £25.99. All I



I'm forever blowing bubbles, la la la la laa laa...

can say is that they must be stark raving mad. Fancy getting rid of all those juicy profits! But it's definitely good news for the average Joe out there trying to survive on the dark, dank, dangerous, desolate, desperate streets. A right bargain and no mistake!

There are, in fact, four brand spanking new Dizzy games, along with Kwik Snax, which was released a while back.

There are two puzzle games (Kwik Snax and Panic Dizzy), two Dizzy adventure games (Spellbound Dizzy and Dizzy - Prince of the Yolk Folk) and one, err well what can only be described as a puzzle/arcade game (Bubble Dizzy). Kwik Snax you know about, or you should do. Panic Dizzy is sort of like one of those child toys - you know, the one where you have to fit the right shapes in the right holes - but it's all colour co-ordinated. Well it's sort of like that, but it gets faster and faster and harder and harder as you progress.

Spellbound Dizzy is the biggest Dizzy

game yet and our little egg-headed mate must go and rescue his happy little chums from the dreaded clutches of the underworld.

In Prince of the Yolk Folk, Dizzy must battle Rockwart the Troll, meet Pogge the Fluffie (probably the cutest com-

puter character ever), avoid Shamus the Leprechaun, summon King Arthur from his Crusades and wake Daisy from her 100-year kip.

Bubble Dizzy is probably the most enjoyable game out of the five. Dizzy is trapped underwater and by leaping from bubble to bubble must make his way to the surface, making certain that he avoids all the nasty beasties and keep his oxygen level topped up

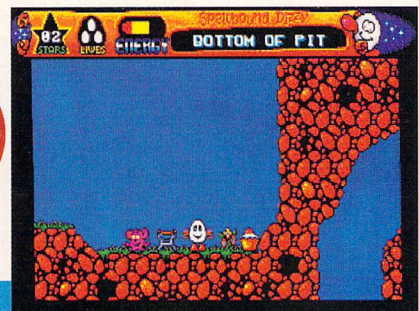
There you have it - probably the most comprehensive Dizzy package ever.

Obviously some of the games are better than others, but you can't really argue about that (well, maybe that woman off Watchdog could).

If you're a Dizzy fan then I'd buy this immediately, but if you hate the little egg and wish he would go and get scrambled then avoid - it's as simple as that.

My own opinion is that it's an eggcellent little package! OK, so I made a Very Poor Joke - so sue me.

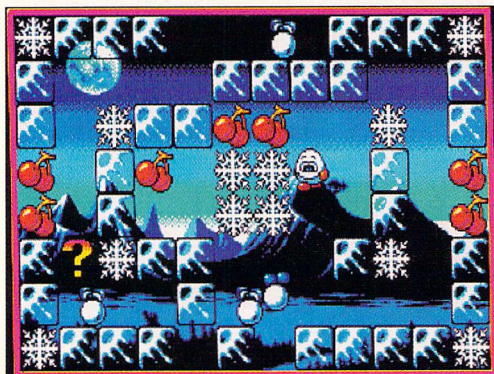
Jonathan



Yes you'll be spellbound with this Dizzy package... ha geddit, spellbound, hee hee, Spellbound Dizzy, hoo hoo, oh never mind



Dizzy, a bit of an egghead if you ask me. Oh, I could be Jimmy Tarbuck's gag writer...



I'm hungry, time for a kwik snax, I think, arf arf

Got one of these?



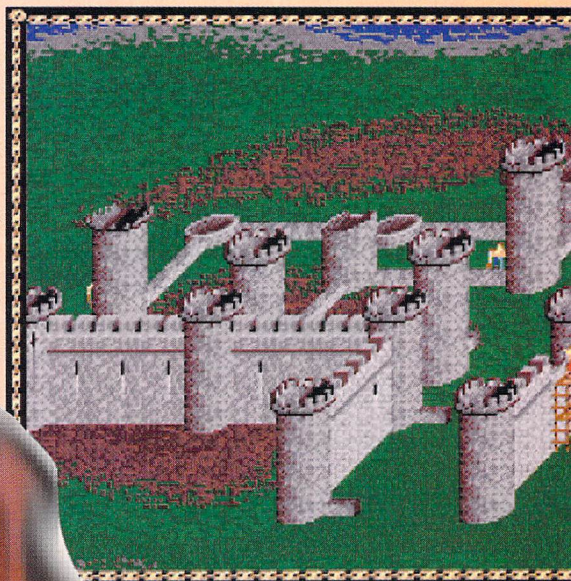
GB Action

*The ultimate add-on
for your Game Boy*

*Issue 2 out
June 22nd!*

Then get one of these!





Castles

Castles never look quite as impressive nowadays as they used to, do they? The fact that they've all fallen down doesn't help. And the fact that where there used to be hundreds of soldiers and boiling oil, there's now an ice cream and souvenir stand selling "I've seen an old castle" T-shirts sort of spoils the illusion a bit as well.

Oh how the mighty are fallen, eh? What would you give to see the castles in their prime, full of fat, bloated lords and poxy serfs? About 30 quid? Well that's handy 'cos that's about how much Castles will set you back. Let's take a trip back in time...

Here we are then. The Middle Ages, when men were men, women were women, poor people were all spotty and pox ridden and farm animals were justifiably nervous. And by the magic of

Bring back all those fond memories of school trips to ancient building sites as Sim City meets Defender of the Crown with a bit of Brian Blessed thrown in for good measure...

Computervision™ we've been turned into some right posh lords and ladies (use your imagination, OK?). Trouble is, we've got nowhere to live. Time to build a castle, I reckon.

So off we trundle to a nearby hut, kick out the scurvy peasants within and get on with designing our gothic des res. Stick in plenty of nice big towers and things, maybe just a couple of walls, and a brilliant flange bit on the side. Great!

Now to get some other people to build it for us. OK, con some of the poor people to do it, tell them

which bits to start on and sit back and watch.

Several years later, and we've got a castle. It doesn't look quite as good as I'd hoped, mainly because the flange bit has dragged the whole thing down into a pile of rubble. Obviously a problem in the design stage there.

Redesign it, properly this time, and start over again. And while the plebs do all the donkey work, we'll take a look at the other options available.

Every good castle needs an army, so we'd better not forget

to hire and train plenty of archers and infantry. In case of attack from spooky enemy blokes we'll need a good defence, so maybe putting some arrow slits and boiling oil spouts on the castle might be a good idea.

And of course, we'll have to keep the peasants and other lords happy. Their problems and grumbles may be sad and trivial, but without Anne Robinson to write to, all these pathetic, lonely people come to you with their insignificant moans.

You'll have to master the art of diplomacy if you don't want to cause all-out civil war. Of course, executing plenty of people is bloody good fun and you'll get more than enough chances to do that as well.

Money is also something you'll



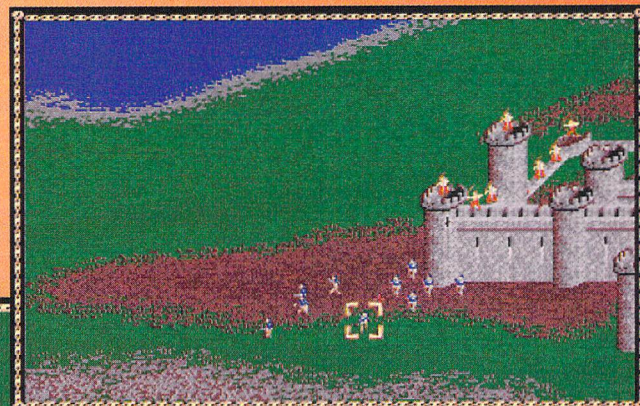
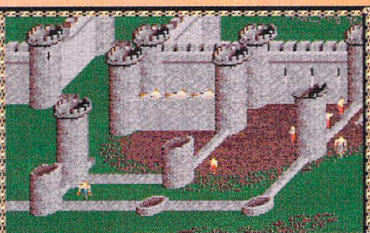
the source



Main

May 27, 1282
Food Supply 300

Buy 150
food
Food Cost 2
Bank 1236



have to keep an eye on. Don't throw your dough about willy-nilly, or you'll be forced to squeeze the paupers for a few more pence. Not that that should bother you too much, but they do get a bit upset.

And while you're busy keeping everything hunky dory in the world of politics, you'll still have to keep popping back to the building site to keep things moving along. And that, as they say, is that. The life and times of a medieval rich git, give or take a few centuries. Think you can handle it?

Castles should be coming out on the ST sometime in the future, from those fun-loving chaps at Electronic Arts via the Interplay label.

The bad news is that it could

well be EA's last foray into the ST market, with the exception of the long-delayed *Birds of Prey*. Sob sob sob. Still, let's put our hankies away for a while and see just what Castles looks like.

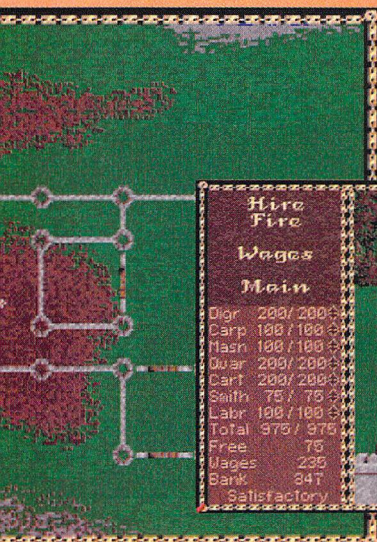
Castles has been floating around on the PC and Amiga for a while now. It's a strategy game, with obvious throwbacks to *Sim City*. Cute little animated people in a *Populous* style run about the place building the castle, while some lush and atmospheric still screens accompany the decision-making kingly bits. Let's just hope our lord looks less like Brian Blessed on the ST.

It's certainly a bit of a change from the usual strategy/politics type game and the Middle Ages setting offers plenty of room for horrible

brutality and fiendish tyrannical power games. There's even an option to play in either the real world or a fantasy world of dragons and ogres and stuff. Bril-

liant. The Amiga version is quite a pleasant experience and certainly different enough to be worth a closer look on the ST.

Hopefully all the features will make it across from the fudge-coloured Commie, in which case Castles should be a game to warm the cockles of most strategists' hearts. Keep your eyes peeled for further news.



Hire Fire

Wages

Main

Dign	200 / 200
Carp	100 / 100
Masn	100 / 100
Quar	200 / 200
Cart	200 / 200
Smith	75 / 75
Labr	100 / 100
Total	975 / 975
Free	75
Wages	235
Bank	847
Satisfactory	



Search and destroy...



Right, hands up who wants to go on a suicide mission?

SPACE CRUSADE™

GREMLIN ■ £25.99 ■ ½ meg ■ Mouse ■ Out now

Nothing appeals quite as much as creeping around a derelict old spaceship and shooting slimy aliens. As a real life pastime it's a bit of a dead loss, what with the danger involved, plus the fact that most aliens are rather sensibly giving Earth the cold shoulder.

So I'm afraid if you want to experience the thrill and bowel-loosening excitement of alien hunting, you'll either have to watch *Aliens* for the six millionth time or play a computer game.

Luckily, games about shooting aliens aren't what you'd call scarce on the old

home computer, so there's plenty of choice. And quite handily, Gremlin have just released *Space Crusade* for you fruity ST owners.

Like *Hero Quest* before it, *Space Crusade* is based on the board game of the same name. However, learning from past mistakes, *Space Crusade* doesn't stick so rigidly to the board game format as *Hero Quest* did.

So there's no more rolling a "dice" to see how far your characters can move, because – let's be honest – on a computer that's a seriously naff idea. *Space Crusade* has more in common with that old crusty *Laser Squad* than any board

game. *Space Crusade* is also the subject of a heated office debate at the moment. Is it a role-playing game? Biffa says yes it is, and, er, so does the manual. But I say it isn't. Not in the traditional RPG sense.

It certainly has some RPG elements in it, but the emphasis is less on progressing through levels and solving puzzles and more on strategies and using your grey matter. So let's be diplomatic about this and call it a strategy role-playing game. With the emphasis on strategy.

So, the game itself. You can have up to three players, all controlling teams of

five marines who can then run around the corridors shouting "lock and load, Vasquez!" and "let's rock!" and other horribly macho phrases.

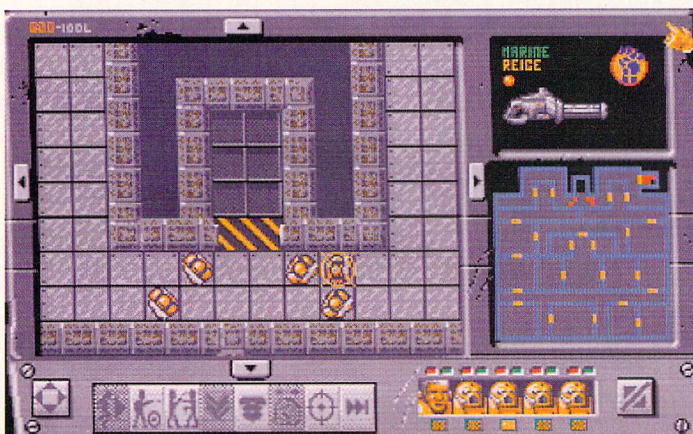
They also carry ridiculously big guns that make Judge Dredd look like Dixon of Dock Green with a stern frown and a water pistol. You, of course, get to choose which weapons to take, but the bigger the weapon the slower you move.

You can also choose some special options that only work once, but allow you to kick bum in an even more severe manner. They allow you to fire twice in one turn, that sort of thing.

Once you're all kitted out with big guns and marine-type slogans to bellow at each other, you can choose a mission and break into the derelict spaceship (known as *Space Hulks*, fact fans!) and kill everyone and everything you see.

Controlling your team is easier than falling asleep during *The Waltons*. Click on the team member you want to control and then select what you want him to do. Cast your gaze over the handy little box to see what options are open to your average "man in the field", or indeed "marine in the spaceship".

You can move, then fire, or fire and then move, but you only get one chance to move or fire per turn. If you walk around a corner into an alien's



Straight out of the docking arm and into adventure, excitement and fun!



Let's rock! Hudson! We are leaving! etc

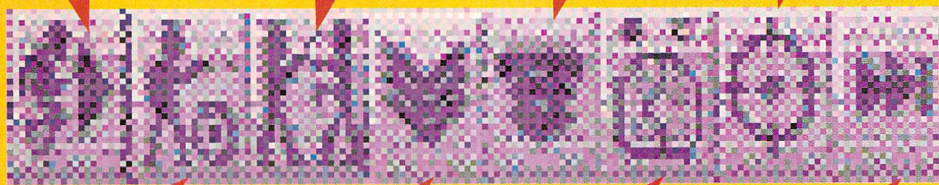
Start wrecking across the universe...

Move: Oddly enough, this allows you to move the marine under your control

Hand to Hand: Weirder and weirder. Hand to hand combat would you believe?

Equipment: Like "Orders", but this allows you to use special equipment like grenades

Scanner: This, amazingly, scans the area for enemy

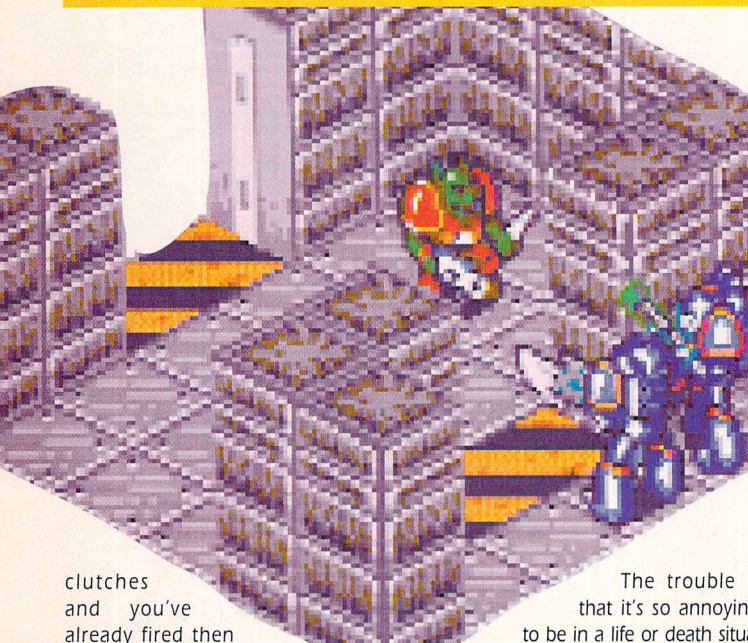


Fire: Again, a strange coincidence, this makes you fire your weapon

Orders: Not so obvious. This allows you to choose one of your special options, like "fire twice" or "redecorate kitchen"

Door: Another tricky one. Opens and shuts doors for some reason

Next Marine: And this moves control to the, shock horror, "next marine"



clutches and you've already fired then you're in deep lumber.

But if you haven't fired then select your icon, click on the alien and blow him away. Well, that's the theory. You see, the only obvious throw back to the game's board game origins are in the combat sections.

A random number is generated to see just how much damage you do, and this is compared against the random defence score your target rolls.

The trouble is that it's so annoying to be in a life or death situation and roll zero.

Quite how you're supposed to miss with a missile launcher is beyond me, but it happens all too often and it's a bloody pain in the neck. It makes the combat a lot less fun than it might've been and does detract from the game.

Still, it makes it all the more satisfying when you do manage to blow the poop out of an enemy commando.

And so you go on, taking it in turns

to move through the Space Hulk and killing everything in your path. Achieve your primary objective, as laid out in your mission choice, and if you're feeling really brave, you can do the secondary objective as well.

Once you've done that, get your team – or what's left of it – back to point of entry and get out of there. If you did well, then it'll be medals and smoked kippers all round, if not then you'll be lying in a pool of blood in some dingy corner of the Space Hulk and no-one will be any the wiser.

Have a quick breather, then saddle up and off you go again for more fun and games.

Despite the rather crude combat section, Space Crusade is massive fun.

Like most things in life, it's fun on your own, but with a few more people it becomes a whole new ball game. Not too strategic for arcade fans, and not too arcadey for strategy fans. What a nice balance.

There are 12 missions, getting

VISION
GGGGG

Great still screens, OK flat view and brilliant 3D option.

AUDIO
GGG

The tune's all right, but there are pitifully few FX.

PLAYABILITY
GGGGG

Combat is annoying at times, but otherwise great fun.

ADDICTION
GGGGG

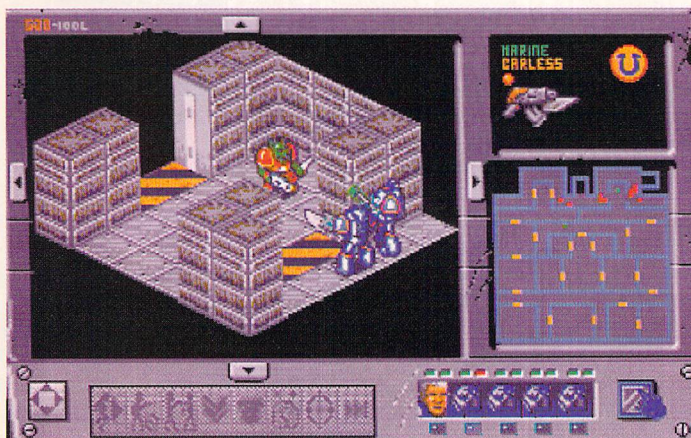
Something for everyone. You won't be disappointed.

90%



steadily more difficult and complex as you go on, and as with Hero Quest, Gremlin are promising data disks to keep you going. In short, Space Crusade is everything Hero Quest was and more. Well worth investigating.

Daniel



Pssst! Let's gang up on 'im



The blues and yellows form a temporary truce to defeat a weedy alien

Japes in Japan, it's...

Samurai

- THE WAY OF THE WARRIOR -

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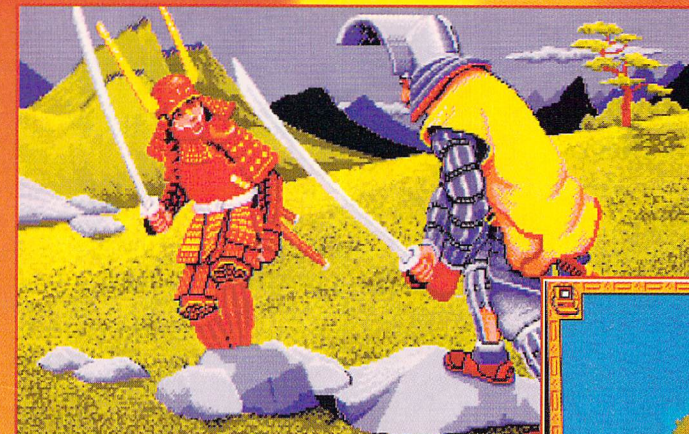
I will ask you one question. How can you make a strategy game using Samurai? Well Impressions have done it, so it's possible, but a good one? Just hang on for 500 words and all will be revealed. Alternatively you can read the review backwards and start off at the end, but beware of the satanic messages.

Samurai - The Way of the Warrior is set in 16th century Japan. Around about this time Japan was split into groups of small states each ruled by a lord or Daimyo. The Japanese people at this time weren't a very happy bunch, so instead of staying in and watching Bruce Lee films they decided to go out and fight everyone.

This fighting period became known as the Sengoku period which when translated into English means "a country at war with itself". In Samurai you are a chap called Usaka San and are one of the lords or Daimyo.

You must use your money and warriors to expand your empire from five to ten cities. In fact you're not really a bad chap - the land you're trying to expand into is land that was stolen from your father by the evil, greedy and downright stinky Obinaka.

The story does not stop there, though, because it just so happens that Obinaka



Oo you horny devil, arf arf

killed your father too. What a bast, eh readers? For you this campaign is a matter of honour and it also gives you the chance to kick Obinaka's butt.

Samurai is played on a map of Honshu, Japan's main island. You start off with a set amount of koku which to the non-Japanese among you is money. You must use this koku to hire warriors.

There are different types of warrior. There is one leader per army and a signalman who passes on orders to your troops, but after choosing these men you can choose whatever warriors you want depending on how much koku

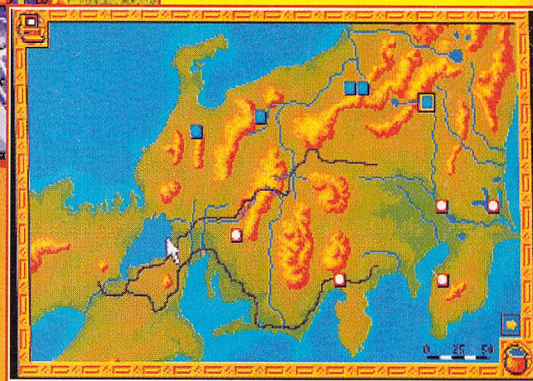
you've got. You can pick Samurai that are mounted on horses which move at twice the speed of the horseless, the normal bog standard Samurai who have good defence but no firing ability, or you can decide to have spearmen, bowmen or even arquebusiers - that's gunmen to you.

Once you've got your army together it's time to have a good scrap. Direct your men towards your chosen target city or towards an enemy army. Once you reach your chosen destination - which takes a while because you can only move one square each go - the view changes from the map to the battle-field.

Now this action bit isn't very action packed. It's OK if you like clicking on loads of icons and deciding whether you want to retreat or surrender, which formation you want and so on, but apart from that it's a little boring. It's so slow it's almost unbelievable (sounds like a cue for a song).

If you like Impressions' strategy games, then this game will make you jump for joy. On the other hand, if you don't like strategy games then it's not for you.

Fairly obvious I know, but just look at the price. I mean it's a bit steep for a strategy game, especially when the graphics aren't that wondrous and the sound doesn't exactly make you want to turn the volume



Great computer game maps of our time - No 73



up on your monitor and let everyone else hear.

It's far too similar to Rourkes Drift for my liking. What with this and Steel Empire, I'm just about ready for the institution.

Jonathan



Hey this is a vicious Japanese army, not a flippin' dance troupe

Yes it's a battle, but where's all the blood and guts? Oh sorry I forgot, it's a strategy game, it's meant to be boring...

VISION
GGG●●●
Graphics are not very interesting - a bit like the game, really.

AUDIO
GG●●●●
Yes there is some, but unfortunately it's rubbish.

PLAYABILITY
GGG●●●
Warning - this game is definitely for strategy fans only.

ADDITION
GG●●●●
Even strategy fans might lose interest after a while.

45%



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Poor old Elly's in a bit of a fix. Since we last bumped into her way back in her first RPG, she's bought her own film studio. In true Goth fashion, she's called it Black Widow Studios and by a remarkably unlucky twist of fate, she's built it on top of some old spooky burial ground thing. Just like Pet Sematary.

And lo and behold, the whole place is taken over by a whopping great devil dog with three heads. What is it? What does it want?

Well, the little name tag around its collar says it's called Cerberus, and when he found out that Elvira was going to make another film he thought he'd do us all a favour and kidnap her.

Quite nice of him I thought. After all, that Elvira film was a monstrous pile of kak.

Still, it is a computer game after all, so I suppose we'd better rescue the stupid tart. Unfortunately, Cerberus has brought a couple of his mates along (and some of them didn't even bring a bottle) and they're intent on causing trouble.

So it won't just be a case of wandering around the studio, finding Cerberus and Elvira, talking the problem through and setting up a group therapy session to reintegrate triple-headed demonic canines back into society. Nope. You'll probably have to beat up loads of monsters. Or get beaten up by loads of monsters.

So, it's one of them thar RPG thingies

that everyone's bleating on about at the moment. The thing is, the ST has been a bit neglected in this current trend, despite what Biff might say in his Legend review.

All the really groovy RPGs are just sitting pretty on the Amiga and sticking two fingers up at the ST posse. For instance, Eye of the Beholder 2 and Black Crypt won't be settling down on the ST shelves of your local games

shop. Sad, isn't it? But, hey!, here's Elvira 2! And elsewhere in this issue you've got Space Crusade as well. So it's not all bad news.

Quite the opposite actually. Elvira 2 is a bit of a stonking game, if the truth

be told. Without a million other RPGs jumping up and down for attention on the ST, this one really does show up in its best light.

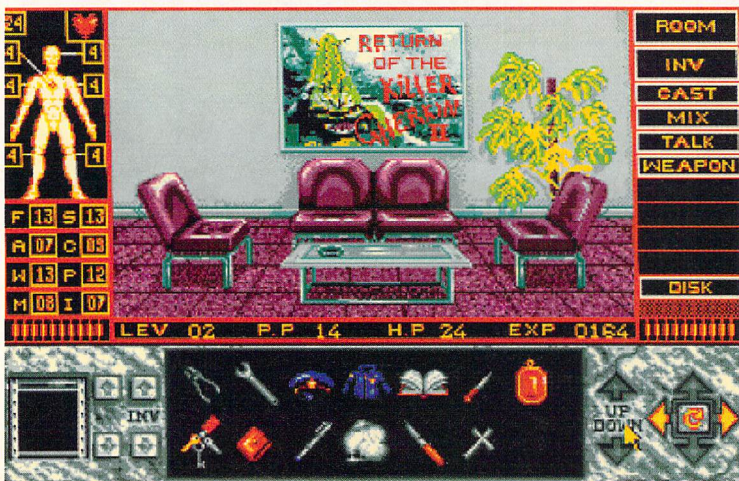
For a start, the emphasis is firmly on atmosphere and story. Too many games just plonk you in a dungeon and think that that's enough. Elvira 2 gives you a clear objective and a very realistic studio to rummage around in.

Figuring out the first puzzle is easy. You've got to break into the security hut and open the main gates. Nothing too taxing involved, but just enough to give you an idea of what'll be expected of you. Oh, and it's a bit gory. Well OK, it's a lot gory.

The atmosphere of the abandoned studio, along with the rather gruesome discovery in the security hut, really keeps you on edge. Don't sneak up on



Lummox! What a way to start, knee deep in blood and entrails



Y'know, I think I saw that movie..



Roly poly role-playing romping

ELVIRA 2

The Jaws of Cerberus

ACCOLADE ■ £30.99 ■ 1 meg ■ Mouse ■ Out now

someone while they're playing this. It could cause quite serious startling to occur.

The controls and features should be familiar to most of you who've played the original Elvira, or indeed any RPG, but for those who are new to the genre I'll give you a quick run down. Just call me Jimmy Saville.

Movement is via direction arrows. Rather than scrolling through the scenery like other RPGs, you move forward in jumps, but this means that each location can be more detailed and have more objects and things to look at in it.

If you want to investigate something, just click on it. And for every other need you could conceivably have, use the handy menu on the right of the screen. It's all really easy to use, and it'll be second nature after a couple of minutes.

The studio is split up into four easily

distinguishable areas. The first is the actual studio itself, then there are three floors of offices, changing rooms and toilets to investigate at your leisure. There are millions of objects to pick up, but which ones are actually useful?

There's also a make up room where you can try on various wigs, beards and silly hats and then look at yourself in the mirror. Fairly pointless (I think) but great fun all the same.

And once you've nosed around everywhere, you can take the plunge and enter one of the three movie sets. These are where the real action starts and they're very, very scary indeed. You've got a haunted house, some caves, a graveyard bit, ooh everything you'd expect from a really cheesy horror film, and it's all yours to wander around in. Eeek!

Techy wise, it boasts 4,000 locations (which is five times bigger than the original game apparently), and over



Just for comic effect, why not dress up as Jeremy Beadle in one of his uncanny "disguises"?

120 hours of gameplay. Although the way I'm going it'll probably be more like 120 years. I was impressed with Elvira 2 on the Amiga, but for the ST it's a miracle.

Granted, it can be fairly slow when disk accessing occurs, and it comes on a donkey-choking seven disks (yup, seven!) so hard drive installation is your first priority. If you don't have a hard drive, don't worry, there's not that much swapping to do but it will interrupt the flow of the game a tad.

It's big. It's brill. And more importantly, it's actually on the ST. If you're still bemoaning the lack of a meaty RPG

on your squat little Atari chum, then look no further. Just leave your breakfast at the door, it gets pretty grisly in here...

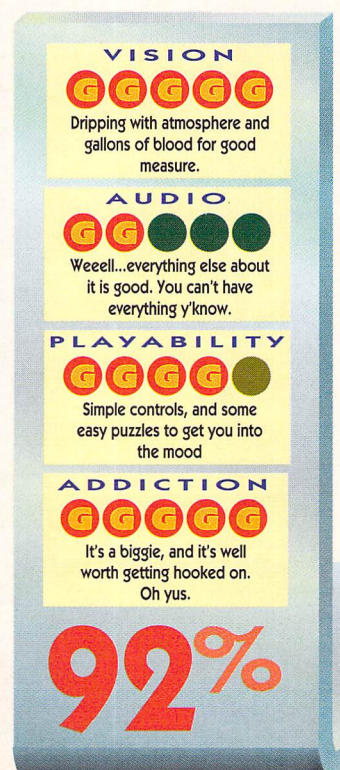
Daniel



You're not completely alone. This gnarly Indian dude will give you some hints, down in the basement



One of the slightly more distressing moments from Elvira 2. Hint: he doesn't want a chat



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cheat mode

ALCATRAZ

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The running around bits...

These are basically the same throughout the game, so I'll keep this bit brief. It's important that you get some extra weapons as soon as possible to beef up your arsenal.

If you're playing in two-player mode, try and get on either side of an enemy and knife him from both sides. This should kill him nice and quickly.

The two most important weapons are the rifle and the grenades. The rifle is the best weapon for seeing off the guards, and the grenades take care of the men with flame-throwers quite nicely.

Be on the look out for extra lives. You pick them up by hiding in the scenery, and if you find one you'll hear a little ping and a "1UP" icon will float away. On the first section, there are two bonus lives quite near the end.

Have a peep at the pics to see exactly where.

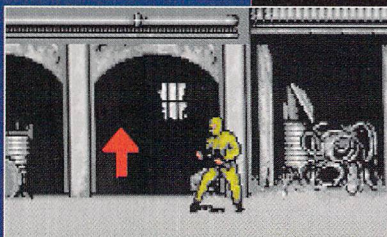
This should give you a healthy stock of lives to get you through the next few levels. My advice is to keep hiding in every nook and cranny as you go along, until you find the extra lives.

There are some other tricky bits to look out for. The dog on the second scrolling section cannot be killed, even with grenades, so just

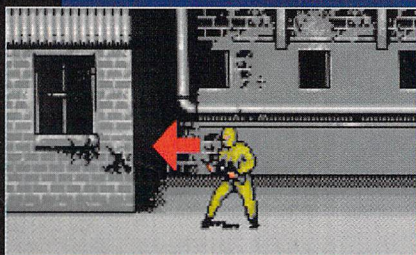
hide in the scenery until he's run past. Also be on the look-out for the snipers in the background. Like the dog, they can't be killed, so here's what to do.

Shuffle out into his line of fire, and just before he shoots at you, roll back into cover. Now quickly run past him. With practice, this should get you past him with no trouble at all.

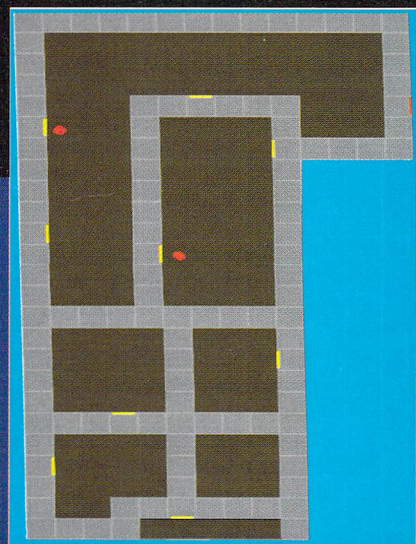
As soon as you start, get the rifle and some grenades



Hide in the left-hand side of this alcove for an extra life...



...and duck behind this wall for another extra life



The Barracks

The first building you reach will be the barracks, and it leads into the first 3D section. Your task here is to find some important documents which will prove Miguel Tardiez's guilt and all-round fiendishness.

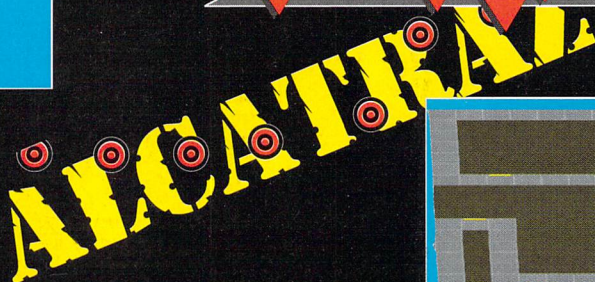
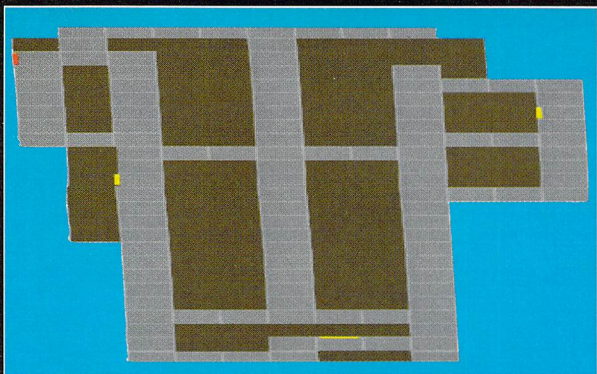
The two most probable locations for the suitcase containing the documents are marked on the map with a red spot. Enter the room, and shoot the guard inside. If the documents are there you'll see a little suitcase flash. Leave the room and you'll have the documents in your sweaty paws.

Remember that the guards always patrol in a set pattern, and will tend to go round and round the same block. Keep your eye on the little map at the bottom of the screen to see where they go, and then lie in wait for them.

This applies to all the 3D bits, so get used to aiming and firing your gun before they spot and shoot you.

The best tactics here are for one player to go and get the documents, while the other takes care of the guards. If you're playing alone, then just go for the documents and try to avoid the guards.

Once you've got the suitcase, head out of the exit and into the second scrolly bit.



The Cellhouse

To get to this bit, you'll have to do a bit of climbing (the doorways are blocked, y'see). Simply stand in front of the building, push up and fire to start climbing up the side.

Make sure you do it when there are no guards nearby or you will probably be killed while you stand about swinging your grapple hook.

The actual climbing bit couldn't be easier. Just waggle the joystick to climb, but remember to avoid the searchlights. Once you reach the top, you're in!

The actual cellhouse itself is the hardest 3D section of all - Not surprising when you realise that this time your target is Miguel Tardiez, Mr Big Drug Baron himself!

Expect loads of guards, and watch out for them sneaking up from behind! It's best to split up for this bit as you've got a lot of rooms to search.

You see, Miguel is hiding in one of the cells. Unfortunately, there are oodles of them to look through and his location appears to be different every game.

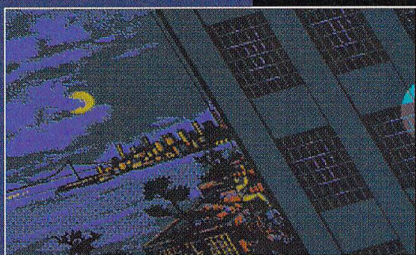
The best way of finding him is to start at the bottom of a corridor, move forward one step, then turn left and enter the cell, go out, turn round, and go into the other cell, come out, move forward again, and so on.

It'll take a while so it's safest if you kill all the patrolling guards before you start your search.

When you find Tardiez, he'll be lurking behind the scenery somewhere, but you'll know he's there 'cos there'll be a bodyguard in the cell.

Waste the bodyguard and out comes Miguel with his hands up. Leave the cell and he comes with you, in handcuffs. Go out of the exit and you'll leave Miguel tied up on the roof.

Now you'll have to abseil down again. To do this, press Fire to slip down the wall and Fire to stop again. Don't slip too far or you'll die, and keep a look-out for the searchlights again.



The climbing is easy, but watch out for the searchlights

The industry building

OK, you've reached your second objective. This time you must find and destroy Tardiez's drug supply and his stocks of filthy drug money (spit).

Again, the rooms you should be heading for are marked with a dinky little red spot. Be careful, as the guards will be patrolling those areas very heavily.

If playing with two players, then it's obviously better if you handle one room each, whereas single players are going to have to be very cautious.

To destroy the stocks, simply enter the room. There won't be any guards inside. Now press Fire and you'll chuck a bomb into the room.

Pop outside again. A couple of seconds later you'll hear a nice big boom, and your job is done. With both targets eliminated, head for the exit and get ready for some more scrolly stuff.

The final comedown

You're almost there now, with just the last mad dash to the helicopter to go. This scrolly bit is fairly short, but there is a rather fiendish explosive hidden in the scenery.

If you're not careful you could be killed, so try and make sure you've got enough lives left to compensate.

Once you see the chopper, run to it and you'll take off. All you have to do now is stop off on the Cellhouse roof to pick up Miguel. He'll probably have tried to escape so run after him and he'll come hopping back.

Leap back into the helicopter, and fly off into the sunset for your mission analysis. Easy!

Get Tardiez into the chopper and you've done it!



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POINTS OF VIEW

Hello, I'm Anne Robinson and I'm here to talk to you in a patronising voice out of the corner of my mouth while E Chislewit (Mrs) of Cheltenham gets all stroppy about Knots Landing being replaced by the snooker.

Ho ho and thrice ho. It's not Anne Robinson really, it's just a Gamer survey to let you have a rant and rage about the magazine.

Don't forget to answer question 16, 'cos the best answer we receive will earn its sender a great big Jiffy bag stuffed full of

games, T-shirts, posters, chocolate and loads of other tat.

Answer all the questions, cut out the page (or photocopy it, we don't really care one way or the other), fold it neatly, pop into an envelope with a crisp tenner and send it to us at:

**ST Gamer Survey
Atari ST User, Europa House
Adlington Park, Macclesfield SK10 4NP**

1. How often do you read Gamer?

- ☐ a) Every single issue, through sleet, hail and Gyles Brandreth being elected MP
- ☐ b) If I've got nothing better to do, I have a flick through it
- ☐ c) You mean this isn't Practical Cheese Whittling?

2. I reckon that the reviews in Gamer are...

- ☐ a) Too stuffy and serious
- ☐ b) Just right the way they are
- ☐ c) Not serious enough

3. Size may not matter, but I think that Gamer should be...

- ☐ a) Bigger
- ☐ b) Exactly the same size
- ☐ c) Smaller

4. The sort of games I'd like to see in Gamer are...

- ☐ a) Arcade games, and nothing else
- ☐ b) Strategy, simulation and other dead serious stuff
- ☐ c) A little bit of everything, squire

5. If Gamer was to curl up and die next month would you...

- ☐ a) Listen to Morrissey records all night, cry and become a hermit
- ☐ b) Shrug and say "Ho hum"
- ☐ c) Invite all your friends round to celebrate

6. And as for that HakPak...

- ☐ a) I want it back right now!
- ☐ b) I couldn't care less
- ☐ c) Isn't that something to do with camping?

7. I think that Gamer being a different size to ST User is...

- ☐ a) A wonderful piece of magazine design
- ☐ b) Not something that troubles me
- ☐ c) A monstrous carbuncle on the face of our society

8. How do you get Gamer?

- ☐ a) I buy it of course
- ☐ b) I read a friend's copy
- ☐ c) I read my mum's/dad's copy

9. I think the Gamer ratings system is...

- ☐ a) Great. I dream about it sometimes, actually
- ☐ b) A ratings system. No more, no less
- ☐ c) Stupid and unclear

10. In Cheat Mode, I'd like to see...

- ☐ a) Single games dealt with in detail
- ☐ b) Little tips and cheats for loads of games
- ☐ c) The Lemmings and Lotus 2 level codes every single month

11. How do you feel about us reviewing really bad games?

- ☐ a) Yes, we need to be told if a game is that bad
- ☐ b) Not bothered
- ☐ c) Don't bother. They're a waste of space

12. Would you like to see Gamer cover films and videos connected with games?

- ☐ a) Hey, that's a good idea
- ☐ b) I'm just not fussed
- ☐ c) It's just an excuse for the Gamer staff to go to the cinema and get paid for it

13. How do you feel about the alleged "death" of the ST (ie Games not coming out on the ST)?

.....

.....

.....

14. Any other suggestions, ideas, compliments or insults?

.....

.....

.....

15. In an ideal world I would like to see Gamer with...

	More	Same	Less	None
Reviews				
Charts				
Previews				
News				
Cheats				
HakPak				
The Source				
Compos				
Gossip				

16. And to be in with a chance of winning loads of Gamer goodies, just give us three good reasons why you should win them instead of the thousands of other deserving candidates:

.....

.....

.....

And last, but by no means least, who are you?

Name:

Address:

.....Age:

Thank you very much indeed. May your camels be bountiful.

ALCATRAZ

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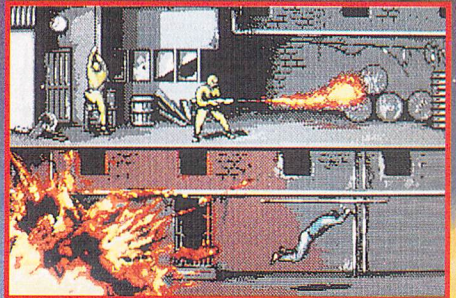
It's the final countdown, as HQ gives the last briefing.



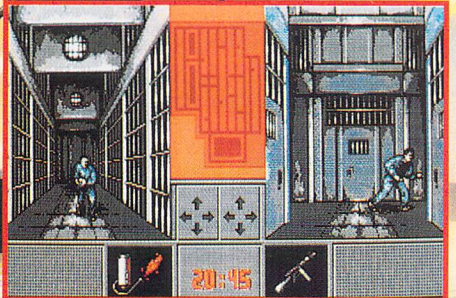
Prepare with care, a simple mistake will cost you your life.



Track down Tardiez's men, as you move ever closer to the very centre of corruption.



One false move and your cover is blown.



Tardiez's men lurk on every corner.

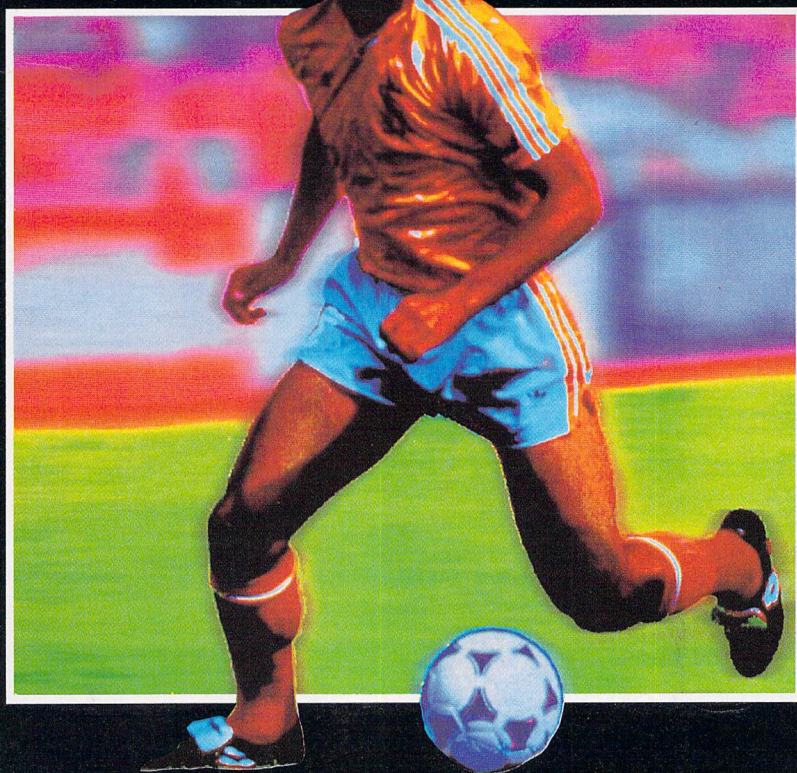
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Sensible
SOFTWARE

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Prizes

Scanner, external drive and three very special mice to be won, courtesy of Ladbroke Computing

with the **Golden touch**

This month's amazing *ST User* competition has a distinctly Golden touch.

Golden Image have earned themselves a reputation for reliability and quality as leading manufacturers of ST peripherals. Their high quality range includes mice, scanners, disk drives and RAM expansion cards.

Ladbroke Computing, the sole distributors of Golden Image products in the UK, have provided us with hundreds of pounds worth of Golden goodies to give away to our readers.

The five prizes on offer are:

1. Hand Scanner with Touch-Up and Deluxe Paint ST software, worth £149.99
2. External floppy disk drive, worth £64.99
3. Optical Mouse, worth £34.99
4. Brush Mouse, worth £24.99
5. Opto-Mechanical Mouse, worth £19.99.

The scanner features large scanning width (4.13in on one scan and up to 11.8in on multi-scan), speed indicator light,

selectable 100/200/300/400 dots per inch, 64 halftone levels for three different halftone mode settings and one letter mode, adjustable contrast, simple installation and compact interface.

The Golden Image disk drive is fully ST compatible and has 880/720k storage capacity.

If you're looking for an optical mouse, Golden Image's fits the bill admirably. It has 250dpi resolution, a tracking speed of 500mm per second and comes with mat.

The brush mouse gives you pen-point precision, providing the accuracy of optical and the rugged durability of mechanical technology in a unique design, and comes with a copy of Deluxe Paint ST.

And the Opto-Mechanical mouse has a resolution of 290 dpi and comes complete with a mat. So what do you have to do to have a chance of winning one of these sought-after accessories?

Simply answer the questions below:



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July	19	West Midlands	— National Motorcycle Museum, J6, M42.
Sept	5	West Midlands	— National Motorcycle Museum, J6, M42.
	12	London	— SANDOWN Exhibition Centre
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2 6JN.

Dinosaur drivers

I seem to have encountered a problem with which I hope you may be able to assist. I have a Hewlett-Packard Deskjet Plus printer and Fleet Street Publisher v1.1.

As there is no suitable printer driver included for the Deskjet, I tried to buy the Laserjet driver which I understood to be available separately for around £20.

Unfortunately, telephone calls to Silica Shop and Mirrorsoft late last year revealed that the driver is no longer available. I was advised to upgrade to v3 which has a suitable printer driver, but at a further £100 upgrade cost!

I am writing to ask if you or any of your readers know of any outlets where the driver might still be found or if anyone out there is willing to sell me a copy they no longer require.

J Fermor, Margate, Kent

Well, if anyone has the driver, please get in touch. In the meantime, we went straight to the top and spoke the person who wrote the manual for the latest version of Fleet Street Publisher.

The difference in the drivers between versions is only small and there's a good chance that we can get one up and running for you by changing some of the print codes in one of the existing drivers. We'll let you know.

You could, however, try the ST Club's PTR.11 disk which has drivers for v2 and v3 of Fleet Street Publisher. They might just work but even if they don't, it's one disk that every Deskjet owner should have as it has plenty of useful Deskjet utilities on it.

From the tone of your letter, you seem to regard the £100 upgrade cost as rather steep. Look at it this way – an upgrade to version 3 would provide you with a professional quality typesetting system.

There are plenty of people who think it's still the best available on the ST, at least from a typographical point of view. When you look at the cost of equivalent software on PCs

Got a problem?

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

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

and Apple Macs, I think you're getting a bargain.

You can't expect companies to continue supporting out of date software – if they were to spend money doing so, the cost of the upgrades and the new releases would have to go up accordingly.

Landscape DTP

I'm looking for some DTP software that would enable me to set up an A4 page then shrink it to A5, turn it through 90 degrees and then print two such pages on a single A4 sheet. Alternatively, could I get a wide carriage printer and use simpler software? My equipment is

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at present an unexpanded 1040STE with second floppy drive, colour monitor and Star LC24-10 printer. The intended product is to be a church bulletin.

B Gowland, Newport Pagnell, Bucks

I've always found it strange that no DTP software caters directly for this type of A5 publication, arranging the pages in the right order, for instance, and printing two at a time to A4 landscape. Let's face it, it is a common size for church newsletters and handbooks.

You don't actually need to design an A4 page and shrink it. With any good DTP program such as PageStream or Calamus, you can set up your page size to A4 landscape and lay out two A5-sized pages side by side, printing it out when it is finished as a single A4 sheet.

Incidentally, there is a user group that might well interest you. It's the Atari ST Christian User Group which produces a quarterly magazine on disk.

It is an organisation dedicated to helping ST users involved in producing

parish newsletters and magazines. The disk magazines contain reviews of useful software as well as church-related clip art and even files containing the words to some commonly-used hymns which can then be incorporated into service sheets.

Although only a small group at the moment, it is growing rapidly. For more information, write to the Reverend Joe Clemson, 33 Cromer Avenue, Low Fell, Tyne and Wear NE9 6UL. I too am a member, so perhaps we'll meet up!

Sub-standard chip

In your May issue, you advised one of your readers, B Childs of Nuneaton, on the feasibility of using a Canon LBP4 laser printer with an STE. I have a 1040 STE and it requires a line driver if it is to successfully output to the Canon.

I found this out the hard way, trying a number of times before contacting Atari UK who advised me that a line driver was needed. My understanding is that the two won't work together without one. I think you ought to publish this in your next advice column.

N Harvey, Derby

Move over, MMU

Help! I have a rather awkward memory problem. I have a standard 520STFM with an ATonce Plus 16 MHz 286 board fitted. This does work well as a PC emulator and the software I can run does behave itself.

The problem is that I can only use 256k of memory for DOS programs. I have looked into upgrading but all the DIY upgrade boards are based on plug-in boards which fit over the MMU. The layout of my board is such that the ATonce board and the MMU are very close together. I just can't get a memory upgrade to fit.

Is there some other way to expand the memory? I really

need the extra memory to run both PC and ST programs.

G Kirk, Codicote, Herts

You get this week's prize for perseverance. Anyone who can enjoy using a PC with just 256k of memory must be dedicated! The solution is quite simple. If the RAM upgrades won't fit around the MMU, then they can be installed elsewhere.

It is quite possible to hard wire the memory upgrade to the board although it isn't a job for a beginner. Any competent computer repair centre should be able to help.

This is an old problem concerning the ST's rather sub-standard Yamaha sound chip. It is horribly overworked and can't drive the parallel port hard enough, resulting in printout problems such as lines of garbage and dropped characters.

There is no way of identifying which STs are affected but if you experience problems, the sound chip is a good place to start.

The solution is an octal line driver

chip or buffer between the ST and the printer. This boosts the output signal and drives the parallel port to the full Centronics standard. The most reasonably priced ones are available from C & P Rossiter on 0602 631631 and cost £25.

Back to your point. The Canon LBP4 laser does not require a line driver to be present as a matter of course. It depends entirely on the individual ST's sound chip. It sounds as if you were one of the unlucky owners of a weak chip.

Nice to know you got some advice from Atari though – they are definitely improving. There's a very helpful customer services manager called Luke Leighton who's bent over backwards to help me a few times. Let's hope change is in the air.

Spectral worries

Please could you advise on the compatibility of the Spectre GCR Apple Mac emulator? I own a 1040 STE upgraded to 2Mb and want to run Write Now, Quark Xpress and Wordfinder.

If I installed Spectre, would I be able to run any Apple programs in addition to Atari ones?

Are there any problems or limitations with this product? I also have a Canon Bubblejet BJ10e – will I have any problems printing?

G Haslam,
Bowness-on-Windermere, Cumbria

I presume you have read last month's review of the latest version. This should give you a fair indication of what it is capable of.

We contacted Gadgets By Small, the developers of Spectre GCR, who state that all three programs you mention are compatible with the emulator (Write Now 2.2a, Quark Xpress 2.0, 2.12 and 3.0 and Word Finder 2.0).

We haven't tried them but the likelihood of software not working with Spectre seems pretty small.

You will, however, have problems with the Bubblejet. The main problem is the lack of suitable drivers for it. There is some commercial software available, most of it from the US, but the best option would be to enquire with an Apple dealer.

Full colour fantasy

What advantage is there in getting a colour monitor over a mono one? For instance, will First Word Plus work any better on a colour monitor than on a colour TV? Will programs like Turtles, F29, Powermonger and Degas Elite

advice ATARI ST USER service

work better on a colour monitor?

These questions may sound basic, but as new users living in Germany, we have no other means of finding out. Cpl Fletcher, 28th Engr Regt, Germany

Here we go, 200 words on monitors, starting now... Seriously though, it can be confusing, especially if you aren't in a position to look at all the options.

Many ST users only have their machines connected to a TV and this is fine for most games and educational software. The picture needs slightly retuning every so often and wavy lines tend to distort the picture but for colour games, it's quite adequate.

Connecting the ST to the TV via a Scart connector can improve matters

but for the best quality, a dedicated computer monitor is the only answer. You have to see the difference to believe it. I remember seeing an ST hooked up to a colour monitor for the first time. I was amazed at the extra detail as well as the steady picture.

On the other hand, I wouldn't say it improved non-games software that much. First Word Plus will look a little clearer but a mono monitor is

better still. The Atari SM124 and SM144 monitors are very good quality and nice to use.

It sounds as if you really need a multisync monitor – one that can display all three of the ST's screen resolutions. With one of these, you could play games and carry on wordprocessing without any headaches from blurred screens.

Assembling

Your excellent feature on assembly programming has whetted my appetite for more knowledge. Can you or Marc Young recommend a good book on machine code programming?

I don't want a dry boring old reference book – I need a well-written "idiot's guide" if that's possible.

M Embury, Tewkesbury,

Programming is not my strong point

Why I am short of memory?

Greetings from Kenya. I have been a subscriber to ST User for the last 18 months and have enjoyed reading the magazine as it enables me to keep up with the ST world in a country where it is virtually unknown.

I have a 1040 STFM with SM124 monitor, Atari SH205 hard disk and Citizen 120D printer. It's pretty old but I'm happy with it. Although it is a German machine with German operating system, it works very well.

However, using your CoverDisk program, Informer, I have managed to keep track of my RAM and I find I am short by over 200k!

I only have three files in my AUTO folder – AHDI.PRG, INFORMER.PRG and FSELECT.PRG – and have TOS v1.0. Informer tells me I only have 813k of memory. Can you explain this? How can I upgrade my version of TOS and can I change it into English?

B D'Souza, Nairobi, Kenya

I'll let you into a secret – you are not alone! All STs give up some of their "free" RAM to the operating system as temporary system storage areas.

From memory, a 520ST only has about 400k or so. It varies with the version of TOS you are using – the older ones were less efficient and used up more space. TOS 1.2, for example, takes up about 15k more than TOS 1.4 – yet another reason for that upgrade!

Changing a German manufactured machine into the full UK spec is a little difficult. Changing the ROMs is easy but it's the keyboard that will cause problems. The keys on a German keyboard are completely different to those on a UK one – I wouldn't recommend it at all.

but it certainly is one of Marc's. It sounds as if you need something in the middle and the best one for my money is Roger Pearson's Introducing Atari ST Machine Code published by zzSoft (ISBN 1 873423 01 2).

It contains over 400 pages of easy to read instructions, hints and examples. It even comes complete with a disk containing all the example programs used and several useful utilities. Contact zzSoft on 0254 672965 for more details.

All black and blurred

I have been reading ST User for some years now and I like the way it is going, especially with regard to DTP. I edit and produce a regular newsletter for a large company using a Mega 2 ST running PageStream 2.1 and printing to an old Hewlett-Packard Laserjet.

Recently we decided to add a column each month giving a potted history of a member of staff with an accompanying photograph. This "human interest" column has been widely received – except for the photographs which come out almost black!

Only one has even been recognisable. What can I do to improve the quality of the photographs? Do I need to buy a new printer?

J Rice, Godalming, Surrey

You don't mention how you are reproducing the newsletter but there are really only two methods – photocopying a master or having it commercially printed.

Neither do you mention how you get it on to the page, whether it is by scanner or "cut and paste".

If you have a standard black-and-white hand scanner, a photograph can be saved as a mono image file, usually in IMG format. It can then be imported directly into PageStream.

If you print it out now, you will get a reasonable representation on the page but when you try to photocopy it, it will lack contrast completely, with very few grey shades.

Make sure the scanned image is selected on the page, look under the Object menu and select Edit Coords. On the dialogue box you will see Screen Frequency. This is the key to generating halftone images – images that will reproduce well on a photocopy.

You will have to experiment to find the best setting but a frequency of between 60 to 80 should look clear enough and still photocopy well. You can also play with the Screen Angle settings. PageStream offers considerable flexibility in this respect.

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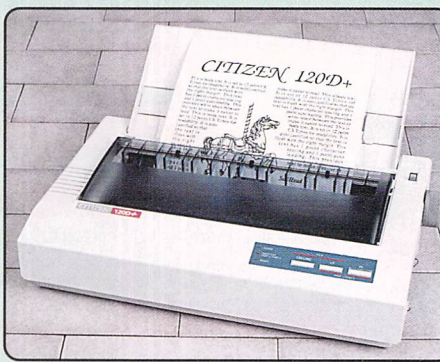
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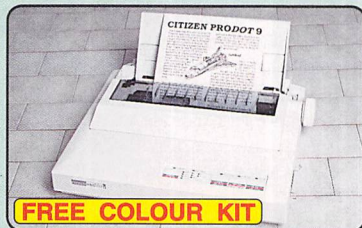
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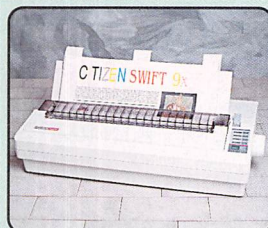


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- Citizen Swift 24e - 24 pin - 80 column
- 216cps Draft, 72cps LQ
- 8K Printer Buffer + 6 Fonts
- Parallel Interface
- Graphics Resolution: 360 x 360dpi
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- **FREE Colour Kit**
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RRP £369
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TOTAL VALUE: £506
SAVING: £337
SILICA PRICE: £269

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PRINTER + SOFTWARE + COLOUR

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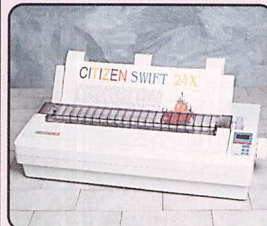


192 CPS 80 COLUMN

- Citizen 224 - 24 pin - 80 column
- 192cps Draft, 64cps LQ
- 8K Printer Buffer + 4 Fonts
- Parallel Interface
- Graphics Resolution: 360 x 360dpi
- Epson and IBM Emulation
- Colour Option Available
- **FREE Silica Printer Starter Kit**

RRP £269
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TOTAL VALUE: £294
SAVING: £95
SILICA PRICE: £199

£199
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192 CPS 136 COLUMN

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

RRP £489
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TOTAL VALUE: £514
SAVING: £165
SILICA PRICE: £349

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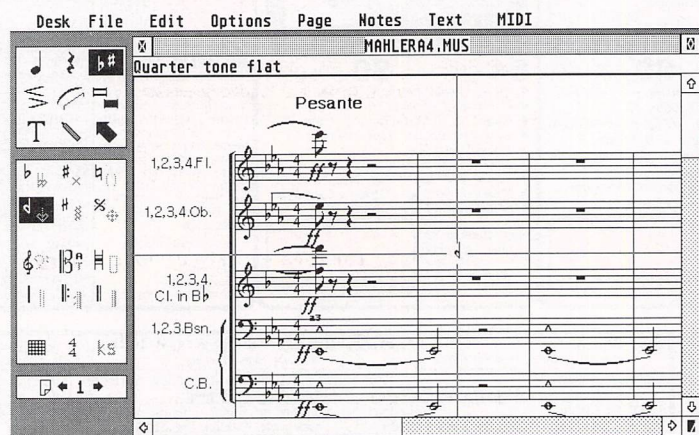
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Music DTP is the ultimate publishing system for music. It is the only professional program of its kind for the Atari ST, and is used by musicians, composers, orchestras, copyists and publishers.

Unlike other packages, Music DTP is based around the page layout, for complete control of the final result in the highest quality. You have complete control over spacing, text fonts, note beaming, line thicknesses and a variety of other parameters. It is powerful to use, but simply laid out, and easy to learn.

The new version of this program incorporates many new features, including real time MIDI input, playback of scores, graphics functions including import and export, automatic proportional spacing, and MIDI file import and export. This allows the transfer of files from sequencer packages for typesetting and printing.

£260+VAT
Demo. available

For more information and example printouts, contact:

Take Control

Institute of Research & Development, University of Birmingham Research Park,
Vincent Drive, Birmingham B15 2SQ, England.

Tel. 021 415 4155. Fax. 021 415 4156.

Welcome to Aspects of the Atari ST

Atari ST User brings you six special pages devoted to your very own favourite ST subjects, starting here with **Midi and Music**

Emulation.....	99
Communication	101
Desktop Publishing	103
Business.....	105

There are lots of interesting music programs lurking in the vaults of PD libraries. Name This Tune is a trivia quiz music program, designed for two players. You can play it by yourself but half the fun of a trivia quiz is in beating your opponent to the answer!

It runs in med-res and you'll need a couple of joysticks. It is supplied on two disks, one containing the program, the other containing a music database with over 100 tunes.

You load the database from the program so you can use tunes you've created yourself, or obtained from other PD sources. The author offers additional music disks for a nominal \$5 (plus \$2 p&p) – yes, it's American.

The screen is divided in two, each showing part of the list of tunes. During play, the program reads and plays a file at random and each player uses their joystick to scroll through their list and select the name of the tune.

The faster you guess the tune, the more

Name this tune

points you score. Most tunes are around 30 seconds to a minute long. If you guess incorrectly you lose points. You can specify how many points are required to win the game.

Unfamiliar

There are several tunes on the disk which I suspect will not be familiar to many UK users. However, after repeated play, all will become familiar.

When that happens, you can invoke some of the Variation options. You can change the tempo, skip notes so only every other note plays, and invert the tune which makes the high notes low and vice versa. Interesting.

The program is written in GFA Basic and scrolling through the tune list windows

causes the music to jerk! Playback can be through the ST's monitor speaker (so-so) or via Midi (much better).

Name This Tune is a great way to spend a few hours pitting your wits against a like-minded musical friend. It is available from Floppyshop on two disks at £2.50 each. Tel: 0224 312756.

The Musicians' Heroes, Heavenly Music, have released three new disks. You may recall their collection of rhythms grooves, Dr Beat, which we looked at in January.

RamJam and Guitar Classics I and II are three disks of files in a similar vein saved in Midi file format but, unlike Dr Beat, these are complete multi-part arrangements.

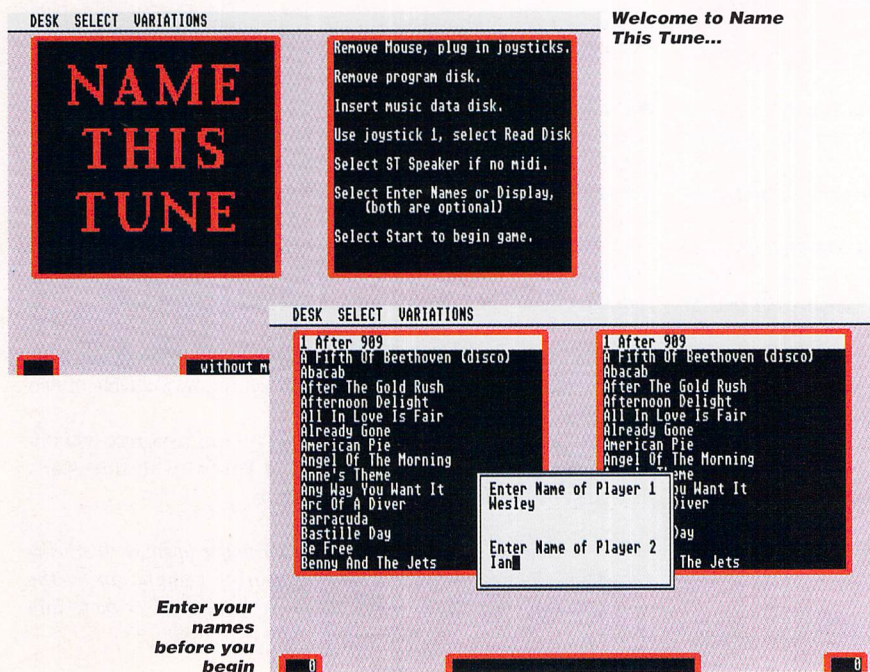
RamJam, as you might expect from the name, is a collection of ten backing tracks for you to jam along to. The names will give you an idea of the musical styles – Blues, Funkjam, Fusion, Jazzswing, Jig (brill!), Rhythm & Blues (mega!), Laidback and Salsa.

Most Jams have an intro, a theme, a jam and an ending. The idea is that you loop them, transpose them and alter the tempo according to your mood and the dexterity of your appendages. There are solo tracks which show the sort of things you can do and they include a selection of scales and notes.

The on-disk instructions contains hints and tips which are well worth taking note of (sorry!), especially if you are a new to jamming. They included topics such as feel, space, density, sparseness, dynamics and bluff – the latter being the most essential ingredient in any jamming muso's armoury.

There's also a section on scales and, as the file so correctly points out, knowing your scales is a major part of learning how to jam.

Guitar Classics I contains four titles – Black Magic Woman (Santana), Breezin' (George



Midi and music

Ian Waugh with some heavenly new releases, tantalising trivia and the latest the BMF

Benson), Hocus Pocus (Focus) and Them Changes (Jimmy Hendrix).

Guitar Classics II contains Layla (Derek and the Dominoes), Reeling In The Years (Steely Dan), Soul Sacrifice (Santana) and Jingo (Santana).

These are note-for-note backing tracks, ostensibly for guitarists to play along to. The review copies had no melody lines but Joe of Heavenly Music is considering adding these and they should be available as you read this.

Part of the problem is lack of memory – the ST's, not Joe's! Some of the pieces are 50 to 80k long and are only just able to squeeze into a bare-bones Cubase running in 1Mb with no desk accessories or auto programs.

The lead lines may well be supplied as separate files, possibly with a cut-down backing. It's interesting to note that lesser-specified sequencers leave more free memory.

Universal mapping

All tracks are configured for Roland's MT-32 but they are labelled with their respective instruments so you can map them to any other instrument. A drum map is supplied. All the pieces were programmed on Cubase using a Roland U220.

RamJam and Guitar Classics are £12.95 each. More from Heavenly Music, 39 Garden Road, Jaywick Village, Clacton-On-Sea CO15 2RT. Tel: 0255 43217.

Great things come in little bundles. So it is with Tesseract's Midi Doubler. It has been designed for C-Lab Creator and Notator users who would like another 16 Midi channels but who are reluctant to part with £132 for C-Lab's Export.

As you know, Midi was designed to handle 16 instrument parts at a time which it transmits on 16 separate Midi channels. More than enough for most users, you might think, but there are several benefits to having an addi-

of a lot Less)
DYNAMICS - How soft or hard you should play a phrase)
ACCENTS - 8ths, 16ths with or without triplets - try accenting on the up (or the AND) of beats creating intentional but PRECISE HOLES in a phrase.
BLUFF - The art of playing a wrong note in a phrase and turning it into a passing (right) note without the listener being aware that it has even happened.
REPETITION & MIMICKRY - If you play a line or a phrase that went well, then there's no reason why you shouldn't do it again and again then once more with a slight variation hopefully taking you to your next phrase.
SCALES.....Play the minor blues scale in the relative minor to the major key you're in. For example....say that you are jamming on the 'JIG' which is in A major. The relative minor would be F#. The minor blues scale works like this.....1st or Root, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th, 101st, 102nd, 103rd, 104th, 105th, 106th, 107th, 108th, 109th, 110th, 111th, 112th, 113th, 114th, 115th, 116th, 117th, 118th, 119th, 120th, 121st, 122nd, 123rd, 124th, 125th, 126th, 127th, 128th, 129th, 130th, 131st, 132nd, 133rd, 134th, 135th, 136th, 137th, 138th, 139th, 140th, 141st, 142nd, 143rd, 144th, 145th, 146th, 147th, 148th, 149th, 150th, 151st, 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International rescue

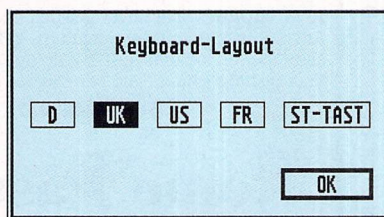
We have been told so often to prepare for 1992 that you may be excused for wondering what all the fuss was about now that the year has actually arrived.

The completion of the European internal market does not come into effect, however, until the end of the year, so we should really have been talking about 1993 all along, I suppose.

Never mind, being able to cope with many different languages and currencies is more important than ever and even the most insular computer user will sooner or later be required to mention francs or pesetas and cope with those weird continental accents with odd squiggles assailing your letters from all angles.

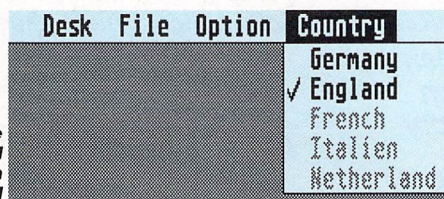
The German-made DOS emulators available for the ST are pretty good at this, most of them offering various language options to choose from at the configuration stage. But you will often want to switch between, say, English and French without having to drop back to TOS and reconfigure your system.

To accomplish this from within DOS – and



With ATonce, the basic choice is between German and British keyboards, although others can be supplied

AT-Speed allows you to select from a choice of standard languages from the Installation menu



I am referring here to v3.3, still the most widely-used – it is necessary to understand the operation of the Country and Keyboard commands.

These commands are usually included in the CONFIG.SYS file read at bootup, but there is no reason why they should not be used at any time during a work session.

Before v3.3, the keyboard layouts were defined using the Keybxx command, with xx being replaced by the national identifier, ie Keybuk for the United Kingdom, Keybfr for France, Keybgr for Germany and so on.

From v3.3 onwards, you need to enter Keyb followed by the national identifier – fr, gr, uk, it etc – and the name of the key-

board layout file, usually Keyboard.sys as on your system disk.

You can also specify a so-called “code page”, but this would not work for most of the screen modes supported by the emulators so you best ignore the more obscure language-related commands you may find in the manuals, such as Nlsfunc, Mode, Chcp and so on.

To switch from the standard UK keyboard layout to a German one, just enter:

```
KEYB GR, C:\DOS\KEYBOARD.SYS
```

assuming that the latter file is in a directory called C:\DOS\ as it should be.

The Country command defines the date and currency formats as well as the decimal notation system and requires a national identification code such as 061 for Australia, 049 for Germany, 044 for the UK – these appear to be related to the international telephone dialling codes.

So to switch to German as in the above example, enter:

```
COUNTRY=049,,C:\DOS\COUNTRY.SYS
```

the latter again being the country driver file as supplied on your system disk. With DOS versions below v3.3, only the country identifier code is needed as a parameter.

Next month, we shall have a look at how the Apple Mac handles foreign languages and how, using Spectre GCR, you can switch between different keyboard layouts and even define your own custom keyboard.

Please select your language
Bitte Sprache auswählen
Choisissez votre langue

DEUTSCH ENGLISH FRANCE

SuperCharger demonstrating its multilingual prowess – no problem if you speak no English!

Pushing the PRAM

The Apple Mac has an extremely flexible Control Panel which allows for a number of utilities called CDEVs (Control Panel devices) to be installed.

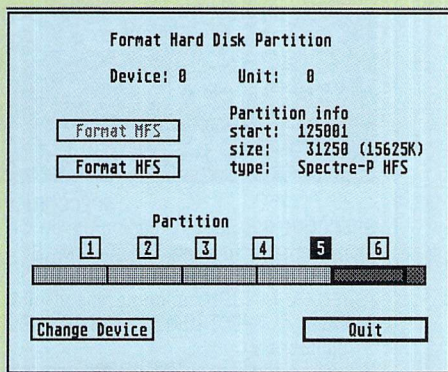
Most of these are for setting the defaults concerning your Mac's basic operation, such as mouse speed, keyboard, desktop pattern, sound volume and so on.

On standard Apple machines, these values are saved to a battery-backed RAM area known as Parameter RAM (or PRAM for short), but emulators come without batteries so one of the most annoying aspects of Mac emulation used to be that any Control Panel settings made were lost following a reboot and had to be repeated every session – until v3 of the Spectre software, that is, which now saves the PRAM settings to disk.

This is done automatically, but you must remember two things first – Parameter RAM can only be saved to hard disks, not floppies, and secondly, your hard disk partitions must have been formatted under v3.

It does not matter if they are formatted as HFS or MFS (for use with Transverter), but if you are installing v3 on a system originally set up with previous versions, I am afraid there is no alternative to backing up your files and reformatting the hard drive if you wish to take advantage of this very useful new feature.

This is a good idea in any case, as the new hard disk format used by v3 is superior to the older one in many other respects also.



The “P” following the hard disk partition name indicates that it has been prepared for Parameter RAM

Spectre printing problems

If you are getting blank pages when trying to print on an Atari laser using the ImageWriter emulator of Spectre GCR, make sure that the page size is set correctly in the Configuration page.

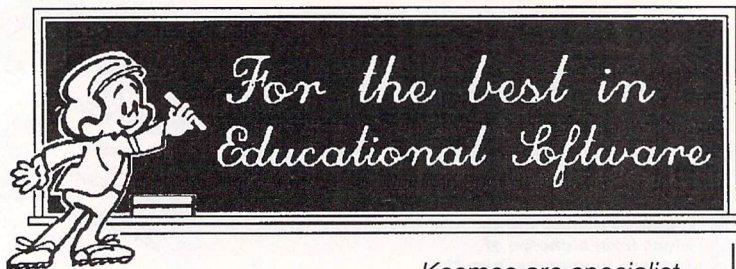
The default setting is US letter, and needs to be changed to A4. If you get absolutely nothing at all out of your laser, then check that the SLM804 item is checked in the Printer menu and that the laser's DMA number is correct in the Options menu.

And while talking about Spectre's printing antics, I would very much like to hear from anyone who has successfully outputted Mac files directly to a PostScript printer using the asynchronous LaserWriter driver and a serial link as described in the v3 update manual.

I have had queries from users who were unable to make this work and, not having a PostScript printer myself, I have been unable to investigate this problem further.

Emulation

Günter Minner helps you prepare your PC-in-an-ST for the European market, and highlights a new feature in Spectre v3



SUBJECTS

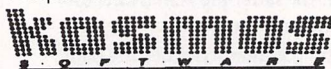
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Fax modems and software

Fax modems and software allow your ST to behave just like a real fax machine, sending and receiving faxes to and from any other Group III fax machine around the world.

The real advantage of such a setup is that you never need to print your documents before sending them. Instead, the computer can generate a fax directly from an Ascii text file – or even from a DTP layout.

Equally, incoming faxes can be displayed on-screen or saved to disk, allowing you to decide whether or not you need a printed copy at all.

Joppa are no newcomers to the fax market, having previously marketed a receive-only hardware/software combination called simply JoppaFAX.

Their new package, STraight FAX, goes one stage further by providing two-way fax capability, and expanding the range of modems which may be used. It supports the Class 2 and SendFAX standards, so any modem which conforms to either of these will work.

These include the Supra range, Zoom, and any other modems based on the industry-standard Rockwell or Sierra chipsets.

STraight FAX boasts printed output via GDOS or FSMGDOS, or via a dedicated Atari laser driver, and it can save faxes as image (.IMG) files for merging into other packages.

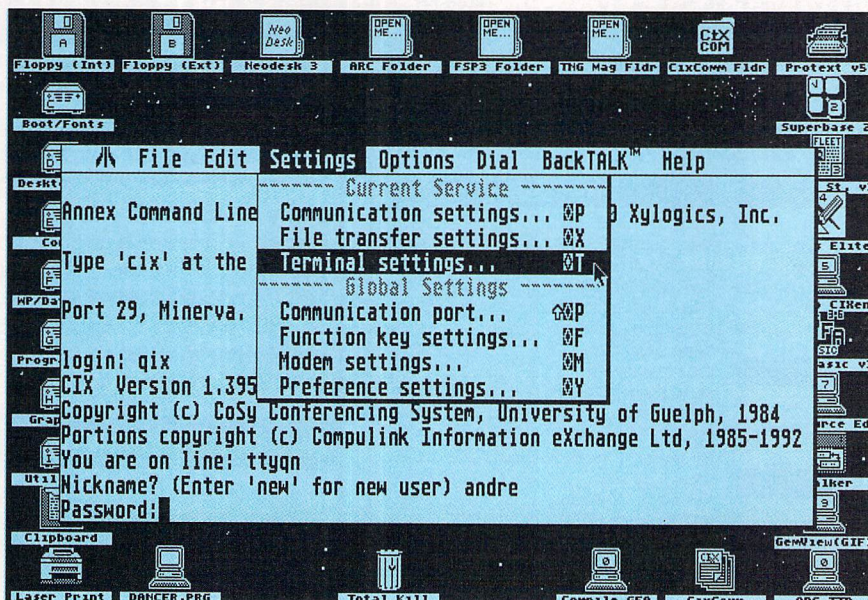
Fax drivers are supplied for PageStream, Calamus and FSMGDOS, and it supports input scanning via the ScanLite accessory, which can be used with Migraph, Golden Image, DAATAScan and Geniscan Hand Scanners. There is also a 100-number fax directory list, with multiple destination options and advanced scheduling of up to 30 faxes. It can also send multi-page documents.

The other contender for the fax market, Junior Office, hails from Germany and is handled in the UK by System Solutions. They can supply the software either as a standalone package or complete with modem and cables.

Basic operation is very similar to STraight FAX, but with one or two rather useful additions.

Firstly it can run as an accessory, bringing up a dialogue box to inform you when an incoming fax is detected, allowing you to receive or ignore it. Secondly, fax pages may be set up via an object-oriented page editor.

You can even call external programs from within Junior Office – maybe a wordprocessor, or a DTP package to generate logos.



STalker in use as a desk accessory

Serious crosstalk

The ST comms scene has been rather quiet over the past year or two, with little in the way of innovative new software appearing.

However, two major new comms packages have just been released in the US, and the booming computerised fax market has at least reached the ST at realistic prices.

This month we'll take a brief look at some of the latest offerings. Full comparative reviews of these products will be published over the next couple of months.

The Flash communications package from Antic Software was always a firm favourite of mine, but is now rather long in the tooth. Not only does it not support the more recent file transfer protocols such as Zmodem, it doesn't even work on the TT!

On a mission

When *Antic* and *STart* magazines crashed in the States, the future looked gloomy for any updates to Flash from their associated software arm.

Thankfully, Missionware stepped in and took on the project, and they have just released a completely rewritten version which still retains the features and ease of use of the original.

It uses an extended – but compatible – version of Flash's powerful DO script language, and boasts an improved auto-login system, fully automating the username/password procedure.

It emulates all of the following terminals: TTY, VIDE, VT52, ANSI, VT100, VT101, VT102, VT200, VT300 and Prestel, and it supports ST, IBM and DEC characters sets.

As well as an improved capture buffer/text editor system, it also provides a three-line type-ahead buffer, multiple function keys and the option to automatically load new definitions to match each new login.

All in all, an impressive package. Gribnif

Software have an excellent reputation for their NeoDesk desktop replacement package, so anything they take on board has got to be worth a look.

STalker is an innovative comms package – very powerful and versatile but still small enough to be used as a desk accessory.

When used as an accessory, all operations – including scripts, uploads and downloads – can be performed as “background” tasks, leaving you and your computer free to run other programs while STalker gets on with the comms work for you.

It runs in a fully resizeable GEM window. The scroll bars may be removed for a full 80-column display, and drop-down menus appear at the top of the window.

Virtual screen size can be larger than the visible window, and you may scroll backwards or forwards through your online session at will.

It supports terminal emulation for Atari VT52, VT100 and ANSI, and file transfer protocols include Ascii, Xmodem, Xmodem 1K, Ymodem/batch, Ymodem-G and Zmodem.

It boasts a stunning compiled script language, BackTalk, which provides a powerful C-like environment with procedures, loops and conditionals, as well as full numeric and string variable handling.

Its remote (mini BBS) mode allows you to log in to your own computer from another modem. Passwords are used to access a simple upload/download menu, or a full CLI environment is available if you prefer.

communications

The start of 1992 has seen a flurry of activity on the ST comms front. André Willey takes a look

Further information

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Tel: (708) 359-9565

Product: STalker 3
Price: \$89.95

Supplier: Gribnif Software (USA)
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Product: STraight FAX!
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Product: Junior Office
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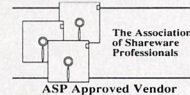


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Spot the difference

Steve Malone from Chichester has written to ask what the real difference between wordprocessors and DTP programs is, and whether he should include programs like Calligrapher Professional and WordFlair on his shortlist.

There's no real dividing line between WP and DTP, but there are some basics which all DTPs should include. A program which has no basic control of typography – the selection

of font and point size – is not a desktop publisher, though it might well be a word-processor.

Ideally it should provide style tags, too, so typographical changes can be made quickly throughout a document. The inclusion of graphics within the page is also pretty fundamental to DTP.

If your program can only hold text, it may be able to produce effective pages, but it will

be limited in the types of document it can compose.

Finally, there's the ability to place objects anywhere on the page – not just text or graphics in columns, which many wordprocessors can manage. Objects don't have to be put in frames to achieve this, though frames are an easy concept to understand and to use.

Using these three tests, you can get some idea of whether a program can be described as a DTP. Calligrapher Professional is an obvious candidate. It provides both bitmapped and outline fonts and can size and style them simply from pull-down menus.

It can import bitmapped and vector graphics, though it's not so easy to move and reposition them. Where it bottles out is in positioning text. You can flow it into columns and break those columns up, but you don't have the freedom to produce randomly positioned text for advertising fliers and the like.

Better positioning

WordFlair, the "document processor" from HiSoft, does better in positioning objects, which it defines in Write, Calc and Graph regions. These you can move easily around the page. You can also import image and metafiles, resize and move them around the page, but you can't easily crop them to fit a given frame.

Font support is confined to GDOS bitmaps, but then it is in Timeworks Publisher, too – the most popular DTP on the ST. In the end, as with all software choices, it comes down to fitting the software to your particular needs.

If your requirements include regular layouts but with graphic content, then Calligrapher Pro is a good choice and has the benefits of a spell checker, outliner, footnotes, and a table editor.

Tables are also well catered for in WordFlair and you can tie a table to a chart within the same program so that altering figures changes the chart automatically.

True DTPs like Timeworks, PageStream or Calamus offer greater freedom of layout, but without the core wordprocessing of either of these two.

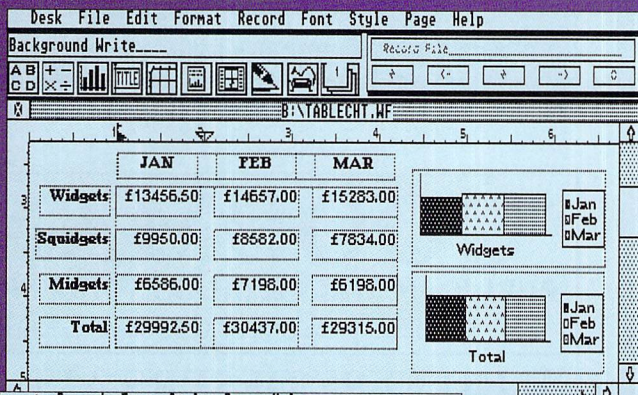
Turning the tables

It's worth looking at WordFlair's ability to tie tables to charts a bit more closely. Reports and accounts which include figures and related charts can be laid out really quickly using this facility.

For those who haven't used WordFlair, the program can take text on the background to the page and within defined areas known as Write Regions.

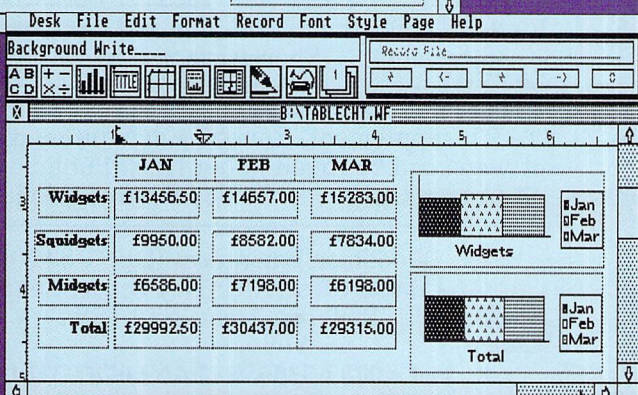
It also has separate areas for tables and graphs, called Calc Regions and Chart Regions, all of which can be defined by stretching a rubber-banded box in traditional GEM fashion. Once defined, these regions have properties specific to their function.

The regions defined for Jan, Feb and Mar sales are linked to the accompanying graphs in WordFlair



Change any of the figures calculated within one of the Calc Regions and...

...the corresponding graphs immediately reflect the changes



Calligrapher Professional can produce fonts in a wide range of sizes and styles

desktop publishing

Charles Michael on the difference between wordprocessing and DTP, and WordFlair's graphs and tables features

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One of the possibilities opened up by powerful home computers for the small business or home user is the preparation of newsletters and booklets. Pick up a copy of *Exchange & Mart* sometime and you will find hundreds of "manuals" offered for sale.

These publications offer all sorts of business and hobby advice from casting chess sets to becoming an insurance broker. All have one thing in common. They are generally small booklets where the author has specialist knowledge of his or her particular market, and wishes to make some money on the side.

While many of these publications are not worth the paper they are printed on, some do give excellent advice to budding entrepreneurs. If you have a skill you can use your ST to break into this market, although you must be prepared for a lot of hard work at a not inconsiderable risk to your capital.

Basic

So how do you go about it? First of all there is no need for fancy DTP packages – a basic wordprocessor is all you need. Although the addition of clip art and other illustrations enhance your offering, the people buying these manuals do so by mail order and are more interested in what you have to tell them than in how it is presented.

By this I don't mean you should copy some unscrupulous operators and offer a badly photocopied A4 sheet for £10 to £20. What you can do, though, is offer a tightly written business plan telling of both the pitfalls and the advantages of your chosen scheme.

As for equipment, there's no need to invest thousands in laser printers either. A simple 9-pin dot-matrix printer is perfectly adequate to achieve a reasonable quality of reproducible print.

A simple way of creating excellent reproduction is to set pages out on A4 paper then have them reduced by 50 per cent before copying. This method tends to crisp the edges left slightly fuzzy by dot matrix printers while still giving quite a legible font size.

Unrecognisable

It's worth taking care with the font you choose though, as many fonts convert the letters "n" and "m" to unrecognisable blobs by this process.

Another point to watch if you plan to take the reduction path is that of margins. Once the pages are reduced and pasted for copying or printing you will end up with the elements of a booklet (four pages to one double-sided copy) and the margins next to the binding or stapling area of the page needs a wider allowance than that next to the open edge.

Most wordprocessors allow you to adjust

the ruler which guides text placement on a page. If yours doesn't then you will have to do this by hand.

Given that these manuals are generally no longer than 32 to 40 pages, it isn't a particular hardship to sort pages by hand and adjust the relevant margins before printing. Alternatively the pages can be manually trimmed and pasted together after reduction.

A great maxim in the world of potential authors is "write about what you know". Now perhaps you don't think you know anything, but sit back for a moment and consider...

Do you have a hobby? Are you a keen collector of beer-mats? Perhaps you've been trained informally as a bookkeeper. Maybe you're an avid gardener with lots of short-cuts acquired over the years.

Any subject like this has the potential to be a money-maker for you. Knowledge that to you is obvious because you know it so well can be very valuable for the beginner. Remember when you first faced a computer with only the unfriendly and jargon-ridden manual to help you?

What would you have given then for a no-nonsense guide telling you all the little tips and tricks which you have since acquired the hard way?

Treat your subject like this, leading the newcomer by the hand, and you won't go far wrong.

Promoting your manual is very simple, but hitting the target customer demands some thought. It's no use advertising a booklet on fly fishing in a mother and baby publication, and similarly you wouldn't advertise revo-

lutionary knitting techniques in *Playboy*. For hobby manuals the best place to start is in the pages of the magazines and periodicals where you read about your hobby for yourself. For business-oriented manuals the local paper is a good place to start, in the "business services" column of the classified section.

Worthwhile

Whether it is all worth it rather depends upon your point of view. How long is a piece of string? Given that you probably have all the basic equipment and knowledge already it is a worthwhile venture as a hobby, a pin-money maker or even when expanded a part/full time business.

However, don't be misled into thinking it's easy. The writing certainly shouldn't present many problems, but selling almost certainly will.

If you have a small amount of capital and some spare time it's well worth giving the idea a go. Sell just one copy to a complete stranger and you'll have to adjust your hat size!

Costing it out

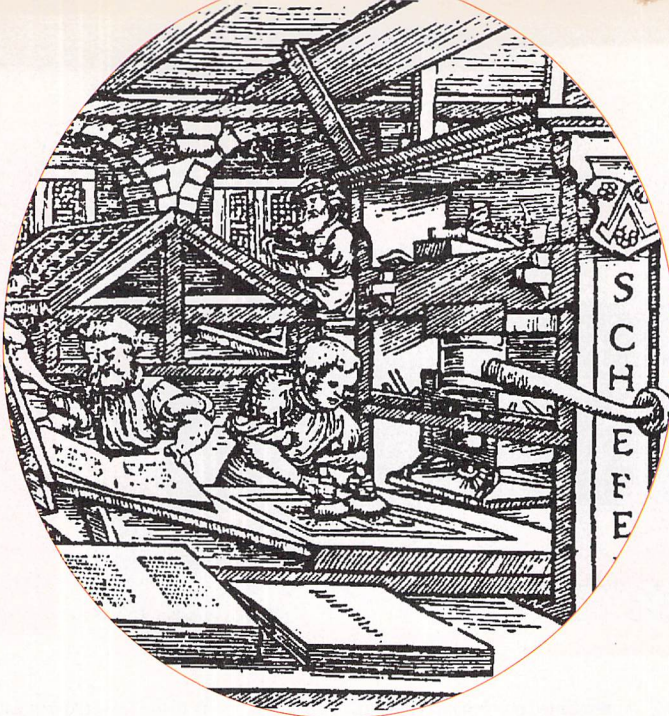
As you are likely to be selling by mail-order, you need to consider postal rates when planning the size and price of your masterpiece. As stated earlier, an A5 booklet produced from A4 pages reduced by half is a good starting point. Each A4 sheet will give you four pages – two each side – so a 40-page booklet will take ten sheets of double-sided copying.

This also happens to be about the maximum weight – with envelope – which will stay within the minimum postal band. If you allow one of those sheets for the cover – easily printed on a separately coloured sheet of paper – you will be looking at about 15,000 words of body text, or about 15 pages like this one.

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But depending upon the potential value to the reader, this cover price could easily be boosted to between £5 and £10 while still offering perceived value.



business

Selling your home produced booklets and newsletters isn't as difficult as it seems. Paul Winstanley on how to often overlooked money-spinner

Need some specific advice on this or any other topic covered in this column? Something you'd like to see that hasn't been covered yet?

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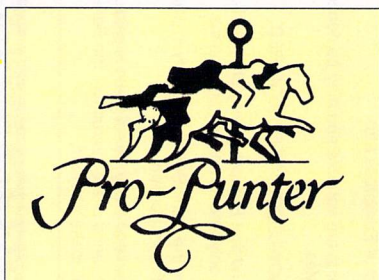
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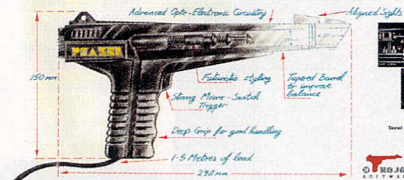
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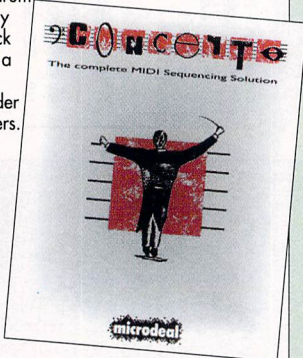
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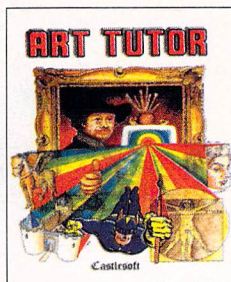
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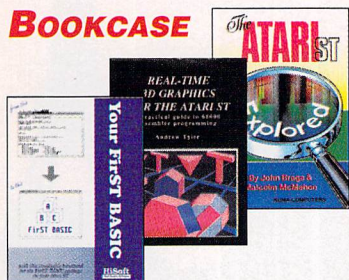
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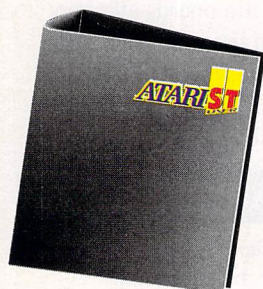
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THE Last word

Gamer loss shocker

In a blindingly fast and unsuspected manoeuvre, Darren Evans has shocked the Gamer crew by accepting his new position of technical editor of *ST User*. Still under shock and dismay, Daniel Whitehead had this to say:

"We just don't know what we're going to do now. We were counting on Darren to tackle the type of games that require three hours study of the manual before you even load them up – you know, Flight Sims and monstrous RPGs.

"Now it looks like Biffa and myself will have to cope with that. It's all rather daunting really. Biffa is still on a pure oxygen respirator since collapsing at the news."

We approached Darren for his views on his former colleague's reaction to his new position and he seemed quite astonished:

"I'm quite astonished. I thought my duties at *Gamer* were to brew up and buy all the rounds when we were at the pub. I never suspected that they actually wanted to tap my vast game-playing experience. I don't know what to say."

Upon hearing Darren's side of the story, we tried to locate Dan and Biffa but were told that Biffa's oxygen supply had been exhausted and he had lapsed into a delirious state.

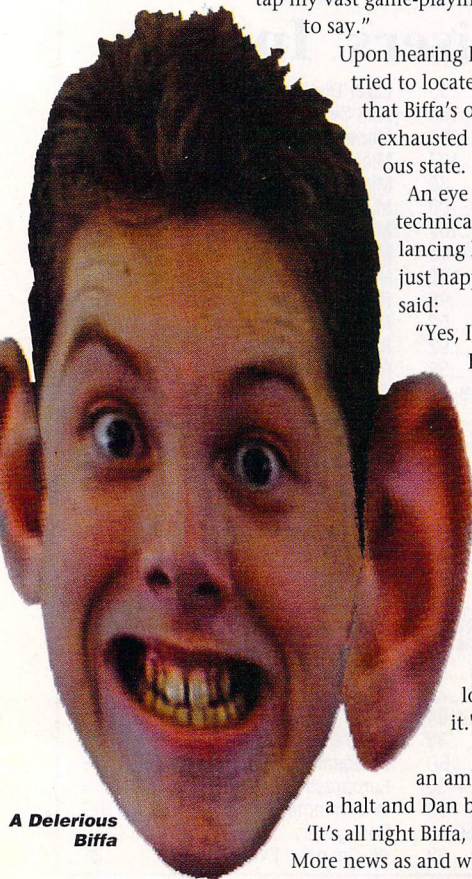
An eye witness, Andrew Wright (former technical editor for *ST User*, now free-lancing his way to his first million), who just happened to be visiting the office, said:

"Yes, I saw Dan just five minutes ago. He was trying to prise some young lad off a rather large oxygen cylinder. I think the lad's name was Biffa, at least that's what it said on his badly fitting T-shirt.

"The youngster was maniacally sucking the cylinders valve while screaming 'I can't cope. Have you seen the size of some of those manuals, some of the words are even five letters long. It's no use! just can't handle it."

"The next thing I remember is an ambulance suddenly screeching to a halt and Dan bundling Biffa into it shouting, 'It's all right Biffa, we'll be all right, we'll cope'".

More news as and when we receive it. For now, we must be patient and await news of *Gamer's* fate.



A Delirious Biffa

ST User at the 6th International Computer Show incorporating the 16 Bit Computer Show

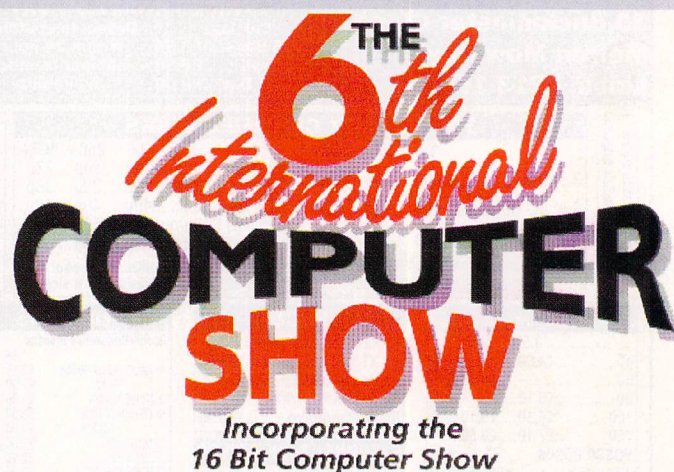
Meet some of the team behind *ST User* at the International Computer Show. The show will feature all aspects of the ST as well as the PC, Amiga, and consoles.

ST User, *Amiga Computing* and *Shareware Shopper* are sponsoring the event, which is Europe's biggest show, and you will be able to talk to some of the hard working and dedicated peeps who sacrifice all to bring you the best magazines for your machine.

All this takes place at the Wembley Conference and Exhibition Centre in London from July 10 to 12 (Friday and Saturday 10am to 6pm, Sunday 10am to 4pm).

As well as the chance to snap up some bargains and see the very latest in software and hardware, there will be seminars, demonstrations, hands-on opportunities, free advice centres and rides.

It promises to be a great day out for all, so come along and see us.



Food for thought

An obscure phrase spotted on an obscure poster:

What was the best thing before sliced bread?

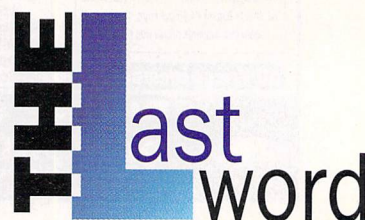
More food for thought

Another obscure phrase from the same obscure poster:

If cigarettes kill, why are they accounted for in the cost of living?

NEXT MONTH

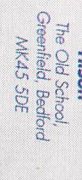
The next issue of *ST User* will be on sale on July 9. It truly is the meaning of life as we know it, so make sure you don't miss out.



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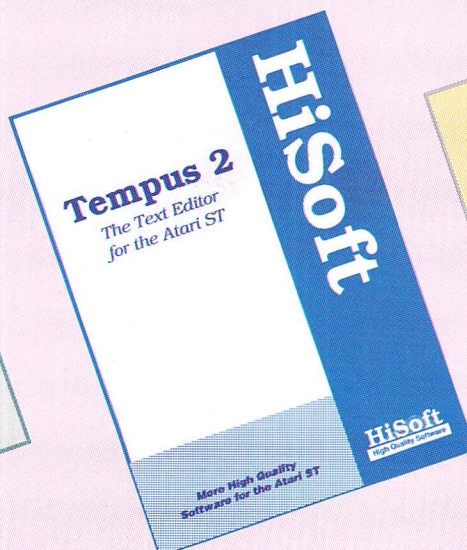
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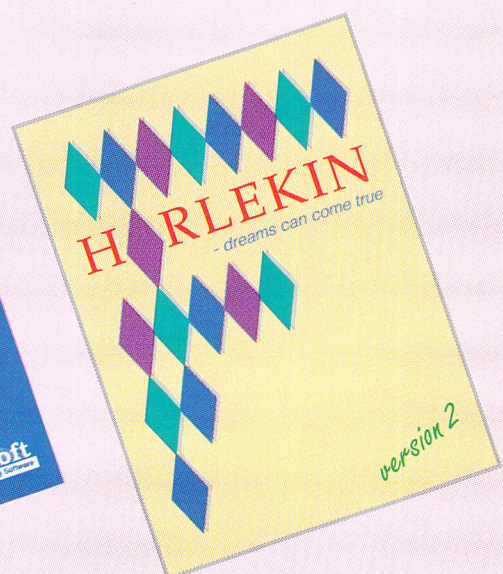
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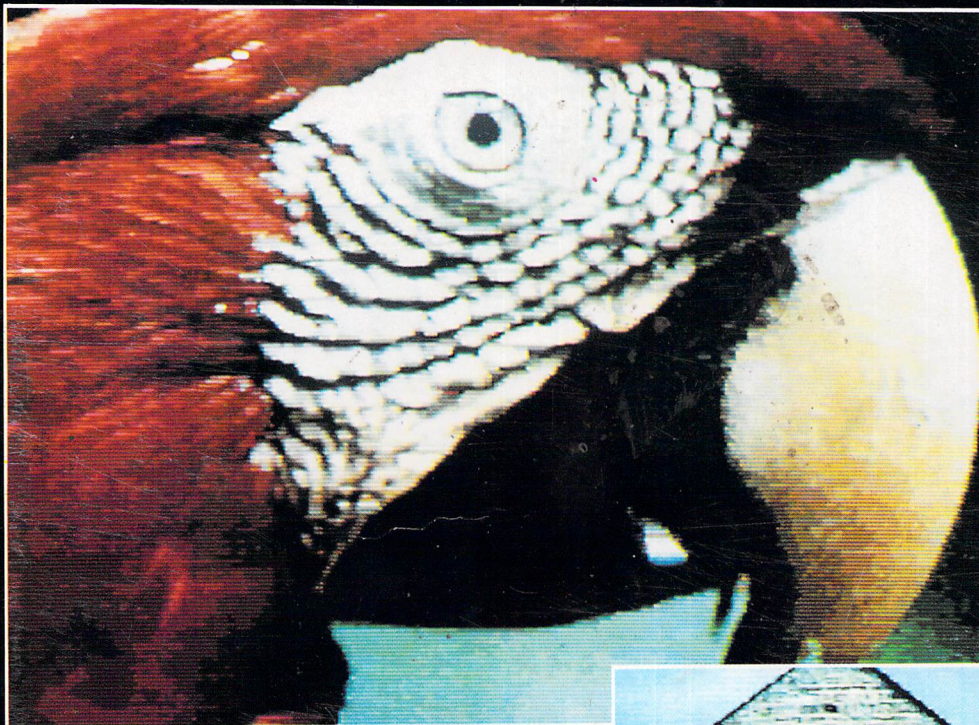


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