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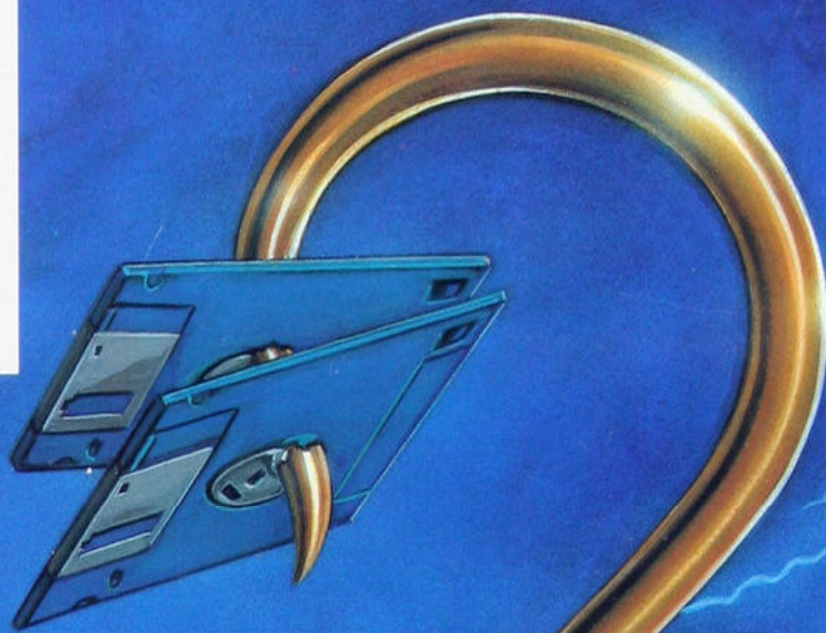
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GDOS
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ST FORMAT GOLD

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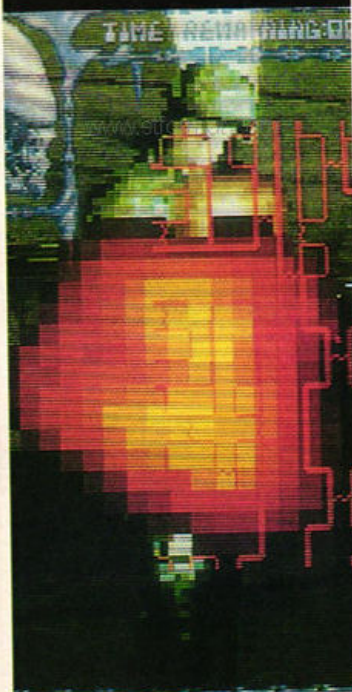
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CONT

JAGUAR™

What's going on

- **JAGUAR NEWS**
What's the latest on the Jag's sales and who's the latest British developer joining the ranks?
- **PREVIEW: ALIEN VS PREDATOR**
It's the game everyone's been waiting for... find out how it's shaping up
- **PRESENTING... REBELLION**
Programmers of the ground-breaking AVP.



ARE YOU KILLING ST GAMES?

What effect has piracy had on the future of the ST software industry? Find out on page 21



DA'S PICTURE

How does this complex graphics program compare? See page 40



DIY MONITOR SWITCHER

Follow our simple steps to change monitors in one easy movement. See page 32



COVER DISKS 58



Can war be fun? Check out our exclusive demo of Cannon Fodder



TURN TO PAGE 12 FOR YOU

ST ABC Jan - July 1993
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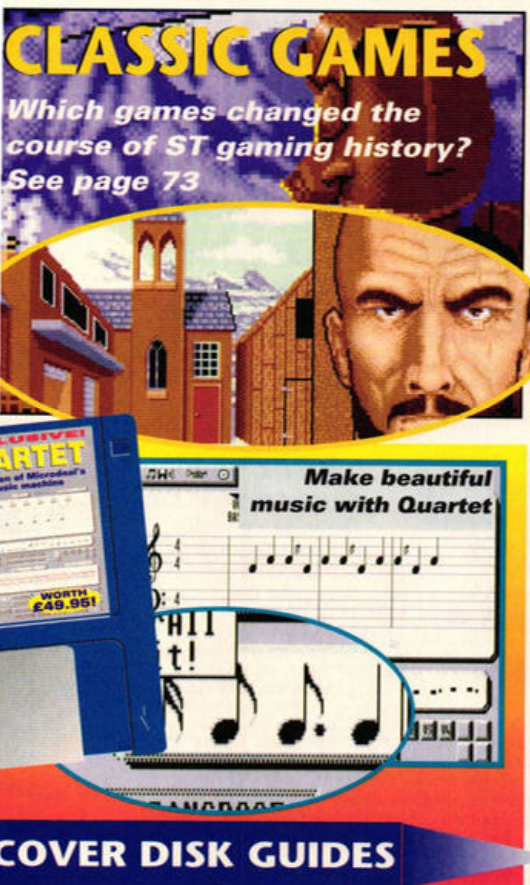
MONITOR MADNESS

Sort out which monitor you need for what!
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PHOTO SHOW PROFESSIONAL

Display stunning pics like this on your Falcon. See page 48



CLASSIC GAMES

Which games changed the course of ST gaming history?
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COVER DISK GUIDES

Make beautiful music with Quartet

WORTH £49.95!

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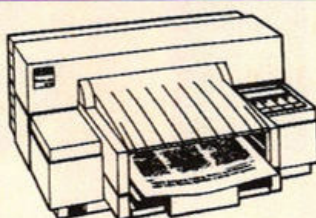
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NO MORE STES FOR UK UNLESS...

The final consignment of STEs to arrive in the UK has arrived and most of them are expected to fulfil the backlog of demand for the machines experienced by distributors such as Spire Technology and SDL. So if you wanted to upgrade your STFM to an STE you're out of luck... at least for another three months.

Although Atari maintain that they're still supporting everyone who possesses one of their machines, whether you've got an

"If there is a demand for STEs by way of solid order, we will fulfil that demand"

Darryl Still, Atari UK



they haven't closed down or sold any of their production capacity – and with a minimum order of that size they can get the machines to you within 90 days.

Darryl Still of Atari UK explained: "If there is a demand for STEs by way of solid order, we will fulfil that demand." We spoke to Spire Technology, a major distribu-

Although there are millions of STEs out there, new ones could soon be very rare indeed.

tor of Atari machines, who explained that they thought they'd be able to sell hundreds of STs many times over and so to achieve an order of 2,000 certainly would be very realistic – "however many STs we get, we sell them." First

Computers also agreed with that sentiment, saying that although they couldn't afford to order 2,000 themselves, it would definitely be possible to group together with other suppliers and reach the target of 2,000 machines. The message is clear – if you want an STE, get ready to place your order and you should be the proud owner of a spanking new one in three months' time.

The official position from Atari, as far as the ST is concerned, is that they intend to continue to support the format certainly until the end of the millennium, by working with software houses who continue to produce ST software, such as Gremlin, and

they continue to either repair machines or put customers in touch with third parties who can provide upgrades or new parts. This is all very honourable in theory, but realistically it does point to the fact that the computer side of Atari's business is taking a back seat while they get the Jaguar firmly in position.

CLAMPDOWN ON DISK THEFT IMMINENT

The cost of producing this magazine and others like it with cover mounted disks is increasing because of the popularity in car boot sales. These two things might seem as if they're completely unrelated but in fact they're not actually so far apart...

Somewhere between the time unsold copies of *ST FORMAT* come out of the high street shops and before they're returned to the wholesaler Cover Disks are being removed from the magazines, gathered together and then they somehow make their way into car boot sales where they're sold for something like a pound each. The wholesaler is, in fact, supposed to pulp the magazines and then redistribute the disks to the respective publishers.

It's illegal

The practice of interrupting this flow of unsold copies is illegal, so when the disks make their way into bundles and

"If you go to a car boot sale and buy any of these disks, you are receiving stolen property"

into the back of somebody's car, they are stolen. If you go to a car boot sale and buy any of these disks, you are

receiving stolen property, and if you're convicted of receiving such goods you could find yourself with a fine or prison sentence.

The Periodicals Publishers Association is planning a clampdown on this practice which is costing the industry as a whole a substantial amount of money – and Future specifically hundreds of thousands of pounds. It's putting up the cost of creating magazines which could lead to an increase in the price.

Some such cases are currently being investigated by the police in the



Kent area where several matters have come to light, but the problem is becoming more widespread throughout the country. So, if you come across any car boot sales where there are magazine disks for sale, report the matter to your local police.

SNIPPETS

Falcon TOS upgrades

If you have an older version of TOS 4 in your Falcon you should upgrade to the latest version, TOS 4.04. It contains software fixes to some minor hardware bugs in early Falcons that prevents some software running correctly – most notably software that uses the Falcon's sound system.

The official UK upgrade to TOS 4.04 is available from Compo Software (0487 3582) for £35 including fitting and return by courier.

Save £100 on the price of Cubase Audio

If the Cubase Audio feature in ST FORMAT 56 gave you the urge to try direct-to-disk recording, contact System Solutions, who are offering £100 off Cubase Audio if you buy it as part of a complete Falcon system.

System Solutions supplied the Falcon setup, hard drive and Cubase Audio software used in our feature, so give them a call on 0753 832212 for full details of prices and specifications of the system you'd like.

Sony super drive

Future computers from Atari – including the forthcoming Jaguar computer – could be using the new 2.5 inch mini-disc drive from Sony Corporation. The new discs and drives are based on their audio mini-disc technology and can store up to 140MBytes of data on them – that's 200 times as much as you get on a standard 720K floppy disk.

All's fair

The All Formats Computer Fairs continue to appear at venues around the country. Entry is £4 for adults and £2 for children; if you want to hire a stand it costs £60 for the day. You can usually find a good selection of new, second-hand and nostalgic software and hardware at these fairs, most of it at bargain prices. Call Bruce Everiss on 0608 662212 for more details.

Upcoming shows for April and May are at the following local halls and stadia around the country:

Saturday 9 April – Brentwood Centre, Essex

Sunday 10 April – University Union, Park Place, Cardiff

Saturday 16 April – Heydock Park Racecourse

Sunday 17 April – Ulster Hall, Bedford Street, Belfast

Saturday 23 April – Washington Leisure Centre

Sunday 24 April – National Motorcycle Museum, Birmingham

Sunday 15 May – Brunel Centre, Temple Meads, Bristol

Saturday 21 May – Heydock Park Racecourse

Sunday 22 May – National Motorcycle Museum, Birmingham

Saturday 28 May – Northumbria Centre, Washington

Sunday 29 May – Woodside Hall, St Georges Cross, Glasgow

PREVIEW: THAT'S WRITE 3

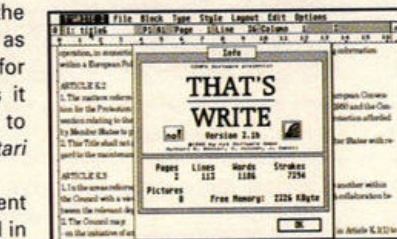
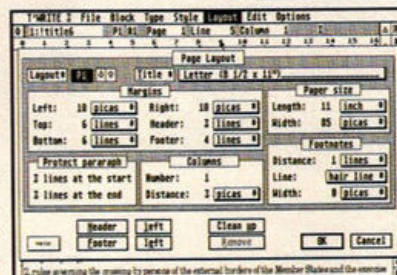
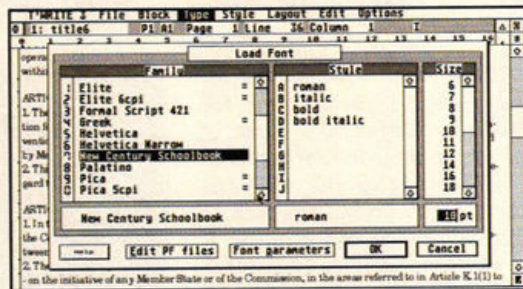
An early version of *That's Write 3* was on display at the CeBit show in Hannover way back in March 1993, CeBit has been and gone in 1994 and the English version of *That's Write 3* is nearly ready to go on sale. About time, too!

So has it been worth the wait? Well, it certainly seems so at first impressions – this version of *That's Write* is supplied on five main installation disks along with a separate disk crammed full of fonts and drivers – so you're certainly getting plenty of code for your money.

Superficially *That's Write 3* looks much the same as its predecessors and in general works in exactly the same way. There is a wide range of keyboard shortcuts that don't follow the Atari programming guidelines as used in almost all new software for the ST and Falcon, this makes it quite confusing if you are used to the standard shortcuts in Atari Works or True Paint.

Font handling is excellent with all scaleable fonts indicated in the Family window by an "=" sign; there are 22 fonts included with

That's Write 3 has a wide range of fonts available in its own specific file format. As a bonus *That's Write 3* is also SpeedoGDOS compatible.



That's Write 3, here at last and ready to go. Almost.

or modifying your documents is now quicker and easier.

Text import options have also been improved with special filters included for many different platforms. For example you can now import ASCII text in Mac, PC, NeXT, OS/2, Windows and Amiga formats without having to worry about strange or spurious characters messing up the text. Export options are equally versatile.

A wide range of layout options enables you to create pro-

Comprehensive page layout options mean you can design documents down to the smallest detail.



That's Write 3 is probably one of the most feature filled document processors you're likely to see on your ST.

fessional quality documents with the minimum of fuss, powerful editing commands enable you to create large documents – up to 999 pages – such as book and manuals easily. There are facilities to enable automatic generation of indexes and tables of contents with a single mouse click. One small disappointment, however, is that *That's Write 3* can still only import graphics in GEM Image (.IMG) format, Degas and GIF or TIFF files are still not supported.

With all these functions – and many more besides – *That's Write 3* looks as though it's going to be a force to be reckoned with. Give Compo Software a ring on 0487 3582 for details.

“Updating and modifying your documents is now quicker”

the program as standard with many others available from PD libraries. Many of the font functions appear to run faster, even on a standard 8MHz ST, so updating

ST ANSWERS... MIDI FILES

In last month's Music and MIDI section of ST Answers we caused a bit of a stir regarding the copyright of MIDI files – Heavenly Music and other commercial MIDI file creators quite rightly pointed out that the wording in the answer to the question entitled “Freebies?” was misleading. We would therefore like to clarify that if a MIDI file is edited and then resaved, the source (in most cases) can actually be traced. It would obviously be difficult but it's not impossible.

Data specialists are able to analyse and compare the data – something which, in the cases of breach of copyright, the copyright owners are only too keen to do. The

intricacies of programming music data can be compared in the edit pages of powerful software. Heavenly Music would also like to point out that all MIDI file data is copy-written at the time of release which would help to prove the source of the data and that much professionally written software does include documentation. As a respectable company they use the full weight of the law to ensure that their copyrights are protected... so don't push your luck – make sure you don't edit MIDI files, resave and distribute them. For more information on the punitive effects of pirating software, turn to our feature starting on page 21.

FREE ENTRY TO SPOTLIGHT 1994!

Save yourself a fiver and get into Spotlight 1994, a weekend show for both Atari and Amiga users, free. The show has been organised by Gasteiner and they're offering free tickets to the first 250 people who 'phone them up and say they saw the news piece in *ST FORMAT* and they'd like to attend.

The show is organised for the "more cerebral" user who's probably more interested in productivity than playtime, and you can expect to pick up software and hardware at

specially reduced priced as well as view a selection of higher-end hardware like scanners, digitisers, hard drives and video equipment. Companies who have committed themselves to attend include Power Computing, Golden Image, 16/32 Systems and First Computer Centre.

Spotlight 1994 is to be held on the weekend of 28 and 29 May from 10am at the Novotel Hotel in Hammersmith. For your free ticket ring 081 345 6573 - if you miss the first 250 tickets you pay £5 on the door or £3.50 if you buy one in advance.

ARTISTIC LICENCE

Good news for *GEM-View 3* fans who want to register their copy of this brilliant graphics converter program, you can now register the latest version in the UK.

Until now you've just had a choice of sending off your registration fee to the author in Germany or not being able to use *GEM-View* fully after 30 days, since a built-in timer disables many of the functions after this time period.

The problem with registering a German program has always been converting your cash into Deutschmarks, by the time you pay the commission on the exchange you can end up paying almost double the required registration fee.

All you have to do now is send £18 to Graeme Rutt, 4 River Terrace, Washbank Road, Eynesbury, St Neots, Cambridgeshire PE19 2ET. Graeme then sends you a special code which enables you to register your version of *GEM-View*, the code also works with any future upgrades to the program.

If you want a copy of the latest version of *GEM-View 3* then you can get it from Floppyshop (0224 312756) for £2, they are now the official UK distributors for all Shareware versions of *GEM-View* above v2.24. If any other PD library are distributing later versions than v2.24 of *GEM-View* they are doing so without the author's permission. Give Floppyshop a ring for more details.



■ *GEM-View 3* in all its glory. It's the most powerful picture conversion program you can get for your ST or Falcon and it only costs £18 to register it. So what are you waiting for?

ST FORMAT

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PREVIEW: TACTICAL MANAGER

In what seems like an already overcrowded footie sim market, Kompart UK have seen fit to release "the football management simulation for the '90s," *Tactical Manager*, on its Black Legend label.

Kompart claim that this is the first footie sim to actually play each match instead of just computing the results so you don't actually find out what the result is until the last ball has been kicked. The reckon it's going to follow real live games far more than



■ Here you can see just a few of the features that *Tactical Manager* promises to bring footie fans.

released at the same time – that is, version one – English premier and first divisions; version two – Scottish premier and first divisions and version three – Italian serie A and serie B divisions.

The features *Tactical Manager* is expected to boast is impressive – expect to see pitch invasions and brawls, human reactions from players depending on how you treat them, 3,740 "real" players to choose from, a huge database comprising 20 years of results and league tables, 16 different tactics, 13 different charts and a unique 46-player multi-user system among many others. *Tactical Manager* is expected to come out in April – call Kompart on 0438 840004 for further details and look out for our review next issue.

previous management sims in that part way through the game you can intervene, as the manager, and suggest that your team changes its strategy, just as you could do in reality. If you were a football manager, of course.

There are to be three versions of the game, all of which are expected to be

■ There are loads of teams to choose from – these are just a few...



GOODIES FOR GRABS

Back in the mists of time – well, in *ST FORMAT* 54 to be precise, we ran a competition giving you the chance to win loads of *Kingmaker* goodies courtesy of US Gold.

We've finally finished rifling through all the entries and have found eight lucky winners – the goodies will be dispatched to them as soon as we unearth ourselves

from this particular horror of a deadline. We asked:

1. What is the name of the software house responsible for *Kingmaker*? **US Gold**
2. In what time period is *Kingmaker* set? **We accepted any of the answers War of the Roses, 15th Century, Mediaeval or Middle Ages.**
3. What is the ST version of *King-*

maker based upon? **And the answer to that was the board game with the name of *Kingmaker*.**

Our winners this month are Marie Cooper and son of Norwich, RM Underwood of Cumbria, DC Adkins of Kent, D Reed of Chippenham, G Carter of Cumbria, Kevin Broomhall of Cheshire, Russell Langton of Norfolk and Wendy Humm of London.

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SNIPPETS

New ST genlock

A brand new multi-featured genlock is now available for all STs and the Falcon030. The TriLock Genlock comes from JCA Europe and is priced at just £350.

The Genlock is claimed to be compatible with all STs and give a rock-steady picture with none of the colour bleeding associated with previous ST genlocks. It's so simple to use that JCA claim you can practically "plug in and go," just by connecting it to your ST. A wide range of image formats include SVHS, Hi8 and composite video inputs and SVHS, Hi8, RGB and composite output. With overscan, fades, cross fades, overlay, mixing and freeze functions, the TriLock certainly sounds good. The unit is even PAL and NTSC compatible, call JCA Europe on 0734 452416 for more details.

Bargains from Silmarils

In a bid to entice new role playing game fans to the ST, Daze are offering you the chance to buy their games *Ishar* and *Transarctica* for a stunningly low £4.99 each. You can't buy either of these in the shops for less than £25, so you really are getting a good deal. They're great games as well – we gave *Transarctica* 79% back in issue 44 and *Ishar* earned itself a *FORMAT* Gold in STF 37. These pricing moves precede the release of *Robinson's Requiem* and *Ishar 3*, both of which are expected to come out this month.

Smart and best

If you're after a reasonably priced high speed fax modem then you'll be interested in the Best Smart One modems from Siren Software. The Smart One 1442FX can be used at speeds between 1,200 and 14,400 baud and is simple to use either as an ordinary modem or as a fax modem.

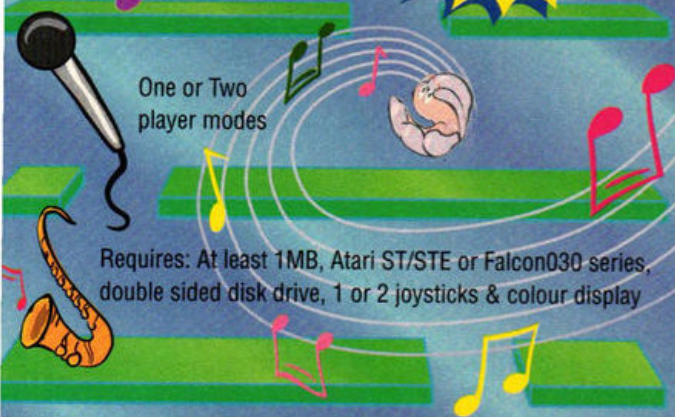
The modem boasts all of the usual features including fax group 3 compatibility and v42bis and MNP 5 data compression standards. The modem costs £199.99 from Siren Software – call them on 061 724 7572.



■ It's a modem and it's smart. You can send faxes at up to 14,400 baud using the Best Smart One 1442FX from Siren Software.

There's a Motion
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COVER DISK



QUARTET

THE DIGITAL MUSIC MACHINE



Turn your ST into a digital music machine using *Quartet*, the superb polyphonic sample player for every ST. Clive Parker helps you make music

Everyone likes playing around with music and computers – *Quartet*, from Microdeal, enables you to produce elaborate and professional sounding music using sound samples of actual instruments.

Quartet is unique in several ways. It's a powerful sample player and composer that enables polyphonic replay of sound samples – that means that more than one sample can be played back at the same time – even on a 512K STFM. You can enter music into *Quartet* in two different ways, you can either enter each note one by one on the stave or – if you have a one – you can enter music directly from a MIDI keyboard. *Quartet* detects the

MIDI input and records it directly into memory.

You can also use a pair of utility programs supplied with *Quartet* to convert sound samples to the AVR format used by the program and to create new customised voice sets using instrument samples of your choice.

Getting started

Quartet runs on any ST and in both medium and high resolution, so you can use it straight away from the backup copy of your Cover Disk. There are only two compressed files on the Disk – AXEL.TOS and NEW.TOS – that have to be copied to a blank disk and decompressed, they both con-

tain sample songs and voice sets and are not essential for immediate use of the program, you can decompress them later when you are used to using *Quartet*.

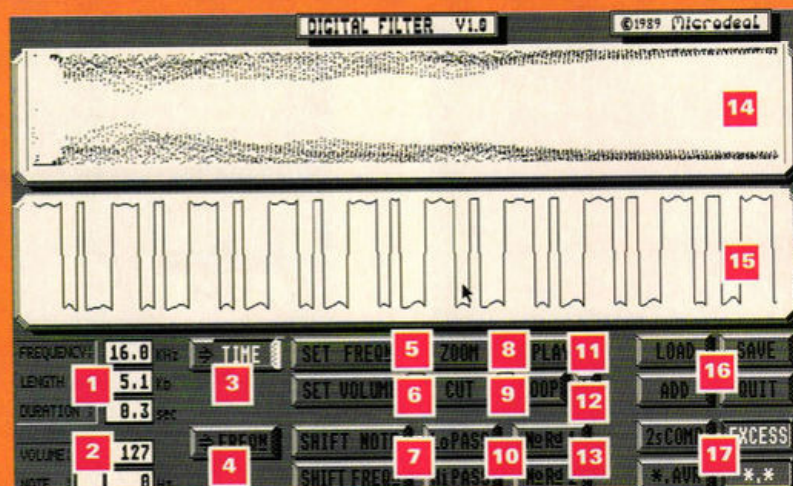
If you have a colour setup you must run QUARTET.PRGM, if you use a high resolution monitor then you need to run QUARTETM.PRGM. Both versions of the program work in exactly the same way and look exactly the same on-screen.

Loading a tune

Double-click on one of the *Quartet* .PRGM files – depending on your setup – and wait for the program to



THE DIGITAL FILTER



Quartet's Digital program has a load of features enabling you to edit sound samples – find your way around here

- 1 Sample info and current setting of Digital program.
- 2 Current sample volume and note info.
- 3 Time mode, enables cutting, zooming and looping controls.
- 4 The frequency mode, enables digital filter options.
- 5 Set the current playback frequency of the sample
- 6 Set the current volume of the sample in memory.
- 7 Adjusts the note and frequency of the sample.
- 8 Zoom in on a section of the sample between the markers.
- 9 Cut the area of the sample not between the markers.



THE MAIN SCREEN OF QUARTET

The main screen of Quartet is fairly simply laid out with loads of point and click options to play around with

Main music and file menu, main system operations.

Voice menu, use this menu to insert new voices.

Time signature menu, contains pre-selected values.

Currently selected voice, can be changed from the menu.

Current time signature, can be changed from the menu.

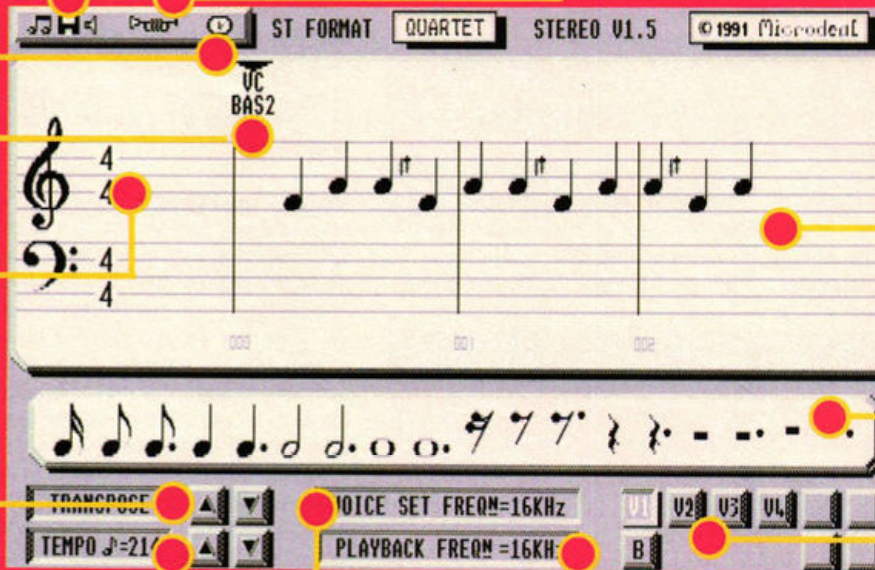
Transpose, move all notes up or down one semitone.

Tempo, speed up or slow down your song.

Voice set frequency, sample rate of current voices.

Playback frequency, adjustable between 4 and 16KHz.

Channel buttons, select between Quartet's four voice channels.



Main music display, all song info is shown here.

Note bar, choose notes from here for your song.

load. If you click on the wrong version of the program a warning pops on screen telling you to load the correct version. After a short wait *Quartet* loads itself and the default voice set – unsurprisingly called VOICE.SET – into memory and the copyright message is displayed, press <Return> to enter the main program.

Before you try anything else load in one of the demo files on the Cover Disk. Move the mouse pointer to the menu bar icon at the

top left of the screen that looks like a musical note, a disk and a speaker all in a line. Select the Load command and wait for the fileselector box to appear, select one of the demo files and wait for it to load.

Once the file has loaded go back to the drop down menu and select the Play command and the demo tune plays, when the tune finishes it loops back to the start and repeats. To stop the tune playing at any point just press the Spacebar. Try loading a few other tunes to get some idea of what you can do with *Quartet*.

One other point to note, if you are using an STFM with a Microdeal Replay or Playback cartridge you can press <F2> to switch the sound to the cartridge's output sockets enabling you to play your tunes through a stereo system. Pressing <F1> switches back to normal monitor sound output, on the STE two *Quartet* channels are automatically routed to each of its stereo outputs.

QUARTET MAIN MENU

Most of Quartet's functions are accessed from the main menu commands, here's a brief rundown of each command in descending order

PLAY ONE: Plays only the notes in currently selected channel, V1, V2, V3 or V4.
PLAY: Plays all voice channels at once so you can listen to your tune.
GOTO: Enables you to jump to any bar in the tune.
TIME SIG: Enter custom time signatures such as 13/16.
SET FREQ: Enables you to alter the current playback frequency between 4 and 16KHz.
VOICESET: Enables you to load a new voice set of samples.
LOAD: Enables you to load a new song file.
SAVE: Enables you to save the current song in memory to disk.
RECORD: *Quartet* scans the MIDI ports and records note data in real-time.
POLYPLAY: Enables you to play sound samples using your MIDI keyboard.
CLEARALL: Clears the current song from memory and resets the selected voice to the first sample.
QUIT: Exits from *Quartet* to the Desktop.

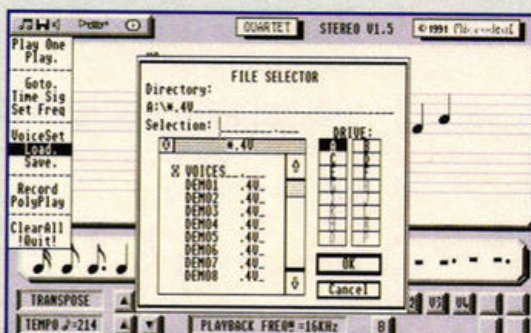
Simple music editing

After relaxing to the sound of the demo tunes for a while have a go at some simple tune and note edit-

ing, don't worry, you don't have to write a symphony just yet!

The long bar across the bottom of the screen is the note display, click on any note and move the mouse pointer over the staff. An inverted arrow at the top of the music display indicates the position of the note you are going to change or add. A left-click of the mouse changes the current note and a right-click inserts an extra note.

Pressing the <#> key while pointing at a note "sharpens" it, pressing the <Backspace> key



Select the load command from the first drop down menu and then select one of the files named DEMO1.4V to DEMO8.4V, these example files show how a song is constructed from four tracks made up of various sound samples.

10 High and low pass digital filters for reducing noise.

11 Plays the sample currently held in memory.

12 This marks the start point of a looped section of the sample.

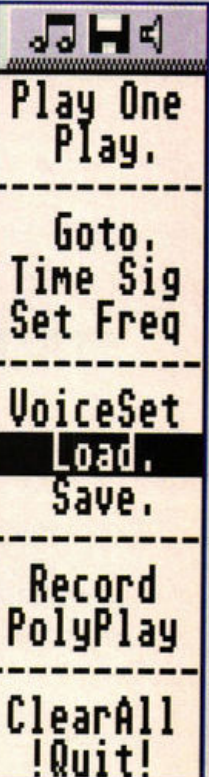
13 Noise reduction filters to clean up sample noise.

14 This is the main sample window where you see the new sample.

15 Secondary sample window, this displays loops, zooms as well as spectrums.

16 File options, load save and merge samples when in Time mode.

16 Loading filters for imparting new sound samples.





KEYBOARD COMMANDS

Some of *Quartet's* special commands can only be accessed from the keyboard

- (Insert start of loop.
-) Insert end of loop.
- Link two notes, current and previous.

- F1 Select internal sound output.
- F2 Select Replay cartridge output.
- F3 Select Replay Professional output.
- [Start of block.
-] End and cut block.
- P Paste block.
- V Insert VC (voice) command.
- # Add or remove sharp from note.
- Backspace Delete current note.

while over a note, deletes it and moves all the notes in a tune one place to the left.

You can scroll backwards and forwards through a song by clicking just before the music or just

after the music with the left mouse button, a left or right facing arrow at the top of the music window indicates that the scroll mode is active. Each bar in *Quartet* is numbered, you can jump straight to any

numbered bar – if it exists – by selecting the Goto command from the main drop-down menu; a small box appears next to the menu where you can enter the number of the bar you want to jump to.

A final function to try is to switch between the different voices and edit the individual channels by selecting the V1, V2, V3 or V4 buttons at the bottom of the screen. You can ignore the B button for the time being.

Voices and loops

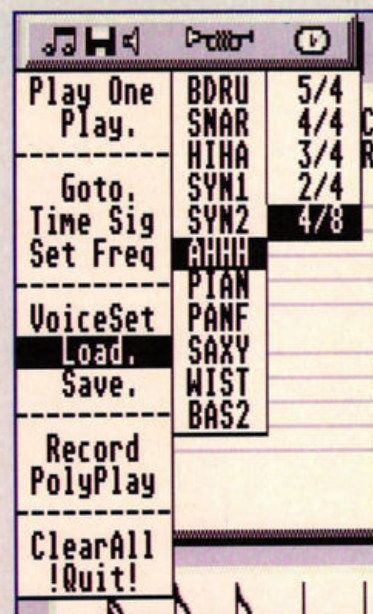
It's dead easy to change the current voice selected on any channel, just go to the middle drop down menu and select a new sample from the list. The first voice displayed now changes to the new selection. You can only change the first voice on display, so you have to scroll back and forth through the song until the voice to be changed is the first displayed after the time signature. To add another voice at any point press the <V> key, the default voice appears above the mouse pointer. Pressing the <Backspace> key deletes any voice that the mouse pointer is over.

Entering loops into your song is simple, press the <L> key at the start of the section you want to loop and press the <L> key after the last note in your loop. After inserting the end of the loop, enter the number of times you want the loop to repeat and press <Return>. To change the number of repeats point at the <L> symbol at the end of the loop and press <Backspace>, the <L> is deleted. You can now enter a new <L> and a new number of repeats.

Digital Filter

One of the supplementary programs supplied with *Quartet* is *Digital*, a utility that enables you to manipulate samples in many ways. If you have a sampler that doesn't save files in the AVR format used by *Quartet* then you can use *Digital* to convert them. Other options include digital filtering, frequency adjusting and looping.

Digital is supplied in two versions, *DIGITAL.PRG* for medium resolution and *DIGITALM.PRG* for high res, just load the one that



■ A spot of music magic enables us to show you all three menus in *Quartet* activated at once. The first menu controls the file and music mode commands, the second menu selects individual voice samples and the third menu sets the standard time signatures.

suits your setup. On a 512K ST you can work with samples up to 40K in length and on a 1MByte ST you can work on samples up to 64K long.

Loading samples

Because samples are stored in many ways, *Digital* enables you to specify how the sample is loaded into memory. If a file has an AVR extension then click on the *.AVR option and select Load, use the file-selector to choose the sample.

If a sample doesn't have an AVR extension then click on the *. and Excess options and load it. Try playing the sample, if it's very



■ An example of loading a sample correctly and incorrectly. The top window shows a Mac sample loaded with the wrong settings, Excess has been selected. The bottom window shows the same sample loaded with 2sComp selected. The sample looks clean and plays well.



■ The arrow at the top right of the music window indicates that clicking below it with the mouse scrolls the music to the left.

BRILLIANT BARGAINS

Check out our special offers, brought to you in association with Microdeal

To enable you to get the most out of *Quartet* and your other music making frolics, we've got together with Microdeal to bring you some very special bargains.

■ First you can get the complete version of *Quartet* including the manual, which is vital if you really want to make the most of the program. It originally cost £49.95 and earned itself a massive 94% – now you can buy it for a mere £16.95.

■ Then there's the *Stereo Master* 8-bit stereo sampler – when we reviewed it back in *STF*34 we gave it a very respectable 77%, then it cost £39.95 – we're offering it to you for £19.95.

■ Or there's the *FORMAT* Gold rated *Replay* 16 16-bit sound sampler offering better than CD quality sampling and reproduction. Initially that cost £129.95 but you can get it now for £89.95

■ Then there's the 8-bit stereo *Playback* cartridge to deliver stereo sound via your hi-fi. It earned 82% and you can get that for £29.95

■ Finally there's the *Concerto* composition package which combines a 24-track MIDI sequencer with score-writing. Rated 87% and originally costing £39.95, you can now get this for £19.95.

So, decide which of these special bargains you want, fill out the form below adding £2 for postage and packing and enclosing the appropriate payment and send to Microdeal, The Old School, Greenfield, Bedford MK45 5DE.

All offers are valid until Tuesday 31 May 1994, subject to availability.

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■ The number under the curly bracket symbol < denotes the number of repeats in a loop, so 15 repeats means the section plays 16 times.

noisy and the image looks very jagged in the main sample window then load it again after selecting the 2sComp (2's Compliment) option. These small variations should enable you to load almost any type of sound sample, even from the Mac or PC.

Try playing around with a few of the supplied, you can't do any harm as long as you keep the original files and don't overwrite them. You can get samples from PD libraries and bulletin boards if you don't have a sampler of your own.

Voice Set Editor

Quartet uses sound samples of real instruments in its tunes, each sample is part of a special file called a voice set. There is a special program supplied with Quartet to build voice sets from groups of samples or add new samples to existing voice sets.

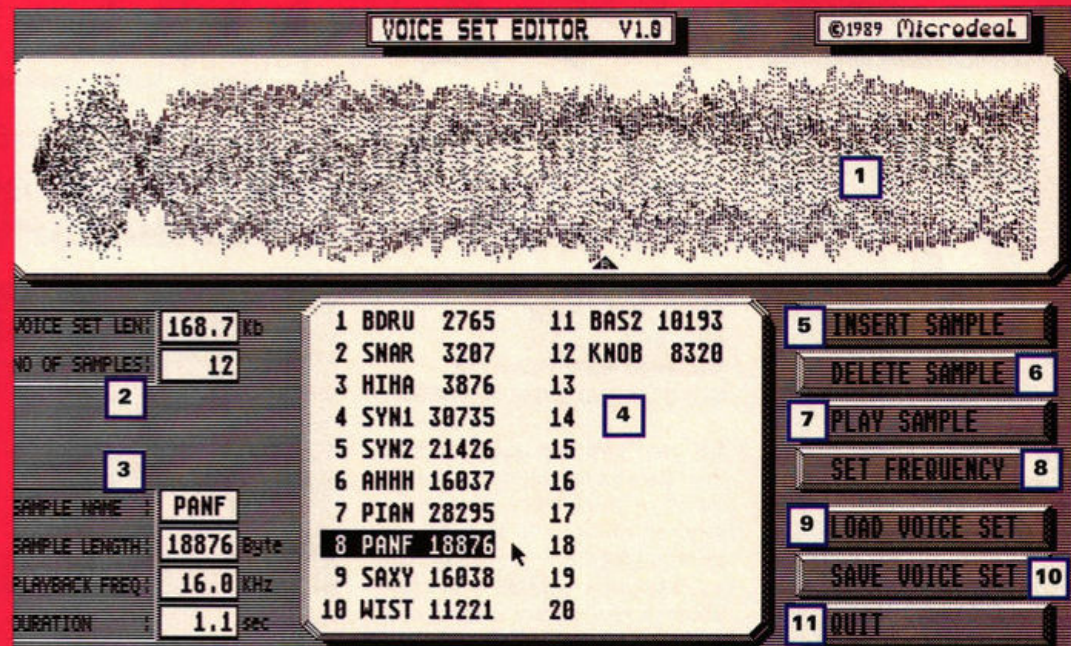
Each voice set can contain up to 20 different voice samples with a maximum size of 256K – any bigger and it won't load into a 520ST. As ever, the program is supplied in two versions, VOICES.PRG for medium resolution and VOICESM.

PRG for high resolution systems. Run the version of the program suitable for your system and wait for the main screen to appear. The main area of the screen is split up

into two large areas, the waveform display of the currently selected sample and a full list of the samples contained in the current voice set you are editing. Options for

loading and saving voice sets, adding and deleting samples to a voice set and setting the sample frequency are included in a menu bar on the right of the screen. **stf**

EDITING YOUR VOICE



You can use the Voice Set Editor to construct your own library of instruments using sound samples to use with Quartet

- 1 Waveform display of currently selected sample.
- 2 Voice Set info, size of voice set and number of samples.

- 3 Info about currently selected sample.
- 4 List of all samples in the currently loaded voice set.
- 5 Insert a new sample above the one selected.
- 6 Delete the currently selected sample.
- 7 Plays the currently selected sample.

- 8 Set the playback speed of the voice set.
- 9 Load a new voice set of sound samples from disk to be edited.
- 10 Save your modified voice set to disk ready for use in Quartet later.
- 11 Exit the Voice Set Editor software and return to the ST's Desktop.

TEN TIPS FOR COVER DISK SATISFACTION

- 1 Write-protect your Cover Disk by sliding the black tab so you can see through the hole; this prevents you from accidentally erasing data.
- 2 Make a backup copy using the **ST FORMAT Back-Up** program, available on all previous Cover Disks, or order a copy of **ST FORMAT** from page 94.
- 3 Always read the instructions for the program you are using on the Cover Disk pages and any document file that is on the disk.
- 4 Never run software directly from the Cover Disk except the **Back-Up** program, and always use your backup disk.
- 5 Never try to decompress self-extracting TOS files on the Cover Disk, always copy them to a blank disk.
- 6 If you have any general problems with your ST, consult your manual. If you are still stuck then write to ST Answers, 30 Monmouth Street, Bath, BA1 2BW.
- 7 If you can't load, copy or back up your Cover Disk programs then you may

have a faulty disk – it happens sometimes. Send the disk and a padded self-addressed envelope to:
ST FORMAT May Disk Returns, PO Box 21, Daventry, NN1 5BU
We pay the return postage. Don't send faulty disks to our Bath or Somerton offices because we don't keep stocks of Cover Disks there.

- 8 If you are having problems with a Cover Disk program go back and read the Cover Disk pages and any DOC files on the disk. If you still can't get the program running, call the **ST FORMAT** Cover Disk Hotline on 0225 442244 on Wednesdays between 2pm and 6pm only – we can't accept calls at any other time.
- 9 If you have other hardware or software queries, contact the manufacturer or publisher. Alternatively, ring the official Atari Helpline on 031 332 93233 between 6pm and 11pm Monday to Saturday and 8pm and 11pm on Sundays.
- 10 **ST FORMAT** Cover Disks are double-sided, if you have an old STFM and cannot read the Cover Disk then you should upgrade your ST to a double-sided drive.

WE WANT YOUR PROGRAMS!

We pay for your software – so if you've got anything that's good, original and preferably short that you think really deserves to go on **STF's** Cover Disk, send it with this form and full documentation to Clive Parker, **ST FORMAT**, Cover Disk, 30 Monmouth Street, Bath, Avon BA1 2BW.

Name _____
Address _____
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On a separate sheet, explain concisely what the program does and why you happen to think it's so brilliant. Remember to: ■ Include on-disk and paper documentation ■ Write your name and address on the disk ■ Use a virus-free disk ■ Keep a copy of your program, because we can't return any programs.

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

Signed _____

COVER DISK

CANNON

Last month we reviewed *Cannon Fodder* and gave a massive 93%. So get ready for action with a demo of this brilliant game

BY: SENSIBLE SOFTWARE
RESOLUTION: LOW
MACHINE: ALL STS
MINIMUM MEMORY: 512K
GET STARTED WITH: SEE BELOW

Oh boy, you are going to love this. *Cannon Fodder* is an absolute monster of a game and we've scooped an exclusive demo for you to drool over. You have four missions to prove yourself in the field of battle, ranging from a very easy punch-up to a severe test of skill your fighting skill.

The demo takes up the whole disk and is auto-booting, just turn on your ST with the disk in the drive and the program loads.



■ Mission four and you're in the fire zone from the very start. Move quickly because there are incoming rockets any second now. You've got eight grenades and four rockets, go for it.

Unlike most of *ST FORMAT's* Cover Disks you can't open it from the Desktop and look at the files. You

can't even copy it, so make sure you don't spill coffee on it or let the cat chew it or anything.

You command a troop of crack soldiers on a series of simple missions – if it moves, shoot it. Your squad of khaki-clad fellows are an obedient lot. They follow the troop leader everywhere. To command the troop leader just move the mouse arrow to where you want him to go, click the left



■ Mission one couldn't be much easier, remember you can fire and move at the same time. Just pop around the trees and get blasting.



■ A helicopter, friend or foe? Can you get into it? We're not telling, life is full of surprises, isn't it?

CARRY ON CORPORAL

Cannon Fodder manages to combine crackerjack gameplay with very simple controls. The main field of play scrolls to keep up with your chaps. The exact

number of men you have varies with each mission, you can generally afford to risk a one or two by sending them ahead and scouting the area. Watch

out for grenades, if you spot them coming towards you – run! Rockets are faster, the only defence is to keep moving at top speed and fire one back

Suitable macho troop logo.

Number of grenades left, click here to select them over rockets.

Number of rockets left, click here to select them over grenades.

Your brave chaps, heroes every one.



Soldiers current rank – the higher the rank the further the shots.

The field of battle, click the right mouse button and your pointer turns into a cross-hair and all your chaps start firing at it. No guesses as to where you put the cross-hair.

FODDER



■ And it's all gone horribly wrong during mission two. As you approach the main enemy units hot lead starts flying all directions, well, little pixels actually but you know what we mean.

mouse button and off they all trot. To get into the more serious shooting business press the right mouse button, the pointer now turns into a cross-hair. Move this over the target and watch as your boys splatter it with hot lead. To throw a grenade or fire a rocket hold the



■ The demo contains four complete missions, just click on one and it loads. The full game contains over seventy missions.

right button down and click the left mouse button. You can find crates of grenades and rockets lying about on some of the missions.

You can split the troop into two or more sections, you can do all sorts of clever strategic stuff or just send one chap ahead to suss the enemy positions. Click on the names of the soldiers that you want to form the new section and then click on the troop logo. To choose how many grenades and rockets they take click on them before you divide the group. A solid line means the new chaps take all of them. A dotted line means they take half and no outline means they won't take any. Use the troop logo to switch control between



■ That's more like it, grenades produce lovely explosions and send the little men flying through the air, that should teach 'em.



■ A gun turret, it swivels to greet you and sends you a highly explosive present. Move quick and get ready with the grenades.

groups. To regroup just walk one group into the other and they should form a single group again.

Mission one is a simple one, kill the enemy soldier lurking around the bushes above you. The other three missions are much trickier and number four is a real toughie. In mission two you have to watch out for the man traps, a horrible spear comes up, ough! At the top right there's a crate of rockets. Mission three introduces gun turrets and mission four has all sorts of surprises in store.

Cannon Fodder is a cracker of a game and this demo gives you a real taste of what is to come, have fun and watch out for the enemy troops with rockets launchers, they are swines. **stf**



■ A native hut, a big cooking pot and some bloody corpses, all in a day's work in the army, probably.



■ That's what we like to see, the enemy soldiers keep coming out of the huts until you've trashed them with some explosive device or other.

PROTECTED SPECIES

The programmers at Sensible have copy protected this demo so you can't copy the disk. To keep it safe write protect it at once. Move the lit-

tle black tab at the corner of the disk so you can see through the hole. Now nothing can be written to the disk and it should be safe.



L.A.P.D.

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- Our full range of software for the ST/STE is currently undergoing compatibility testing for the Falcon. If you are considering any title from our ST range contact us and we'll let you know if it's compatible.

(ask for our FREE Falcon catalogue)

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- D.363 GROTESQUE: Psychedelic techno music demo (1Mb, STE).
- D.366 BIRDS OF PREY: Intro to the commercial game that never made it to the ST (1Mb STE).
- D.360 DREAMZONE: Mega-demo from the Wild Boys (2 disks £3.00)
- D.347 COSMIC JAM: Good multi-vector demo from Imagina of Finland D/S.
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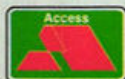
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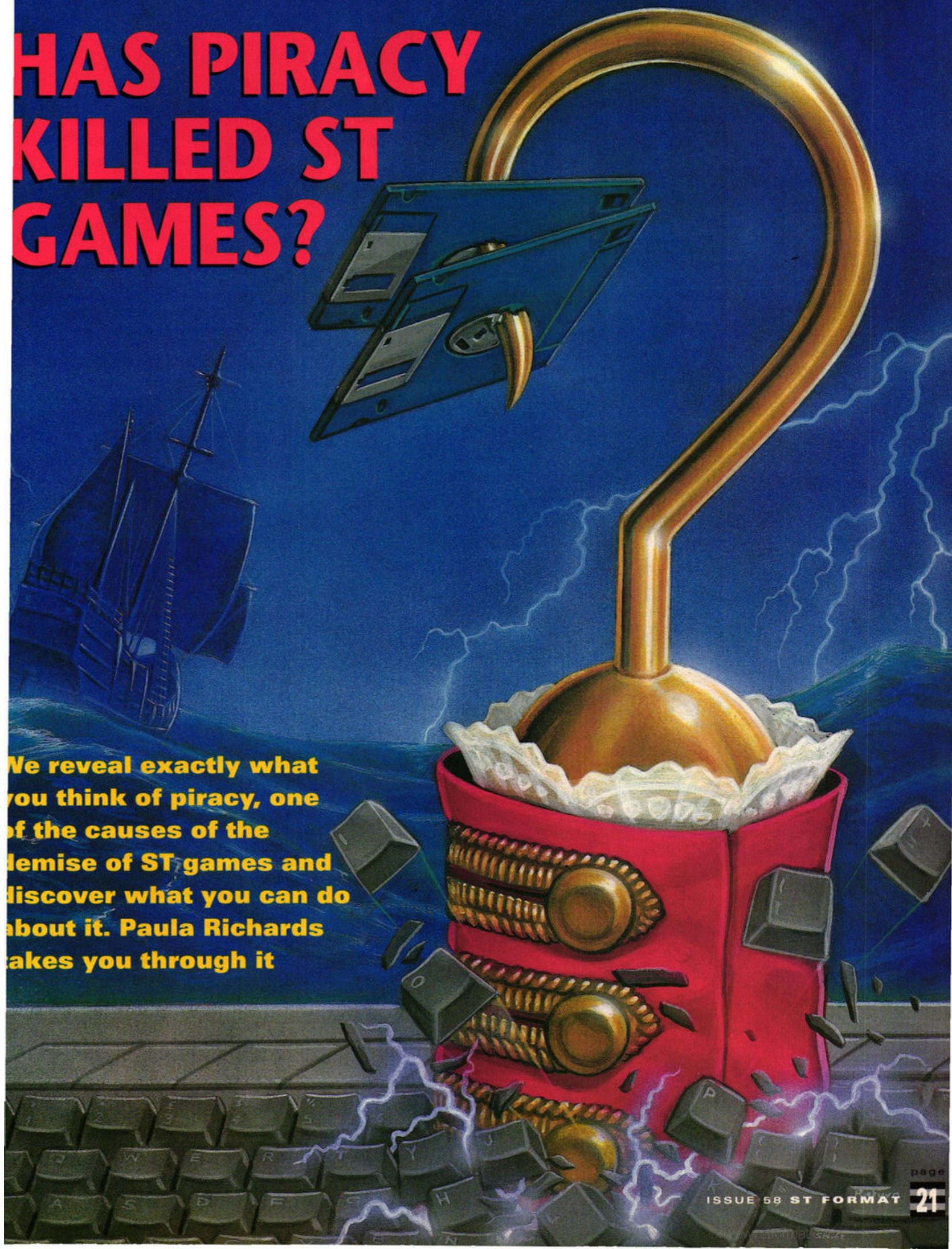


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WHILE-U-WAIT!!

HAS PIRACY KILLED ST GAMES?

We reveal exactly what you think of piracy, one of the causes of the demise of ST games and discover what you can do about it. Paula Richards takes you through it



Piracy is costing the UK computer software industry an estimated £600 million a year, according to FAST, some of which could better be spent on developing – or even just converting – new games for the ST.

Yet despite this, and despite the obvious dropping off of ST games releases, games still continue to be pirated. Here we report what you think about this invidious crime, the effect it's having on the industry and what you can do about it.

New full price ST games releases are at an all-time low – only about one brand new game

comes onto the market each month – and the serious side of things isn't much better. There are loads of reasons for this, but the most serious and the one that the software houses are most inclined to blame is the threat of piracy. This means that because there is a

minority of people cracking games' code (so you can get into them without any form of copy protection) and then selling them for a fraction of the price of a commercially released game,

softies don't get the cash they would otherwise have had.

This means that they don't have as much money to plough

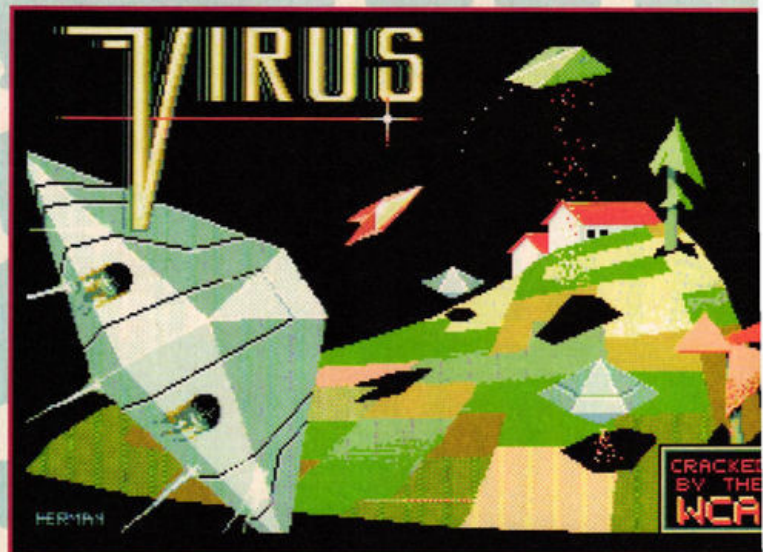
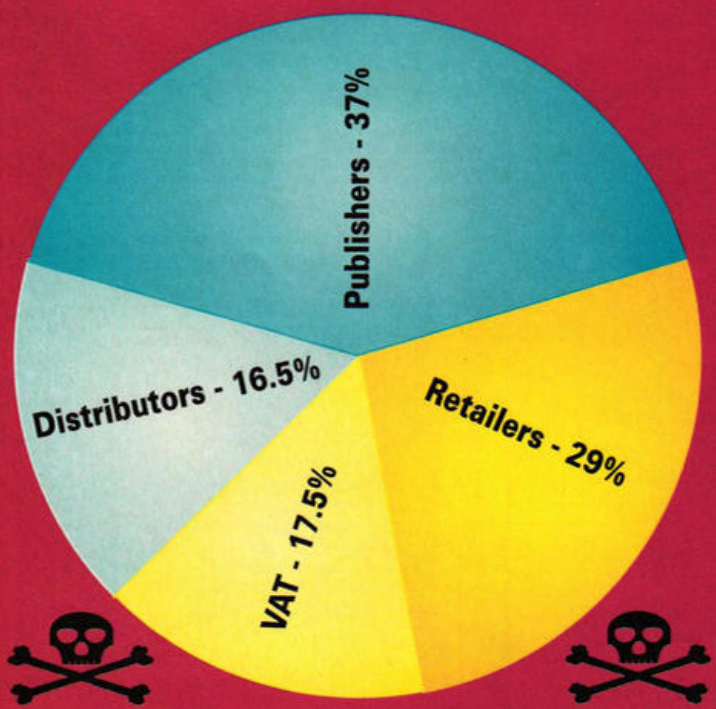
"Piracy is costing the UK computer industry an estimated £600 million every year"

WHAT A RIP-OFF... OR IS IT?

"There is no way, no how, will I pay anything like full price for a game. No matter what arguments you put to me can I see how games manufacturers can justify such prices."

It's a common argument that ST games are priced too high, so let's just take a look at where the average price of £25.99 goes. First off, the taxman takes his cut of 17.5% – that's £4.55 off the sum to start with leaving £21.44. Before you get to buy the game it has to be bought by the retailers who've got overheads like the costs of leases for premises and staff wages to

cover before they even think about putting the game on the shelf. They take a cut of around 29% of the game's price – £7.50 in this example. Before the game gets to the retailer it comes from the distributor – in the games software industry this is mainly handled by the biggies Leisuresoft and Centresoft – and they take a cut of about 16.5% or £4.29. This leaves 37% of the total figure – £9.65 – to go to the software publishers. But this isn't all profit by any means – there's the cost of the disks, boxes including wrapping, manuals, royalties and other development costs – and remember, unless a game sells a minimum number of copies a softie won't even cover its initial outgoings.



If Some pirates are, however, more discreet than others. This cracked version of David Braben's early game, *Virus*, just shows how right he is to be annoyed by the prevalence of the crime.

back into developing new games, something that is especially worrying in the ST market which, these days, only tends to be blessed with games publishers are convinced are going to be big sellers anyway.

Programmers, too, are also less likely to spend time developing or converting games to the ST when they reckon they're going to lose out to piracy.

Just look back to the words of David Braben, programmer of *Frontier: Elite 2* – "I'm in half a mind not to produce any more stuff for the ST because we've been clobbered so much by piracy that there's little point in spending five years of your life doing something for these people to rip you off at the end of it."

And you agree...

In the main you agree with these people – 73% of you agreed with the statement in our recent questionnaire that piracy has helped kill the ST games industry. Looks a bit like you're cutting your own throats, though – you want software for your machines, you're the people who want to know what games you can get for your machines and you're the people who are so interested in your machine that you're willing to spend on a magazine every month.

You want decent new games for the ST but instead of going out and buying them for the full price you're pirating them – according to our latest survey over 34% of you possessed

some pirated software – and 98.5% of you knew that it is illegal. So exactly what does over a third of you think you're doing?

Pricing policies

The most popular excuse for piracy is that games are priced much too high, but instead of saying to yourself "OK, I can't afford it so I'll do without" you seem to view soft-

ware as something which is almost something you earned the right to possess when you bought your ST, notwithstanding the fact that it actually costs substantial amounts in terms of both

time and money to create games in the first place.

You see it as something which just grows on trees... and certainly as something you'd be completely crazy to consider paying for. There

"Everybody I know who has an ST bought it because they knew they could get software for free"



THE FEDERATION AGAINST SOFTWARE THEFT

FAST (Federation Against Software Theft) is a non-profit making organisation that exists to protect the interests of software copyright owners, which includes the programmers and publishers of computer games. It was founded in 1984 by Bob Hay and started off by simply doing anti-piracy work until 1988 when it was made a criminal offence to copy disks under the Copyright Act. From then on they've attempted to discourage piracy by a series of education through awareness campaigns.

Each case they come across is judged on its own merits - they get information from most

parties only tangentially involved in the software industry - members of the public, the police and informants who have inside information to name but a few. FAST's primary concern is to catch anyone who is committing an offence under the criminal law including people who are in any way associated with the copying and distribution of software - and this includes activities you might consider harmless such as swapping copies of disks between you, giving copies to friends without any expectation of money or distributing them for profit. There are other offences which can be taken up

by the copyright owner under the civil law. Criminal offences tend to involve the police when a warrant is required, but most of the time FAST sorts out the evidence and takes the matter to court itself.

FAST considers that it has quite a good success rate, having achieved around 20 to 30 convictions for offences in the past year - and you're looking at substantial penalties, from fines of up to £5,000 per offence to anything from three months to ten years in prison - and that's for first time offenders.



are the stubborn and rather arrogant opinions of some: "I only pirate software because I cannot afford to pay £30 for a game. I am still in school and I have no job. With my pocket money it would take me forever to save up and buy a game.

"Everybody I know who has an ST only bought it because they knew they could get the software virtually for free. If there were no pirated games around there would be far fewer ST owners than there

Likewise with games - there's plenty of decent software on Cover Disks, in Public Domain libraries and on Bulletin Boards to keep you going for ages. Or how about this

Try before you buy

"I have bought 12 full priced games in the last 14 months and only two of them do I play regularly - that's a lot of cash to have paid out for an item that is bought without seeing it and without any idea about its playability. Would you buy a shirt or dress without looking at it first because someone else said it was nice? Or how about buying a brand new car over the telephone?

"It's not as daft as it may seem since the desperate decline in the high street shops, more reliance has been placed on mail order purchases. Piracy is theft, of that there is no doubt, but I will not be buying any more games until I have played them."

If you can't get to play a game, how are you supposed to be able to tell whether it's worth your while buying the whole thing or

not, you argue. The course of action you are forced into taking is to get hold of a pirate copy of a game and then if you like it then you'll go out and buy the full priced thing. Oh yeah? I mean, come on, be realistic - loads of you

"Would you buy a shirt or dress without looking at it first because someone else said it was nice?"

say that's what you do, but it doesn't actually seem that likely, does it - you've got a game you enjoy playing, what's going to make you go out and spend £25 on the real thing? The best

thing to do, surely, if you want to test out a game is to try and get hold of a demo - there are plenty of them in the Public Domain, on Bulletin Boards and on ST magazines' Cover Disks so that you don't find yourself in this ridiculous situation...

And hey! you could even read magazine reviews of the games that come out - and we try

damn! Still short of the magic 50 trainers... here's 33. Well, 22 really. I still don't know if the mystery object is merely an unused space on the game's object table, or is some exotic weapon that can only be used in certain circumstances...

- Start with and constantly have 99 80mm shells (Y/N)?
- Start with and constantly have 99 100lb bombs (Y/N)?
- Start with and constantly have 1 mystery object (Y/N)?
- Start with and constantly have 1 rlink (Y/N)?
- Start with and constantly have 1 portable radar unit (Y/N)?
- Start with and constantly have 1 log book (Y/N)?
- Start with and constantly have 1 map (Y/N)?
- Start with and constantly have 2 first aid kits (Y/N)?
- Start with and constantly have 2 fuel cans (Y/N)?
- Start with and constantly have 12 flares (Y/N)?

Pirates aren't a shy bunch at all - they like to involve themselves in all aspects of your game-playing. Here they help you to cheat. Bit of a shame if you don't want to really.

are now. It's all right for you people with jobs to make us out to be criminals, but that's the only way we can get software. If it wasn't for piracy I'd probably still be playing my old Atari 800XL computer."

Right, so we're supposed to feel grateful, are we, that piracy has done wonders for the sale of STs and pleased for you that you've upgraded from your 800XL? Surely if you can't afford the software you do without - after all, you don't eat caviar and drink champagne every day just because you've got a digestive system, you stick to cheaper stuff like er, baked beans and sausages.

one? "I own some pirated software. I make no apology for this.

"I was encouraged into the Atari scene by a friend who had some pirated software and he supplied me with a selection of games, a couple of word processors and art programs when I first bought my STE. The illegal software he gave me served as an

"It's all right for you people with jobs to make us out to be criminals but that's the only way we can get software"

introduction for me.

"My system has expanded in terms of both purchased hardware and legally purchased software; I would never even have heard of the ST if it hadn't been for pirated software."



Disks from pirates are easy to spot - they usually contain more than one game and frequently include their own "special" logo. Don't go near 'em.

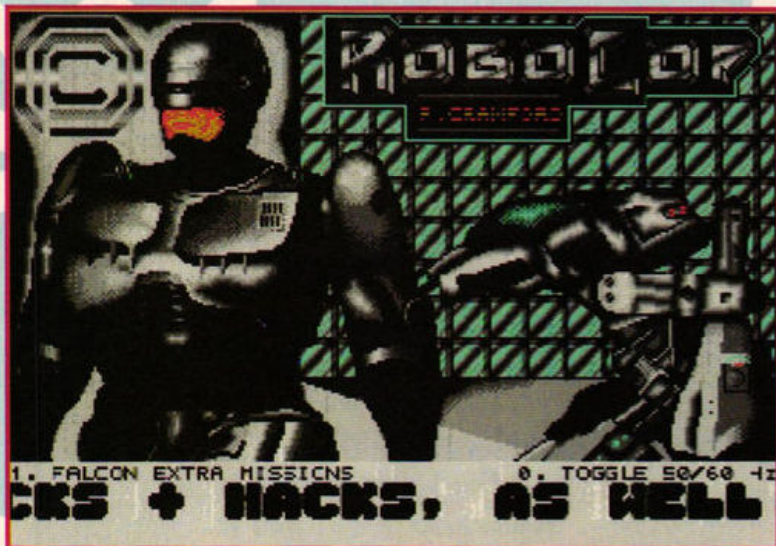
and cover all of the budget releases as well – so you get some idea of what a game's like even on its second time around.

And then again...

Then again there are the smart arses, the people who actually pirate games and then sell them off at ridiculously low prices... otherwise known as "just doing it because they can." Some

people seem to think it's really clever to crack games as you can tell by the very self-satisfied scrolling messages using really big and clever swear-words, explaining how brilliant they and their mates are and apologising to the creator of the disk formatter who presumably thought he had managed to find a way to prevent hackers getting into

"Piracy is a chance for people to get something for nothing at someone else's expense"



Long and boring self-satisfied scrolling messages like this are a favourite with pirates. Who could possibly want to read them?



Describing yourself as "the lord" sort of suggests that you think you're big and clever. Hmm, don't think too many people would agree with that, in fact.

his format. Their attitude is encouraged by others who are particularly impressionable:

"I own some pirated software... I copied the games off a friend who did the same. The games on the disks are good, they have things on them called megatrainers that give you all the cheats you could

versions so that I still have the games to play on." With cracking perceived as glamorous as the

author of that missive obviously does, what hope is there?

By accepting pirated games you're encouraging this sort of juvenile attitude and ultimately reducing even further the number of games releases. On the other side of the fence there are the

"By accepting pirated games you're reducing even further the number of releases"

ever want. I have enclosed these disks only I have given you copied

number of games releases. On the other side of the fence there are the

WHAT CAN YOU DO ABOUT IT

OK, so you don't want the ST games market to completely shrivel up and die - you've committed yourself in the past to campaigns to get games to be released on the machine and you're committed to your machine. So do something active - don't just sit there! At the very least be aware of what you're getting yourself into and make sure you're not a party to piracy

1 Be aware of dodgy dealings

Watch out for suspicious ads in trade magazines like these. £1.50 for original games... oh yes?

disk drives, motherboards, add-on cards, monitor, printers, Diagnostic shareware softwares. Offers.

ATARI ST GAMES approximately 200, all originals, from £1.50 each. full list available.

AMSTRAD PCW 3" SOFTWARE, loads of items. All originals, full list available.

Check they come with the original manuals and boxes – and ask how the seller can possibly be able to sell these supposed originals for £1.50 a disk.

2 Interesting additions

Look out for anything strange – can you get, say, a copying device with the games... as you can in this advertisement. What a giveaway.

ATARI CLEAROUT; lots of s/ware/h/ware 700 disks of s/ware games, serious, 1 Meg FM+ manuals, Blitz-copiers Mk 1 +2 3 1/2" H/D disks wanted.

MANUALS T/WORKS 2+ PFM ST Knife First Word Plus for Atari Word for Windows 2 to PC wanted. Corel 4

Yes, well, this speaks for itself really – 700 disks, that must really be an incredibly keen STer. Oh – but with a copier as well, it all suddenly falls into place...

£1.50 for a disk? For an original game? Who're they trying to kid? Make sure you don't buy 'em.

3 Try and play before you buy

If you want to know what a game is like before you buy it, get hold of a demo version. ST FORMAT frequently runs demos of the bigger games on our Cover Disk – just look at the biggies we've had in the last year: Chaos Engine, Civilization, Elite 2 and this month, Cannon Fodder. That way you can tell whether you want to splash out on a game or not. You can get hold of any back issues you fancy from page 94. You can find other demos on Bulletin Boards – including the STF BBS (0225 465977) and in the Public Domain – check out our directory on page 38 of this issue.

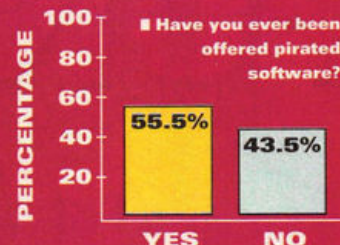
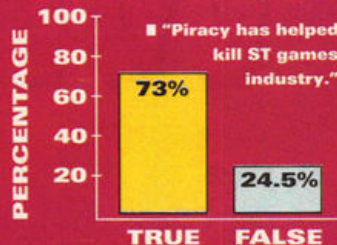


4 Work with them before you buy

The same is true for serious software – we put demos of programs on the Cover Disk – take Thought! and UVK v6 that were on last issue – so you can test those out before you buy. If you use pirated versions of software they don't come with manuals so you're bound to be missing out on the potential of programs – you really do need them to be able to get the most out of them. We also put full programs on our disks, making piracy even more senseless.


A FEW FACTS AND FIGURES

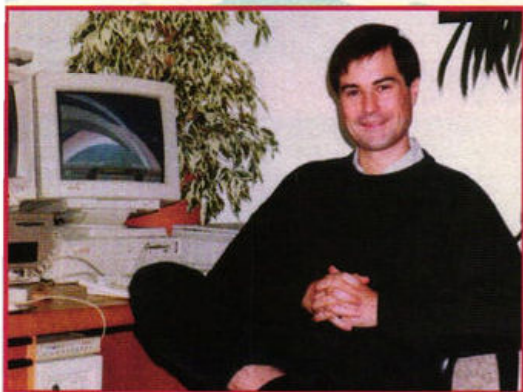
As well as the responses shown in the graphs opposite from our survey, we discovered that a staggering 44% of you wouldn't report a BBS or PDL if they had pirated software and that a horrifying 12.5% of you believe piracy is an acceptable way of building up a stock of software.



weary and cynical: "I think piracy is just an underhanded opportunity for certain people to try and get something for nothing and usually at someone else's expense. Think of the software thief as someone who would steal a car 'for the fun of it.'" and "I do not feel that any-

body is forced into software piracy, it all comes down to greed and being able to get something for nothing." Or take this emotive example: "You ask 'are people forced into piracy because of the price of games?' Here's my answer. 'I am unemployed, I need a

woman, I cannot afford a hooker so I come along and rape you. You report it to the police because you are horrified by my action, but I was only forced into raping you by the high price of hookers. Please tell me, what's the difference between the above and piracy? None." Now surely, there's not a single person out there who would condone rape, so why condone piracy? 



■ Here's David Braben, author of the brilliant *Frontier: Elite 2*. We gave it a **FORMAT Gold** and loads of you think it's excellent. It'd be a disaster if he stopped programming games because of piracy.



5 Read the reviews in ST FORMAT

For more information read reviews of games in *ST FORMAT*. We play each game thoroughly on the ST - and only once it has been completed - so we're able to give you an honest opinion of what it's like. Where possible we compare it to similar releases so you have an even better idea of what the playability's like.

6 Wait for it to be released on budget

If you think a game is too expensive for you when it first comes out, wait until it's released on a budget label. Games are being released on budget labels like Kixx XL and the Hit Squad within months of their first release in some cases, so you don't have to wait as long as you have done in the past.



■ You don't need to complain that games are too expensive - wait till they come out on budget like *Lure of the Temptress* this month (reviewed on page 72) and there are the occasional bargains to be had like *Muzzy*, reviewed on page 71.

7 Look out for big discounts

Alternatively have a look through the adverts in the magazine - there are many mail order companies advertising who offer newly released games at heavily discounted rates. Check out the advice on page 44 for some more information on sensible buying by mail order.

8 Don't keep crime to yourself

If you see anything suspicious like sales of disks in markets,

commercial games on Bulletin Boards or in PD libraries or for sale through trade magazines, get in touch with FAST. You can contact them on 0628 660377.

9 Don't be a pirate

If you're a pirate and you get a thrill from wasting people's time, ruining their careers and ultimately kicking yourself in the head by reducing the number of software releases, think again. Don't do it; it's not big and it's not clever. If you can crack games you can certainly do something a tad more creative with your talents. Why not try it? As one former pirate said to us: "I am now firmly against piracy as I hope to be a programmer in the sound and music industry, so this industry had better keep going." FAST agree that many people who used to be pirates are now firmly against the idea.

10 Look to the future

Remember there are severe penalties - up to ten years imprisonment - for pirating software...



■ Last month we reviewed *Cannon Fodder* - but only after plenty of testing.



FUN WITH GDOS

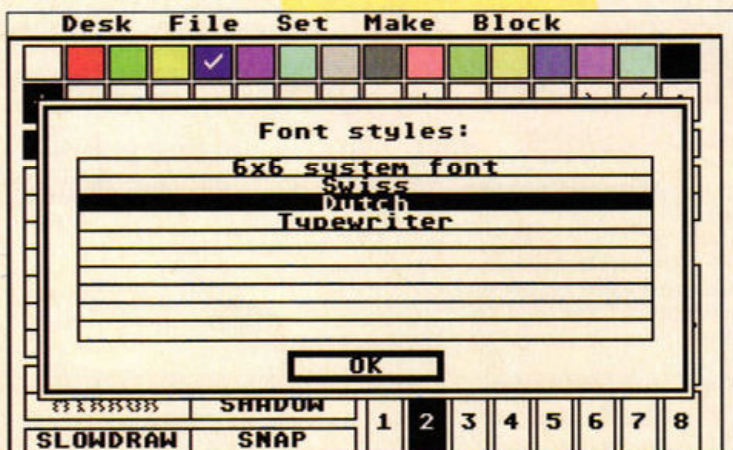
GDOS makes it dead easy to create top quality pictures and newsletters on your ST. Clive Parker demystifies the ST's graphics system

You can create excellent text and graphics from your ST and printer using GDOS. Without GDOS you are restricted to the boring fonts built into your printer and the ST screendump printout for pictures.

GDOS stands for Graphics Device Operating System and is an extra part of your ST's operating system that loads from disk; using it on your ST enables you to create professional-looking documents by combining customised fonts and graphics on the same page. The system is compatible with many commercial, PD and Shareware programs including *Timeworks 2*,

gram that uses it must be specially written to take advantage of the font system and printer drivers. If you are not using GDOS with a word processor or text editor then you are restricted to the fonts, styles and font sizes available on your printer. Some GDOS compatible programs can be used without having GDOS installed but you can't use anything but the system font and are usually unable to print anything. *Wordflair* is one program that needs GDOS installed before you can print anything.

If you don't have a top-of-the-range word processor or DTP program, then using GDOS with



You can use GDOS fonts in Degas Elite and Hyperpaint to good effect.

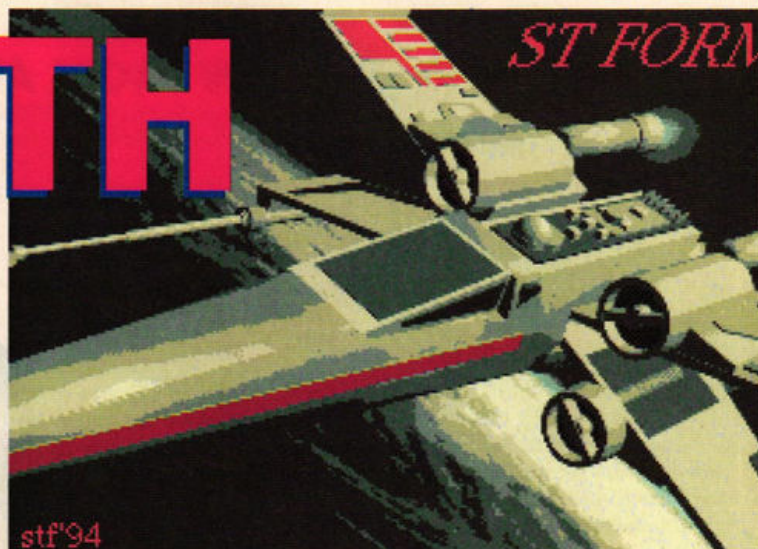
the *Wordflair* word processor, *Degas Elite* and *Hyperpaint 2*. Using GDOS you can produce a very accurate reproduction on paper of what you create on your TV screen or monitor, this is known as "What you see is what you get" or WYSIWYG.

GDOS doesn't work automatically with all software, every pro-

gram that uses it must be specially written to produce brilliant documents with your ST and printer. If you don't have our *Wordflair* Cover Disk turn to page 94 to order a copy.

How it works

GDOS consists of four discrete parts acting together to provide a



You can use GDOS to add effective titles and text to your pictures as well as creating impressive documents, letterheads, flyers, newsletters and complete magazines.

JARGON BUSTERS

ASSIGN.SYS: A small text file with a list of instructions for the GDOS program.

Auto folder: A folder in the root directory of your boot disk named **AUTO**. Programs inside the **Auto** folder run when your ST is powered up or reset.

Bitmapped fonts: Fonts stored as a series of dots mapped onto a grid, each font is stored at several fixed sizes.

GDOS: Graphics Device Operating System, an addition to the main operating system enabling additional fonts to be used on-screen and for printing.

META.SYS: Driver for GDOS-compatible vector graphics programs like *Hyperdraw*.

PRINTER.SYS: Printer driver for a specific printer, it can be anything from a 9-pin dot matrix printer driver right up to a laser printer driver.

Root directory: The main directory of a disk or hard drive partition, any information not stored inside a folder is in the root directory.

Vector fonts: Fonts stored as a mathematical description, they can be enlarged to any size without any loss of quality.

complete font and graphics system for your ST. The four parts are the GDOS program itself, the **ASSIGN.SYS** file, the device drivers and the fonts themselves.

To install GDOS the GDOS.PRG file must be in the **Auto** folder of your boot disk, this can be either on a disk in floppy drive A or on partition C of your hard drive. The program installs itself in memory and reads the information contained in

the **ASSIGN.SYS** file. The **ASSIGN.SYS** file must be in the root directory of your boot disk, GDOS can't install itself if the **ASSIGN.SYS** file is inside a folder.

"You can create excellent text and graphics from your ST and printer using GDOS"

ASSIGN.SYS contains all the information that's required by GDOS to find and load the printer and screen fonts and the device drivers, the file is

simply a document made up of text in ASCII format and you can create it in any word processor or text edi-

GETTING GDOS

If you want to get a version of GDOS set up and ready to use for your printer, your best bet is to contact the ST Club (☎ 0602 455250), they are registered GDOS distributors. Disk GDOS-A contains drivers and fonts for 9-pin printers, GDOS-B contains drivers and fonts for 24-pin

printers and GDOS-E contains FontGDOS and drivers for several printers. Each set costs £2.95. The ST Club has a large selection of GEM fonts and utilities available for use with GDOS.

SpeedoGDOS is available from Hisoft (☎ 0525 718181) and costs £39.99.

for that saves in ASCII format. The first line of the file consists of a line containing the path which holds the folder where GDOS loads its fonts and drivers from, this can be a simple line like `PATH = A:\GDOS.SYS` on a single floppy disk system or something more com-

plex like `PATH = D:\GDOS\FONTS` on a hard drive setup. A useful tip for floppy disk setups is to have a different GDOS boot disk for different programs, you may not always want the same set of fonts for art, desktop publishing or word processing.

This is text in Degas Elite
Swiss Dutch Latvian
The quick brown fox jumps over the lazy doggy
Dutch outlined Dutch skewed
Eras Typewriter outlined thickened
and lightened and underlined
...but the doggy woggy bit the
fox right in the brush! Yello Big
The Race

Just look at this exciting example page of colourful text you can get with GDOS.

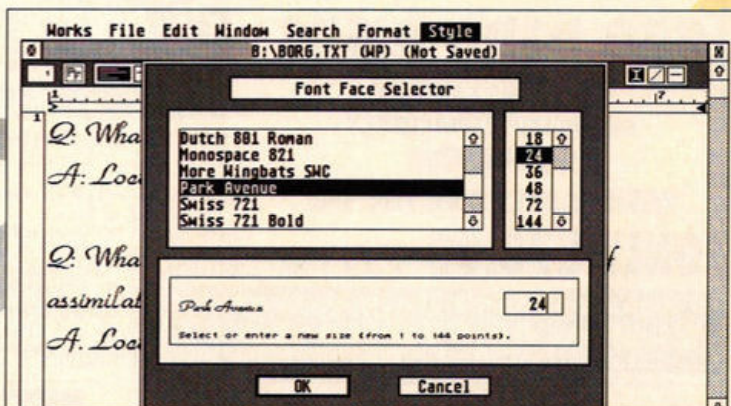
"Every program that uses it must be specially written to take advantage of the font system and printer drivers"

Files ending with the extension .SYS are called device drivers and consist of the default screen

and then loads the data. When you exit the program all of the GDOS data is deleted from the memory, so your ST's RAM isn't cluttered up with lots of unnecessary information when you try to

New versions of GDOS

Because the original version of GDOS uses bitmapped fonts,



SpeedoGDOS enables you use fonts at any point size, you're not just restricted to the default sizes displayed in the window.

driver for all three ST resolutions and drivers for external devices like dot matrix or laser printers.

The printer drivers that are supplied with GDOS are fine with both 9-pin and 24-pin dot matrix printers, use the Epson FX80.SYS for 9-pins and and the Star NB15.SYS with 24-pin printers.

Fonts 'n' things

GDOS uses different sets of fonts to generate the screen and printer

enlarging them results in large blocky text with jagged diagonals.

Atari resolved to create a new version of GDOS using vector fonts, where each letter in the font is stored as mathematical description rather than a series of points. This means that each letter is only stored once in memory – taking up less room – and can be printed out at any size, because the letter is created when it is needed at the size required.

UNSUPPORTED

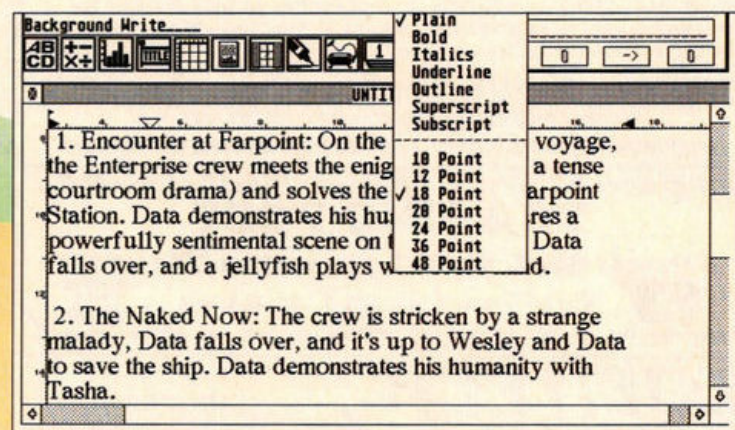
GDOS has always been the worst supported part of the ST's operating system, it was originally intended to be part of TOS on the ROM chips inside your ST. Unfortunately it arrived late, was buggy, difficult to install

and very slow. By the time it was generally available software developers had developed their own font systems for their programs. This means that GDOS is largely ignored in professional DTP programs like Calamus.

The new font system was to be called FSM-GDOS – the FSM stands for Font Scaling Module – but it was never actually released. A replacement for GDOS called FontGDOS has been released, but it still used bitmapped fonts. The main advantage of using FontGDOS rather than standard GDOS is the faster printer drivers and font caching – compressing and storing fonts in memory.

The very latest version of GDOS is SpeedoGDOS, so-called because it uses standard Bitstream

Speedo vector fonts as used on the Apple Mac and the PC. There are over 1,000 Bitstream Speedo fonts available for SpeedoGDOS and you can use SpeedoGDOS fonts with any GDOS compatible program – but remember that many of the advanced features of the system, such as font scaling, are not available in software not written specifically to use SpeedoGDOS. The biggest drawback with SpeedoGDOS is that you really need 2MBytes of RAM in your ST to use it effectively. **stf**



With the original version of GDOS you can select from several different sizes of text but you can't use anything but the default sizes supplied.

ASSIGN.SYS EXPLAINED

The trickiest part of GDOS to understand is the infamous ASSIGN.SYS file. This file is a small text document in ASCII format that tells the GDOS program where to look for the screen and printer fonts, which fonts to load and what printer driver to use. A typical ASSIGN.SYS file looks like this. Note that low and high resolution use the same screen fonts

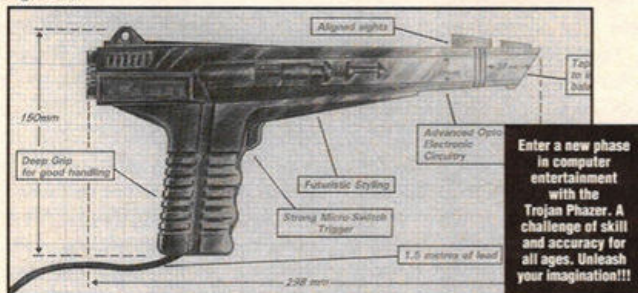
Path = A:\GDOS.SYS
(drive and folder containing fonts and drivers)
1p SCREEN.SYS
(default screen driver)
ATSS10.FNT
(default screen fonts)
ATSS12.FNT
ATSS18.FNT
2p SCREEN.SYS
(low res screen driver)
ATSS10.FNT

(low res screen fonts)
ATSS12.FNT
ATSS18.FNT
3p SCREEN.SYS
(medium res screen driver)
ATSS10CG.FNT
(medium res screen fonts)
ATSS12CG.FNT
ATSS18CG.FNT
4p SCREEN.SYS
(high res screen driver)
ATSS10.FNT
(high res screen fonts)
ATSS12.FNT
ATSS18.FNT
21 FX80.SYS
(printer driver)
ATSS10EP.FNT
(9-pin Epson printer fonts)
ATSS12EP.FNT
ATSS18EP.FNT
31 META.SYS
(metafile driver)
ATSS10MF.FNT
(metafile printer fonts)
ATSS12MF.FNT
; ATSS18MF.FNT
(any line starting with <;> is a comment, not a command, and is ignored by GDOS)

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MEGABYTE BLUES

Why won't some 1MByte games work when you upgrade your STFM? Clive Parker investigates

We've received loads of complaints about 1MByte games not working on upgraded STFMs. It's upsetting to find that your new game doesn't work on your 520 STFM even though you've got a full MByte of RAM installed, especially if the game is the reason you upgraded your ST in the first place. So what's the problem?

It seems that some 0.5MByte upgrades for the STFM are not compatible with some 1MByte games software. To make matters worse, some upgrades work with certain games while others don't, and even the TOS version in your STFM has an effect on whether a game works with your upgrade. We decided the best thing to do was take a look at the two most common DIY memory upgrades for the STFM – the Marpet

XtraRAM Deluxe and the Evesham Micros 512K upgrade – and test them with the five games that have caused most problems.

We talked to Marpet (☎ 0423 712600) who make the XtraRAM Deluxe board and they came up with several reasons why the boards may fail on occasions. All

"We spoke to the companies producing the games to see what the problems are"

Marpet boards are tested with the Atari diagnostic cartridge to check that they are working correctly. In some cases problems may occur with slightly under specified DMA

chips in some STFMs, the solution here is to shorten the connection leads between the parts of the memory boards. In other cases the SIMMs themselves may be the problem because they are under-buffered, changing to different SIMMs solves the problems.

Mark Ballard of Evesham Micros technical help department (☎ 0386 765500) told us that as far as they were aware their upgrade followed the correct guidelines for ST memory upgrades. Evesham also use the official Atari diagnostic cartridge in their quality control department, they are unaware of any problems with 1MByte games and their upgrade board.

The main cause of incompatibility problems may be the way that the games software addresses the memory of upgraded STFMs. Most software is designed to

address memory in a certain way, the method of upgrading the STFM by piggy-backing the board onto the MMU chips uses slightly different addressing methods which means that some – but not all – software may not be compatible with the upgrade.

Problems and solutions

We spoke to the companies producing the games to see what the problems are and what options they offer to anyone having problems with their upgraded STFM.

Lemmings 2, by DMA Design/ Psygnosis: Fergus Carroll at Psygnosis told us that they are aware of problems concerning upgraded STFMs, if you have any problems then phone the helpline on ☎ 051 707 2333 during office hours.

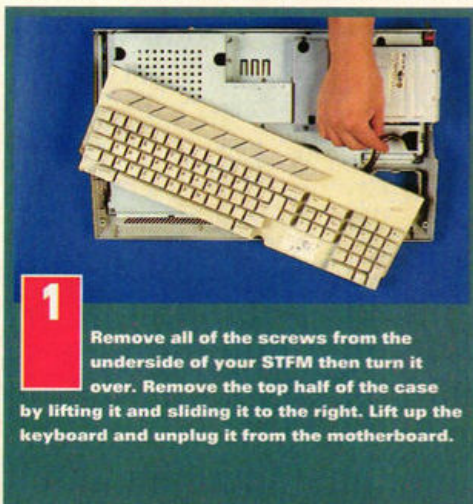
Chaos Engine, by Bitmap Brothers/Renegade: Simon Knight



TAKING IT APART

OK, so you're going to upgrade your STFM to 1MByte. That means you've got to take your STFM apart. Just

follow the three simple steps below and your ST is in several fun-sized pieces in no time at all



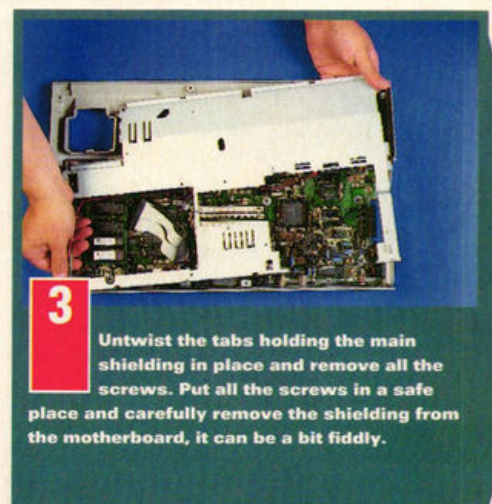
1

Remove all of the screws from the underside of your STFM then turn it over. Remove the top half of the case by lifting it and sliding it to the right. Lift up the keyboard and unplug it from the motherboard.



2

Remove the metal shield over the power supply unit (PSU) and the disk drive connections, unplug the disk drive and put it to one side. Now unplug the PSU and carefully lift it from the case.



3

Untwist the tabs holding the main shielding in place and remove all the screws. Put all the screws in a safe place and carefully remove the shielding from the motherboard, it can be a bit fiddly.

XTRARAM DELUXE

Both the XtraRAM Deluxe board and the Evesham upgrade are mounted on the MMU and the video shifter

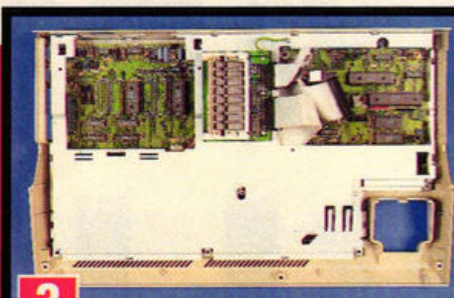
chips and are usually pretty easy to install. Just sit down for five minutes, take a deep breath and get to work



1 After stripping your STFM down to its motherboard you have to locate the MMU chip and the video shifter chips. The MMU is the large square chip just above the long 68000 at the front of the board, the video shifter is the long chip in the centre of the board contained in a metal box.



2 If the video shifter is socketed then remove it and plug in the adaptor, replacing the shifter chip in the socket on top of the adaptor. If the shifter is soldered then you must solder a socket on top of it and then plug the adaptor into it. The MMU adaptor plugs over the MMU chip.



3 Run the adaptor cables over to the disk drive cables and replace the shielding. You can now fix the XtraRAM board to the top of the shielding between the power supply and the disk drive. Plug the two adaptor cables into the sockets on the RAM board and reassemble your STFM.

of the Bitmap Brothers told us that the very first release of *Chaos Engine* had problems with some upgraded STFM's but that the problem was solved within a week of the game going on sale last year. All subsequent versions of the game are OK. If you have a problem call the Bitmap Brothers on ☎ 071 702 3644 and ask for customer services.

Street Fighter 2, by US Gold/Kixx XL: Bridgett Hirst of US Gold told us that there were some TOS 1.2 problems with early versions of the *Street Fighter 2* but all copies on sale now are compatible with all versions of TOS on any 1MByte STFM. If you have any problems with US Gold games running then contact the technical helpline on ☎ 021 326 6418.

Secret of Monkey Island, Kixx XL: There is a problem with *Monkey Island* on upgraded STFM's. Kixx XL can provide you with a fixed version if you write to Cus-

tomers Services, Kixx XL, Units 2-3 Holford Way, Holford, Birmingham B6 7AX with details of your problem and enclose your disks.

Civilization, by MicroProse: *Civilization* has had a few teething problems but MicroProse have informed us that it's not caused by

"The main cause of incompatibility problems may be the way that the games software addresses the memory of upgraded STFM's"

the upgrades but by the software itself. If you contact the MicroProse helpline between 2pm and 5pm on weekdays they can tell you how to avoid crashes playing *Civilization*.

Different boards

The two boards we tested are simple plug-in types that are mounted over the MMU (Memory Management Unit) chip. Other upgrades available are solder-in types that don't seem to suffer from the problems found with the MMU types.

So which is the better of the two upgrades we tried? They are both relatively easy to fit, just plugging into position over the MMU and the video shifter chip. The Evesham board costs just under £50 populated with 512K of RAM while the XtraRAM board varies between £35 and £45 depending where you buy it, the test results for both were just about the same.

The main difference between the two boards is that you can upgrade the XtraRAM to 4MBytes but you are restricted to a maximum of 1MByte with the Evesham upgrade. Our advice is buy the Evesham board if you are only ever going to use your STFM for games,

just fit it and forget it. It's a good reliable board that lasts as long as your ST.

If you think that you are likely to use your ST for more serious work then opt for the XtraRAM board, it's slightly cheaper and easily expandable to 2MBytes or 4MBytes later.

Other options

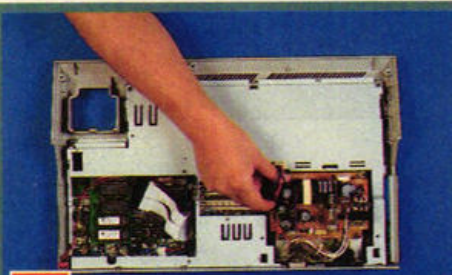
Ladbroke Computing International supply a solder-in RAM upgrade that avoids the main addressing problems, it's a bit more complex to install than the Marpet and Evesham boards and cannot really be considered as a simple DIY project for the enthusiastic amateur. Power Computing also supply a range of upgrade boards to upgrade your STFM to 1, 2 or 4MBytes.

If you're not happy with the idea of upgrading your ST yourself then all of the companies mentioned can upgrade your STFM for a small fee. **stf**

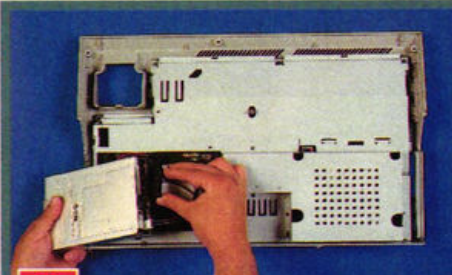
REBUILD THAT DUDE

So you've slipped the upgrade into place and you're ready to rock 'n' roll. So, it's time to put it all back together

again. Being very careful that everything is replaced in the correct position, follow this guide



4 Carefully put the shielding back in place on the motherboard and re-twist the tabs and replace the screws into their original holes. Now get the PSU and replace it into its slot on the motherboard.



5 Plug the PSU cable back onto the motherboard - it only fits one way - and replace the shielding. Reconnect the disk drive power and data leads and replace the shielding over the connections.



6 Replace the top of the case and flip it over to replace the disk drive and the fixing screws - making sure they go in the correct holes - and turn your ST the right way up. You're now ready to rock.

EVESHAM 512K UPGRADE

The procedure used here is almost exactly the same as that used for the XtraRAM board except the whole

upgrade sits under the shielding. It's extremely easy to fit and you'll soon have 1MByte inside your STFM



4

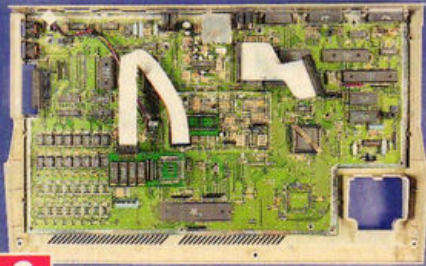
Locate the MMU chip and the video shifter chips on the motherboard after you have stripped your STFM down.

The MMU is the large square chip just above the long 68000 at the front of the board, the video shifter is the long chip in the centre of the board contained in a shielded box.



5

The MMU adapter sits on the chip with the connector facing the rear of the STFM. There may be a large capacitor in the way on some boards that needs relocating so you can fit the MMU board. The video shifter adaptor fits in the same way as the XtraRAM board.



6

After fitting the MMU board and the video shifter adaptor just connect the two parts together using the cable from the shifter adaptor, that's all there is to it. If your STFM looks different than the one shown here or you have a socketed MMU and video shifter then contact your supplier.

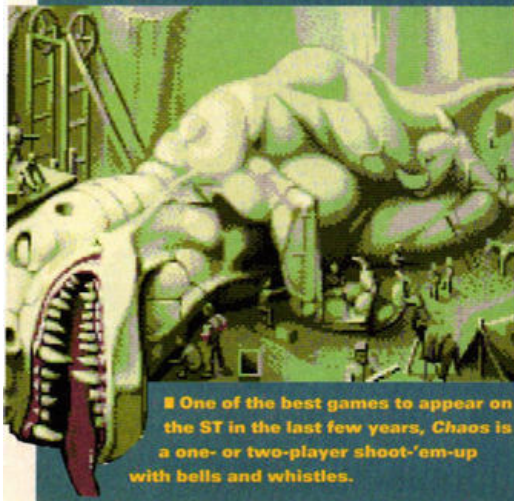
TESTING THOSE TROUBLESOME GAMES

We tested the five games that seem to have caused most of the problems on STFMs upgraded with the two 512K upgrade boards we installed. The games tested are *Street Fighter 2*, *The Chaos Engine*, *The Secret of Monkey Island*, *Civilization* and *Lemmings 2*. We slapped the upgrade boards into a couple of 0.5MByte STFMs equipped with TOS 1.2 and tested the games. See below and find how they fared in our tests...

Chaos Engine by the Bitmap Brothers/Renegade

You have probably tried the playable *Chaos Engine* demo from ST FORMAT Cover Disk 49, and what a fine demo it is too! You might have suffered from a problem playing with the demo even though your STFM is equipped with a full MByte of RAM. You can run *Chaos Engine* in 512K on an STE without problems. XtraRAM Deluxe: *Chaos Engine* worked perfectly for over 20 minutes of continuous play, it seems that this upgrade is totally compatible.

Evesham: Exactly the same results as the XtraRAM upgrade, *Chaos* worked perfectly with the Evesham upgrade.



■ One of the best games to appear on the ST in the last few years, *Chaos* is a one- or two-player shoot-'em-up with bells and whistles.

Civilization by Microprose

Early versions of *Civilization* suffered from a few bugs including an uncanny ability to crash on upgraded STFMs at completely unpredictable intervals. Our Cover Disk demo also suffered from problems.

XtraRAM Deluxe: Loads, runs for a while and then crashes horribly.

Evesham: Loads, runs for a while and then crashes horribly. Does this sound familiar?



■ Is this the end of *Civilization* as we know it? Fear not, a fixed version is available for your machine.

Lemmings 2 by DMA Design/Psychosis

The highly addictive sequel to the even more addictive original *Lemmings* works best on 1040STFMs and STEs rather than upgraded 520STFMs.

XtraRAM Deluxe: *Lemmings* runs non-stop using the XtraRAM without falling over once. Evesham: Each of the tribes found no problems with the Evesham upgrade, everything's looking good.



■ Our tribes of Lemmings worked perfectly well in our tests, but what's happened to the Christmas Lemmings?

Secret of Monkey Island by LucasArts/Kixx XL

Guybrush Threepwood in his first adventure is renowned for a heap of problems on upgraded STFMs and was re-released in a single-sided disk version to cope with the problem, the budget version is in the same double-sided disk configuration as the original release.

XtraRAM Deluxe: Oh dear, poor old Guybrush, he really doesn't like the double-sided version on the STFM. The memory heap problems strike again.

Evesham: The Evesham upgrade lasted a little longer than the XtraRAM but crashed out with the same problem.



■ Guide Guybrush around to find the *Secret of Monkey Island* on your ST and hope you don't have a heap of problems.

Street Fighter 2 by Kixx

Beat-'em-up action at its best in *Street Fighter 2*, the budget version of the game is one of the best buys for the ST.

XtraRAM Deluxe: The XtraRAM enabled us to use every fighter at every location, no problems here.

Evesham: *Street Fighter 2* worked equally well with the Evesham upgrade over a period of an hour.



■ *Street Fighter 2* in all its glory, just get bashing away and relieve all that built-up internal tension in a therapeutic session with your ST.



DIY MONITOR

Clive Parker loves mucking about building things; this month he shows you how to build your own monitor switcher for under a tenner

You don't have to lash out 20 quid on a ready-made monitor switch box, you can build your own for less than half the price!

Using your two monitor ST setup can be a real pain because you've got to keep swapping the monitor cables every time you want to switch from colour to mono. Apart from the aggravation of fumbling behind your ST every time you swap, you can actually cause damage to the monitor socket by repeatedly plugging and unplugging cables. The internal solder connections of the socket can crack and become unreliable.

You can buy ready-made monitor switchers for between £15

and £20 from various retailers, but if you are on a tight budget – or if you're just tight – you can build your own using cheap parts that are freely available from almost any electronic store.

It's really easy

Making the monitor switch box is probably the simplest DIY job that you can do with your ST – apart from a single switch in one line, all the other data lines are simply connected together.

The line that is switched is the monochrome detection line, your ST detects that a monochrome monitor is connected when this line is shorted to ground and reboots into high resolution mode. Because only one line needs a switch you can use a simple two amp connector block to connect all the other monitor data lines and create your switcher with a minimum amount of soldering.

You only need a few basic parts to build your monitor switcher. A plastic project box, two 13-pin DIN sockets, one 13-pin DIN plug, a small terminal connector block, a SPDT switch and a metre of multicore cable.

GET TOOLED UP

You can build the switcher using just a few basic tools, it's not that hard and if you have a basic knowledge of soldering it should only take you about an hour from start to finish. You need the following equipment

- Cored solder
- Craft knife
- Hand drill
- Long nosed pliers
- Pliers
- Small cross head screwdriver
- Small desk vice
- Small flat blade screwdriver
- Small snips
- Soldering iron



■ These few simple tools are all you need to build your own monitor switcher

ST FORMAT warning: Remember that soldering irons can get very hot and cause severe burns; do not attempt to use a soldering iron if you haven't used one before.

Building the thing

Before you try assembling the switch box it's best to prepare all the parts so they are ready to use – preparation in advance makes the actual assembly much easier.

First prepare the 13-pin DIN plug and sockets and the SPDT switch by tinning the terminals to be used – tinning is simply applying a thin layer of solder to the terminals. Next, cut the cable into three equal lengths and strip back the ends of each piece. At the DIN plug/socket ends just strip back about two centimetres of insulation and screen, at the box end strip back around six centimetres. You

only need to use nine conductors in your switcher, choose your nine colours and snip off any conductors you don't need. Strip back each conductor about five millimetres and tin them with a thin layer of solder.

The final bit of preparation is to drill the holes for the cables and the switch in the box, it's best to drill two holes on one side for the sockets with the plug cable in the opposite side. The switch is best fixed to the lid.

Solder the plug and sockets to the cables using the same colour conductors on the same terminal numbers in all three cases. This

Alternative options

If you're not the DIY type or think that the project is too hard for you to build, then you can buy ready-made monitor switchers from the following suppliers. £17.99 from the First Computer Centre (☎ 0532 319444) or £14.95 from Gasteiner (☎ 081 345 6000).

UNDER CONSTRUCTION

1

Dismantle the two 13-pin DIN sockets and the 13-pin DIN plug and tin the terminals with a thin layer of solder.

Tinning the terminals first makes soldering the conductors to them later a lot easier and faster. Also tin the three terminals on the SPDT switch.

2

Cut the 12-core cable into three equal lengths, strip back one end of each piece by two centimetres and the other end by about six. Strip and tin the nine cores you are going to use and snip off the three you don't. Solder the short ends of each piece to one of the 13-pin sockets or the 13-pin plug.

3

One point to remember is that the connections on the 13-pin DIN plug and the 13-pin DIN sockets are mirror images of each other. The pin numbers on the terminal side of the socket run from left to right while they run from right to left on the terminal side of the plug. See diagram.

SWITCHER



makes the final connections a lot easier. One point to note is that the terminals in the plug and the sockets are mirror images of each other, the socket connections are numbered left to right and the plug is numbered right to left, see the diagram below. Assemble the shell and shroud of each cable and thread them through the holes in the box. You can now connect all the conductors of the same colour together using the terminal block, the only ones you don't connect are the wires connected to line four of the 13-pin DIN plug and sockets.

Solder the wire from line four of the 13-pin DIN socket to the centre terminal of the switch, the wires from the sockets are soldered to

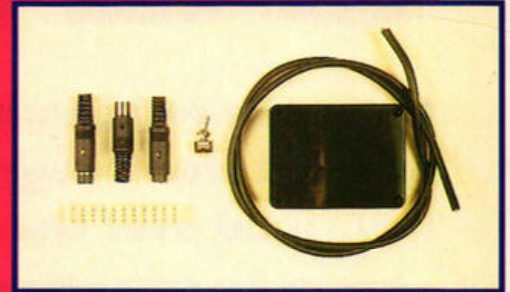
BITS AND PIECES

You can buy all the parts you need to build your own switcher for a fraction of the price of a complete switcher. All parts are from Maplins (☎ 0702 554161)

2 x 13-pin DIN in-line sockets, part number JW97F £1.60 each
 1 x 13-pin DIN in-line plug, part number JW95D £1.48 each
 1 x single-pole double-throw (SPDT) switch, part number FH00A 92p each
 2 x 2 amp terminal block, part number FE78K 56p each
 1 x MB plastic box, part number LH21X £1.72

1 metre 12-core cable, part number XS20W £1.10 per metre.

These are the bits you need and you can get them for under a tenner, just £8.98 to be exact.

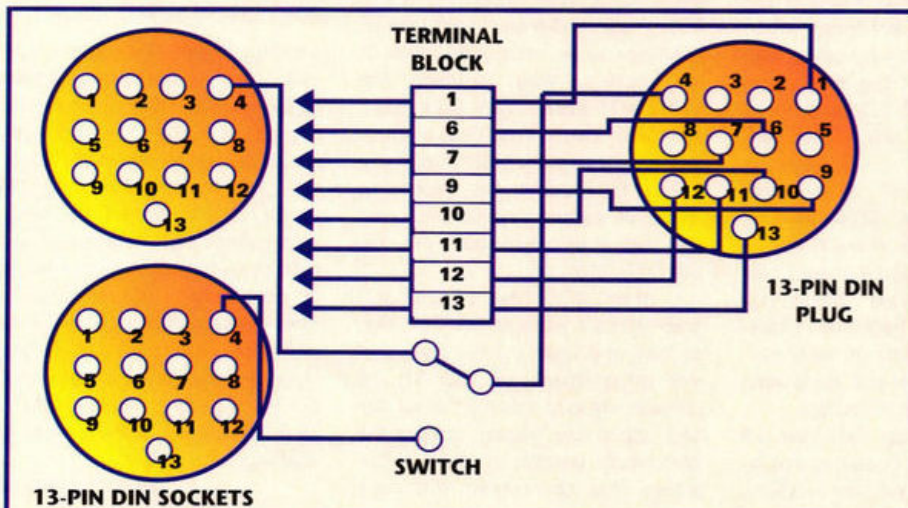


the two outer terminals. Fix the switch to the lid of the box and test out your switch box. If there are

any problems then check each solder and terminal block connection, keeping an eye out for strands of

wire making contact between two terminals. That's it, another fine ST FORMAT project finished. **stf**

CIRCUIT DIAGRAM



The circuit diagram is very simple for the monitor switcher, all conductors used are simply linked together except for the one connected to pin four - the monochrome detection line. This line is connected to a simple single-pole, double-throw switch - a two position switch that flips from one monitor line to the other. Your ST detects the different signal on the line and reboots to match the monitor selected.

Pinouts of 13-pin DIN connectors

Pin 1	Audio out
Pin 4	Monochrome detect
Pin 6	Green
Pin 7	Red
Pin 9	Horizontal sync
Pin 10	Blue
Pin 11	Monochrome intensity
Pin 12	Vertical sync
Pin 13	Ground

4

Get a drill slightly larger than the diameter of the cable and use a hand drill to make a hole in the side of the box. Check that the hole is big enough by passing the end of a piece of cable through the hole. If the hole is satisfactory then drill holes for the other two cables.

5

Use the terminal block to connect the conductors together, making sure that you connect the same colour conductors together, except those connected to pin 4. Solder pin 4 from the 13-pin DIN plug to the centre terminal of the switch and the others to the outer terminals. See diagram.

6

Now you've made all your connections you can test your switcher by plugging in your two monitors. If everything works drill a small hole in the lid of the box and fix the switch in place, then fix the lid in place. If the switcher doesn't work at first then check every connection and joint until it does.

PUBLIC SECTOR

Get some some Public Domain software and you won't regret it, well, you won't have paid over the odds for it

UTILITIES

GEM-VIEW 3.02

FLOPPYSHOP



GEM-View is probably the most regularly updated Shareware program you can get for your ST, with new and improved versions appearing on an almost monthly basis. This is the biggest



■ Vastly improved dialog boxes give you much greater control over the conversion functions.

upgrade to this excellent picture file viewer and converter yet, while the main program looks almost exactly the same as the previous version, a lot of redesigning and rewriting has gone into this version. Many of the options have been enhanced; when loading you can now specify a specific file type or set the program to "Automatic" so that GEM-View analyses the file and uses the correct loading module.

You can load even more graphic file formats, GEM-View now reads 40 file types with Kodak Photo-CD and Vivid Raytracing images supported. New dialog boxes for converting images have been implemented giving you much easier control over file formats and destination paths for the converted images.

You can now use GEM-View as a program or a Desk Accessory just by changing the extender from .APP to

.ACC so you can use it from within other GEM software, vital if you need to look at or convert a graphic while in a DTP program or painting program. Apart from being fully Multi-TOS and Falcon compatible, GEM-View works on a wide range of ST graphics cards including the CyRel M16-1288, Crazy Dots, Nova 16M and Matrix True Colour Cards and it now uses the DSP chip in the Falcon to increase the processing speed of picture conversions, with JPEG format pictures loading and displaying in seconds.

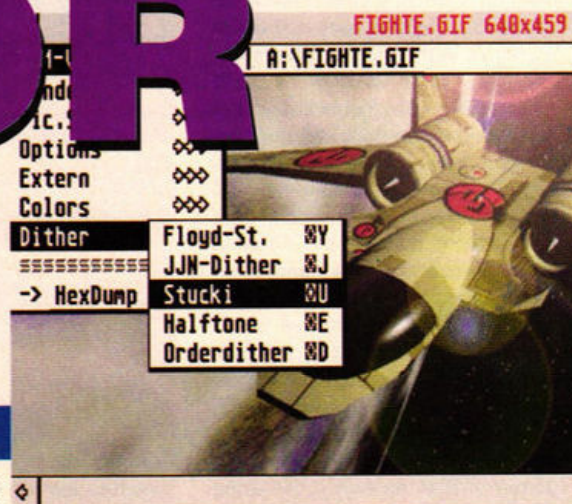
If you don't have a Falcon or a graphics card you can use GEM-View to load and display 256 colour and true colour images on your ST; the software cleverly reduces the colours and dithers the picture to give the best results possible on a 16 colour screen. You can convert from one

■ These are the superb quality images you can work with in GEM-View, even if you've only got an ST. GEM-View is the best image converter you can get - bar none.

graphics format to another - GIF to TIFF - keeping all the original colours of the images intact, so you can use any ST to convert pictures even if you've got a high resolution setup.

You can now register GEM-View in the UK, so there's no need to worry about cash getting lost in the post to Germany. You need to register because many of GEM-View's functions become disabled after 30 days, and after using it for a while you're likely to want to keep on using it. GEM-View's highly recommended for all graphic artists. See the news story starting on page 7.

STF RATING 93%



GAMES

STAR TREK™ - KLINGON WAR TUMBLEVANE PD DISK KLINGON WAR

Star Trek™ simulations have been around ever since the first heady days



■ Watch the skies! Klingon vessels are swooping into Federation space destroying everything in their path.

of the humble ZX81 and its wobbly RAM pack. Most Trek simulations to surface in the PD world have been grid-based strategy with very little gameplay involved.

Klingon War is different. It's a finely crafted game with more gameplay than the original ST game back in the late '80s with enough options and controls to keep any ardent Trekker happy, in fact, you're probably going to like this game even if you're not a die-hard fan of the series.

The Federation is in a full scale war against the Klingon Empire based on the planet Kronos - called "the Klingon homeworld" in TNG - and the Enterprise is patrolling an area near Afiliun Starbase in the

■ A crippled Klingon vessel on the verge of exploding, recharge those phaser banks and finish him off. Show no mercy - Klingons prefer an honourable death in battle!

Kenisath sector. You must travel to all the near systems in the four nearest quadrants and destroy any Klingon vessels you find.

The use of graphics and sampled sound effects is very good, turning an average game into a good game. The rules of engagement are very gentlemanly indeed - you take it in turns with the Klingons to take potshots at each other until the



Enterprise or the K'vort Class Battle Cruiser blows up. An excellent game that's very addictive, if you like space opera then get this little beauty.

STF RATING 85%

GREYSCALE IMAGE PROCESSOR

FLOPPYSHOP
DISK ART4282



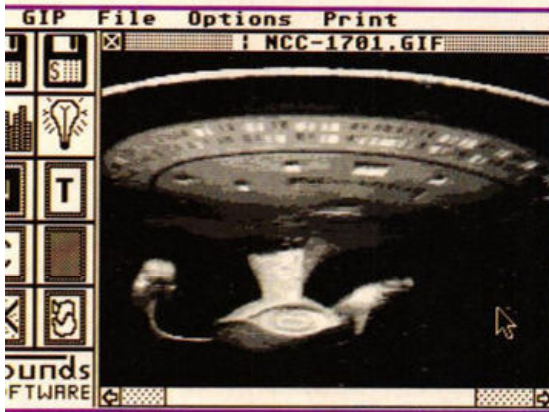
The *Greyscale Image Processor (GIP)* is an image processing program for any ST or Falcon that enables you to load a variety of pictures in different file formats into your machine and manipulate them, you can then save

the image as a 256 greyscale Image or TIFF format file. All pictures imported are converted to 256 greyscales automatically.

GIP runs in all resolutions – including the Falcon's true colour mode – and has a good selection of processing options. You can select an area to be processed by dragging a box around it with the mouse and then selecting your function, you can choose from brightness, contrast, threshold, negation and histogram effect. There's not much of a manual but there is an excellent on-line help facility. Definitely one to add to your graphics box.

STF RATING
90%

■ We just had to show you this example file supplied with *GIP*. (Clive, are you obsessed with *Star Trek?* - Ed)



SATELLITE INFO

EMERALD CITY PD – DISK SK26

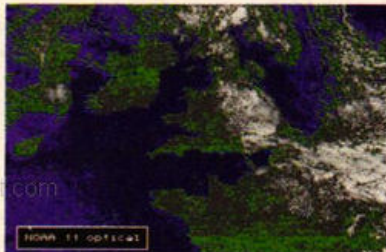
You can download and decode weather satellite information using the *Pictures From Space* software on this disk. The software is designed to be used in conjunction with the Maplin MapSat (0702 554161) system which enables you to receive data directly from the sky and decode it on your ST.

The software is divided into two programs: the decoding and display program as well as the orbital prediction software which enables you to find Wefax satellites

■ This is the kind of image you can generate with the *Pictures From Space* software. Oh yes, you need a satellite receiver system too!

in the sky. A very detailed instruction manual for using both the software and the MapSat equipment enables you to get the best possible results. If you are an ardent kit builder then you can learn a lot from the MapSat project and this software, if you're not into that kind of thing then this disk probably isn't going to be of any use to you at all.

STF RATING 75%



STORM

FLOPPYSHOP – DISK COM4363

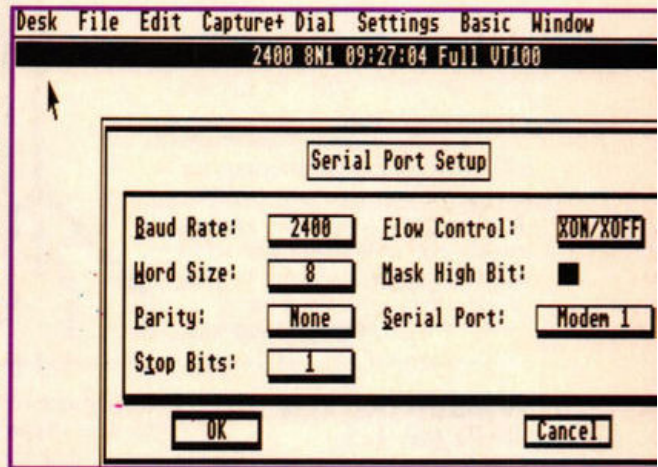
Storm is a competent comms program with a wide range of functions and utilities built in. It's one of the most popular PD or Shareware comms programs in the USA and when you use it you soon see why.

Storm is a GEM-based terminal with all functions taking place in a window and can achieve faster screen updating than most GEM programs because it uses custom text routines and fonts. It comes complete

■ No screenshot can do justice to a comms program on any system, but *Storm* is just about the best terminal emulator you're likely to see.

with a built-in script file editor using a version of BASIC that enables you to create your own customised routines for communication. It's also MultiTOS compatible, supports extra serial ports, uses the GEM clipboard and is very easy to use. If you're thinking of getting a comms program, then get *Storm*.

STF RATING 87%

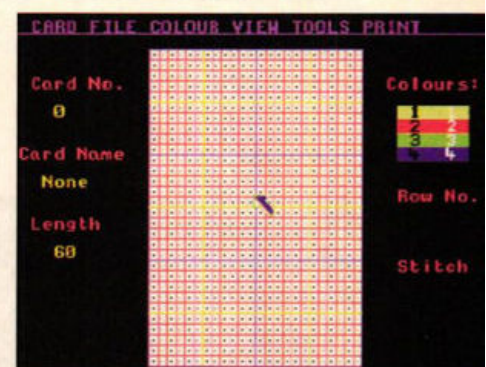


PATTERN CARD DESIGNER

EMERALD CITY PD – DISK SN51

If your hobbies include your ST and knitting Fairisle designs on a knitting machine then this program is for you! You need an Epson compatible printer to use this program; it prints out patterns you can use on knitting machines that use Jones/Brother and Knitmaster pattern cards in two colour or four colour patterns.

You can use the designer to create patterns up to 200 rows wide using commands to copy, reflect and change colours as well as drawing freehand on the screen. The author of the program has supplied a folder full of predesigned patterns for you to look at and use as a basis



■ Create amazing patterns and then knit them using the pattern card designer. What else can we say?

for your own creations A comprehensive manual completes a well-presented Shareware utility.

STF RATING 69%

INVESTIGATION

FLOPPYSHOP – DISK 4171/2C

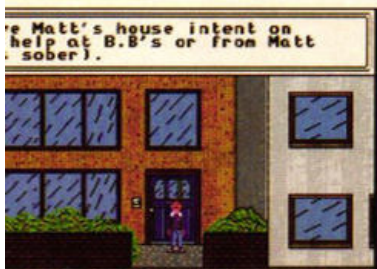
A pretty absorbing mini adventure game written in *STOS Basic*. It's a modern one as well, so there's none of this messing about with orcs and elves and that sort of thing – you spend a lot of time in the pub trying to stop your friend from getting too drunk. You're Dave, a student, who saw a conversation between the main men at the Wellard and Co computer organisation on a video. Fortunately

for the plot of the game, this wasn't just any old conversation but one that related to the planning of a massive computer crime. You get to see this little chat yourself as part of the animated intro sequence.

Obviously you're on the side of the good guys and want to prevent any funny business which is what you spend this adventure doing – typing in commands and wandering around. It's good fun and can lead to some interesting conversations between your and your ST – though you can never be certain that your ST understands precisely what you're saying.

STF RATING 76%

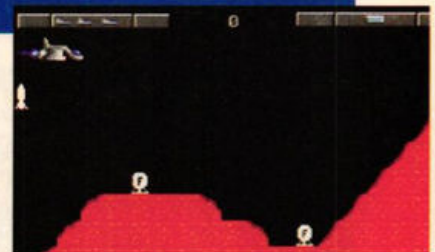
■ That's you, that is, at the start of your mission on behalf of the good guys...



SUPER SCRAMBLE

FLOPPYSHOP BUDGIE 4289C
LICENCEWARE

A pretty faithful reproduction of the arcade classic *Scramble*, *Super Scramble* offers you a few new challenges over six tricky levels – and their ease isn't really helped by the awkward control system – you move your ship with the joystick which is usually a two handed procedure and then you're supposed to drop bombs by hitting the Spacebar, what with is unclear. Anyway, you're one of the few remaining humans in the universe and you just happen to have found sufficient tools with which to build your spaceship, Cobra. You decide you want to save the human



■ Now if you keep going along like that, you die. You've got to watch out for those big bomb things – oh, and try and hit the fuel if you want to keep afloat.

race from total destruction, so off you set in your spaceship through different layers of the planets. All in all it's a pretty good blast to keep your joystick waggling fingers happy for hours.

STF RATING 72%

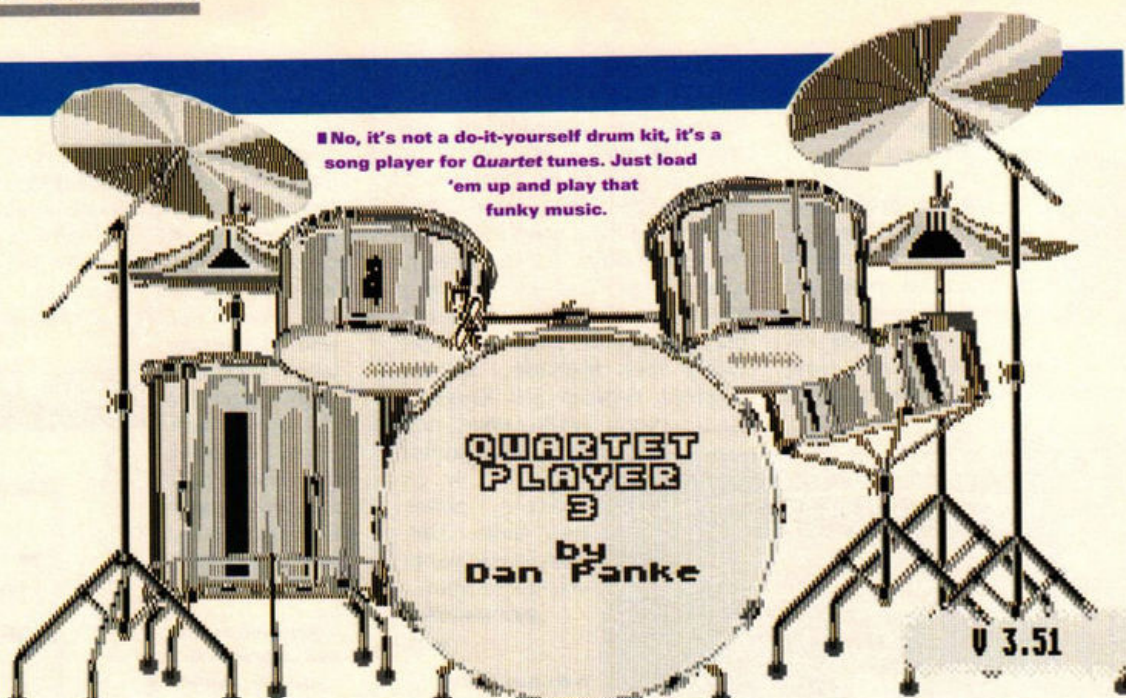
MUSIC

QUARTET PLAYER 3 TUMBLEVANE PD

If you like using *Quartet* from this month's Cover Disk then this program is an ideal way to distribute them for other people to listen to. The disk contains a player program for playing your *Quartet* creations in a special combined voice set and song file, a program to create the combined file and another to separate voice sets and songs.

It's easy to use and you should have no problems incorporating your own songs and voice sets together. Four example songs are supplied including an entertaining tune called *It's a Dog's Life* featuring sampled dogs barking as two of the voices.

STF RATING 76%



NOISETRACKER REPLAY 1.5

JEWEL PD - DISK M128

Well, it's a Noisetracker MOD file player and it plays MOD music files. There's not much more that we can say about it really - there are no brilliant graphic screens to look at while the music plays, the only vague nod towards visuals is a very badly

implemented four bar spectrum analyser display.

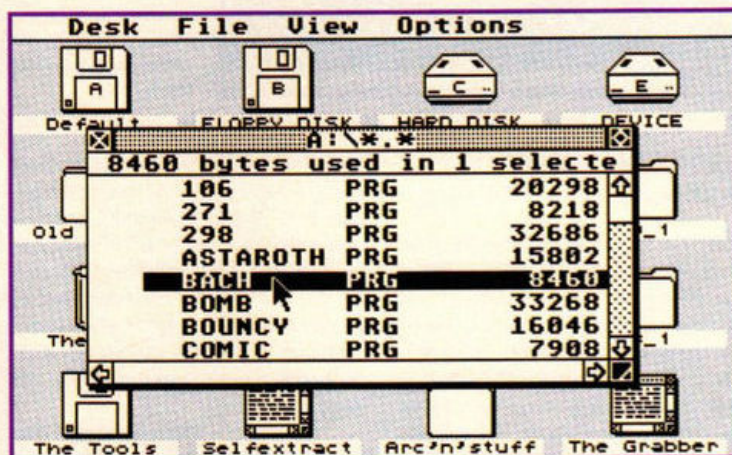
To be fair, you can output the music to four different devices, these are the internal YM2149 sound chip, the Prosound Designer cartridge, the MV16 cartridge and AVR's ST Replay cartridges. You can choose your preferred output by pressing keys one to four. That's it.

STF RATING 43%

NOISETRACKER REPLAY 1.5

```
[1] YM 2149
[2] PROSOUND DESIGNER
[3] MV16 CARTRIDGE
[4] ST-REPLAY OUTPUT
```

■ Dull, dull, dull. A perfect description of the screen display of the *Noisetracker Replay* program. It sounds OK though.



MAD MAX MUSIC JEWEL PD - DISK M125

From the sublime to the ridiculous, the *Mad Max* tunes filling this disk are in runnable program format - you just double-click on the tune you want and it plays continuously in the background when your ST returns to the Desktop. Absolutely great if you like crap wibbly tunes when you're working on an art package or a DTP

■ An alleged Bach tune playing in the background on the Desktop. It really is playing, hold the page by your ear and listen carefully and you should just be able to hear it.

program. If you don't like *Mad Max* tunes or MOD files then avoid this like the plague. It wouldn't be so bad if any of the tunes were recognisable, as it is they just sound like badly written ZX Spectrum game tunes.

STF RATING 35%

DISK MAGAZINE

"Protecting The Wicket" England Solution #15



STOSSER 11 JEWEL PD - DISK T061

This month's disk magazine's got a sporty flavour to it and offers chat, advice, letters, reviews and loads of other bits and pieces for ardent STOS Basic programmers. These include topics like

■ Sport's the flavour of this month; lurking under that menu is a wealth of hidden comment and advice.

Diary of a Demo Coder, which is a rather self-indulgent look at the problems of writing a demo with STOS - possibly fascinating reading if you're trying to do the same - HOO-R-YOO, the personal details of someone who took the time to write to the disk mag, and Telegraph Pole which seems to be a sort of classified comments section - ads as well as other bits and pieces.

It's all very well-presented despite the dodgy punctuation in places. Well worth a look if you've never seen it before.

STF RATING 79%



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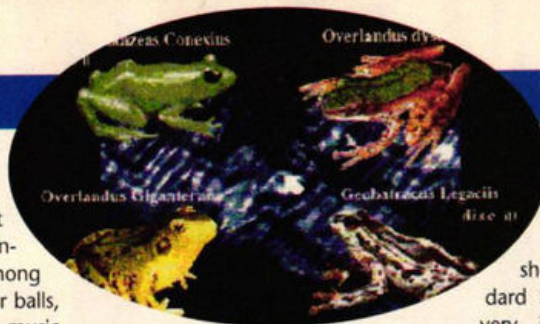
FROGGIES OVER THE FENCE

FLOPPYSHOP - DISK DEM 4360C



A three disk affair put together by Legacy, ST Connexion and Overlanders. Among the usual collection of vector balls, rasters and terrible chip music there are some clever effects. Some text zooms in and out of the screen claiming to be the first real-time 4-bitplane zoomer. Some of

■ Just look at those graphics! Well, at least it's not reams of wibbling scrolling text which is what features mostly in this *Froggies over the fence*.



■ The intro screen is certainly unusual - take your pick of the frogs for your choice of demo coder.

the other scroll texts are flash too, but unreadable as usual. Why not do some pretty patterns instead? Also featured are light-sourced 3D shapes and some fast vector dot shapes. Disk two turns out to be a series of pictures to a thrashing sampled soundtrack. The pictures use an interlaced Spectrum 512 format and claim to

show 4,096 colours on a standard STFM. A couple of them are very impressive. The reset demo turned out to be the world longest scroll text, probably. If you read through the whole thing you must be a demo coder, the programmer's mum or a sad case. The demo has its moments but could do with a lot fewer credits and scroll text and more imaginative effects.

STF RATING 74%

EDUCATION

WUZZLERS

MERLIN PD - DISK 1793

This is a kiddie's educational spelling program written in GFA Basic with a simple idea behind it. A portion of a picture is shown and you have to guess what it is by adding letters from a grid in the corner, choose the wrong letter and an extra bit of the picture is added. If you can't recognise the picture or haven't a clue how

to spell it, well, there's not really a lot you can do about it, but get the right letters and you make the words. More fun, bright and colourful than *Hangman*, especially with the chance to play with two people. Entertaining and educational.

STF RATING 68%

■ Well, that was an easy one - probably though to test out its full potential we should have hauled in a couple of six year olds to try it out.



THE SEARCH

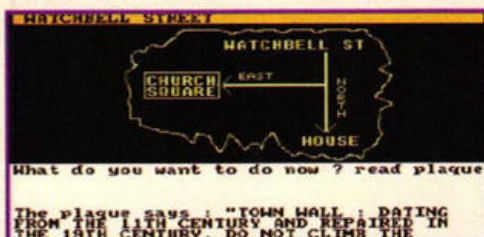
FLOPPYSHOP
DISK EDU 4202C

Written in STAC and illustrated with Neochrome, you've got to find information about a family that lived in the village of Bidden using the clues provided in the READ_ME document and assisted by the worksheets available. Basically you're expected to behave like a historical detective -

the program serves as an introduction to the wider methods of finding out about your ancestors. *Search* isn't exactly the most graphical program you're ever going to see, but the illustrations are adequate and the written instructions detailed. Combining the best of education with adventure game typing-in-commands sort of strategy, kids can get the best of both worlds. Fun and educational but sadly lacking in the "immediate absorption" department.

STF RATING 64%

■ You're not really going to say "cor!" immediately you see this program, but it's got lots of depth, really it has.



FROM PICTS TO PARLIAMENT PART 3 -CHAOS REIGNS

FLOPPYSHOP
DISK EDU 4355C

A speedy slideshow that whizzes through the Middle Ages part of history pretty quickly concentrating on the popular topics of the various behaviour of the royal family and the political state of the England, Ireland, Scotland and Wales.

There's absolutely loads of information crammed in here which even speedy readers are likely to have problems absorbing in the short time the words are on-screen. While this might be a good idea to do some revision for that history exam with if you've lost the capacity



■ Feast your eyes on this rampant bull because it's probably the most interesting thing you get to see.

to use the more traditional form of paper and ink, books really are the better choice - at least you can turn to the page you want and look at it for as long as you like.

STF RATING 58%

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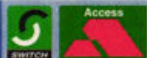
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DA'S PICTURE



Graphics programs, it seems, come in bunches. Hot on the heels of *Chagall*, reviewed in last month's *STF*, comes *DA's Picture*, another high-end graphics program begging for room on your ST's hard drive

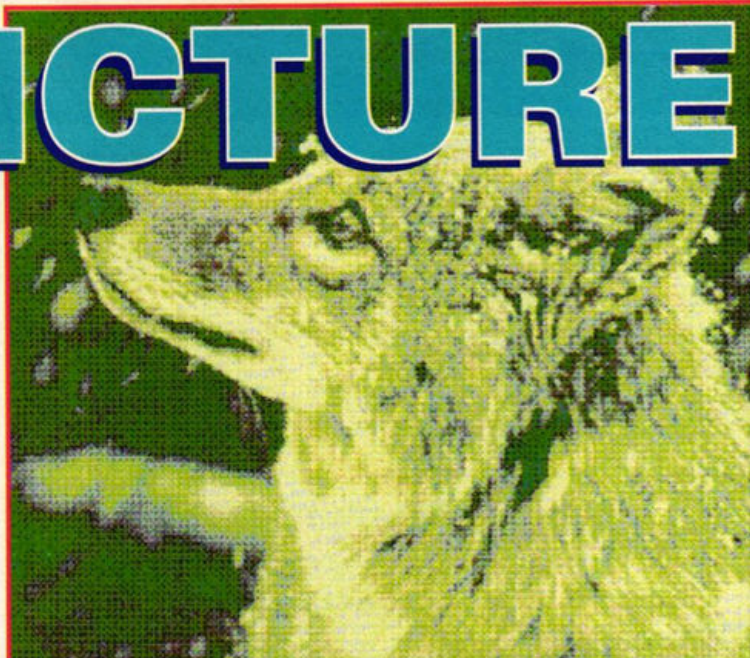
DA's *Picture* is unlike ordinary bit-mapped paint packages. It works exclusively in 24-bit colour, that's pictures with up to 16.7 million colours at once. What you see on the screen is only a representation of the image you are actually working on. Although it runs on any ST, DA's *Picture* is designed to work on a screen of at least 400 pixels high and ideally in at least 256 colours. This is no problem on a Falcon, it can even run in true colour which gives an excellent representation of the colours but needs the flickery interlace on – very hard on the eyes for any length of time. It works with most popular graphics cards so you don't have to have a Falcon. You can run it in other resolutions, but things get jumbled up or there just aren't

enough colours to make it perform well. If you are working with lots of images you need a big hard drive too, and at least 2MBytes of memory, preferably more. This isn't the sort of program you're going to run if you use your ST occasionally, it's a serious power program.

"DA's Picture is designed to work on a screen of at least 400 pixels high and ideally in at least 256 colours"

DA's *Picture* uses a mixture of GEM and its own custom interface. Tool-boxes full of icons can be called up and moved about on-screen. It's a fast and flexible approach, the tool you want is never very far away. The layout is logical and uncluttered, unless you open lots of tool-boxes at once.

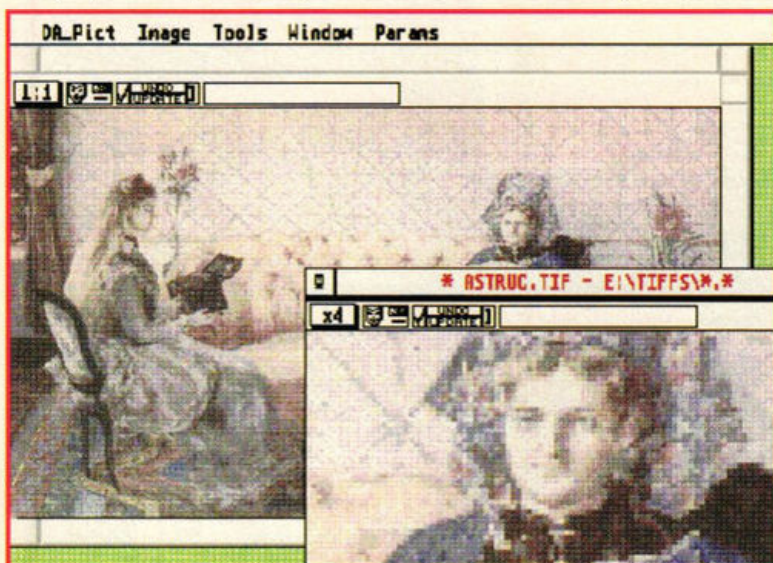
Loaded images appear in a GEM window. Pictures are converted in 24-bit if they aren't already. It only loads and saves using the TIFF format



■ The graduation module in full cry. Each colour channel can be altered separately across the whole image.

or DA's own versions of it. One of the most powerful features is the use of virtual memory, part of your hard drive is temporarily used as extra memory. Only the necessary sections of a picture are loaded into actual

memory. This frees up the otherwise limiting factor of available RAM – 24-bit images are big. It also means you can have a proper undo buffer. Closing a picture window doesn't erase it from memory, merely hides it away.



■ There are 31 levels of magnification, from 16 times reduction to 16 times magnification. Click on the current magnification on the window bar and up pops a menu to choose your new level.

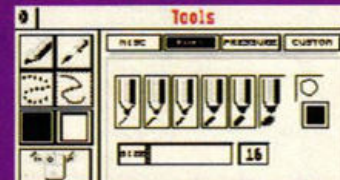
NO ORDINARY PENCIL, THIS

If you are used to using the more traditional packages on the ST then the pencil function in *DA's Picture* comes as some surprise. It doesn't

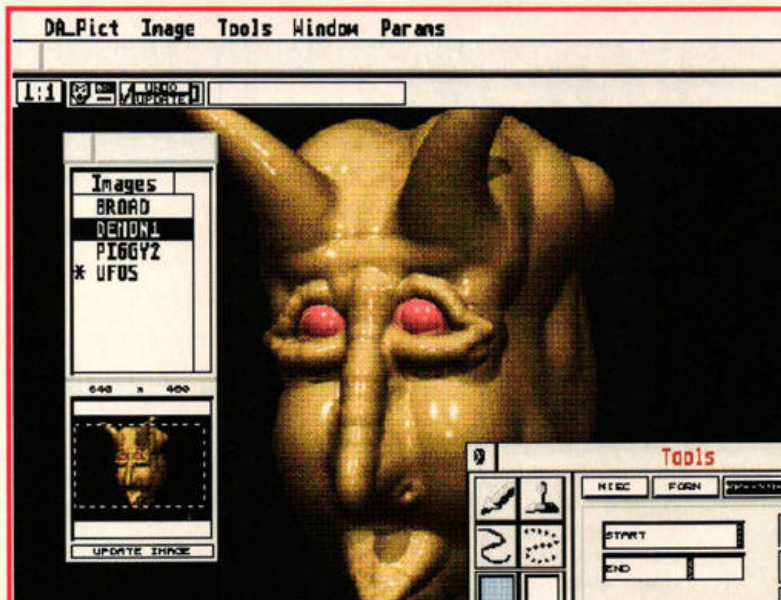
just paint the selected colour onto the image, that would be too simple. The crayon and air-brush can also be adjusted in similar ways.



■ The start and the end pressure of the pencil can be adjusted and the form the colour-run takes. You can mimic the actions of a real colour pencil, fading the pressure from the start of the stroke to the end.



■ The pencil's form and size can be adjusted. It ranges from sharp to blurred. The sharpest pencil lays the chosen colour exactly. The others blur the edges of colour into the background in varying degrees.



Another meaty function is the use of an 8-bit mask. Lesser packages have a 1-bit mask, an area of screen is either protected or it isn't. With an 8-bit mask you can specify 256 levels of protection leading to some interesting effects. You can also use up to eight separate 1-bit masks. The masks are saved along with your picture and copied during block functions.

They can be also edited with all the same tools as the main image.

You can even load 256 greyscale pictures as masks. As you

would expect, colour handling is sophisticated. It can work in greyscale, RGB, CMYK and HSB modes. Colours are picked either from the

screen using a special tool and put into your colour mixer or mixed directly using sliders. From here they can be dragged to the various drawing tools. Commonly used colours can be

stored in a colour-well, a grid of 76 boxes below the sliders, and from a colour list that can be saved and loaded. Creating your own ink-well

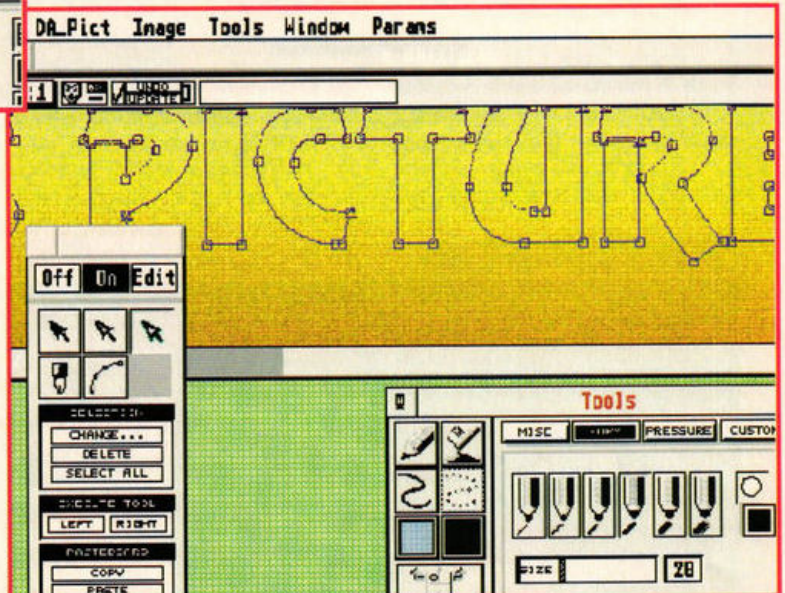
"It's powerful enough to do the job and yet simple enough to load and use without too much hassle"

■ One of the more powerful features is the ability to use virtual memory. Your hard drive is used as temporary extra memory, up to 2GBytes of it. This means you can have dozens of pictures loaded at once. The image manager enables you to easily flip between them.

and colour lists is laborious at first but at least you can save it all. A colour wheel to select new colours would have made the process a little easier. You can load in a colour wheel as a picture and pick the colours from it, which is a little more fussy but works well. One look at the main

drawing tools tells you where DA's Picture is aimed. There is none of the familiar boxes and circles stuff.

There are only three main drawing tools; pencil, crayon and airbrush. They are all very powerful versions and configurable to do all sorts of things. On the image processing side it has the usual bunch: water, sharpen and a rather natty stamp. The image filtering side of things is there too, it doesn't have the rather esoteric and weird filters of programs like *Studio Photo* but it's none the worse for that. Some functions are blatantly missing. The block function, for example, has no remapping functions – DA's Picture leaves that for other programs. What



■ The vector module adds a whole new range of possibilities, you can run any tool round the vector path.

POWER TOOLS

From the main toolbox you can select all DA's Picture's drawing and retouching tools. Although the list isn't massively long, each tool is configurable and very flexible

1. Zoom – Runs incrementally from 16 times zoom to 16 times reduction as well as short-cuts to see the original resolution and the whole image sized to fit.

2. Scroller – Moves the image about in the image window. Can also be reached by pressing the <Alternate> key.

3. Block – Can be used in conjunction with the mask for all sorts of jazzy effects including feathered edges. It has nine different adjustable paste modes and also copies the mask.

4. Pencil – The standard tool, has a multitude of different settings. Laying down a single tone.

5. Airbrush – About as powerful an airbrush as you are every likely to see. Adjustable density, transparency, size and more.

6. Crayon – Like pencil but you need to go over the area a few times to get full colour.

7. Stamp – Stamps a small block onto the picture but with enough settings for all sorts of chicanery, and with about ten different ways of pasting it down. You can load and save any juicy ones you create. It comes with dozens of imaginative examples. Effects range from embossed patterns to splashes of ink.

8. Finger – This smudges colour but doesn't add to it.

9. Water – Blurs the image. Useful for blending in sections and removing unnaturally sharp edges

10. Scalpel – Sharpens the contrast between adjacent pixels, ideal for bringing out detail in a blurred area.

11. Noise – If you block out an area with solid colour on a scanned or digitised picture the result often looks false. This adds in random pixels of colour noise.

12 Copy Pencil – Like the pencil tool, but it takes its start colour from the image itself. As you start drawing, the area you are copying from moves along with the pencil.

13 Restorer – Restores the image from the undo buffer. Set the pressure to see how much of the image is restored.

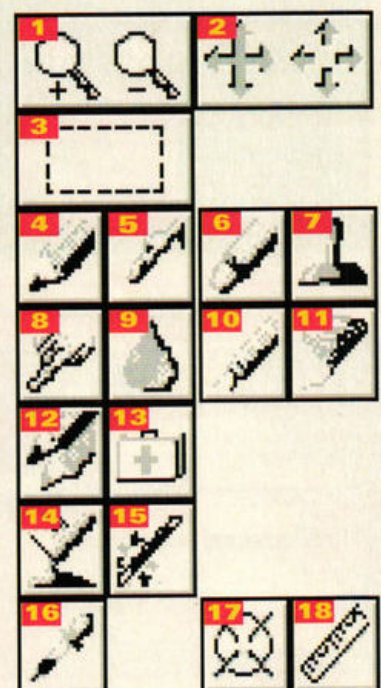
14 Fill – Not a million miles from the traditional fill tool.

15 Magic Wand – A tool used to mask areas and colours on the image. The adjustable tolerance means you can isolate sections of colour to mask.

16 Colour Picker – A must for any package handling this many colours, this enables you to take any colour from the image as your drawing colour so you can get an exact match.

17 Densitometer – Measures the colour, averaging it out over the pencil area.

18 Ruler – Used to measure objects in the image in pixels.



it does have is a multitude of different ways of pasting a block down and using the mask with the block. Cutting and pasting blocks is the most commonly used block operation.

Extra functions are controlled using modules. It comes with a good number. These include a few filters, colour runs or graduated fills and a vector path tool. This can create geometric paths using primitive shapes and bezier curves. Any drawing tools can then be run along the path of the vector to create your image. If you missed simple circle and box functions then here they are, but more flexible. You can save and load your vectors as well as use ones from DA's Vector and DA's Layout. More

modules are planned, including Photo-CD and JPEG support.

If you're looking for an ordinary art package to get to grips with your Falcon's graphical potential, then DA's Picture isn't it. It can be used as such, but it's really designed for retouching images in high-end DTP work. Everything is in 24-bits making it unsuitable for the Falcon's display resolutions. It comes into its own when you have big scanned and digitised images to retouch before they are printed or

used elsewhere. You can print directly from DA's Picture. Drivers include HP 550C, HP Laserjet and the Atari laser.

It's powerful enough to do the job and yet simple enough to load

"One of the most powerful features is the use of virtual memory, part of your hard drive is temporarily used as extra memory"

FILTER FUN

The standard DA's Picture package comes with a number of modules, these include a series of filters that operate over the whole of the image or a selected block. All are configurable and respectably fast for such complex procedures on 24-bit images.

■ Our original picture, a rather poor scan taken from a record sleeve.



■ A simple colour inversion, the intensity can be modified using the mask.



■ The blur function has three modes and variable intensity.



■ The very handy sharpen function has brought out a lot of detail.



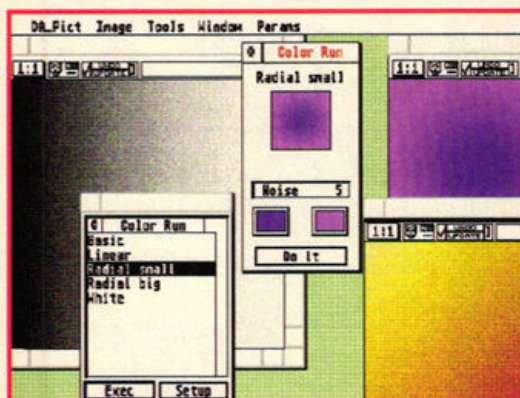
■ Contour makes interesting effects like scanned images look painted.



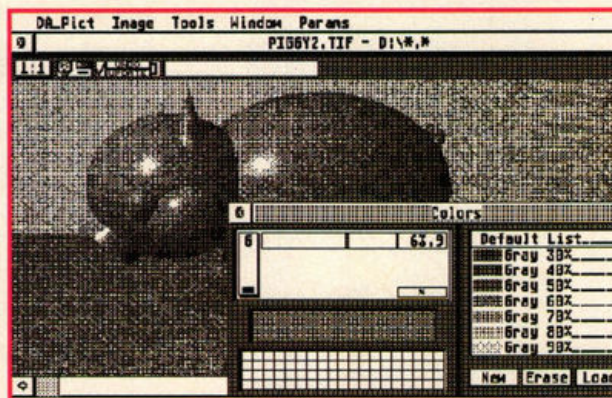
■ Noise can be added to degrade an image, rather like the noise retouching tool.



■ And lastly tom five by five filter that can do all sorts of tricks if you know what you're doing.



■ The colour-run module turns out to be similar to the graduated fill of lesser packages. A quick and easy way of getting backgrounds.



■ DA's Picture is happy running in ST high resolution, but you find it a little tricky to make any meaningful alterations to colour pictures. It really needs the Falcon's 256 colour VGA mode.

DA'S PICTURE

■ Using the colour run and the vector modules this was put together in no time, almost. It would have been a nightmare to do using more traditional painting tools.

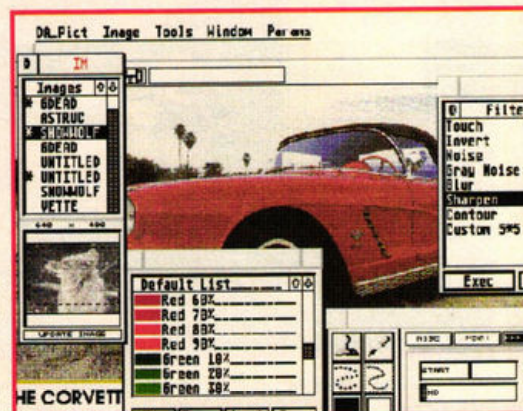
and use without too much hassle. Everything is reasonably quick, although the lag when using even simple pencils can sometimes grate and the vector business often requires a tea-break.

It's a pity it can't be used in resolutions less than 400 high, including true colour without interlace. No doubt they decided there just wasn't a big enough screen area to make it worthwhile. As it is the screen soon gets jumbled up with tool-boxes.

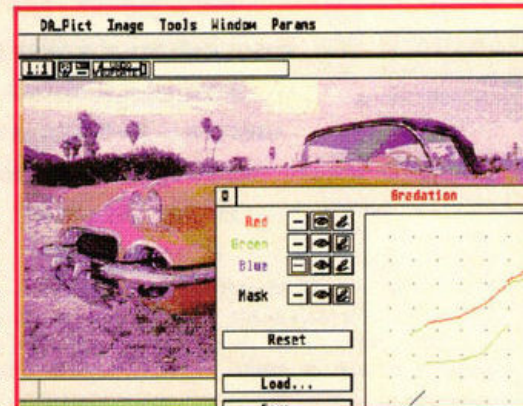
The range of image formats supported, or rather the single image format, is not as annoying as it first seems. The TIFF is a fairly standardised format for 24-bit work and also supports the mask, since this is the destination for all DA's Picture's work it's enough. A utility program converts pictures from a number of formats into TIFFs, including GIF, and Targas.

This is a competent and slick program which has been very well-thought out. The interface is excellent. It's aimed at a pretty select group, not many of us need a 24-bit retouching package but if you do need it then DA's Picture is flexible, very powerful and, for the most part, mercifully easy to use.

CHRIS LLOYD



■ DA's Picture uses a series of tool-boxes, you can have as many open as you like and move them about to suit. Here we are going a little overboard.



■ The gradation tool. It's not the graduated fill tool you may be used to, but designed to correct colour imbalances, principally for printing.

DA's Picture

£149 CGS ComputerBild
☎ 081 679 7307

Highs

- Full 24-bit image retouching.
- Powerful and flexible tools.
- Full use of 8-bit mask.
- Uses virtual memory, so massive images can be created.

Lows

- Some functions missing.
- Needs a powerful system.

What else?

- Chagall, £199 from CGS ComputerBild ☎ 081 679 7307, similar and very powerful package with a less focused approach.
- Studio Photo, £79 from Compo ☎ 0487 3582, respectable range of filters, short on retouching and editing tools.

91



GEMINI ATARI CD-ROM

At last someone has come up with a CD-ROM disk of software for the ST. We didn't just mention it in the news, we've got it here for review!

Now you can use over 2,800 ST programs from a single CD; the Walnut Creek CD-ROM contains over 600MBytes of PD, Shareware, fonts and demos ready for you to run.

The CD is designed to be used in conjunction with a BBS system, it contains files in both uncompressed format and in ZIP format for faster downloads. This seems like a waste of space to us, with over 600MBytes of CD-ROM storage to play with there's room for everything to be either in ZIP format or uncompressed. It just seems a bit strange that all the software is stored on the CD twice, it would be better if everything was compressed enabling a greater variety of software to be included. OK, there is already a lot of variety on the CD, but there could potentially have been so much more.

What you get

Thousands of files fill this CD, split into two main directories of compressed and standard versions. A couple of text files in the root directory list the entire contents of the CD-ROM folder by folder, each of the main directories contain the same software so this description fits both of them.

The main directory is split up into several sub-directories each with

an appropriate label for its contents including; Desk Accessories, general utilities, games, word processors, art programs, disk catalogue programs, formatters, business, databases, comms and so on. There's certainly a lot of variety on this CD-ROM, you

"You could easily start your own PD library or BBS just using this CD"

could easily start your own PD library or BBS just using this CD as the source of your software.

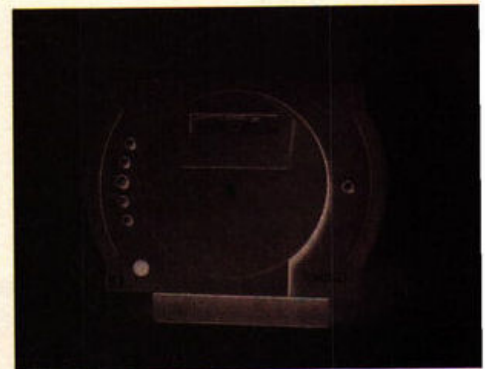
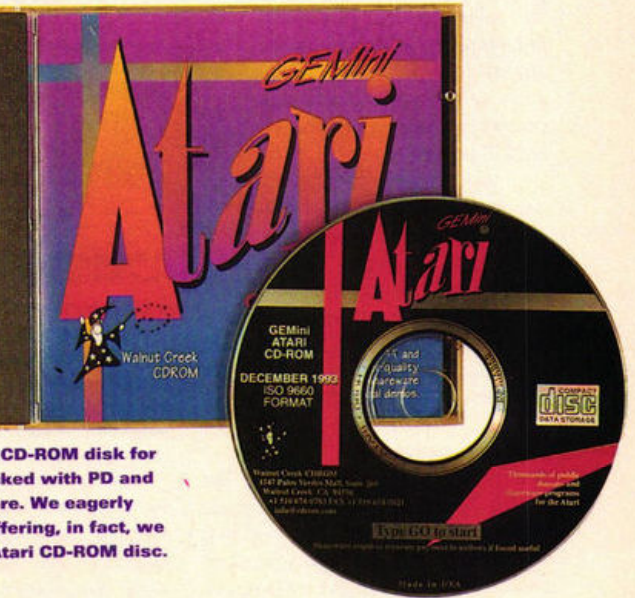
While all the software on the CD is good with no obvious rubbish thrown in to fill space, everything is rather on the old side with no new and exciting programs on offer. All of

■ Walnut Creek Software have produced the first CD-ROM disk for the ST and it's packed with PD and Shareware software. We eagerly await their next offering, in fact, we eagerly any new Atari CD-ROM disc.

the programs are useful but you probably already have the software relating to your specific area of interest already. That said, at least 90% of the programs on the CD are going to be new to you and many are likely to be very useful to you at some point, after all, there's over 600MBytes of software on this disc.

Our verdict

A CD-ROM disc is an inexpensive and convenient way to get PD and Shareware software for the ST, after all, if you wanted to buy 600MBytes of PD software you'd have to buy over 700 disks at

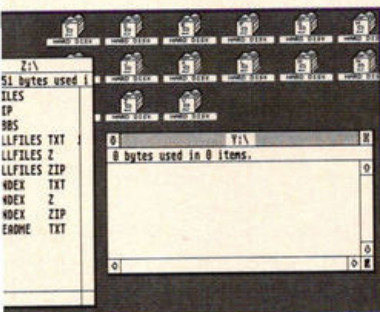


around £1 each. With Apple Mac SCSI CD-ROM drives available relatively cheaply these days it's an easy job to add one to your hard drive setup for about a third of the price.

If you already have a CD-ROM drive as part of your setup then this CD is a worthwhile addition to your library of software. If you don't have a CD-ROM then it's not that expensive to get one. If only Atari had released the CDAR drive back in '88...

CLIVE PARKER

■ Just look at how much software is crammed onto this CD! All you have to do now is copy each program to an individual floppy disk.



■ Using the ICD CD drivers we've set up the CD-ROM drive as drive Y and as drive Z on our ST. CD data is stored in two main formats, the drivers we've installed can read either type of disc.

GETTING A CD-ROM

CD-ROM drives are now as cheap - or cheaper - than hard drives for the ST. The main problem with using a CD-ROM is setting up the interface to the ST's DMA port. If you have one of the more modern hard drives for the ST it should have DMA In, DMA Out and SCSI ports, enabling you to connect a SCSI CD-ROM drive - or any other SCSI storage device - directly to your hard drive.

If you don't have a hard drive then you can use the ICD Link or the Connector to connect a SCSI CD-

ROM drive directly to the DMA port of your ST.

Apple CD-ROM drives are tumbling in price, the Power CD is available from Harwood Computers (0773 521606) for £199 and is not much bigger than a portable CD player. It's only a single speed drive but it can be used as a Photo-CD player and as an audio CD player without using any external software, all the controls are present on the drive itself. The Apple CD 300 drive costs £199 from the same company.

Gemini Atari CD-ROM

£23.33 UNICA
061 429 0241

Any ST with SCSI host adaptor and CD-ROM drive

Highs

■ Crammed with software.

Lows

■ Needs a CD-ROM drive.

■ All software duplicated on the disc.

72%

FONTKIT PLUS 4.1

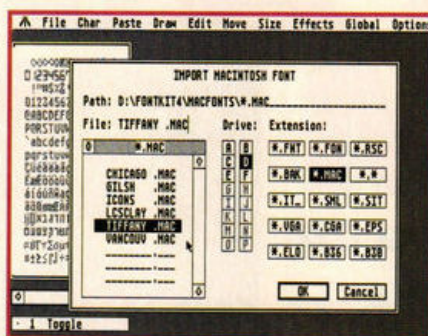
Fontkit Plus is the answer to your word processing prayers; its ability to convert fonts between the different major applications enables you to use a vast range of fonts with your favourite word processor or DTP program.

Fontkit Plus isn't just a single program, it's a suite of software that works together to enable you to import, export, convert and design fonts from different applications and even from other computers. You can convert Apple Mac fonts to ST versions and use them with your DTP software.

Fontkit software

The program you use most is the Fontkit Plus program itself, the main use for the program is to edit existing sets of fonts and to design and create new fonts from scratch. Designing new fonts is simplified by using Fontkit's new drawing tools, instead of simply toggling squares on and off on the grid to design letters you can draw lines, ellipses, curves and copy blocks from one area to another making it easy for you to design new letters.

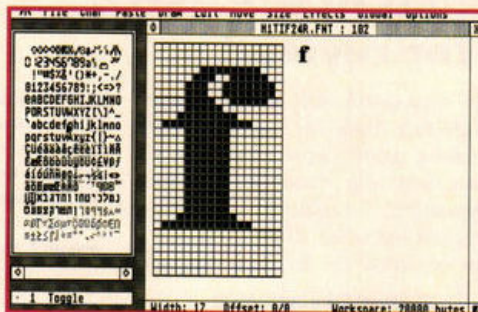
Other simple to use modification tools include global functions



Fontkit Plus 4 comes complete with its own enhanced files selector enabling you to quickly narrow down the field of selection when loading a font.

for modifying complete sets of fonts with 3D shadows or patterns. With the multiple window editing you can cut and paste letters between fonts and so simply design completely new fonts. There are several other small utility programs to complete the full kit of software.

Using Fontkit is very easy, everything is at your fingertips and all the utilities mesh together well to give you the perfect suite of software for



Editing fonts is easy using the new large grids, Fontkit automatically adjusts the grid to match the character being edited on screen.

total font control. If you want to produce quality documents using your ST and word processor then you need Fontkit Plus 4.

CLIVE PARKER

SO WHAT'S NEW?

Fontkit Plus 4.1 has loads of tweaks and enhancements over previous versions of the programs, here's a list of a few of them

- Enhanced file selector.
- Exports HP Laserjet fonts.

- Fastprint GDOS printing accelerator.
- Large 254x254 editing grid.
- Memory resident import and export modules.
- Multi-window editing.
- New version of Fontswitch.
- Prints ST screen fonts.
- Up to 9,999 characters in the paste buffer at once.

Fontkit Plus v4.01

£24.95 FaST Club + 0602 455250; upgrades available 1MByte RAM recommended

Highs

- Easy to use.
- Detailed manual.
- Powerful editing tools.
- Compatible with most fonts.

Lows

- Needs lots of RAM.
- Maximum font size 30K on 520ST.

What else?

- C-Font £9.99 Compo + 0487 3582, conversion program for converting Calamus fonts to That's Write fonts.

ST FORMAT'S GUIDE TO BUYING BY MAIL ORDER

When you're buying from any mail order company, it's worth following our ten sensible guidelines

- Before you send any money, ring the supplier to make sure the item you require is in stock. Ask questions about the company's policy on delivery and returns of faulty equipment. Make sure there are no hidden costs such as postage and packaging. Find out when you can realistically expect to receive your goods.
- Make sure you always read the small print on adverts.
- Beware of companies that do not include their address on their adverts. Also, avoid companies which do not answer or return your calls.

- By far the best method of payment is by credit card. If you're ordering goods which come to more than £100 in total value remember that you are legally entitled to claim compensation from some credit companies if the retailer goes bust. Check your credit card company's policy. You can also try to get extra insurance in advance.

- If you're not paying by credit card, pay by cheque. Never send cash, and avoid using postal orders.

- Always keep a record and keep it somewhere safe. If you are buying by credit card keep a note of the time of the order and ask for an order number. When ordering anything over the telephone, always double-check the price before you part with your money.

- If you are sending a cheque keep a note of the cheque number, the date and the exact value. Make sure you know the name and some details of the mail order company.

- When you receive your goods, check them carefully. If anything is missing or faulty, contact the supplier immediately.

- Always order from the most recent issue of ST FORMAT.

- If a problem does arise, contact the supplier in the first instance. Calmly and politely tell them your problem. Most problems turn out to be minor hitches or misunderstandings that can easily be resolved. If you think you have a genuine grievance, contact your local Trading Standards Officer. The number is in the 'phone book.

The need for buying by mail order increases as high street shops with ST peripherals get scarcer. Heed our advice

Trading Standards Officer
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Any town
Postcode



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33 Ormskirk Rd,
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Ladbroke Computing International are one of the longest established home computer dealers in the U.K. We have developed an extensive customer service policy which involves testing of all hardware prior to despatch to ensure that goods arrive in working order, offering free advice and support over the phone and keeping customers informed. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup.

All prices are correct at copy date 4/3/94 (while stocks last), and are subject to change without prior notice. All prices include VAT but exclude delivery.

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Postal delivery is available on small items under £40 (Normally £3, phone for details). Add £7 for courier delivery. Next working day delivery on mainland UK subject to stock (£20 for Saturday delivery).

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Star SJ144 £449
The Star SJ144 is a Colour/Mono thermal wax transfer printer which gives glossy colour output on normal paper.

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- Emulates Epson LQ 860, IBM Proprinter & NEC graphics

Star
Star LC100 Colour £149
Star LC24/100 Mono £169
Starjet SJ48 Bubblejet £210
48 Sheet Feeder £55
48 Ink Cartridge £19

Prinzen
Prinzen Swift 240 Colour £260
Prinzen PRO Jet £199
Prinzen ABC 24 pin Colour £179.99
Deskjet Packard
Deskjet 520 £279.99
Deskjet 310 £239
Deskjet portable £199
Deskjet 550 Colour £599
DJ500 Colour ink cart £26

Lasers
Epson LP1200 £699
Epsonsonic KX-P4400 Laser £499.99
Epsonosha OP104 £479.99

Add £3 for cable. Add £7 for delivery

Data Pulse Plus



- Very quiet, no fan necessary
- Dual SCSI port
- Internal Power Supply
- Device Number Selector
- 2Mb PD software free
- Free HD Turbokit

The Data Pulse Plus range of drives features a full metal case with integral PSU ideal as a monitor stand.

All Data Pulse Plus Drives now come configured with industry standard 50 way SCSI Centronics sockets which allows connection of the ICD LINK (no clock) for use on the ST or a SCSI II cable for use on the Falcon etc.

To ensure the highest possible reliability, the drives are tested at every

stage of assembly by skilled technicians.

All drives are ready to 'Plug in and Go' when you receive them. When you first boot up your hard drive you will find a wealth of Public Domain Utilities which have been selected by our support staff.

All Data Pulse Plus Drives include 12 months warranty and free phone advice and support by genuine Data Pulse Plus users.

The low power consumption of these Autoparking Autobooting mechanisms means that they can operate well within their safe operational temperature ranges without the need for fan cooling. This coupled with the design of the case results in probably the quietest Hard Drive range available for the ST.

Floptical drives are a reliable, high density, replacement media drive for the ST or Falcon. Due to an optical positioning system the Floptical drive is capable of storing 21Mb of data on one 3.5" Floptical disk. The drive can also read/write 720K and 1.44Mb HD disks.

Re-Writeable Optical drives are a

"Data Pulse is astonishingly fast" -
Andrew Wright, ST User

new addition to the Datapulse range, offering staggering density with hard drive speed. Each 3.5" optical disk stores 128Mb with access time of 30ms and a data transfer rate of 600K per second.

Data Pulse +170Mb	£270
Data Pulse +240Mb	£360
D/P +21Mb Floptical	£340
D/P +128Mb Optical	£810
Please note all prices quoted are for main drive unit only. Add ICD LINK for use with ST or SCSI cable for use with FALCON	
ICD LINK (ST)	£79.99
SCSI Cable (Falcon)	£39.99
128Mb Optical disk	£35.00
21Mb Floptical Disk	£19.99
ICD PRO Utilities	£39.99

Monitors/TV's

Dataview Mono ST £129.99

Quality Mono monitor with Sound Limited Offer. The Dataview Monochrome monitor comes complete with our custom designed adaptor. The adaptor incorporates a small beeper and also a 2.5mm output for better sound reproduction. The monitor/adaptor combination is fully compatible with all ST high resolution programmes and includes a tilt/swivel stand.

Multisync Monitor

Microvitec 1440 £399.99
ST Switch Box £29.99
Falcon VGA adaptor £9.99

The Microvitec 1440 is a multisync monitor compatible with both the Atari ST and the Falcon. Utilising the ST switch box it is possible to display all three ST resolutions on the same monitor. Also compatible with screen blaster for the FALCON.

"Microvitec 1440...Highly recommended"-Atari ST User

Dataview .28 SVGA £239.99
This high quality SVGA colour monitor comes complete with Falcon adaptor. The .28 dot pitch gives the highest quality picture (Falcon will only display 256 colours in high resolutions).

ST-SVGA adaptor £19.99
Falcon-Composite £9.99
Falcon Scart £13.99
Falcon-ST Mon adaptor £9.99
SCART STE cable £9.99
SCART STFM cable £9.99

Scart TV

(Requires SCART Lead)

Samsung C13352X £179.99
The Samsung C13352X is a 14" SCART input TV with remote control and on-screen displays.

Modems

2400 Baud Voyager £84.99
2400 baud pocket modem, MNP 2-4 error correction, MNP5 data compression
14400 Baud Pegasus Fax Modem £159.99
14400 Baud Modem, Auto Dial, Auto answer, Lifetime limited warranty, MNP 2-4 error correction, MNP 5 data compression, S/R Class 1 & Class 2 commands, Group 3 S/R fax modem (compatible with Straight FAX™)
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Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
 - 1.44Mb 3.5" Floppy, up to 14Mb RAM. Displays 65536 colours from 262144 palette at 768 x 480 resolution
 - 8 Channel 16 bit, high quality. Stereo sound sampling
- FALCON 1Mb RAM No HD £499**
FALCON 4Mb No HD £699
FALCON 4Mb 64Mb HD £799
FALCON 4Mb 127Mb HD £899
FALCON 4Mb 209Mb HD £999

Legend Trakball

Ergonomically designed Trak Ball. 320Dpi resolution, 2 microswitched buttons. The Legend Trak Ball is very easy to use. Unlike normal Trak balls the LEGEND is operated with the thumb freeing the fingers to click buttons
ONLY £29.99

3.5" External Drive

Zydec 3.5" External Floppy drive. Includes own external power supply.

£59.99

Eclipse Mouse

High quality 300 dpi mouse with microswitched buttons ST/AM.

£11.99

Marpet Upgrades

Marpet upgrades for the ST are "plug in" and require no soldering. They are compatible with most motherboard layouts and come with full fitting instructions. These boards accept SIMM boards and are upgradeable at a later date. Please check that MMU and Shifter are "socketed" before ordering.

Unpopulated Marpet Board £24.00
See SIMM prices below
Forget Me Clock II £13.99
512K SIMM'S £7.99
2MB SIMM'S £49.99
4MB SIMM'S £99.99

Midistudio Master

240 PPQ Midi Standard file format compatible. 100 tracks. Phrase arrangement. Very easy to use.

£9.99

Hand Scanner

- 100,200,300,400 Dpi Resolution
- 1 letter mode, 3 photo modes
- 105mm scanning head
- Includes Cartridge through port with switch box
- Supplied with Scanlite Accessory. Compatible with any graphics package which supports accessories.
- Allows scanning directly into compatible packages, such as Silhouette.

Hand Scanner+ Scanlite £99.99

Hand scanner supplied with Silhouette V1.4 Autotracing vector package (mono monitor only). £119.99

Repair Services

The Only ATARI Authorised Repair Centre in the UK

Our Atari trained technicians can repair ST's at competitive rates. We can arrange for fully insured, courier pickup and return delivery of your machine to ensure its safety. We even have a same day service which will ensure your machine is given priority and subject to fault, completed the same day.

We offer a Quotation service for £15 for which we will examine your machine and report back with an exact price for repair. If you do not wish to go ahead with the repairs then just pay the £15. However if you do go ahead then the charge is included in the minimum charge.

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

Minimum repair charge	£35.25
Same day service	£15.00
STFM(E) PSU	£34.99
1Mb internal drive	£39.99
TOS 2.06 + Switch STFM	£65.00
Courier Pickup	£11.00
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PC Emulators

- Check configuration before ordering
- PC Speed STFM or STE (XT) £49.99**
AT Speed STFM (8MHz) £139.99

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MAG*SAVE

OUTBURST

How to drive your printer in the fast lane with a new ST accelerator

There's no two ways about it, the ST is a bit on the slow side when it comes to printing anything – it doesn't even have to be a detailed work of art. When it was first launched, the ST was designed to work with the common printers of the day – dot matrix machines. But the printing routines built into the ST aren't up to scratch for today's inkjet and laser printers, which can work a lot more quickly. The trouble is, your ST can't feed in the data fast enough for them, so they have to work at the ST's slower speed. This bottleneck can be dealt with if you use a new American print accelerator called *OutBurST* which sweeps away the congestion and gets your ST to transmit the data at a faster rate. The result is that you save a lot of time, especially when printing from art and desktop publishing software, which have data-intensive output which means they tend to take ages to get any hardcopy. The program is very easy to set up and use which has to be a bonus.

How it works

OutBurST is supplied on disk with a selection of files, the most important one being the actual print accelerator patch program. You place this into the Auto folder of your floppy boot disk or drive C on your hard drive. This patch automatically replaces the ST's built-in printing routines with optimised coding which dramatically

speeds up the whole affair – and you don't even have to do anything. There's also an optional Desk Accessory which, if it's installed, you can call at any time to turn *OutBurST*'s built-in printer spooler on or off. The spooler is best used for text-based programs like word processing, and best turned off with

graphical applications. This happens automatically because an .INF file supplied and residing in the Auto folder contains a list of graphical programs like *PageStream* and *Calamus* and bypasses the spooler when you run any of them. You can edit this list and add new programs to it via a setting program called *OBSET.PR* pro-

grammatical applications. This happens automatically because an .INF file supplied and residing in the Auto folder contains a list of graphical programs like *PageStream* and *Calamus* and bypasses the spooler when you run any of them. You can edit this list and add new programs to it via a setting program called *OBSET.PR* pro-

"OutBurST sweeps away the congestion and gets your ST to transmit the data at a faster rate"



This optional Desk Accessory is supplied with OutBurST, and is used to control its printer spooler. There's even a CPX version of it supplied if you use Atari's newer extensible control panel.

vided on the disk, and this also enables you to fine tune the size of the spooler buffer. *OutBurST* only works with printers connected to your ST's parallel port, and not with serial printers.

So is *OutBurST* worth the money? If you only occasionally use a printer, or only use it for text-based software like word processing, you're unlikely to gain much from *OutBurST*. But if you do lots of printing, especially if using DTP software, you'll



Speed up the rate at which your printer prints with this handy new program.

benefit from much improved output speed. For example, a DTP page from *PageStream* 2 printed in the standard way takes around a total of eight minutes 40 seconds to produce on the upmarket Brother HL10h laser printer, this time being for the ST to compose the page and to transmit the image to the printer. When we tested the same page using *OutBurST*, the total printing time was cut to three minutes 42 seconds – a pretty impressive reduction. You can expect similar improvement in printing time from your other graphical software.

Supplied with *OutBurST* you get special printer drivers for *Calamus* and *PageStream* to extract every last gram of pace from them. We also tried the same test page with *FPPRINT*, a Public Domain printer accelerator, this took four minutes 38 seconds. Although this was pretty good and nearly as fast, *OutBurST* does have advantages over the PD program, which is actually by the same author!

Verdict

OutBurST cannot hasten your ST's processing speed, only a chip-based accelerator board can do that. But it can dramatically enhance the rate of data transmission down your parallel printer lead, and get your printed results onto the page in double-quick time. Now that can't be bad.

PETER CRUSH

C:\AUTO*.*			
2 selected items in 2484 bytes			
HOUSEBT3.PRG	18670	18.05.92	00:59
JAR7.PRG	856	08.12.92	13:09
WARP9_ST.PRG	64412	31.10.92	20:28
TOS14FX2.PRG	697	18.10.92	01:05
FOLD60.PRG	659	11.04.76	13:57
CACHE040.PRG	834	11.04.76	13:57
AUTOFMC.PRG	13442	08.08.91	21:24
UIS.TII.PRG	34632	13.10.91	00:07
MAXID_ZZ.PRG	7760	11.04.93	17:50
FPPRINT.PRG	287	03.06.93	18:30
OBURST.INF	138	09.11.92	22:07
OBURST.PRG	2266	28.02.93	19:51
NEOLOAD.PRG	8649	22.01.93	12:13
PARTITIO.NOB			

Setting up OutBurST is very straightforward, just place it into your Auto folder. It's best placed near the end of any programs in there.

OutBurST

£19.95 Douglas Communications
☎ 061 456 9587

Highs

- Very easy to use.
- Works on any ST system.

Lows

- A trifle expensive unless you do lots of printing.

What else?

- FPPRINT* is a Public Domain program very similar to *OutBurST*, but it's not quite as fast and you don't get all the frills and support.

80%

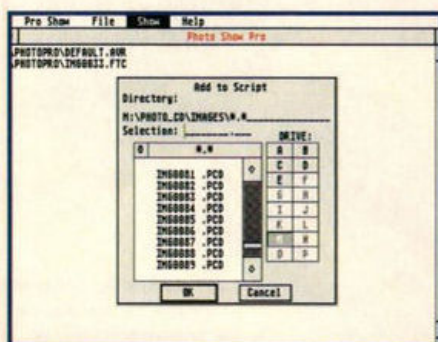
PHOTO SHOW PROFESSIONAL

A good visual presentation can be vital to make an impression on a customer, *Photo Show Professional* provides the perfect presentation tool for Photo CD

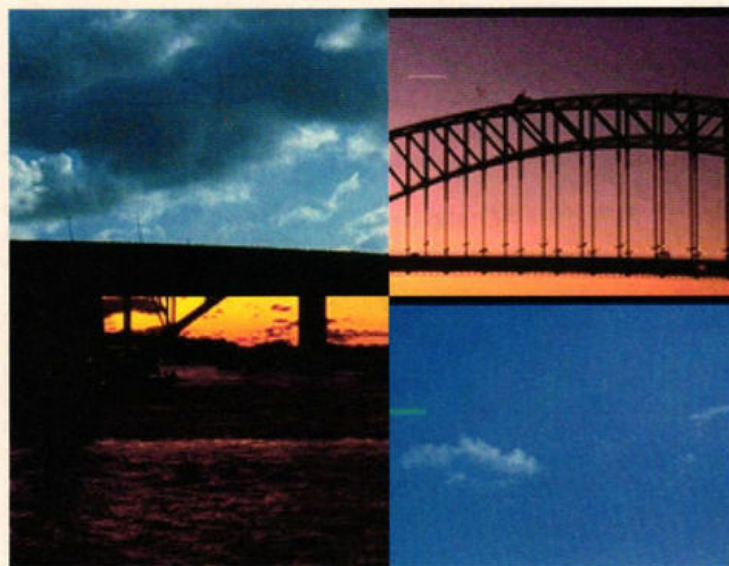
Multi-media, nobody knows what it is or how to define it, there'll probably never be a cast-iron definition. If it means

combining graphics and sound under your control then *Photo Show Professional* is the first true multi-media tool for your Falcon.

The concept of *Photo Show* is simple, display photographic quality Photo-CD images on screen combined with sampled sound for spot effects, music or sampled speech. The first version of *Photo Show*



■ Use the file selector to choose the picture or sound you want to use from hard drive or Photo CD, the list on the left of the screen shows entries already made into the script.



■ Selecting the Jumble effect causes the new image to appear in four mixed up quadrants which then re-arrange themselves.

went a long way towards this goal but was let down slightly by the lack of visual effects, this new version has remedied this lack in a huge way by supplying a large selection of special effects to manipulate your pictures on-screen.

Creating a script

You can create complete presentations from within *Photo Show* by creating a simple script file telling the software how to treat the image or sample being processed. Creating the script is completely automatic, all you

THOSE EFFECTS IN FULL

We were a bit concerned by the lack of visual effects included in the first version of *Photo Show*, there were just two. It seems that It's All Relative - strange name - have taken note and added some more effects, in fact, they've added 24 extra effects to *Photo Show Professional*.

Each effect has a code number that you enter into your script when you choose a Photo CD, FTC or BMP image as part of your show. The standard effects are listed below, all effects with a "a" after the description can be used with additional special effects.

General effects

0. Three Way Fade: Image fades into a new image in three steps. *
1. Pop: Image pops onto the screen without any effect from top to bottom.
2. Fade: Images fade into each other using a vertical shutter effect. *
3. Strips: Images appear in four vertical strips. *
4. Drop Down: Image drops down from the top of the screen.
5. Pop Up: Images pop up from the bottom of the screen.
6. Curtain: The old image pulls away from the centre of the screen to reveal the new image.
7. Fast Wipe Right: Image slides quickly on screen from left to right.
8. Grow Box: Image grows from the centre of the screen.
9. Roll Out: Image rolls onto the screen from left to right using a tube effect.
10. Wipe Right: Image appears slowly from left to right. *
11. Wipe Left: Image appears slowly from right to left. *
12. Wipe Down: Image appears slowly from top to bottom. *
13. Wipe Up: Image appears slowly from bottom to top. *
14. Jumble: Image appears on screen in four jumbled parts that move to the correct position.
15. Blocks: Image appears on screen in four blocks.
16. Invert: Image appears upside down. *
17. Mirror: Image is mirrored left to right. *
18. Small Insert: A small block of the new image overlays the old.
19. Large Insert: A large block of the new image overlays the old.

IMAGES OF THE WORLD

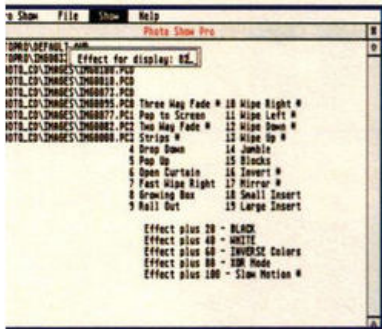
You can get Photo-CD discs full of prepared images you can use in your scripts, they range from landscapes to classic cars and flowering plants



■ And here we have a rather stunning landscape displayed in *Photo Show*.

■ Ah yes, let's relax in warmer climes and forget about the British weather for a while.





■ After selecting the picture you are going to use you enter the number of the effect - or combination of effects - to be used when the picture is displayed on-screen.

have to do is point and click and then select the effects options you want to use.

You simply go to the Create Script command in the Show menu, enter the name of the script and start entering details, just selecting pictures and sounds using the file selector in the usual way, entering extra commands for visual effects, sound loops and delays. It really couldn't be easier to build up a polished presentation for display.

If you feel that it takes too long for the Kodak PCD picture files to load from the CD-ROM drive then you can convert them into Photo Show's own format (FTC) and store them on your hard drive, they load in a fraction of the time that the CD

SPECIAL EFFECTS

In addition to the general effects there are five special effects that alter the way a standard effect works. When you select the standard effect you wish to use all you have to do is add the number of the special effect to the effect you are using. For instance, adding 40 to effect number 12 means that you enter 52 as the effect code

Adding 20 to any effect code fades to black using the effect instead of displaying the image.

Adding 60 to any effect code displays the inverse image.

Adding 40 to any effect code fades to white using the effect instead of displaying the image.

Adding 80 to any code XORs (exclusive or) the image to the screen over the old image.

Adding a number between 100 and 900 in steps of 100 adds a delay to the effect.



■ The old image is drawn aside like a curtain and the new image is revealed in the centre.



■ Hmm, don't you think these hunky beach boys look much better as a negative image?



■ Your original image is wiped from the screen in three passes, each wipe replaces more of the old image with the new.

images take. You can also use Photo Show to display 24-bit Windows Bitmap (BMP) files from the PC and graphics in Corel Photo-CD format.

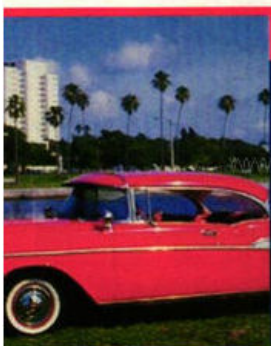
You can add text to a screen to create messages or use it as advertis-

ing copy. Photo Show Professional works very effectively in a shop as a continuous display of the Falcon's graphics and sound capabilities. Photo Show is fully compatible with GDOS and MultiTOS.

Summing up

So, you can create presentations and displays using sound and graphics on your Falcon, what else does it do? Well, nothing really, because that's all it's designed to do and it does it well! If you're considering a CD-ROM drive for your Falcon setup then you need no other incentive than to see this program in action. Photo-CDs are an excellent source of good graphics you can use in your work - subject to copyright limitations - and Photo Show enables you to convert PCD images to 24-bit TIFF, EPS and RAW files. It's worth getting Photo Show for this function alone, excellent stuff.

CLIVE PARKER



Superb image of the Classic 1957 Chevrolet Belair from the 100 Classic Cars disc.



■ Do BMW know what they've let themselves in for? This is the Rover 6hp built in 1909.



■ Direct from the lush fields of the Netherlands, a cultivated red tulip in all its 24-bit glory.



So you've seen this car in the movies. Did you know the elorean was built in the UK?



■ Ooohh a pretty flower, a dahlia in fact, pruned from the 100 Flower Plants disc.



■ And while we're in the mood, here's another flower. A rose by any other name would still smell. A lot.

Photo Show Professional

£49.99 from System Solutions
☎ 0753 832212. Falcon030,
minimum 4MBytes of RAM,
MultiTOS and a multi-session
CD-ROM drive required

Highs

- Powerful and fast.
- Good export options.
- Simple to use.

Lows

- Needs 4MBytes to run.
- Need MultiTOS.
- Doesn't like running along other programs.

What else?

- There's no direct comparison.

88%

DESKJET 310

COLOUR INKJET

This bargain priced portable printer can produce any colour you want from simple black and white through the entire spectrum. It even looks sexy on your desk, being a rather attractive matt black affair with illuminated control buttons and coloured LEDs.

Setting it up is easy, just connect it to your ST via the specially thin, lightweight printer cable supplied with the machine. If you get the optional nicad battery the printer can run on you don't need any other attachments – but if you don't have it just plug in the PSU unit. Now push a sheet of paper into the rear feed slot

and it advances to the correct position ready for printing.

Colour kit

The monochrome output from the printer is very good, equalling that from the full-sized HP machines. And if you want colour you just need to get the optional colour kit, which consists of a three-colour ink cartridge cum print-head and a plastic box to store it in. Open up the front cover of the Deskjet 310, whip out the mono print cartridge, swap it for the colour cartridge, and that's it! Don't forget to pop the mono cartridge into the cunningly designed box, which cleverly accommodates either cartridge even though they are different sizes and shapes, and stops the inks from drying up.

The colour output is up to the same standard as that produced on full size HP printers,

To test graphics output, some PageStream DTP documents were used at 300 dpi and took around five minutes to print. This software enables you to fine tune the colour balance of your pictures with accuracy.



The new HP portable DeskJet printer can be fitted with a sheetfeeder as an optional extra. It folds out, supporting the printer at an angle of 45 degrees, and the whole assembly can hinge flat for easy packing away.

and the little Deskjet 310 is quick, slick and very quiet.

Verdict

The low price makes the Deskjet 310 a desirable piece of kit, and it's a cost-effective way to get into decent colour printing. The bigger Deskjets are probably more sensible for heavier use, but they cost more and take up more desk space. You do have to pay extra for the sheet feeder with the portable machine, which comes as standard with the normal Deskjet. Combining excellent quality printed output with HP reliability, sturdiness of construction and compatibility with most ST software, the Deskjet 310 is ideal for you if you're hard up but want a colour inkjet printer.

PETER CRUSH

DeskJet 310

£235 (including colour kit)

0344 369369

Hewlett Packard

Highs

- Buy it as a budget mono machine.
- Convert it cheaply to a colour printer.
- Good ST software compatibility.

Lows

- Added options push the cost up a bit.

What else?

- No comparable colour inkjets in this price range apart from other HP Deskjet printers.

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PAGEASSISTANT

V2

If the DTP program PageStream baffles you, then you need PageAssistant – an Accessory that provides on-line help and advice for each of PageStream's commands. So instead of ploughing your way through the PageStream manual, you get the information direct on your screen.

The upgrade to v2 of PageAssistant comes in the form of an eight page printed booklet and a double-sided disk containing the new DA and some other utilities. If you are buying from scratch, the original 52 page book also accompanies PageAssistant v2, including in-depth tutorials on the more advanced aspects of PageStream, with relevant text and pictures on-disk.

PageAssistant takes up about 95K of RAM using overlays to load in the various sections of data as and when they are needed. This isn't a problem if you have a hard disk, but



Click on the pop-up icon for guidance on the measurement system. The cascade arrow indicates that further options can be selected.

is slower when run from a floppy drive. PageAssistant runs in all ST screen resolutions including those on the TT and big screen monitors. To use PageAssistant copy it onto either your hard drive partition C or your floppy boot disk. Re-set the ST and the DA is in the Desk menu whether or not you

Text on your chosen subject now appears in the window, almost instantaneously, if you have a hard drive.

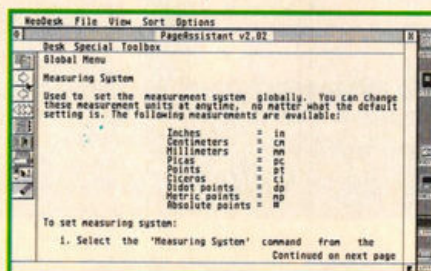
have loaded your PageStream software.

Using the PageAssistant DA causes a GEM window to drop down, and clicking on the "Popup Menus" icon makes a main menu drop down in the Page Assistant window duplicating all the entries in PageStream's own menus. Clicking on any menu item opens a sub-menu on screen, listing all the relevant commands. Selecting the command of interest gives you an on-screen explanation of how that particular one works, together with what pages in the PageStream manual the command is also detailed on. There are a few screens of information per command, and you can scroll back and

forth by clicking on the arrow icons or using the ST's arrow keys.

The information conveyed by PageAssistant does not just duplicate that found in PageStream's own manual, but provides a useful and fast insight into this software. You could almost dispense with PageStream's printed manual, and find any info you need quicker on-screen.

PETER CRUSH



Page Assistant v2

£29.95 or £7.95 upgrade

from v1

The ST Club 0602 410241

Highs

- Provides direct on-screen help.
- Very comprehensive coverage.
- Tutorials included.

Lows

- Only of use to PageStream users.

What else?

- Nothing apart from the PageStream manual.

85

GAMES EXPLOSION!

Everyone around the world, are you ready for a brand new beat? Spring is here and the time is right for... playing games on your PC. Yup, the first games boom of 1994 is upon us as the softcos start firing the heavy artillery. *Ultima VIII*, *Pacific Strike*, *SSN-21 Seawolf*, *F-14 Fleet Defender*, *The Elder Scrolls: Arena*, *Mega Race* and *Sabre Team* are just some of the heavyweights reviewed and rated in the latest issue of *PC Gamer*. It's our biggest reviews section in yonks!

Special Double-Disk Edition – The Sequel we just can't control ourselves. With so much amazing software flying about at the moment, we simply had to slap an extra high-density overdisk on the front of this month's issue. So, like last month, you'll find no less than two demo-packed disks on our May cover. Their content must regrettably remain a secret for reasons of national security, but we promise you'll be suitably amazed when you see what we're giving away.

Plus! Definitive guides to multi-player games and football management sims! Yet more maps and tips for *Alone In The Dark 2*, *Star Trek: Judgment Rites* and many more! An idiot's guide to memory management (no, really!) and lots of other stuff so amazing we daren't tell you about it (*He means they haven't written yet* – Deputy Ed).

It's all, like, going down, man, in the May issue of *PC Gamer*, which hits the streets on Thursday 28 April. Radical.

PC GAMER

Harder Than The Rest

SJ-144 COLOUR PRINTER

You know all about the different printing methods. There are dot matrix, inkjets, plotters and laser printers which are all widely seen and used. But now there's a new one to think about. It's called thermal wax transfer printing, and that's what you get with the new SJ-144 Colour Printer.



Thermal wax printers aren't really that new, but up until now they have been very expensive and only used in industrial and commercial setups. Star's new machine is among the first affordable domestic version of this technology, and it comes in a sleek, streamlined package looking like a familiar inkjet printer.

The printer has three standard emulations, so most good quality programs should present no problems. It's quiet in operation and the colour output is impressive, giving strong, slightly glossy, full-bodied results.

Verdict

The Star's output quality of word processed material was a bit disappointing, being rather spidery and less definite than the Deskjet's results



■ While text output is a bit thin and unimpressive, colour graphics look very good and enhances those special projects when your work needs to shine.

■ You'd never really know this unassuming little Star SJ-144 printer incorporates the very latest thermal wax transfer technology... unless you've just read this review, that is.

– and it's pretty slow. The SJ-144 is much better on pictures, producing vivid colours with strong saturation and cover, so for desktop publishing or artistic applications it comes into its own, and it could be ideal for producing high quality colour proofs, or one-off presentational material for business or educational uses.

PETER CRUSH

Star SJ-144 Colour Printer

£440, Star Micronics
☎ 0494 471111

Highs

- Good colour graphics output.
- No colour smudging or running.

Lows

- A bit slow.
- Average quality text output.

What else?

- No competing thermal wax printers in this price range as yet.

73%

Thermal waxing

This is the way it happens. Fit the printer with its cartridge; for monochrome output there is a black cartridge, for colour there's a three colour cartridge, and for printing onto transparent overhead projector film there are two other cartridges. The cartridges contain a long thin plastic ribbon coated with a waxy material containing the pigments used to produce the printed output. The black cartridge is one long length of just black, whereas the colour cartridge is split between yellow, cyan and magenta bands laid

down in sequence along the length of the tape or ribbon. The print-head itself is fixed in the printer, and the ribbon in the cartridge passes by it, powered by motors which wind and re-wind it automatically like the tape in a compact cassette.

There are 144 elements in the print-head which heat the ribbon and melt the pigment onto the paper. The coloured material cools very quickly, and because it's waxy there is no problem with it soaking into the paper or getting mixed with other colours.

LOWEST PRICED TOP QUALITY RIBBONS, INKJETS, TONERS & DISKS

Printer Ribbons

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Amstrad DMP 4000	3.66	3.51	3.31	3.11	Panasonic KXP1080/1180/90/1592	2.89	2.74	2.54	2.34
Amstrad PCW8256/8512/LQ3500	2.85	2.70	2.50	2.30	Panasonic KXP2123/2180	5.75	5.60	5.40	5.20
Brother M1009/1024/1109/1209	3.90	3.75	3.55	3.35	Seikosha SL90/92/95	5.70	5.55	5.35	5.15
Citizen 120D/LSP10/Swift 24/9	2.85	2.70	2.50	2.30	Star LC10/20/100	2.29	2.14	1.94	1.84
Commodore MPS1220/1230	4.50	4.35	4.15	3.95	Star LC200	3.00	2.85	2.65	2.45
Epson LQ100	4.10	3.95	3.75	3.55	Star LC24-10/200	2.86	2.71	2.51	2.31
Epson LQ400/500/800/850	3.45	3.30	3.10	2.90	Taxan Kaga KP810/815/910/915	3.14	2.99	2.79	2.59
Epson FX/MX/RX80/FX/LX800	2.90	2.75	2.55	2.35	COLOUR	1 off	2+	5+	10+
Epson FX/MX/RX100/FX/MX 1000	3.36	3.21	3.01	2.81	Citizen Swift 24	12.81	12.66	12.46	12.06
Epson LX80/86/90	2.12	1.97	1.77	1.67	Panasonic KXP2123/2180	10.63	10.48	10.28	9.88
Mannesmann Tally 80/81	3.90	3.75	3.55	3.35	Star LC10/20/100	6.00	5.85	5.65	5.25
NEC Pinwriter P2200	3.03	2.88	2.68	2.48	Star LC200	9.78	9.63	9.43	9.03
OKI ML182/183/192/193/195	3.17	3.02	2.82	2.62	Star LC24-10/200	9.63	9.48	9.28	8.88

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JAGUARTM



54 NEWS

● So, when can we expect to get some Jaguars over here? Have Atari messed it up again?

● What's the latest on the Jaguar games front?

58 PREVIEW: ALIEN VS PREDATOR

How does the most hyped Atari game look as if it's progressing?

61 PRESENTING: REBELLION

The boys behind *AvP* and *Chequered Flag 2* - we reveal their innermost secrets. Probably.

JAGUAR REVIEWS

To ensure our Jaguar reviews accurately reflect the specific abilities of the machine, we've devised a rating system so you can easily see how good a game is.

GAME NAME

£Price ■ Publisher ■ ☎ Phone number

GRAPHICS ● ● ●

Graphics rated out of a maximum of five

SOUND ● ● ● ●

Sound rated out of a maximum of five



Does the game use Jaguar's capabilities?

GAMEPLAY ● ● ● ● ●

How does it play?

STF RATING

90%

page

ISSUE 58 ST FORMAT

53

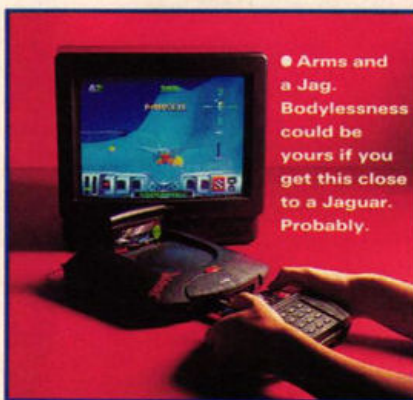
www.stformat.com



Atari on course Jaguar sales

Atari are selling Jaguars as fast as IBM can make them – they've already sold 100,000 of them in the States, putting the company on course for sales of a million by Christmas.

With many of the teething problems out of the way and a substantial list of developers under its belt (see boxout opposite) Atari are looking to a rosy future. As Darryl Still of Atari UK put it: "the company's now healthier than it has ever been, we've undergone substantial restructuring and now the future's coming on-line." He confidently predicts starting up problems for Sega and Nintendo's higher end technology – Saturn and Project Reality respectively – and happily boasts that Atari are at least a year ahead



● Arms and a Jag. Bodylessness could be yours if you get this close to a Jaguar. Probably.

of them in terms of consumer awareness and, just as importantly, sales. They've got production and national US distribution well under way – Darryl says "now it's just a matter of building up supply to meet demand" – and a reasonable selection of games should soon start to appear.

Jaguars in the UK

The next thing to think about is the distribution of Jaguars in the UK and Europe. Atari concede that numbers of Jaguars in the UK before Christmas – that had been brought in officially by them – numbered fewer than 1,000, but the IBM production plant is now making "decent quantities" of PAL machines and by June you shouldn't have any problems getting hold of one. SDL and Thornley distribution companies are preparing to take stocks and sell the machines in the UK.

However, the grey import market in the UK is booming – Atari estimates that over 1,000 Jaguars are being sold each month by grey importers, those that really are doing very well are those companies that are buying NTSC machines, adding a PAL convertor and selling them at a reasonable price – say £249 as opposed to the extortionate £300 plus that's being asked by other outlets.

"Now it's just a matter of building up supply to meet demand"
Darryl Still, Atari UK

Going on show

Atari's new-found confidence can also be seen in their plans to actually go the European Computer Trade Show in April – the first

Bullfrog take hit

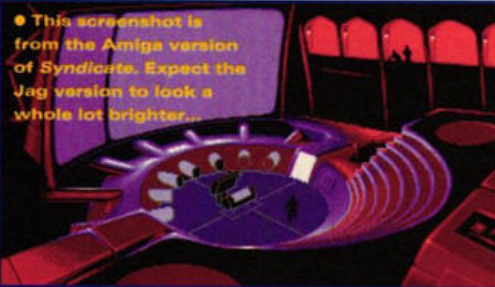
Masters of the god game and creators of some of the most popular games to come out on the ST, Bullfrog, are among the most recent list of developers (above, opposite) to commit themselves to the Jaguar with two releases.

Bullfrog, whose previous ST games include *Populous* and its sequel *Populous 2*, *Powermonger* and *Flood* have kept away from the ST recently and concentrated

more on other computer formats. They're now returning to Atari with their latest creation, *Syndicate*, which is expected to be released on the Jaguar around November. It has already appeared on the PC and Amiga and met with critical acclaim.

Syndicate is set a long way into the future – a cyberpunk style future in fact, where multi-national corporations rule the world. They employ hit squads to perform unpleasant tasks like assassinations aplenty, kidnappings, destruction of property as well as a few mass murders thrown in for good measure.

You start off with eight agents, a basic knowledge of even



● This screenshot is from the Amiga version of *Syndicate*. Expect the Jag version to look a whole lot brighter...

more basic weapons and that's just about it. Unfortunately your task is to conquer the world with these minimal resources, but you

do have the services of some decent scientists and quite a bit of cash to help you along so that helps matters considerably. There are 50 missions altogether which get more complicated as you go through the game – and all in all it takes a solid couple of weeks' playing to finish.

The PC version looks excellent – the cities are really detailed and the animations are brilliant as well... and if just watching gruesome murders aren't enough for you, you can always turn the sound up really loud and have the



● This is Peter Molyneux – at one time he was hardly out of STF, the then editor, Mark Higham, being president of Peter's fan club. Anyway, he's the co-founder of Bullfrog and programmed *Populous* on his own.

CANNON FODDER FOR JAG!

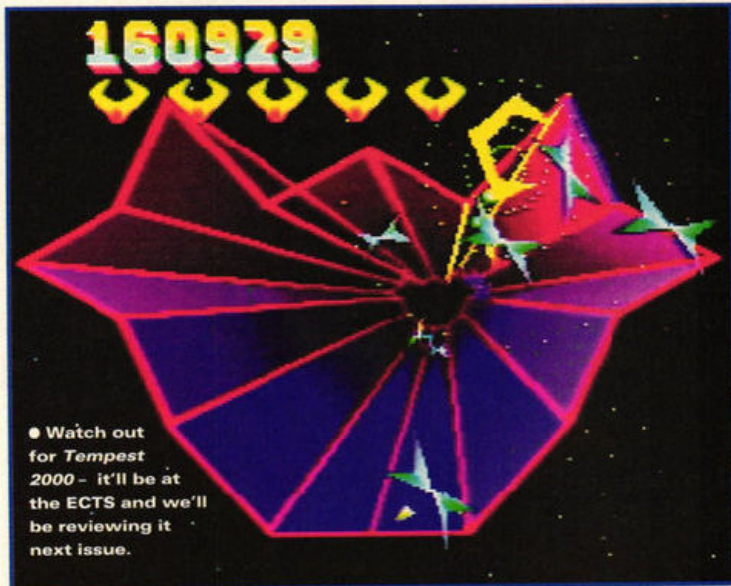


TRY AGAIN

It'd be heaven. Or the closest you could come to it anyway...

● *Cannon Fodder* – great on ST – would be superlative on Jag.

for a million



● Watch out for *Tempest 2000* - it'll be at the ECTS and we'll be reviewing it next issue.

time they've exhibited at a show of any description for years. As well as private areas where developers can talk to Atari about their plans, they're also going to be having a "hospitality suite" in which many of the forthcoming Jaguar games are to be displayed

including finished versions of *Tempest 2000*, *Alien vs Predator* and an early version of US Gold's *Flashback*. The other good news is that the Jaguar has been nominated for the Best Hardware Award at the ECTS. Watch this space for more information...

NEW DEVELOPERS

There's a grand total of 86 developers, publishers and licensees for the Jaguar now, including all these parties who have signed up since the beginning of the year. More details about what they're likely to be developing will be revealed next issue after the ECTS. Some of these are more interesting than others... the list includes companies who are developing music and tools as well as games

Accent Media Productions
Anthill Industries
All Systems Go
Argonaut Software
Audio Visual Magic
Bethesda Softworks
Bjorn Joos/Chris Van Lier
Black Scorpion Software
Borta and Associates
Bullfrog
Clearwater Software
Computer Music Consulting
Cybervision
Cyberware
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Readysoft
Rest Energy
Sculptured Software
Software Creations
Team Infinity
Team 17
Technation Digital World
Technics
Teque London
Thrustmaster
V-Reel
Virtual Xperience
Visual Concepts
Williams Brothers
WMS Industries

game to Jaguar

terrifying screams of the victim penetrating through your living room. It's the sort of game the Jaguar should be able to do great justice to... look forward to seeing that if you've got a bloodthirsty nature in the next few months.

The other game Bullfrog are set to release is *Sim Theme Park*, not yet out on any format but expected shortly on Amiga and PC. Again the Jaguar version is expected around November. Michael Diskett, who's the head of conversions at Bullfrog, explains the premise behind the game: you start off with a plot of land and



● This is what the PC version of *Sim Theme Park* looks like. Seems that god comes in the shape of Walt these days...



● *Flood* starts here - Bullfrog's only platform game so far.

£50,000 and you have to create it into a theme park with rides and other entertainments to keep everyone happy. After all, if your punters are satisfied they keep coming back after the first time.

You've got to build an infrastructure before you can do anything - roads, paths and buildings to start off with - and, of course, you also need a plentiful supply



● Attractive graphics in only 16 colours in *Powermonger* show the potential of what the Bullfrogs could do with the potential of the Jaguar.

of junk food outlets with which to keep the kids quiet. All the people who come to your theme park are



● *Populous* was the game that put the Bullfrogs on the map - and started off the genre of the god game.

individuals, just like in real life - if they like what you offer they'll come back to visit it time and again - and they're also happy to pay more to get in, so you have to find out exactly what they want and tailor make the park to suit. If you do this properly you make loads of money and er, live happily ever after... but if not you just have to keep going to the bank manager and pleading for more dosh. Such is life.



BLACK SCORPION SOFTWARE

One of the more interesting developers for the Jaguar has to be Black Scorpion Software. The interest lies in the fact that they're actually associated with Titan Designs - they have the same brains behind them - and they belong to David Encill. Titan Designs are in the midst of creating lots of fancy video add-ons for the Falcon, although it has to be said that they've been doing that for several months now and the release dates get pushed further and further back almost every week. They're also the people behind last month's *Thought!* demo, the full version of which is expected in time for next month's

issue. Anyway, now they're broadening their scope and are looking at some very ambitious projects for the Jaguar.

David Encill explains the shortcomings in the games that have so far been released: "We feel that we can create software that is a year or two years ahead of anything the opposition can come up with - we are looking to create realistic-looking games that use the technology in the Jaguar... So far all the games released have looked quite ordinary. We think the games so far haven't really used the Jaguar's capabilities - the level we are looking at is at least 100% better than

● This is an early version of *Speeder* for the Falcon, one of Black Scorpion's previous forays into the game world.



anything so far." They're still working on a few ideas at the moment but are quite flexible as to what they actually end up creating, having dropped *Wayfarer*, which sounds like an *AVP/Dungeon Master* clone - moving around from the character's point of view and using texture mapping, they've moved on to *Live Wire*. This, David explains, is similar to *Cybermorph* but goes

way beyond it so that you feel as if you're actually in a spaceship rather than just looking at a computer screen.

They intend to do this using "proper" texture mapping and Gouraud shading so that the landscape looks real rather than computer generated. Call Black Scorpion Software on 021 414 1630 for more details.

Sharpen your image

At the moment you can only connect your Jaguar to your TV or video using the standard aerial lead supplied with the console, and while the picture quality isn't too bad it's not as good as the kind of picture you can get using composite video or Super VHS (S-Video) connections. Almost all new TVs and video recorders have either composite video or Super VHS video connections for improved picture quality.

Atari haven't got around to supplying the leads in the UK yet, they've only just gone on sale in the US! We've tracked down the Jaguar pinouts enabling you to make your own Super VHS (S-Video) and composite video leads for the Jaguar using phono plugs, 4-pin mini-DIN plugs, SCART plugs, standard edge connectors and about two metres of screened cable to make up the leads.

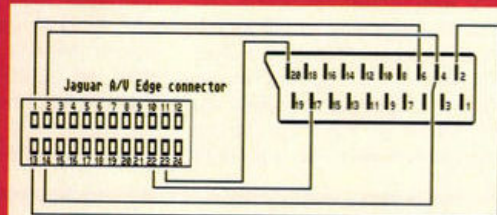
All the parts are available from any electronic store although the 24-way edge connector (2 x 12-way) is quite hard to find; you may have to use a longer edge connector. A 2 x 23-way edge connector fits over both the A/V and the DSP edge connectors on the Jaguar ensuring a snug fit. The parts listed below are available from Maplins on 0702 554161.

- Edge connector, 2 x 23-way. Part number: JC00A 86p
- Black phono plug. Part number: HQ54J 18p
- Mini DIN plug, 4-way. Part number: JX02C 48p
- Screened 9-way video cable. Part number: XS42V 65p a metre.
- SCART plug, part number: FJ41U £1.28

JAGUAR TO SCART

If you have a TV or video with a SCART socket, then here are the connections you need, the Jaguar edge connector links remain the same

Jaguar edge Signal connector	TV/Video Connections
Pin 1	Left Audio
Pin 2	Ground
Pin 13	Right Audio
Pin 14	Ground
Pin 23	Composite Video
Pin 22	Composite Ground
	SCART pin 6
	SCART pin 4
	SCART pin 2
	SCART pin 4
	SCART pin 20
	SCART pin 17

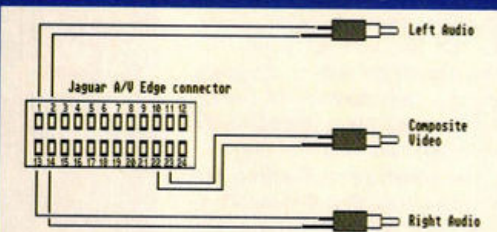


Jaguar to Composite Video SCART

JAGUAR TO PHONOS

Almost all TVs and videos have composite video inputs of some sort, here are the connections for TVs with phono sockets

Jaguar Signal edge connector	TV/Video connections
Pin 1	Left Audio
Pin 2	Ground
Pin 13	Right Audio
Pin 14	Ground
Pin 23	Composite Video
Pin 22	Composite Ground
	Phono centre connection
	Phono ground connection
	Phono centre connection
	Phono ground connection
	Phono centre connection
	Phono ground connection

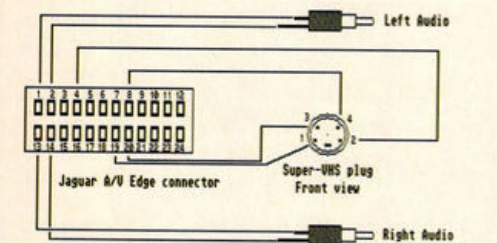


Jaguar to Composite Video

JAGUAR TO SUPER VHS

If you've got a TV or a video with Super VHS inputs then you can get a superb picture using the following connections

Jag edge connector	TV/Video connections	Signal
Pin 1	Left Audio	Phono centre connection
Pin 2	Ground	Phono ground connection
Pin 4	Chrominance ground	S-VHS pin 2
Pin 8	Chrominance	S-VHS pin 4
Pin 13	Right Audio	Phono centre connection
Pin 14	Ground	Phono ground connection
Pin 19	Luminance ground	S-VHS pin 1
Pin 20	Luminance	S-VHS pin 3



Jaguar to Super VHS

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ALIEN VS

Alien vs Predator, the Jaguar's much-hyped 3D texture-mapped extravaganza, is almost complete. Andy Nuttall spoke to Rebellion Software about their first Jag creation

A

t long last, Jaguar gaming is getting the chance that it so rightly deserves. The excellent *Tempest 2000* (which we previewed in the last issue of *STF*) started the trend, which is continued here with the equally great *Alien vs Predator* from Rebellion Software.

Based around characters and scenarios from the two films of the same name, *Alien vs Predator* (AvP) is a 3D texture-mapped game in the style of the

recent PC game *Doom* which, incidentally, is also being programmed for the Jaguar. Texture-mapping is a method of digitising an image, and projecting it onto a 3D vector polygon. So, out are the solid 3D shapes as seen in *Elite 2*, *Cybercon 3* and the rest; in are beautifully-textured 3D walls, floors, ceilings and control panels.

The Colonial space station, which AvP is based around, is split into five different levels, each of which is accessed via a lift. There are two other special levels, corresponding to both the Alien spaceship and the Predator spaceship, making a vast total of seven, and we're talking

huge, huge levels here. You can be any of three characters: an Alien, the Predator, or a Colonial Marine. Each character has its

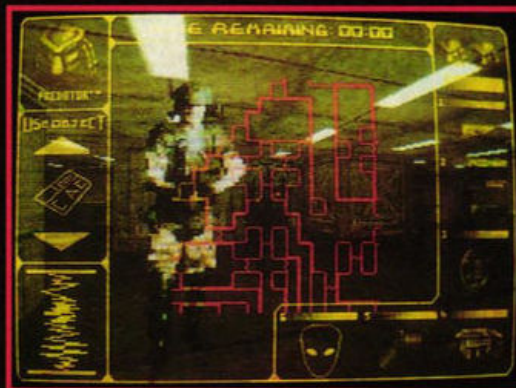
own specific set of missions, and things that it can and can't do. "AvP is specifically designed in terms of areas," Jason Kingsley, Rebellion's Creative Director, told us. "That way we've made it less linear, because

you don't have to complete one task or mission before moving on to the next."

This is a particularly important feature, because it means that if you get stuck or hemmed in, you can go off and try something else instead. The weaponry is obviously an important point in any game involving Aliens. Rebellion's attention to detail



● The Predator's a large chap who, when invisible, can't use any of his super-duper weapons. So he just kills you with a gutting knife instead.



● The Head-up display (HUD) of each character provides information about the surroundings. An on-screen map like this can be switched on at any time which, cleverly, doesn't interfere with gameplay.

"The Colonial space station, which AvP is based around, is split into five different levels, each of which is accessed via a lift"

MODEL CITIZENS

To create the amazingly realistic images of Aliens, Predators and Colonial Marines in AvP, Rebellion digitised scale models of the characters which they bought from their local model shop.

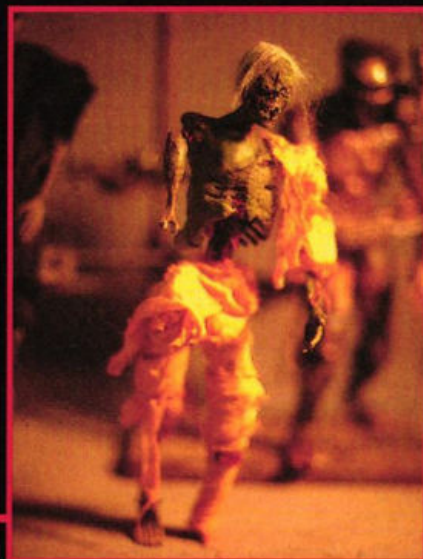
"Some of them are digitised, and some are hand drawn," Jason Kingsley of Rebellion told us. "It's very important to the licence holders, 20th Century Fox, that their characters are well-represented in the game. We used the commercially-available plastic models of the characters, which we painted to a very high standard for an authentic look.

"They're physically-animated, and then digitised," Jason continues. "It's quite nice, but it takes a bit longer. All the characters are done this way - luckily, aliens and predators are readily available!" *Alien vs Predator* is due for release in the States in late March, so you should be able to get your hands on a copy soon, and see the excellent character animation yourself. Expect a full review in a couple of issues' time.

● The fully-mobile Predator model, as you can see, is a commercially available model, painted with care and then propped up on a stand-and-clamp. Each frame of movement is then digitised, and the resulting code imported into AvP.



● Don't worry - this zombie isn't part of the AvP setup. It's actually taken from Rebellion's next game, *Dungeon*, a variation on the *Dungeon Master* genre.



● The first *Alien* film came out in 1979 and featured just one alien hunting down the crew of the *Nostromo*. It was widely acclaimed as being a landmark in science fiction film history.

PREDATOR



● 3D polygons as used in AvP give you an inkling of what's possible with the Jaguar. Not only are the textures realistic, but the wall shapes are authentic.

shows in that they have considered the balance of the weaponry. After all, Aliens don't carry guns.

Jason again: "The Alien doesn't have any weapons as such, apart from his teeth and his tail, so one of the problems we had was with the game balance. If you're playing the Alien, and everybody else has got guns, how the hell are you going to compete with them? To combat that, the Alien moves twice as quickly as the other characters."

The Predator, just like in the film, has got some amazing weapons which don't require ammunition, so he can eas-

ily kill all the other characters. To make it work for the player, again to balance the game, you lose points if you kill things when you're invisible. Rebellion have built a code of honour system into the Predator character, which means that he loses honour points if he uses his super-weapons to kill.

To further enhance the game, if you play the Predator you can switch between different views of the game. As in *Predator 2*, the character is equipped with four viewing techniques: heat-seeking, infra-red, ultra-violet and sonar. This means that while the Predator can't see things as they really appear, he can see movement in the dark and spot differences in temperature depending on the selected view.

"Playing as the Predator it's possible to complete the game, but lose," Jason told us. "You become an outcast from your race because you cheated. The player won't realise that until they see that they've got minus points because they've been wandering around invisibly and shooting everything."

"AvP's map is vast, with around 14MBytes of code, compressed down using the Jaguar's hardware compression"

ALIEN IN CHARGE

In the film *Aliens*, the fully-grown Aliens scurried around in packs. The Rebellion

boys considered the option of controlling more than one Alien in their game, but found that it would be too difficult. "We couldn't work out a good way of enabling the player to play several Aliens at once without changing the game structure," says Jason. "So, you control



● The great thing about the Jag, Rebellion reckon, is that you're not limited by colour. You can basically choose anything you want, like this pretty refuse chute, and Jag handles it happily.

one, and it can charge around really quickly. You have to start from a particular area of the map – the Alien's lair – but we haven't really refined that area of the game yet."

Importantly, Rebellion feel that it would be annoying to have to go back to the beginning again when you're playing an Alien. They're considering making a number of start points around the space station, with Aliens strategically placed which go into a quiescent phase if you're not actually using them.



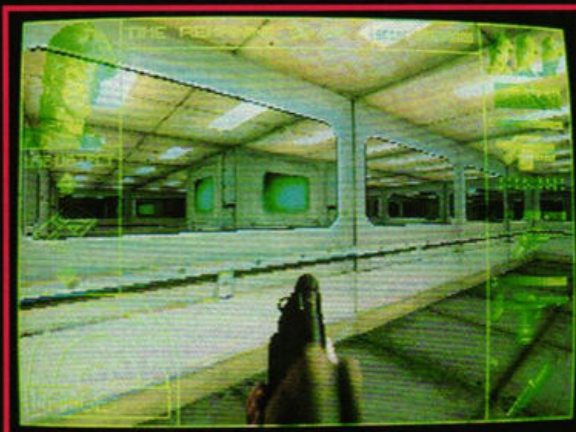
● Grim Reaper's also from *Dungeon*, a game which Jason Kingsley describes as "more impressive each time he sees it." Apparently it's significantly more advanced than AvP – we shall see.



● The unlikely combination of all three characters would never normally be seen in the same shot. Except for the game *Mutant Zombie* Scythe-wielding Predators from Mars, that is. But that's a secret.

● The first link between aliens and predators was in the film *Predator 2* where there was an alien skull on display in the trophy room of the predators' spaceship under Los Angeles.





● Rebellion have really gone to town with the functions of the space station - many of the doors and windows feature a glass effect so you can see but not walk through them.

AvP's map is vast, with around 112Mbits (14Mbytes) of code in total, compressed down using the Jaguar's hardware compression. There are three different games in there, as well - from the point of view of a Marine, as a Predator, or an Alien.

"Depending on which you play, the scenario is flipped on its head," says Jason. "If you play the Alien character, you have to rescue the queen who has been captured by the Predator. If you play the Marine, you have to rescue your buddies and set the self-destruct sequence. If you play as the Predator, you have to capture the queen's head, and fight really well.

"The Marine player starts in the middle, and you can go up or down. The Predator ship's docked at the top of the space station, and the Alien's at the bottom. So, the Predator player starts at the top and works his way down, and the Alien player starts low and works upwards. We're hoping that this gives the game a hell of a lot of value."



● He does, however, have one definite advantage. Any Marines he captures are taken back to base and "altered," creating another Alien. This adds to your number of lives - so who needs weapons, eh?

"It's quite a strategic game. If you're a Marine, say, you only have 99 rounds of ammunition - so you have to find an armoury to get some more. A good idea is to clear areas as you move, closing doors behind you so you know that certain areas are rid of enemies. Also, you know that Aliens can't open doors so you can't be jumped on from behind."

SEEDY PCs?

AvP's texture-mapped graphics and 16-bit sound would slow a lesser console down to a crawl, but not the Jaguar. Jason again: "Jaguar's a fast machine - it's in the league of a fast 486 PC. It enables us to do really interesting things, such as the texture-mapping in 16-bit colour." 16-bit colour is equivalent to 65,536 different colours on-screen at any one time - chosen from a palette of 16.7 million. "And you can do things like create transparent

objects," continues Jason. "The head-up display (HUD), for example, is transparent."

Rebellion rejoice in comparing the Jaguar to top-end PCs, even though they're aimed at a different market. Jason thinks that in some ways, you can do more with this £200 unit than with machines costing £1,500 or more: "With AvP we're doing everything in 65,000 colours instead of 256 (the normal PC



● This is the view when you play the Alien. Notice that the HUD doesn't feature any weapons - because Mr Alien doesn't have any...

"AvP's texture-mapped graphics and 16-bit sound would slow a lesser console down to a crawl"

world which could store this much information as video footage."

Does Jason feel that the imminent release of the Jaguar CD will help it along, then? "I hope so," he says. "We are looking at doing things on CD, but I want to use it as a massive storage medium, not as a way of showing a 30 minute B-movie. For example, we have problems on a cartridge with 112Mbits because it's not enough. I want to do a game with 50 levels, but we can't get it into the cartridge."

"I want to see games that people never finish - for them to sit down and play a game for a week, get through say half a level, and for there to be 60 levels. I don't want people to finish a game in an afternoon." Wise words. **stf**

screen mode). And also, you must remember that we're just starting to learn how to program on this machine. PCs have been going for an awfully long time, and people have had a chance to learn how to squeeze the best out of them."

Although the 3DO is touted as a competitor to the Jaguar, Jason has strong feelings about the comparisons. "I've seen some interesting stuff on the 3DO," he says, "but I think that it's not really competing because of price. I've been quoted in a magazine as saying '3DO is crap,' but I think it's a good piece of kit. It's overpriced, and the games aren't properly interactive - people are going down a blind alley as far as video footage goes.



● Remember in Aliens when they were waiting for an attack, but the Aliens were in the roof above? Remember the tracking unit that made that spooky "blip" sound? That's in here, on the bottom left-hand corner - and it's as scary as ever.

● Just a thought: how does a predator collect the skull of an alien as a trophy if an alien's blood is made of acid? Answers on a postcard please to the usual address.

presenting...

REBELLION SOFTWARE

ST FORMAT talk to Rebellion Software, the developers of *Alien vs Predator*



● Rebellion Software, from left to right: Justin Ray, Mike Beaton, Stuart Wilson, Jason Kingsley and Toby Harrison-Banfield.



● Above: *Checkered Flag 2* this was a very early version and things should be improved by the time it comes out.



● Right: *Alien vs Predators*, Rebellion's latest release.

● Set up about 14 months ago, Rebellion Software's aim is to produce games for the newest and most advanced computers and consoles around. "We call ourselves pioneer developers," says Rebellion's Jason Kingsley, "because we can take new hardware platforms and develop software for those new systems." At present, though, they're only developing for the Jaguar, although they are now in the early stages of negotiation with "other hardware manufacturers" to create games for future hardware platforms.

● Before creating Rebellion, Jason had been freelancing for various companies, which wasn't a good experience – one of them for instance, was Mirrorsoft, which took a lot of good programmers down with it when it sank. He set up Rebellion in anticipation of the new generation hardware – by his own admission, he didn't know that the Jaguar was going to appear. "Computer hardware moves in cycles," reckons Jason. "We could see 16-bit machines already available, you could buy 32-bit chips, and we just thought that something would show up eventually."

● Rebellion currently have nine employees, most of whom are creamed from Oxford University graduates. The technical and creative ability of Rebellion, then, should be second to none – and it seems to show in the technical excellence of *Alien vs Predator*. They are currently looking at getting more programmers to join them, who preferably already have projects in hand – not necessarily on the Jaguar.

● Jason has found it easy to get decent programmers so far. However, they have had to sack three people because they didn't fit in

with the rest of the team. "Getting people to work with our team and to have our standards is quite difficult. We have a reasonable turnover of staff." This isn't because Rebellion are difficult, it's just that they do set themselves high standards, and they like their programmers and designers to share their knowledge.

● "The people we sacked were too set in their ways," Jason told us. "We are all part of a team. None of us can do it on our own, and we don't want any prima donnas who think they can do it on their own. You occasionally get programmers who like to keep secrets from everybody and who keep themselves to themselves. We like to keep open, swapping source code and ideas between all our people."

● Currently, Rebellion are developing four Jaguar projects: *Alien vs Predator*, *Checkered Flag 2*, a first-person perspective car racing game; *Hammerhead* – which was previously known as *Cyberpunk City*, apparently, but details are sketchy; and *Dungeon*, an RPG based on a similar – but more advanced – game engine to *AvP*. You can find some of the models used in *Dungeon* in the *AvP* preview – turn to page 58.

● Jason has a lot of faith in the Jaguar platform and backs it up with the bold

Jason has a lot of faith in the Jaguar platform and backs it up with the bold comment: "I think Jaguar's at least 18 months ahead of anything else"

comment: "I think Jaguar's at least 18 months ahead of anything else." Also, though, he is equally confident about what they can do with the Jaguar in the future: "While other companies seem to concentrate on presentation, with things like full motion video and gameplay drawn from CD, we try to concentrate on the gameplay. *Alien vs Predator* is a good game in its own right. If it didn't have *AvP* stamped on it, people would still buy it." And we're inclined to agree with him.

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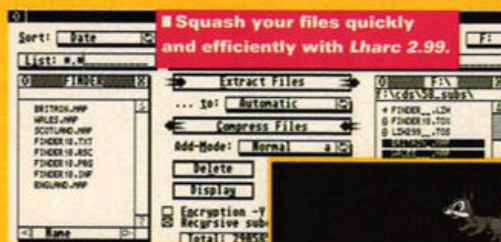
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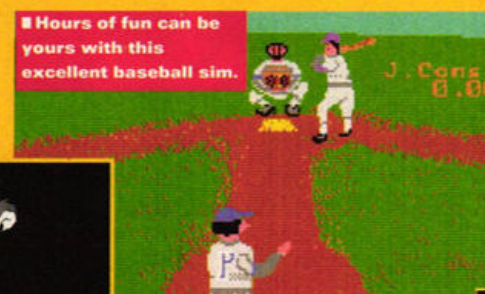
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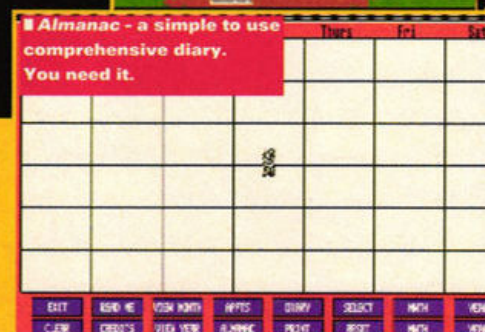
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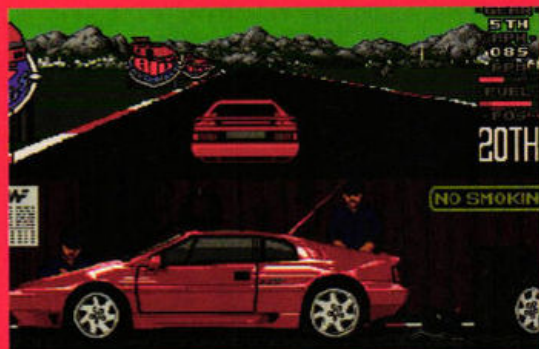
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SCREENPLAY

Neeeeeeooooooooowwwwwmmmm...
strap yourself in and follow the lead
of *Lotus Trilogy* in Screenplay today

LOTUS TRILOGY - GREMLIN



■ First there was *Lotus Esprit Turbo Challenge* where you can just get on and race...



■ ...Then came *Lotus Turbo Challenge 2* in which you can go for a drive in the countryside...

■ ...and then came the masterpiece - *Lotus 3: the Ultimate Challenge*. Finally, Gremlin put them all in one box and sold them as the *Lotus Trilogy*. See page 66



HELP!

■ **RISKY WOODS** - get some handy hints and tips on this frantic jumping and bashing game page 76

■ **FASCINATION** - Complete solution to this testing adult adventure page 77

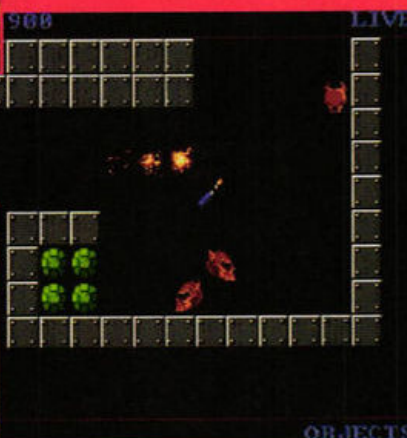
■ **FORMULA ONE GRAND PRIX** - Some rather tongue in cheek suggestions page 80

■ **PLUS!** Captain Blunder answers all your gaming queries from page 76



RISKY WOODS

■ There's lots of jumping around in this one - and it's pretty hard. Check the review out on page 70. If you're struggling, just look at Gamebusters starting on page 78



MUZZY

■ A brand new game and a new author finds its way onto the ST scene and it's called *Muzzy*. What's it like? Find out on page 71

CHARTS

This month	Last month	Game	Publisher	Price	STF Rating
1	1	Frontier: Elite 2	Gametek	£29.99	91%
2	3	Zool	Gremlin Graphics	£25.99	89%
3	5	Championship Manager '93	Domark	£29.99	80%
4	2	Lemmings 2	Psygnosis	£29.99	96%
5	RE	Premier Manager	Gremlin Graphics	£25.99	85%
6	6	The Chaos Engine	Renegade/Mindscape	£25.99	94%
7	4	Sensible Soccer 92/93	Renegade/Mindscape	£25.99	91%
8	NE	Utopia Twin Pack	Gremlin Graphics	£29.99	N/A
9	9	Nigel Mansell's World Championship	Gremlin Graphics	£29.99	69%
10	10	Dogfight	MicroProse	£34.99	83%



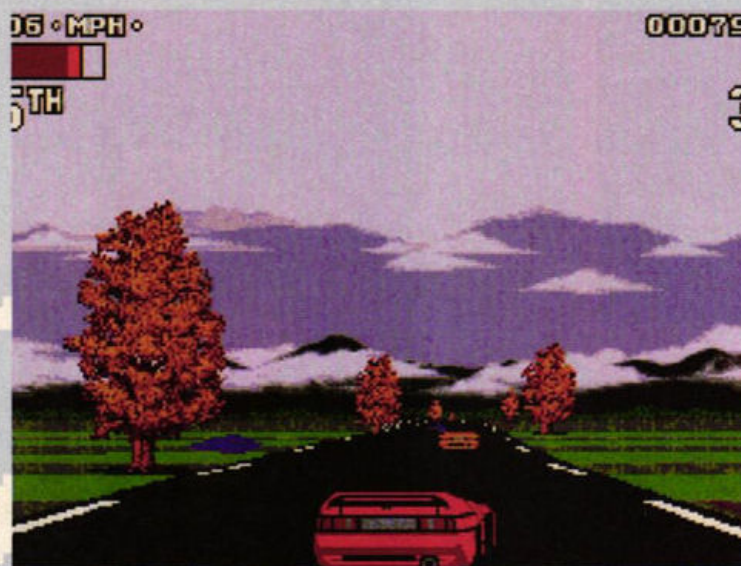
Few games have been as influential in world history as the trio they're calling the *Lotus Trilogy*. Find out why here today

LOTUS



It was the release of *Lotus Esprit Turbo Challenge* back in 1990 that inspired director David Lynch to create the seminal TV series *Twin Peaks*. Then, in 1992, came the sequel, and the trading barriers within Europe fell. And last year world war was finally eradicated forever as *Lotus 3* appeared.

All right, so this isn't quite true. But they are bloody good games to play, and now you can own them all in Gremlin's super deluxe slinky black box bumper edition, *Lotus Trilogy*. Join with us now as we delve into the murky depths of fast cars with overhead cams...



■ A car, an open(ish) road, a few trees... every Englishman's dream. And it can be yours three times over with *Lotus: The Trilogy*.

Lotus Esprit Turbo Challenge

There are two ways to create a racing game. One way is to opt for the serious approach and involve the player with the intricacies of tyre hardness, engine mountings, gear ratios and the like. *Formula One Grand Prix* from MicroProse took this route and while it's

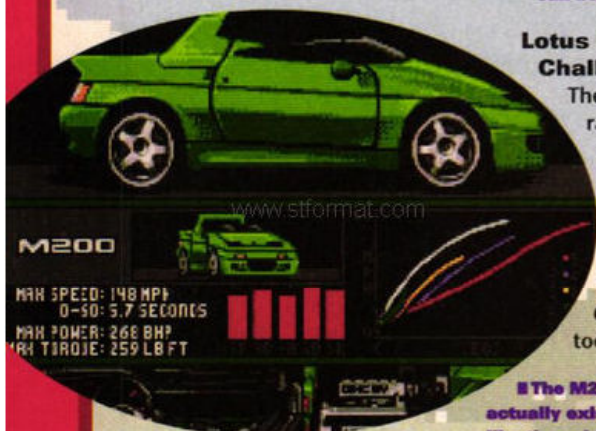
ultimately a pretty enjoyable game, it's certainly not something you can pick up from a mere couple of minutes' play.

The Challenge games go to the other extreme. "Sod realism!" they practically scream in your face.

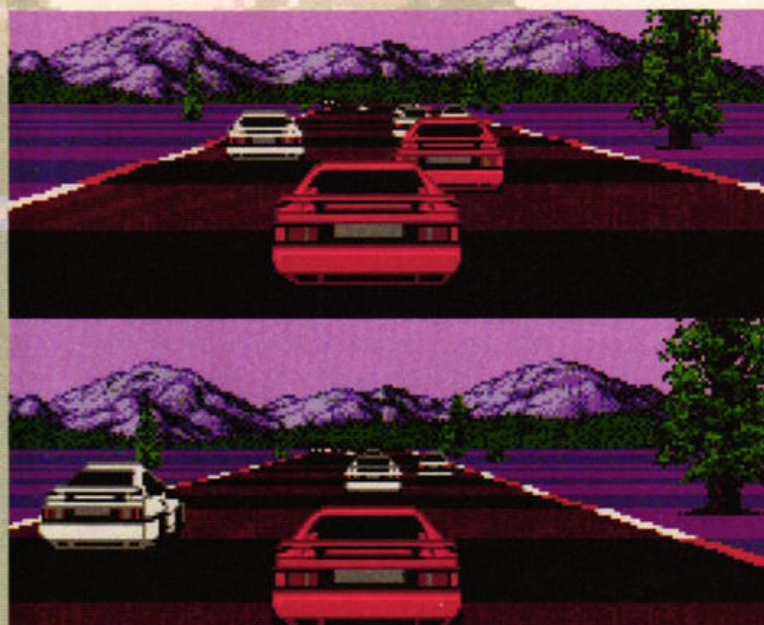
"Just get in there and drive like a 22 year old rep who's just been given an MR2!" This is particularly the case with the first of the trio, which is, of course, the simplest.

There's nothing fancy here. You're presented with your Lotus Esprit Turbo SE (capable of speeds up to 150mph), plonked onto a racetrack, and from then on it's up to you. All you need to do is outwit the other 19 challengers with careful driving and ridiculous speed, navigate the twisting courses which become hillier and more obstacle-strewn as the races go on, and you've won. Couldn't be easier.

Control by keyboard or joystick is a cinch, though you aren't given the option of using the mouse, unfortunately, which would have provided much tighter control around those bends. But who wants things that easy, anyway? Two methods of acceleration are provided: you can either hit Fire or push forward on the joystick, depending on your personal whim. Changing between the five gears is accomplished by pulling back or pushing forward while hitting Fire.



■ The M200, which, er, doesn't actually exist yet. Or indeed ever. Don't like the colour much anyway.



■ Top: some cars. Bottom: more cars, of a different colour. Look, it's a racing game for goodness' sake, what do you expect, majestic herds of wildebeest?



TRILOGY

This can occasionally cause complications if, for example, you really want to accelerate but accidentally pull back at the same time, ending up going round a corner at 110mph in second. Still, Lotuses

"An ingenious idea enables you to create over three trillion different courses by typing in a few letters"

are built to last; that's why they never crash. When you hit something, the fine upstanding product that is a Lotus car simply slows down to a crawl, while the other car instantly crumples into a small heap of coloured metal. Or at least they would do if Lotus could have their way.

As usual, the two-player mode is the most fun. That's not to say the single-player mode isn't any cop, though. For once, the other drivers show some signs of intelligence, battling to regain their position after you overtake instead of just magically disappearing up someone else's exhaust pipe. You wouldn't expect much graphically of a four year old game, and you'd be right; we're talking simple scenery with some good 3D here – or at least I am – and ear-bending sound effects. Oddly the split-screen effect is used even if only one player is active, so you essentially get half a screen's worth of action. It all looks slightly cramped.

Although you're likely to play *Lotus 1* the least of the three games in the pack because it has least to offer, it's still simple arcade fun and ideal for a quick blast when you're not too bothered with niceties such as decent graphics. Which leads us on to...

Lotus Turbo Challenge 2

Turbo Challenge 2 expands upon the first game rather a lot. As you might expect, the basic idea is still to drive insanely fast along crowded roads for the hell of it, but here the roads are rather more crowded and dangerous. For a start, you get away from the safety of circuit tracks and out into the wild. There are eight stages, set in a forest, at night-time, in fog, in snow, in a bloody great desert, a city, a marsh and a storm.

As before, the idea is to reach each checkpoint of each race within the given time (and if you're really big and clever, ahead of the other drivers). Now, though, you're driving either a straight Lotus Esprit or the spunkier Lotus Elan, the car being chosen automatically depending on the stage. Control systems are exactly the same (keyboard or joystick, Fire or push forward to accelerate, manual or auto gearbox), so you can practise with the

■ **Top:** fog! **Bottom:** missed! Player two missed the chance to play, that is. It's a clever verbal gag, you see.

somewhat easier first game and use your skills for this one.

This is not a simple game. On the later levels you really have to (if you must) "motor" to meet the timechecks, and the other cars don't help a hell of a lot. Frustration at your own incompetence can easily be compounded by the annoying sound effects; your vehicle sounds more like a model aircraft than a highly expensive performance car, and you're better off without them. The weather effects are pretty, though, particularly the fog and snow, and the 3D works well. For maximum enjoyment you require four people,

two STs and a null modem cable. That way you can link the STs and have two players on each, using the split-screen mode. The ensuing fights for control of the keyboards are well worth the effort of setting everything up.

Lotus 3: The Ultimate Challenge

You can see what Gremlin were up to here. "Right," they said, in a sort of collective way, "let's do another racing game, but let's put in so many options you can never ever get bored of it." "OK," they

204 • KMH •

5TH

■ It's uncanny how the stripes on the road line up with the stripes on the grass (or whatever it is).

000831

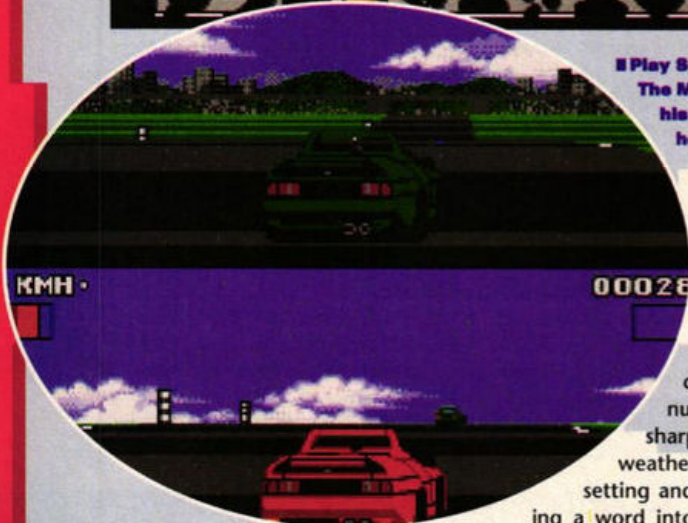
3



■ Look carefully at this picture. It contains subtle clues which tell you in just which direction you should go at this point in the race.



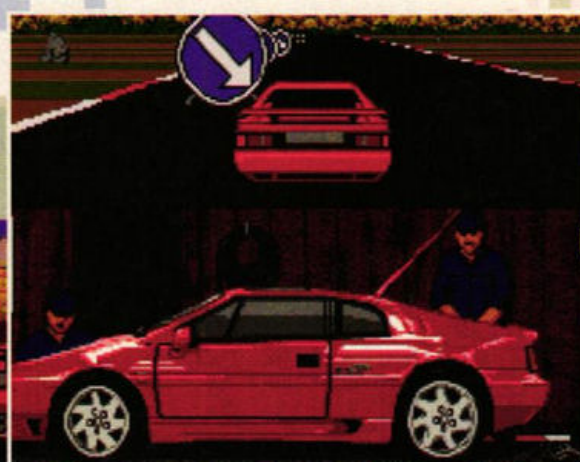
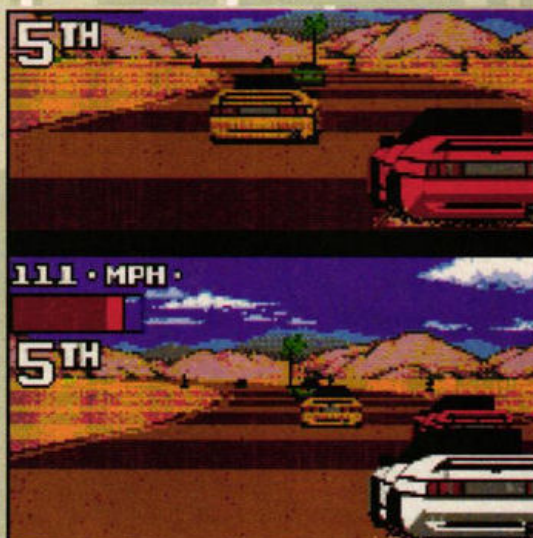
Play Spot The Rep On The Motorway. Clue: his car is red. Clue: he's doing 117mph on the hard shoulder.



answered themselves, "good idea." And thus was born Lotus 3.

OK, same deal here. Lots of racing around circuits in Lotus cars, not crashing but slowing down, meeting checkpoints and so on and so on. But (but! but!) Gremlin have rather cleverly incorporated a system called RECS: Reader Environment Construction System (you can see why they stick to the abbreviation). This ingenious idea enables you to create over three trillion different courses, and all by typing in a few letters. You see, each track,

Flying gaily past the "keep right and slightly down" signs goes our man in the Lotus.



If you do break down in the middle of a bloody great desert, stay by your car. Do not attempt to cross it. Use the emergency telephones situated 2,800 miles away on the M25.



If your Lotus looks like the bottom pic, you're OK. If it looks like the top one, get it help, very very quickly.

that accelerate you massively, to mountainside, snowy and motorway scenes. The latter gives you the chance to live out your fantasies by ploughing through the central reservation and trying to dodge the oncoming traffic (note the word "trying"). While the graphics and particularly the sound effects aren't much of an improvement over the second game, there's enough variety to be had from the settings to keep ennui at bay.

Lotus 3 is certainly the most durable of the three games because of its versatility. Like Lotus 2, it still suffers somewhat from only being really enjoyable with two players (thanks to the lack of crashes and the unimpressive AI for the other drivers), but you'd have to be a very serious rev-head indeed to write it off for that.

anything else you desire, and the system produces the password for you. It's a marvellous idea. You can, for example, type in someone's name and see whether the corresponding course suits their personality... or maybe that's a little too philosophical. Whatever, the sys-

"Each of the trilogy has its own feel and attractions: there's bound to be something here to tickle your motoring fancy"

tem works perfectly in theory, and you never run out of courses to race around.

The scenarios deserve a mention too. There are 13 of them this time, from futuristic settings which include checkerboard turbo zones

Verdict

You might think that buying three versions of what amounts to the same game is a waste of time and money. No no no. Each of the trilogy has its own feel and attractions: with the first, it's the fact you can get into the race with the minimum of fuss; the second has the excellent four-player option and improved graphics, while the third can be tweaked to your satisfaction almost infinitely.

If you can't get your head round the complexities of Formula One Grand Prix, and the hours of practice needed for Vroom and F1 seem like too much effort, there's bound to be something here to tickle your motoring fancy. And if it turns out there isn't, you can keep the collection in mint condition and sell it as a collector's item years in the future. Probably. Go on, buy it. We dare you.

ED RICKETTS

Lotus Trilogy

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Highs

- Three landmark games for the price of one and a bit can't be bad.
- Lotus 3 should keep you at it forever.

Lows

- Not very complex - stay away if gear ratios excite you.

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IMPORTANT PLEASE NOTE
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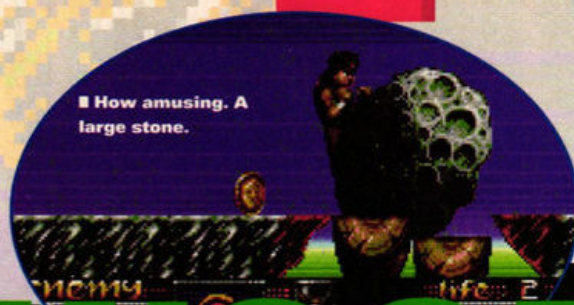
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RISKY WOODS

"Too risky!" Do you remember that immortal Jim Davidson line? It ranks alongside Caesar's "Et tu Brute," Des Carte's "Cogito ergo sum" and Barrymore's oft-quoted "Awright! Awright! Awright at the back?"

Risky Woods is a fantasy-style platformer. Although those very words are enough to make your heart sink, the quality of those games which proudly call themselves fantasy-style platformers ranges from magic to tragic. Although to be fair, most sit around the middle zone, content to be entitled dismal. Enough light-hearted twistedness; the

game is all about your quest to collect keys, release imprisoned folk and generally survive to see the end sequence. To do this, you

must be quick with the joystick, plus have a working knowledge of the magical items you collect.

Magic is the key to the game because, although you've got endless knives to throw at folk, this is time-consuming and inefficient.

There are endless streams of nasties hurtling towards you at every turn, and you can spend all your time-credits just standing in one place, firing blades at them and collecting the coins which drop down from their shattered and vanishing bodies.

The magic option is much nicer. You can do a lot of damage with magic. Smart bombs, cluster bomblets, even sort of weird laser-beam things all owe their very existence to magic (in *Risky Woods*, at least). And you're going to need firepower like that when you face some of the boss baddies at the ends of some of the levels.

What about these coins, then? Well, they give you purchasing power in the shops which you encounter. Extra weapons can be bought, extra chunks of life and a wide range of fashion accessories and quality knitwear products. It's like the Edinburgh Woollen Mill with a gun counter.

But it doesn't matter how many cardies you wear and how much magic you've stored up, *Risky Woods* doesn't get any easier. Every between-platform jump you do has to be pixel perfect, and every baddie that attacks always seems to reach you. It's an annoying itch of a

■ The All-England Dancing Championship ground to a halt when Tim's fireball went off.



game which you know you should beat, but which stimulates your larynx into uttering swears of disbelief every time you lose another life.

The graphics are suitably fantastic – in the fantasy sense – and everything runs quickly and smoothly. The game is also big enough to impress even the tallest of your relatives, and although there is a stock group of nasties, there is a fair bit of variation.

It's too tough, though. If it started easily and got tricky around Level Two or Three, that would have been fines and dandy, but this swine makes your nose bleed right from the outset. Don't blame reviewer crapness – it really is difficult. Honest.

JAMES LEACH

■ Skeletons are your worst enemy. Here's a gruesome thought – you've got a skeleton inside you right now!



■ Behold. The Mountains of Certain Pain and Probable Death. Nobody who has crossed them has lived. Apart from the Petersons, who have a cottage there.

THAT OLD "CHEST" NUT, EH?

Plenty of things drop out of these chests if you shoot them. For example, apples can give you an extra life or they can send you off to sleep, skulls make you lose energy, thunderbolts make you temporarily immune to damage, potions do your health a vast amount of good and those squiggly things make you talk in an Australian accent.

However, do bear in mind that there's a time limit to each level, and if you spend too much time mucking around with baddies and chests and

things, you might not be able to collect the key parts you need and escape. See? There was a valid point in there after all...



Risky Woods

£9.99 Hit Squad
☎ 061 832 6633

Highs

- Jolly magical japes in the land Jim Davidson forgot.
- Lovely visuals and plenty of action.

Lows

- As tricky as that bloke off *EastEnders*. You know, the really tricky one.
- A few more real surprises would be nice.

77

MUZZY

What the world needs right now is a small, slightly cute character, whose only pleasure in life is chasing around mazes in order to get to some glittering gems.

Wa-hey! Here comes Muzzy

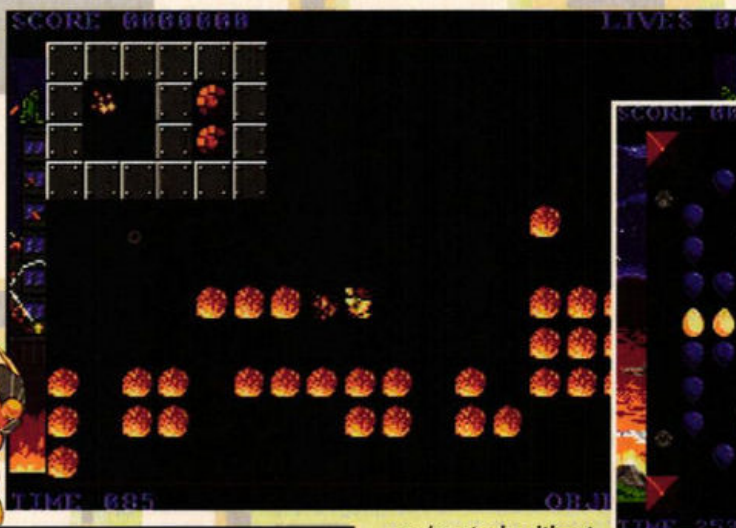


Try your best not to be put off by the name; Muzzy conjures up tiredness, dulled thinking, maybe even hangovers. It also sounds very much like a kiddie character. Come to think of it, isn't that rabbit thing that teaches kids French from a video called Muzzy? Perhaps so.

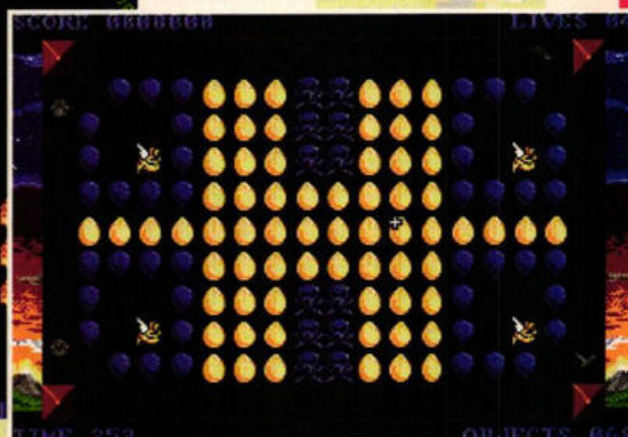
But hey, enough procrastinating over nomenclature. Muzzy is a series of puzzles. Each one is set on just one screen, and although the puzzles might be different, the goal is always the same. You must guide the little chap to a number of gems which glitter enticingly.

So what's stopping you? It varies greatly. Sometimes you must simply use your joystick skills to outrun the bad-dies which are chasing you. This is like a mini-arcade game, and if your hands weren't otherwise occupied, you'd be biting your nails as the pixel gap between you and the evil, er, things is eaten up.

Other scenarios have you replicated on the screen, with all the Muzzies responding to your movements. The skill here is to work out which Muzzy is the real one. It's possible to



Left: To call this puzzle fiendish would be an insult to fiends, many of whom don't even like puzzles.



Here there are four Muzzies. But only one is the real Muzzy. Can you guess which one it is? No? Oh.

Verdict

But come on. Stop shaking your head at Muzzy. What do you expect for £5.99? Formula One GP? Muzzy is fine; if you like solving puzzles and using your mind as well as your reflexes, give it a go. OK, so you might not be up all night playing it, but you won't be sleepless with worry over how much dosh you've just spent.

JAMES LEACH



Brain Glover's got a cat called Muzzy. Or Tiddies. Or Oliver or something. Probably.

do, but at some point you must take a risk, and if you've guessed incorrectly, something nasty happens and you lose a life.

In fact, the vast majority of the puzzles can be solved by logic and brain-power, coupled with the merest hint of precognitive extra-sensory perception. Possess these assets and you won't have a problem. But if

you're stuck without the ESP, you'll probably find the game much more taxing and a lot more rewarding.

Of course, you're sitting back and thinking "ha! I'm a complete deity of the puzzling world, me."

There's nothing I can't solve, given time, an HB and the back of an envelope!" But having enough time is the problem.

There's also a not-quite-generous-enough time limit for each of the levels.

This translates to a time-bonus if you are good at Muzzy, but for the most part it's restrictive, and certainly makes the game more exciting. As well as annoying.

This is where the criticisms start. Cute he may be, but Muzzy is rather titchy, and there are times when you need him to move in certain directions, and the little swine just doesn't want to. A combination of clicking the fire-button and shoving the stick is needed to get Muzzy to destroy or push obstacles, but sometimes it takes ages to get it just right. Poor programming or inept joystick-handling? Well, here's one hasty vote for poor programming.



Some of the levels are really quite beautiful. Er, this isn't one.

Muzzy

£5.99 Holburn Software
0224 211866

Highs

- Cheap to the point of being a real bargain.
- Lots of puzzly fun in bite-sized chunks.
- Password system saves restart heartache.

Lows

- Muzzy isn't as controllable as he should be.
- Graphics are small and fiddly at times.

75%



LURE OF THE TEMPTRESS



Based in a Medieval scenario, *Lure* tells the story of an evil temptress, Selena. As "the baddie," (every story must have one), she has taken over a village and its inhabitants with the help of her inhuman comrades the Skorl.

We describe it as telling a story because it's possibly the closest any game has yet come to interactive fiction. The LucasArts games are witty, fun and technically clever, but they are hard pushed to beat *Lure* on atmosphere alone.

As befits the usual adventure, you take the part of a hero, Diernot, who has the chance to gather together the great and good of the village and overthrow Selena along with the evil Skorl. Each of the many locations are brilliantly drawn – considering it's all in 16 colours, the graphics are stunning – and even when playing from floppy the

scenes load in very quickly. With only three disks it doesn't require many disk swaps, which is important in these days of 11 disk (amoeba) games.

It's a fantasy adventure, so as you might expect, the men have bulging biceps and the woman have heaving chests – and, importantly, many of the characters have unpronounceable names. The characters wander around apparently aimlessly, and generally stop and chat if you ask them nicely. It

would be better if they had a purpose other than helping you in the game, however they do seem to crop up at the most opportune times. The puzzles involved with ridding the world of Skorls are fairly simple, but they are many and varied which makes for an interesting few hours' play. It's a shame that the Virtual Theatre didn't spring up a few further ST games, because the potential is there for some great adventures. As it is, this one's available for a budget price, so get lucky – grab it while it's hot.

■ Beryl, I'd love to marry you, but your dad there might not agree.



■ Ratpouch, I'd love to marry you but the laws of this land forbid it.



Lure of the Temptress

£9.99 Hit Squad
061 832 6633

Highs

- Very fast and intuitive control system.
- Great story, loads of relatively simple puzzles.

Lows

- Easy for seasoned adventurers.
- It's the last of Revolution's ST efforts.

90

ANDY NUTTALL

SLEEPWALKER



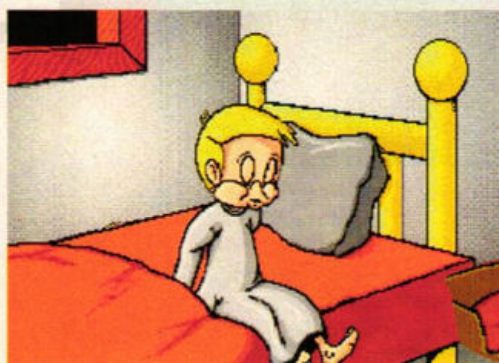
Any game "big Steve" likes has got to be good, especially if it's cheaper than it was before. Actually, seeing as the proceeds of its first release went to various charities, perhaps that's not very politically correct thinking. Anyway, let's continue before this becomes a moral morass, shall we?

You play a dog whose master, a fellow called Lee, is a somnambulist. This is a situation you find

■ They're making *Sleepwalker* into a film starring Robert De Niro and Lassie. Here's the Cannes preview.

intolerable, and every time he indulges in his sleepwalking antics, you must endeavour to gently steer him around the landscape so that he avoids falling off walls, down holes and into long-forgotten Victorian ha-has. Luckily, your poor doggy frame is capable of withstanding a vast amount of punishment, and indeed, has to as you guide the slumbering pedestrian across the city and to the waiting exit. As well as making sure no harm comes

■ De Niro puts in a stunning performance as Lee, the Mafia contract-killer who just can't wake up. Lassie's crap, though.



to tackle political hot-potatoes and it's lots of fun to play. Staleness is avoided by the inclusion of loads of bonus levels, hidden blocks and weird puzzles. And also by being sealed in shrink-wrap. Stencil "Sleepwalker" on the windscreen of your car and next time you're out shopping for software, you'll be sure to remember it.

JAMES LEACH

Sleepwalker

£7.99 Hit Squad
061 832 6633

Highs

- Nice idea, nicely executed and nice to play.
- Nice all round, in fact.

Lows

- Rather linear and the graphics won't make your eyes bulge.

84



CLASSIC GAMES

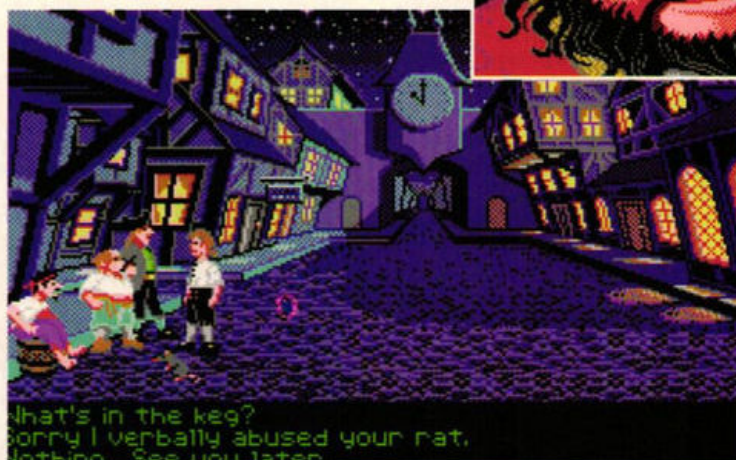
In which we mumble incoherently about how they don't make games like they used to these days. Ed Ricketts is your whinger

These days, with myriads of slavishly unimaginative shoot-'em-ups, graphical adventures, puzzle games and the like as the norm, it's hard to imagine a time in computer gaming history when the release of one game could define a genre. Yet it happened. Take role playing games (RPGs), for instance. In the mid-'80s, they were sorry affairs, translated almost verbatim from the restrictive rules of conventional *Dungeons and Dragons* and with the almost mandatory requirement of an anorak. If you were lucky, you might be given a few graphics: simple sprite-based overhead views, mostly, but always accompanied by screenfuls of descriptive

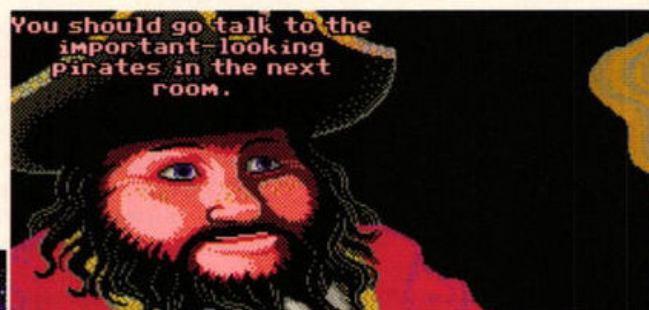
"Gone was the tedious turn-based system which gave you time to have a fag before your next move"

text, statistics, controls and other such horrible paraphernalia.

Then, in 1987, came *Dungeon Master*, designed and written entirely on the ST by American programmers Faster Than Light. Gone were most of the stats. Gone



were the complicated movement rules. Gone was the tedious turn-based system which gave you time to have a fag before your next move. Instead, all you had was a full-screen first person perspective 3D display, a few movement arrows, some weapons and spells, and that's all. You were actually there in the dungeon, in real-time,



■ A cryptic message from an old salt in *The Secret of Monkey Island*? Er, no. Just go into the next room.

liantly designed: if you could see it, you could do something with it.

DM amazed everyone with its graphics, user-friendliness and depth of design. It particularly impressed the other software houses, so much so that they decided to do it themselves for the next few years. US Gold came up with *Eye of the Beholder* and added nothing (apart from some prettier graphics) to the basic formula. The forest section in *Obitus* (Psygnosis) is just the same. *Nightmare* from Mindscape took the player out of the dungeon and

■ Any game which includes an apology for non-physical violence to rats is tops in our book.

■ Governor Marley from out of *Monkey Island*. Fine woman, fine earrings.

able to see around yourself in every direction. It sounds pretty mundane now, but at the time it was close to miraculous. If you were attacked by a monster, you didn't have time to worry about hit points and armour classes, and whether you were carrying your +2 Sword of Dishonour in the right hand: you killed it or it killed you. Opening doors, picking up objects, drinking potions, all these things were suddenly simply a matter of a few clicks. The gameplay was no longer limited by the interface, because the interface was so bril-



■ Um, when we said *Xenon 2* had good graphics, we meant at the time. Look, trust us, it's true.



■ The owner of the far left tent has just accused the geezer in the middle of being a girl's blouse. Oh dear.



■ The people of Populous have a bit of a do before kicking each other's teeth in.

characters (no, really, you did) and ogled the cut scenes.

LucasArts have gone on to release *Monkey Island 2* (on the Amiga and PC, but not the ST), improved its interface in games such as *Sam and Max Hit the Road* (but not on the ST) and are generally regarded as the masters of the graphic adventure. In fact many software houses have given up trying to better them. Sierra have vainly tried to keep up, adopting more and more of LucasArts' tricks, but still fall way behind. The people at Revolution Software swear blind that their adventure *Lure of the Temptress* isn't emulating the LucasArts style, but one quick play reveals the game's sarcasm and non-linear structure are more than homage. Adventuresoft's *Simon the Sorcerer* is a direct rip-off of LucasArts, but with the exception of a uniquely British sense of humour. And because adventure games are complex but not especially demanding technically, there's no reason why the enthusiastic amateur with a bit of programming knowledge shouldn't put one together himself. For heavens' sake, enthusiastic amateurs with a bit of programming knowledge out there, come on, show the world at large that the ST isn't just the haven for odd bits of hardware it seems to have become.

Finally, let's talk about innovation. Where the bloody hell has it gone? Take a game like MicroProse's *Tower of Babel*, released in 1989. Imagine this: it's a 3D puzzle game which gives you control of three spider-like droids. Each has a specific ability: one picks things up, one shoots, and so on. They move about the checkerboard surface of each level's tower square by square

into the open air... but that's about all. In fact in 1994 it's ridiculous to think of producing a complex RPG with using the 3D view and click'n'drag techniques - there's really no better way to do it.

What *DM* did for RPGs, *The Secret of Monkey Island* did for the graphic adventure. LucasArts' previous *Loom* had showed that unlike the Sierra games a graphic adventure could be funny, look good and yet not leave you impossibly frustrated. *Monkey Island* was the real landmark, though. Finding a computer game genuinely funny was unheard of, yet here it was, with a crap hero (Guy-

"Many of today's best-selling games are rehashes of yesterday's new concepts"

brush Threepwood), a million and one gags, and cartoon logic that was still fathomable. Simplicity was its strength, too. With just a handful of actions and an inventory, you could stumble your way through the entire complex four part adventure. There was no need to try every action with every object, the clues were there to let you know what was really important in each marvellously-illustrated location. It was, to be frank, the first interactive film, because although you were directing the action, you still cared about the

(just like *Dungeon Master*, in fact), using lifts to go up and down, avoiding sentry guns and picking up, er, "klondikes." Better still, they can be programmed with a sequence of movements and activated at any time. The object of each level changes: it might be to collect all the klondikes, or to destroy a particular object, or just to escape within a time limit. All this in glorious 3D, with multiple camera views, mind-bending spatial puzzles, a complete level designer and wrapped in the slickest presentation you're ever likely to see on the ST.

If it sounds odd, that's because it is, very. But it's also addictive, frustrating and strangely relaxing in equal measures. Most of all, it's a game from a time when original ideas counted more than saleability, when platform games were still fairly rare. Software was programmed by individuals rather than some anonymous programming consortium from a business park in Surrey. Game plots bore some relevance to the gameplay. And sometimes, just sometimes, a title came along which couldn't be pigeonholed in the usual slots.

Many of today's best-selling games are rehashes of yesterday's new concepts. The graphics and sound have improved, but the idea's the same. *Frontier: Elite 2* - isn't that just a teensy-weensy bit like *Damocles*? *F1* is simply *Vroom* with a different name - which is no bad thing, it's a superb game. Almost any successful graphic adventure you could name owes something to *Monkey Island*. *Legends of Valour* is essentially *Dungeon Master* with a few extra frames of animation. *Genesis* and *Populous* - separated at birth? The list goes on and on... It's great to see the classics improved in some way, whether it's in scale - as with *Elite 2* - or with graphical effects - as with *Legends of Valour*. Yet you could be forgiven for wondering if there's anyone out there willing to try something new any more.

If that's the case, why bother? Why not simply re-release the originals on budget? Games such as *Tower of Babel*, *Midwinter* and *Oids* still have no equal, not just on the ST but indeed on any home computer. They may occasionally look rosey and primitive, but in terms of gameplay these are the games that shaped a generation, no less. Find one, play it, and see if you agree. **stf**

AND WHO CAN FORGET...

These were the first ten games to score 90% or over in ST FORMAT. How are they looking now?

BLOODWYCH FROM MIRRORSOFT ISSUE 1, 95%

- 1 Unimpressive-looking RPG, more or less a *Dungeon Master* clone. Somewhat fiddly and restrictive these days.

WATERLOO FROM MIRRORSOFT ISSUE 1, 91%

- 2 Horrible 3D war sim. Slow, uninviting, complex and definitely one for the dedicated tank-trundler.

BLOOD MONEY FROM PSYGYNOSIS ISSUE 2, 90%

- 3 Typical Psyg fare: gorgeous graphics and fairly mindless (but difficult) gameplay. Borrows heavily from *R-Type*, but it's not as good.

INDIANA JONES AND THE LAST CRUSADE FROM US GOLD ISSUE 2, 90%

- 4 Oh dear oh dear. A dire platformer. Film licences have followed the same formula ever since: a tenuous link and absolutely useless gameplay.



■ You'd ask people to throw knives at you too if you looked like a Boy Scout.

THE BEST OF THE REST

Slightly more crumbly ST users should remember these, all classics in their time

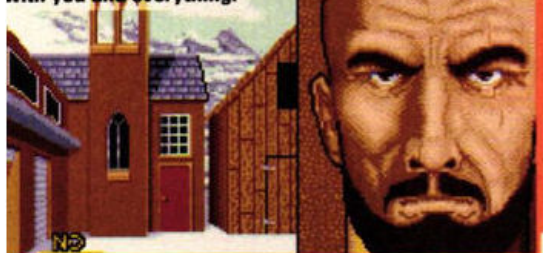
1 LLAMATRON FROM LLAMASOFT

It was fast, it was simple, it was very noisy, and best of all it was Shareware. Still one of the best shoot-'em-ups available anywhere ever.



SO YOU WANT TO SURRENDER?

Well, yes, I wouldn't mind surrendering. I mean, if it's with you and everything.



2 OIDS FROM MIRRORSOFT

It looked sparse but combined *Scramble*, *Thrust* and *Defender* perfectly. Should be re-released now.

3 STUNT CAR RACER FROM MICROPROSE

Incredibly simple 3D racing over stunt tracks. Fun, fast, not a little furious, and sadly, insanely underrated.

4 ARCHIPELAGOS FROM LOGOTRON

A puzzle game which had you scooting around 3D islands collecting sacred stones while avoiding carnivorous plants. Disturbing, but fun.

5 MIDWINTER FROM MICROPROSE

Classic strategy game set in the snowy wastes of a nuclear future. Bags of atmosphere, thanks mainly to the sound effects.

6 THE KILLING GAME SHOW FROM PSYGNOSIS

A massively enjoyable shoot-'em-up-cum-platformer with stunning graphics that would shame a SNES.

7 DAMOCLES FROM NOVAGEN

Damocles gave you an entire universe to explore, rendered with 3D graphics, and umpteen million ways to save the eponymous planet.

8 POPULOUS FROM EA

Singlehandedly defined a new genre, the god game. Never before had there been so much to do and so much to see.

9 MICROPROSE GOLF FROM, ER, MICROPROSE

Not just a golf game - the 3D graphics managed to make golf look interesting for the first time. There still isn't a better golf sim around on the ST.

10 THUNDERHAWK FROM CORE DESIGN

Disorientatingly fast 3D graphics, cinematic cut scenes, an incredible (for the time) intro, and sheer attention to detail throughout the whole game.



■ Stern man in backlighting horror from the *Thunderhawk* intro.

STRIDER FROM US GOLD, ISSUE 3, 92%

5 Inoffensive platformer. Still looks fairly nifty, surprisingly, and plays something like an uncomplicated console game.



■ *Strider*. He's the one who's just... ah, sorry, he's just fallen off the screen. Never mind, eh.

XENON 2 FROM MIRRORSOFT, ISSUE 3, 90%

6 What can you say? A classic for yonks, if only because of the slick presentation and the supposedly great music. Many a clone has appeared since.

INTERPHASE FROM MIRRORSOFT, ISSUE 4, 93%

7 Like *Tower of Babel*, this is a weird 3D affair, involving flying, shooting, collecting and other unexplainable stuff. Overambitious, but still impressive.

ONSLAUGHT FROM HEWSON, ISSUE 5, 90%

8 Gorgeous scrolly platformer. Again, it looks like the prototype for any number of later games, *Elf* in particular.

TOWER OF BABEL FROM MICROPROSE, ISSUE 5, 94%

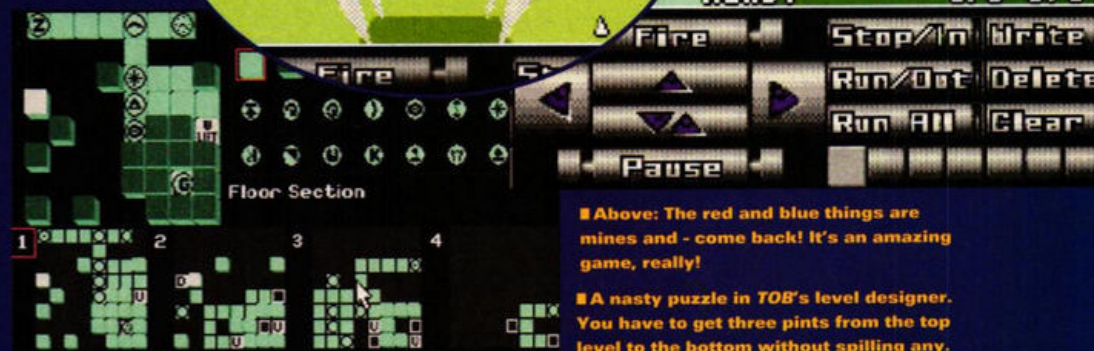
9 Enough said...

■ Zapper from *Tower of Babel*. Or is it *Pusher*? It might well be *Zapper*, come to think of it...



THE HOUND OF SHADOW FROM ELECTRONIC ARTS, ISSUE 5, 90%

10 Immensely ambitious text-based (gulp) adventure based on the works of H P Lovecraft. No sound, few graphics, and yet it's still more interesting than (dare we say it again) most of Sierra's games.



■ Above: The red and blue things are mines and - come back! It's an amazing game, really!

■ A nasty puzzle in *TOB*'s level designer. You have to get three pints from the top level to the bottom without spilling any.

GAMEB

It's time to get rid of all those stuck-in-games blues with this month's choice of gaming hints, tips and solutions

FRONTIER: ELITE 2

ST FORMAT reader Mark Blunden from Bournemouth has sent us these tips to make life in Frontier just that little bit easier. Take it away...

Here's a tip to make docking, landing and interplanetary travel easier. When you receive clearance and are using the automatic pilot, switch the stardreamer time control to maximum acceleration. This is the equivalent of the fast docking sequence option in the original Elite

RISKY WOODS

ELECTRONIC ARTS



This game has been around for some time now but it's only just come out on budget... here are some handy hints and tips from a DP Fripp of Hampshire who wins himself £25 for the pleasure

Stage One

Use this level to gain lives and money. Release both the priests. Further in these hints it says release priests one, three and four. This is the order in which you find them on the level. To gain lives just pick up any apples you can see. You can also use this level to get used to the jumping aspect of the game. If you go for gaining extra lives, you must

pick up the Extra Time icons in the chests. At the end of the level, head for the shop. When you're in the shop, buy as much energy as you possibly can.

Stage Two

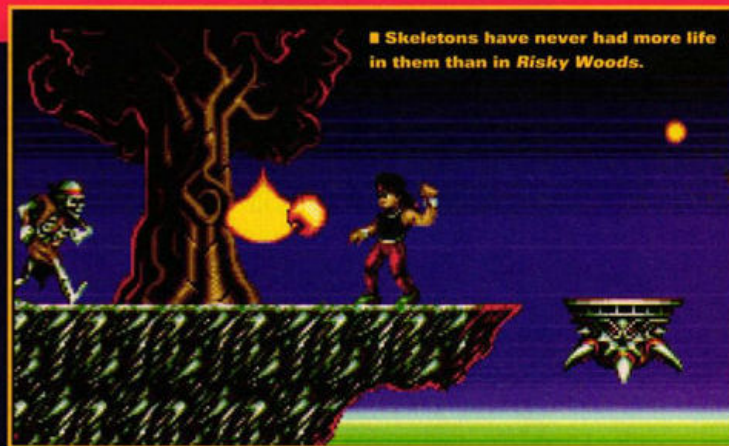
At the start of the level is the hardest jump in the game, but it gets easier with practice. Collect money on this level in preparation for the big baddie in Stage Three. Try to ensure you pick up the game continue - it's a little man who jumps from a chest. On this level there are two priests to release - free only the first and the fourth priest you come across.

The shop

Buy an X3 and an X2 chain if you have the cash. Use any excess money to buy energy.

Stage Three

Quite an easy baddie to kill. First run forward until you can just see him on the edge of the screen. Jump and fire like crazy. As it advances, move back a bit at a time, keeping him right on the edge of the screen. Once you run out of the room run forward and get just under his chin, then push him back and do the same again. You can kill it with just the knife,



■ Skeletons have never had more life in them than in Risky Woods.

but the X3 chain makes a much quicker job of it. Once the beast is slain, pick up the money and run to the edge of the ledge next to the shop sign. Four chests fall out of the tree, each containing a money bag. Gather loads of cash and jump down to the shop.

an X3 weapon works very well on them, but an X2 also works. There are two priests to release on this level, so release the second and the fourth. If you get knocked out your weapon is reduced by X1 each time. If this happens twice during this level, collect enough money to

■ Cpr! Makes you feel quite exhausted, all that running around hitting things.



The shop

Buy yourself an X3 axe and some energy.

Stage Four

You now find out why you need the axe. There are some big mean muthers on this level and



■ When you're in the mountains life gets in perspective... you can see you're part of a bigger universe... or something.

CAPTAIN BLUNDER



The chappie who's obsessed with fiddling with his underwear is back with more tips and answers to those tricky questions

Another level

Have you any idea what the level codes for Another World are? I just can't get through the game as quickly as I'd like to and it's driving me completely and utterly crazy!

David Baynes, Worcester

CB: Sure can, David, here's a selection for you to choose from - get cheating now...

Level One	edji
Level Two	hici
Level Three	flld
Level Four	libc
Level Five	ccal
Level Six	edil
Level Seven	fadk
Level Eight	kcij

U.S.T.E.R.S

and instantly completes the docking/landing sequence with no risk to your ship, whatever size it is.

Second, when you're going to a destination elsewhere in the same system, lock on to your destination port before taking off, then jet off on manual control for a few

hundred metres or as soon as you clear a space station's dock. Engage automatic pilot and immediately go to maximum acceleration. If your destination is on, or in the orbit of, your current planet you go instantly to the docking/landing sequence, other-

wise you are instantly out in space and heading for the destination planet. This works even if your destination is the other side of your current planet.

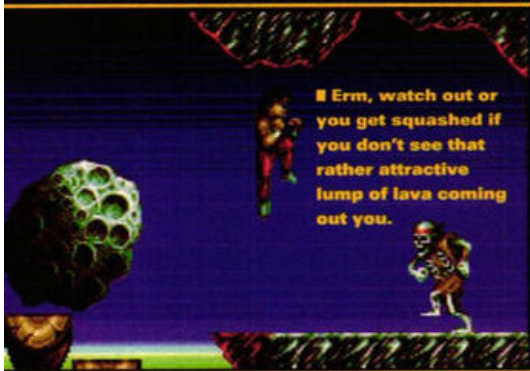
Also a radar mapper may seem like an unnecessary luxury, but if you have space for it you

should buy one as you can only collect bounty on enemy vessels if they have been identified by radar mapper. About a quarter of pirate vehicles have bounty on them which can vary from 50 credits to as many as 400 credits and soon pay for the radar mapper.

buy at least one more power-up for your weapon.

The shop

Buy power-ups for the axe if you need to. Buy energy.



Stage Five

If you have no power-ups on the axe you're in for a good hammering at the start of the level. Other than that, this is pretty much the same as the last level. Release the priests in this order - second, third and fifth. Collect money if you get knocked out more than once.

The shop

Buy power-ups for the axe, aim to get an X3. Buy more energy.

Stage Six

Ophiuss is the hardest of the big baddies. Run to the right until he appears on-screen and start shooting like mad. When the eggs around him explode, the embryo rolls towards you, so try to jump them. Once they've all been dispatched kill Ophiuss and collect the money. This is the same as Stage Three for the chests.

The shop

Swap the axe for the chain and then buy energy with the remaining cash.

Stage Seven

A pretty easy level if you're careful. Watch out for the fire-spitting pillars and the flying demons. Release the priests in this order - second, third and fourth. Collect money if your energy is low, but don't go out of your way for it. Try to get the continue.



The shop

Buy energy if you need it.

Stage Eight

Very similar to Stage Seven, so the same applies. Money is quite important, since you're going to need more power for Stage Nine. Release priests two, three and five.

The shop

Go for any X3 weapon you can afford. Buy more energy with your remaining money.

Stage Nine

Not a very difficult baddie. Just run to the right, then when you see it, jump repeatedly and shoot it in the head. Collect money and open the chests for more cash.

The shop

Buy more energy, then swap back to the axe.

Stage Ten

The only things to really watch out for on this level are the boulders and the floor spikes. Release priests two, three and four. Collect money to buy more energy.

The shop

Buy as much energy as you can. Keep the axe.

Stage 11

Much the same as Level Ten. Release priests one and four. Collect as much money as possible.

The Shop

Buy the axe or the chain X3. Buy energy with any remaining cash.

Stage 12

At last, Draxos himself. Run to the right and jump the holes in your path. When you see him run and jump on the platform in front of him and blast him in the face. When he dies an arrow points to a hole in the floor. Jump down the hole and the game is complete.

Extra hint

If you reach the end of a level and find you're short of cash, just hang around and collect more money, but watch your time.



Level Nine ica
Level Ten fie
Level 11 lald
Level 12 lfek

Go through all the levels of *Another World* with Captain Blunder's handy level codes on the page opposite.



Getting into Elite 2

I noticed in *STF 56* a letter from Ray Dent about installing *Frontier: Elite 2* on his hard drive. When I purchased my copy of the game I had the same problem installing it on my hard drive - the game would just not load. The problem lies in the fact that the version I had was a very early version - I expect Ray's is the same as mine. There is a simple way to install these early ver-



FASCINATION DIGITAL INTEGRATION

Thanks to Chad Frary of Norfolk for this complete solution to this slightly er, saucy, adventure game

Hotel room

Find the briefcase on the bed and click on the combination so it reads AARGH. Click on the toothbrush. Open the drawer of the bureau and get the adaptor. Put the adaptor in the electric socket to the right of the refrigerator. Set the toothbrush to 220v and plug the toothbrush plug into the adaptor in the wall socket. Turn on toothbrush and the vial appears.

Get the vial, open the refrigerator and find the ice tray. Put the vial on the ice tray and find the water jug. Use the water jug on the ice tray. Close the refrigerator door. Pull out the toothbrush plug and the adaptor. Plug the refrigerator into the wall socket. Dial zero on the 'phone. Find the directory underneath the bureau and click on it. Note down the 'phone number for Quantum Unltd Lab (QUL). Dial this number and find that the president isn't there. Go to lobby.

Hotel lobby

Click on the ashtray and get the token. Click on the pile of newspapers. Get the newspaper. Click on the newspapers again. Look at the women and turn the page twice until a torn corner can be seen. Click on this torn corner and note down the part of Lou Dale's 'phone number. Click on the directory underneath the newspapers and note down Jeffrey Miller's personal 'phone number. Click on the item on the table with the plants on. Take this keyring to the receptionist who gives you the pool key. Go to hotel room.

Hotel room

Dial Jeffrey Miller's personal 'phone number. Speak with Jeffrey and get the entry code for the QUL building. Note this number down. Now go to the lobby. Telephone rings – it's Robaire.

Swimming pool

Speak with Robaire. Find the hat and give it to Prisca. Find the switch which was underneath the hat and click on it. Find and collect the pendant in the swimming pool. Talk to Prisca and get the lamp (torch). Go to booth.

Booth

Use pool key on keyhole. Click on Walkman. Use token on Walkman compartment and get the battery. Go to pool.

Pool

Talk to Sharon and ask her for coffee. Take some sugar and keep it for use later. Go to QUL. Talk to Robaire as you leave.



■ This is you, this is. Hope you don't have an, erm, modest nature...

QUL (street)

Click on 'phone and insert the token into the slot. Dial Jeffrey Miller's personal number again. He gives you another security code number – write this down. Go to QUL reception. Enter the code for the building you noted earlier.

QUL reception

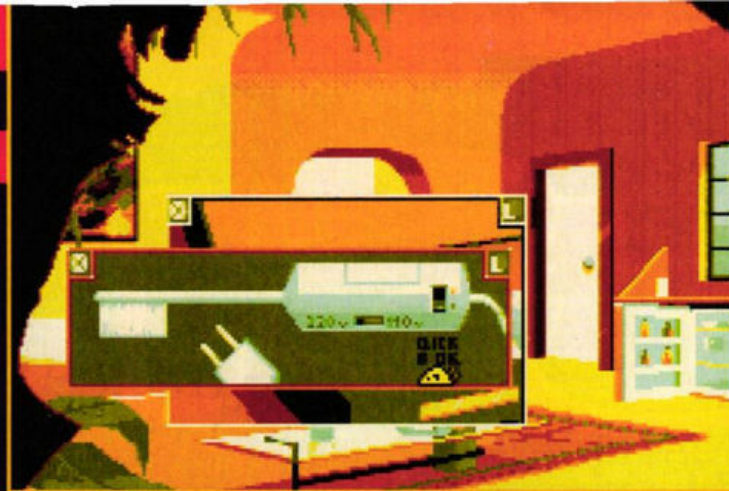
Move pointer towards key on left hand wall. Dog appears. Give sugar to the dog. Get storeroom key from wall. Go to street.

QUL (street)

Go to parking lot.

Parking lot

Use storeroom key on storeroom door on right of screen. Use lamp



■ Once Fascination's puzzle's were a pain in the aah... neck. Now they're just dead simple.

in storeroom and find hook on right side of the screen. Click on hook. Locker door closes revealing a coat. Find pocket on coat and click on it. Get the cleaning lady's car keys from pocket. Go to the parking lot.

Parking lot

Use car keys on red car's door lock, then speak to Jon the tramp. Jon tells you to kick the tyre on the car, find the tyre and click on it. When you get the picture of the inside of the car, go to the bottom left corner and locate the keycard. Get the keycard

Find the digicode above Jon's head and insert the keycard into it. Enter the second security code that Jeffrey Miller gave you.

Jeffrey Miller's office

Find the button on the lamp and press it, illuminating the room. Find the lapel on Jeffrey Miller's body and click on it. Locate the silk handkerchief and click on it – the handkerchief should now be on the table. Click on the handkerchief again, a microcassette appears. Get the microcassette. Find the big red book on



■ If you don't want to work your way through the game you could always stand in the shower for a while, then go back again, and again...

the bookshelf – the manual – and go to the bottom of this book to locate the spring. Click on the spring and a secret compartment appears. Find the cable on the right side of this compartment and click on the cable. Find the dictaphone and click on it to make it appear on the table. Now use the microcassette on the dictaphone so some messages are read out. Go to the lingerie store.

Lingerie store

Find the newspaper near the window and collect it. Go into the first booth and find the piece of paper on the floor, read it and go into the second booth. Find the shoebox on the floor and click on it to reveal a stiletto heel. Collect the shoe and leave the second booth.

Go into the third booth and click on the private door. Click on the door again and it opens a little to reveal a gap. Investigate the top of the door until you find the bell – click on it to make it disappear. You can now open the private door. Find the magnetic label and collect it. Move the parcels around until you can see the safe in the bottom left side of the shelves. Click on the

sions to hard drive – the game has to be auto-booted so simply put the FRONTIER.PRГ file from the program disk into your Auto folder on the hard drive. Disable all other Auto programs and copy the files ASTEROID, BATTLE, MOON and STATION from the data disk to the root directory of the boot drive, reset and the game runs from the boot drive.

Sean Harding, Isle of Wight

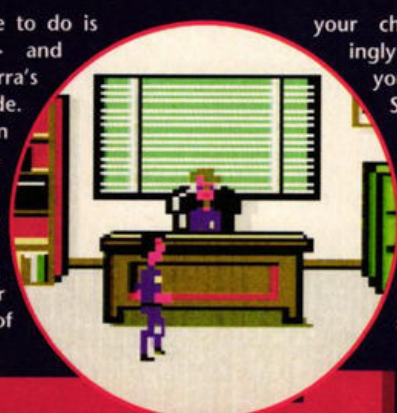
CB: Thanks, that's brilliant, Sean. I've had loads and loads of queries about that one so you've helped a lot of people out.

Quest for knowledge

I've just bought *King's Quest 1* from US Gold's budget label Kixx XL. Do you know any cheats that would enable me to see more of the game than I can at the moment?

Kate Hardy, Halifax

CB: All you have to do is press <Alternate> and <d> to get into Sierra's "special" mode. After the version number is displayed, type TP to jump to any room you choose, or type GET ALL and the object number to get the object of



your choice. Interestingly though, if you've also got Sierra's *Police Quest* that we featured in the last issue of *STF* you can use the same cheat to achieve the same thing.

picture of the man on the wall and it rolls up to reveal a key.

Collect the key and use it on the padlock on the safe. Use the shoe on the bar of the safe, then the magnetic label on the safe door. You now see combination lock. Click on the combination dial and click on the letter "D," click on the dial again and select letter "O," click on the dial again and choose the letter "C." A secret passage opens to the operating room.

Operating room

Click on the answering machine and turn it on. Rewind the tape and then play it noting down the messages. Once the tape has finished, rewind it and erase the messages. Find the surgeon's coat and click on the pocket. Get the mask then click on the pocket again to get the closet key.

Use the closet key on the closet and collect the documents (photos). Click on the jar in the closet and use the shoe to smash the jar. Collect the vials. Search around the room until you find a table of instruments. Collect the scalpel and leave the room. Go to the hotel.

Hotel lobby

Click on the receptionist, then on the newspapers. Collect the newspaper. Go to hotel room.

Hotel room

Find the chocolates next to the 'phone and pick them up. Click on the glass and find out what Robaire's been up to. Dial zero on the 'phone and find the lapel pin on the rug to the right of the 'phone. Go to lobby.

Hotel (lobby)

Answer the inspector's questions with the following replies - 2, 2, 1, 2, 1. Find the piece of paper on the floor to the left of the table leg -

it's the rest of Lou Dale's 'phone number. Go to hotel room.

Hotel room

Dial Lou Dale's 'phone number. Go to photo studio.

Photo studio

Click on the car and go to the front window. Collect the ten dollars. Find the photo studio's service door and click on it. Click on the wastebasket. Read and collect the newspaper. Use the documents (photos) on the slot at the bottom of the door. Use the scalpel on the keyhole and click on the slot to get the key and photos.

Kitchen

Open all the cupboards, but make sure you start with the bottom left



■ Start off here and then just follow our straightforward guide to progress through the game.

one first. Find the basin and click on it. Find the bleach, ammonia, detergent, the lye (caustic soda) and the cloth. Find the tap and turn it on to dampen the cloth. Use the mask. Click on the open side of the service hatch once. Place the three ingredients into the basin. As soon as the basin starts to give off a gas, click on the service hatch again, then click on the basin. The service hatch shuts leaving a slot for you to put the damp cloth into. Wait for a few minutes.

Studio room

Speak to the woman and collect the signet ring.

Red and blue club

Use the lapel pin on Eduardo, then use the ten dollars on him too. When you're speaking to Kenneth Miller answer his questions with the following replies - 2, 2, 1, 2, 1.

Villa - Coconut Grove

Use the chocolates on Kenneth - they knock him out. Click on his hand and collect the ring. Click on the tattoo on his bum and see he could be called Archie. Click on his pendant, then use your pendant on his pendant to see what happens. Go to lounge.

Lounge

Click on the bust's eyepatch, then on the parrot. Get the cigar from the parrot and put it into the bust's mouth. Find the landing net on the floor beside the chair. Find the switch on the fish tank and click on it to switch the light on.

Move the cursor around the screen until you find the shell on the right side of the fishtank.

Click on the shell and use the plankton on the shellfish which opens up. Use the fishnet on the pearl, then use the pearl on the bust's eye. Find the panel on the orifice, then find the symbol. Use Kenneth's ring on the symbol and a secret passage opens.



■ Blue, ah yes... that's sort of like the theme of this game...



Villa - Vizcaya

Answer the Inspector's questions with responses 2, 1, 2, 1, 2, 1.

Bathroom

Find the mechanism on the left side of the screen on the wall. Click on the mechanism. Find the spray container in the top left corner of the secret compartment. Click on the jar which contains the eyeballs, then on the jar lid to open it. Click on the wastebasket, click on the paper, then click on the wastebasket again. Get the syringe and use it on the formalin from the eyeball jar. Use the formalin on the spray container, go and see the Inspector.

Inspector

Use the spray on the Inspector. Go to lounge.

Lounge

Use the lamp on the microscope and write down the word, including the stars above each letter. The star means that letter's sharp on the keyboard. Find the newspaper and collect it, then find the Nudity's Dream painting and click on it. Find the trigger on the painting and click on it for a wheel to appear. Click on the wheel and then move the pointer around to Gemini which looks like the Roman numeral 2. Turn the organ on and play the letters from the lamp.

Prison

Find the prisoner's pocket and get the lighter. Use all the newspapers you've collected and put them on the table. Use the lighter on the newspapers. Now watch the end of game sequence.



■ Hours of endless fun could be yours in the Gents'... or maybe not.

If you've got any queries that you would like to put to Captain Blunder - or any hints or tips that you'd like to share with your fellow game players, then please write to Captain Blunder,



ST FORMAT,
30 Monmouth
Street, Bath,
Avon BA1 2BW.



FORMULA ONE GRAND PRIX MICROPROSE

Cheats... or 101 ways to do a Senna (erm, eight ways by our count) from Steven Calvert

1. The Cheater's Method

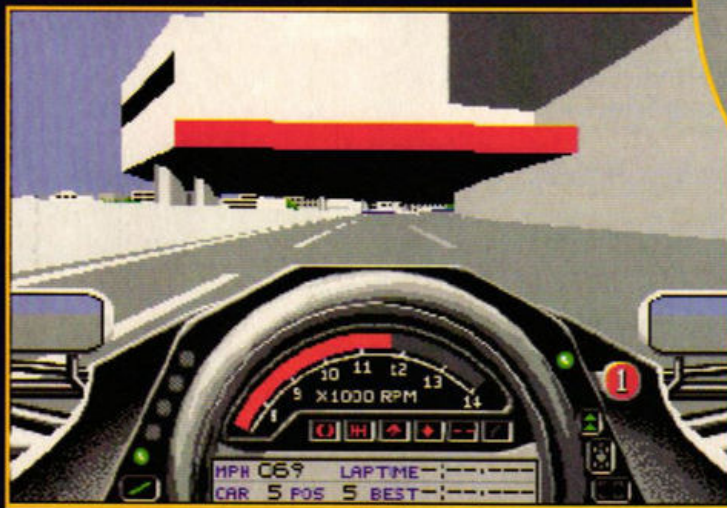
Switch on your car's invincibility and drive around the track the wrong way - simple and evil!

2. The Shunt

This is a simple ram up the tail pipe. It does little if you're only on a straight but if you do it on the approach to a bend it can force the computer into a bend at too high a speed, while slowing your speed at which you can take the bend.

3. The Swerve

This is the most effective and safest method. You come up behind the



■ The first thing to remember when you're looking to use any of these cheats is that you mustn't take them too seriously... you have been warned...

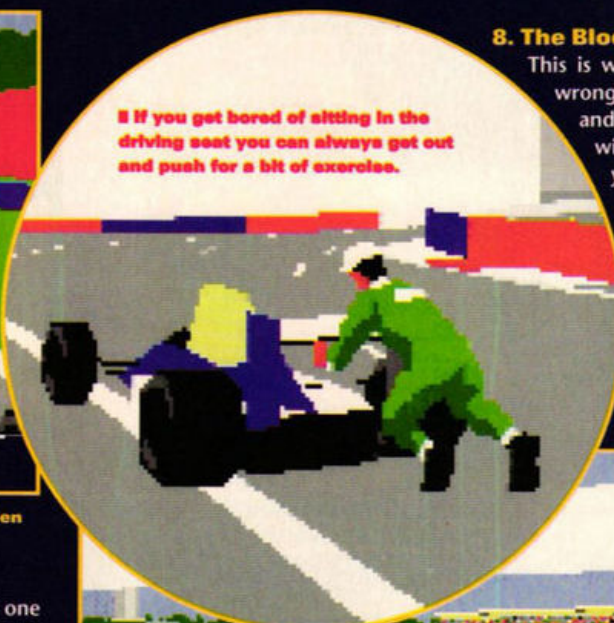


Unfortunately it takes you out as well. If you are desperate to do this then make sure you are not stationary on the grass for long periods of time. Keep revving the engine and rocking the car backwards and forwards or else the marshals pull you off the track even though you are still going... isn't car crime ridiculous these days?!

8. The Blocker

This is where you point the wrong way on the track and face nose to nose with another car. If you do it in the right place, which is usually near a bend, you can get one hellava tail-back which can cause some of the cars to stall... yours too if you're not careful.

■ If you get bored of sitting in the driving seat you can always get out and push for a bit of exercise.



■ Tra la la, going for a drive in the countryside on a Sunday afternoon... then you find yourself being rammed off the road. What happened?

victim using his slipstream and slingshot out to the side. Then immediately swing back in again to rub your nosecone against his rear spoiler. The victim's car swerves and spins off, then when he tries to get back on there is a good chance of another car hitting him at full speed. Two for the price of one!

4. The Sideswipe

Here you pull up alongside the victim and swerve into him. To be

effective the victim must be on one side of the road while you start your swerve from the other. As with all swerve manoeuvres you must be wary of the other car because it can spin off the barrier back into you!

5. The Slam Method

This only works in the movies... but try it here when you're in front of a car and you slam on the brakes. You cannot slow down quick enough to hit the car behind and if you could you would end up with just as much damage.

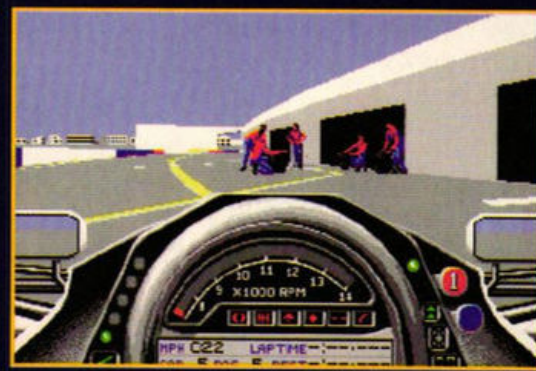
6. The Roadblock

No, this doesn't work either, really. Although your side is indestructible the computer can stop in time or just steer around you.

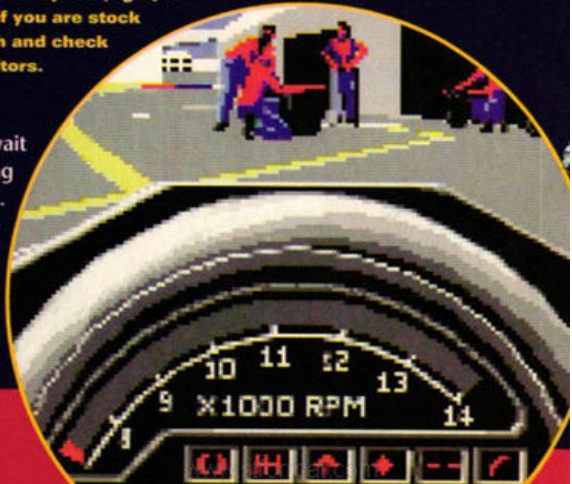
■ Keeping an eye on your speed (right) is recommended, even if you are stock still. Get going though and check out the other competitors.

7. The Ambush

This is where you wait off the track, pointing at a right angle to it. When a car comes along, fly out in front of it. On a fast straight this takes the victim out of the race. Unfor-



■ If you really want to make yourself unpopular you could just go and run down all those helpful men. Then go and do life for murder. Just a thought.



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FEEDBACK

If you've got something to say then stick some paper in your printer and drop us a line. We want to hear what you have to say



Do you bother?

Having read rapturous reviews of two games, *Civilization* and *Frontier*, I bought them both and have been very disappointed. Do your reviewers actually play the games or do they just rewrite the publisher's handouts? There is rarely anything in your game reviews that could not be gleaned from either the blurb on the box or the accompanying documentation.

Do software houses provide customised versions for review purposes or is the whole "review" exercise just an integral part of marketing strategy – as magazines and game companies do share a vested interest in shifting products.

Michael Jones, Chester

stf: I couldn't believe I was reading this, having spent many days breathing down the necks of writers demanding that they stop playing a game and get on and review the thing because the magazine was due at the printer's yesterday. They, knowing the importance of playing games thoroughly so that they are able to fairly assess them, insist on playing games as much as time permits which is often a

couple of days – they certainly do not rewrite publisher's press releases. Do you really think Game-tek, publishers of *Frontier*, would say words to the effect that "the problem with using a standard ST or STE is that the frame rate is quite slow, so fighting a high speed spaceship can be difficult" or that "the odd ship can change colour as you approach them and occasionally some of the polygons can disappear completely"?

We always play every game that we review – and on the ST, not the Amiga or PC. Software houses don't provide us with customised versions of games – just look at our review of *Goal!* from issue 56, the bugs spoilt this potentially brilliant game so much that we gave it a mere 48%, far below what it would have got had we been in league with Virgin attempting to sell more copies of it. You win the £25 prize for your sheer audacity!

ST's the best

I have been forced into re-evaluating my entire use of computers. I realise that I have made an expensive error and am returning to the Atari fold – selling my PC and returning to my beloved Atari. I will take the money from the sale and

buy a new T38 accelerator from the Atari Workshop to give me all the speed I need to run MultiTOS and SpeedoGDOS, blowing Windows right out of the water, and use what's left to treat my ST to lots of other goodies to make up for the recent neglect.

If you're thinking of buying a PC, don't be fooled into thinking

"I am returning to the Atari fold – selling my PC and returning to my beloved Atari"

you're getting a technological bargain. To run today's PC software properly, you need a 486DX, SVGA monitor, at least 300MBytes of disk space, soundblaster, CD-ROM, speakers, 12MBytes of RAM, PCI or VESA bus machines – and that lot costs about £2,200. Alternatively, you could keep your STE, spend £500 maximum upgrading the memory, buying an accelerator card and the latest TOS ROM chips, and spend £160 on a Jaguar and

another £150 for the CD add-on for the leisure side.

Alternatively, if you have £2,200 to spend, buy a Falcon with 4MBytes of memory, and a 210MByte hard drive for £1,000, spend a little on a decent VGA monitor and some extra memory and still have enough to buy the Jaguar and CD add-on.

I felt it was important to share my new awareness with you...

Darren Smithson, Berkshire

stf: We didn't make this letter up, honest! It comes from a regular letter writer who seems to spend the his time working and playing with a wide variety of computers. And if he reckons, in his unbiased judgement, that PCs are a waste of cash and that it's worth hanging onto your STE, who are we to argue?

Wonderful stuff

Until a few weeks ago I was losing faith in the capabilities of my ST – I even considered selling it. That was before I bought *Frontier* – it is undoubtedly the best game on the ST and has completely revived my enthusiasm. I would like to take this opportunity to thank David Braben for coming up with such an excellent piece of work.

Kristan McDougall, Warks

JUST A FEW JAGUAR QUERIES

In May I'm going to the States and I'm interested in buying a Jaguar. Could you answer a few questions for me?

1. How much are Jaguars in America?
2. Are American Jaguars the same as British Jaguars?
3. If not, would I have to buy a game convertor if I bought an American Jaguar?
4. Will I need to buy any special leads and if so where from?
5. How much are American games?
6. How much are English games?
7. Would I have to pay any tax to bring it into the UK?

Michael Stokes, Cheshire

And a few answers...

1. Jaguars cost around \$250 in the States – over here the recommended retail price is likely to be set at £225. Both these prices include a game, at the

moment this is *Cybermorph*, and a power pad which you can also use with Falcons.

2, 3, 4. Jaguars are different between the two countries, but only because the RF convertor (that is the widget that converts the Jaguar's video signal to TV signal) is different because of the variance in TV standard – in the States the screen is made up of 525 lines at 60Hz and in the UK it is made up of 625 lines at 50Hz. You would not need to get a game convertor as you would if you had a SNES or Mega Drive. If you bought a Jag from the States you would also need to get yourself a multi-system TV, so you could read the American signal which costs around £300 – or you could use a standard colour monitor and an RGB lead that you make up yourself using the instructions on page 56 and a power pack for around £30 from any electrical store like Tandy's in order to use the UK mains voltage. Putting a UK plug onto a US power pack supplied with US Jaguars is likely to have explosive consequences.

6. Games that are presently on release worldwide work with all machines although those that have just been officially been released in the States but make it over here on import may be NTSC only, meaning that there are black bands at the top and bottom of the screen. There is no other difference between the two systems so you wouldn't need a game convertor or any extra leads.

5. The official price for Jag games in the States is set at between \$39 and \$59.

6. The same games are on sale in this country for as much as £80 in some shops – if you think you might want to spend that much on a game, make sure you read our review first!

7. You would have to pay import duty to bring a Jaguar back here – and that's around £45. It's certainly a very expensive business to attempt – you might want to wait until there is a constant supply of machines in the shops from midsummer, or alternatively you could try your local HMV or Virgin Megastore.

stf: There's one side of the fence... and then there are the other people who just don't seem to be able to get into Frontier. Let me know what you think of the game - did it deserve to be billed as "the game of 1994" or do you think Cannon Fodder is better? If you're looking at the page and saying to yourself "well, how am I supposed to know?" then just load up the demo from the Cover Disk and have a gander.

Whaddaya want?

Support is important to the survival of any machine, as you clearly agree with from the Jaguar section. So, where are the Lynx and Falcon sections? If readers want these sections then let them write in and air their views in your Feedback pages.

R Cartwright, Devon

stf: I'm always more than willing to read the letters people send into Feedback - and indeed I do every day. Do write in and tell me whether you'd rather the magazine was split up into sections even more than it already is or whether you like it the way it is - or anything else that you want to comment upon.

If you're interested in other reader's opinions, turn to the questionnaire results on page 84 for more information.

Top Falcon tip

Here's a small tip for Falcon owners trying to run the superb game *Nethack* on RGB or TVs. I was having major problems with the latest version on my standard Falcon with Atari colour monitor. The problem turned out to be one of resolution, despite what the Read_me file says about the game running in many screen modes it only runs correctly with a resolution of 640x480 or higher. Fortunately you can do this on an RGB monitor - all you have to do is run the highest screen mode (80 column with 16 column interlace on) in overscan. I used a small PD program called *Overscan* to achieve this giant screen and the latest



K Lindberg of Staffanhope in Sweden is this month's Pixel Painting winner with this selection of well, rather romantic images.

If you think you can do better, send in your masterpieces on a disk to Pixel Painting, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW - you could even win yourself some cash! Please send us instructions on how you created your picture



■ CANDLES
This set of candles is brilliant - although it's a simple picture the way the light shines on the sticks is very effective.

I want to touch you
I want to feel your skin

I want to have you
I want to do a sin

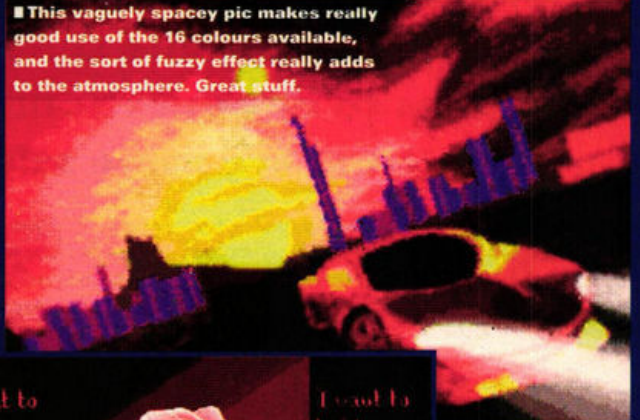


I want to hold you
I want to be with you

I want to tell you
that I love you

■ Ah yes, this one. Although it has no title the name of the file was "To Paula." Nice rose... not too sure about the sentiment "I want to have you, I want to do a sin" though.

■ This vaguely spacey pic makes really good use of the 16 colours available, and the sort of fuzzy effect really adds to the atmosphere. Great stuff.



greatest version of *Nethack* runs flawlessly in it.

Finally, can you persuade Atari (perhaps with a loaded gun) to release *Llamazap*? I know they are busy with the Jaguar but us Falcon owners have been waiting months, so have pity!

S Quinn, Ayr

stf: Thanks for that tip. We have been trying to convince Atari to release *Llamazap* especially since it was actually finished all those months ago when we reviewed it. They are just in the process of tying up a deal for Falcon game distribution - as well as *Steel Talons* and *Evolution Dino Dudes* that we reviewed in the last two issues. More news next month

■ If there's anything you want to say on these or any other Atari-related matters, drop me a line at Feedback, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW. You could even win yourself some cash.

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■ If you would like to correct or add to any of the entries, please write to us at Essential Contacts, ST FORMAT, 30 Monmouth Street, Bath Avon BA1 2BW.

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AS YOU LIKE IT



Encouraged by the thought of winning £50, replies to our questionnaire poured through the door. Here are some selected highlights

We ran a questionnaire a few issues ago which produced some interesting results. Thanks to everyone who took the time and trouble to respond, you've given us a very clear indication of how you'd like the magazine to progress and what you really want from it. We also now have some valuable information about the machines you have which enable us to give you what you want on the Cover Disks and also balance the rest of the magazine.

Perhaps the most interesting thing to come out of this was the fact that 92.5% of you have at least 1MByte of RAM in your ST, compared to 51% of you last year. You really need this sort of memory to be able to take advantage of most programs – both games and serious stuff – that comes out on the ST these days, so we're really pleased to see that you're getting the message. If you still haven't upgraded, then it's about time you did – check out our feature on page 29 to discover which upgrade you should get for the best results.

As far as the content of the magazine goes, we seem to be giving you pretty much what you want, even as far as the Jaguar and Falcon coverage goes – the issue we ran the questionnaire was the first in which we'd actually had a Jaguar section so the shock would have been greatest for the die-hard ST only fans, but 30% of you wanted to see more Jaguar coverage, 27.5% less and 34.5% the same amount. In fact, because the Jaguar information has been slower at appearing than anticipated, we have been

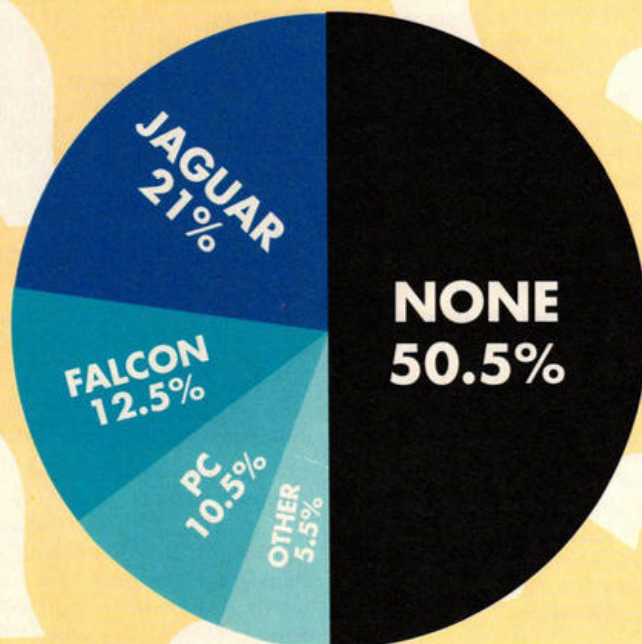
giving it fewer pages although as things hot up we shall probably revert to the original 16 pages. The figures were pretty much the same for the Falcon although you seemed to feel less strongly with 26.5% wanting more info, 22% wanting less and 41.5% wanting the same. You wanted more or the same of virtually everything we do especially ST Answers (94% wanted more or the same), Public Domain reviews (93.5%), graphics (90%) and Cover Disk information (97%), but with comms info being less popular with 29% of you wanting less of it. A massive 98.5% of you believe that ST FORMAT is either excellent value for money (46.5%) or average value (48.5%) which is good to know.

There are more results of the questionnaire scattered around in the graphs on the page, and for more specific information about the "you and the games industry" questions which mostly related to piracy, turn to the main feature starting on page 21 – but just to whet your appetite, consider that although 98.5% of you know that pirating software is illegal, a stunning 34% of you admitted owning pirated software. What's going on?

Finally (and this is the part you've all been waiting for, folks) the winner of the £50 is J A Steel of Warwick, so congratulations to him, a cheque is in the post.

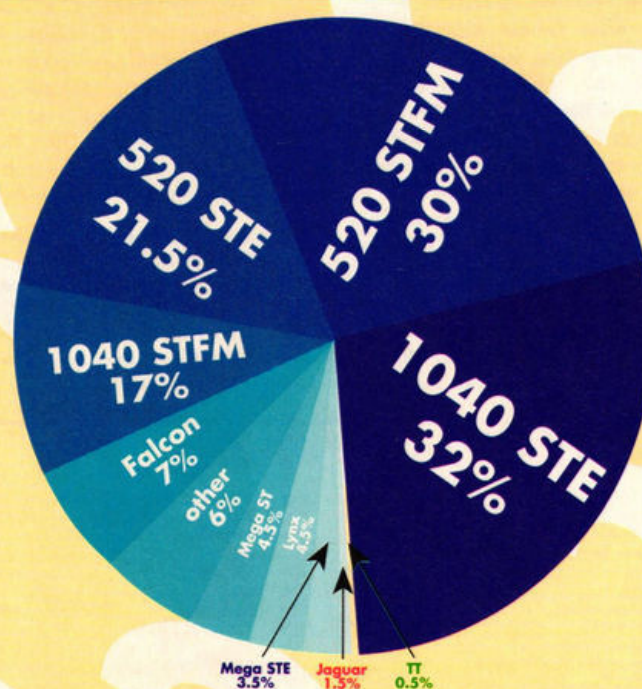
If there's anything else you want to say about the magazine or the Atari scene in general, please feel free to drop me a line at Feedback, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW. **stf**

Machines you intend to buy



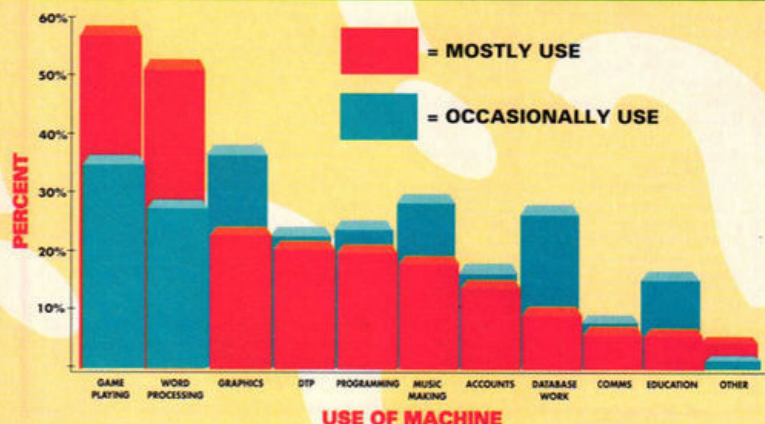
● A substantial 21% of you want to buy a Jaguar over the next year. The only thing that may stop you is whether you can actually get hold of one.

The Atari machines you own



● OK, so this doesn't add up to 100%, that's because most of you have an ST of one sort or another and the other machines tend to be extras or later additions like Lynxes and Falcons.

What do you use your ST for?



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Budgie UK Magazine Disks	Football	Programming - GFA Basic
Budgie UK Demonstration Disks	Games - Adventure	Programming - Pascal
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Communications	Music and Midi - Quartet	Speech Synthesis
Cookery	Music and Midi - Roland	Spreadsheets
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Mr Smarts Big Time	£24.95
Easy Text Professional DTP	£29.95 (RRP £39.95)
Easy Text Professional Vector DTP	£34.95 (RRP £39.95)
Easy Text Plus DTP	£14.95 (RRP £19.95)
Introducing ST Machine Code	£18.95 (RRP £19.95)
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ST Handbook

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If you have an internal drive that is not compatible with 'boot from drive B', this cable will solve your problem.

Drive-B cable.....	£9.95
--------------------	-------

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Blitz Turbo.....	£25
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Power Scanner	£99
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Ring Interruption	£15
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SuperMon comes with all the features of the 'Ultimate Ripper' and more. Some of the features included with SuperMon are: Program switcher- allows to programs to be in the memory simultaneously and switched between at the touch of a key, Printer spooler- allows files to be printed at the same time as other tasks, Comprehensive debugger- disassemble programs and step through them, intercept OS calls, search memory or find where a routine is called from automatically, Diagnostics function- check the internal functioning of your ST disk analyser, custom format disks, read/write sectors, hide files, Utilities- the SuperMon also has many utility functions available, including reset proof RAM disk, mouse trap function, time display, screen snapshot and 50/60Hz toggle.

Ultimate Ripper	£25
Including SuperMon	£35

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deliveries are subject to stock availability, all prices include VAT, E & OE

ST ANSWERS

Your problems solved by Clive Parker and friends in the best ST help pages around

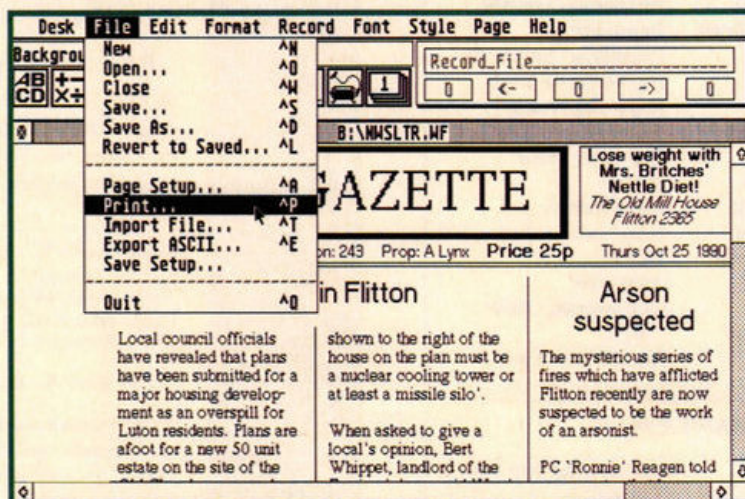
Lack of flair

SOFTWARE I am yet another person who has failed to get Wordflair to print, even though I have used the GDOS setup supplied with Hyperpaint 2. The instructions with Wordflair referred to HILO.RES and MED.RES folders, but these were not on my Wordflair disk. I have included a directory of my Wordflair disk so you can tell me what is missing from my disk.

Mike Arber, Dorset

A Nothing is missing from your Wordflair disk, the folders you mention belong to the official GDOS distribution disks which were not supplied on our Wordflair Cover Disk, we supplied ready-made GDOS configurations on the Hyperpaint 2 disk instead to save you the problem of installing GDOS yourself.

All you have to do is copy GDOS_HI.TOS or GDOS_MED.TOS – depending on your setup – from your Hyperpaint disk to a blank floppy and decompress it. Now delete the TOS file from the blank floppy and then copy



■ You can use the GDOS setup from Hyperpaint 2 with Wordflair if you really try, all you have to do is copy the correct files to a GDOS disk.

the following files from your Wordflair disk to it; WF.HLP, WF.PRG, WF.RSC and WF.SET.

Boot up with the new disk in the drive and you get a message saying that GDOS has been installed. All you have to do now is run WF.PRG and

everything should run OK. Turn to page 26 to see our special feature on installing and using GDOS.

Far, far away

HARDWARE I have hundreds of cassettes, video tapes and floppy disks that are all full of irreplaceable data. I have read in many magazines, including

STF issue 56, that you should not keep disks near magnetic fields because it may corrupt the data. How far is near?

John Wright, Edinburgh

A Keep all disks at least a foot away from any source of electromagnetic fields. This includes loudspeakers, monitors, TVs and telephones. Basically, just use your common sense, don't stack disks or tapes on monitors or speakers.

Den of corruption

DISKS I have bought Calamus 1.09 second-hand and I am unable to load graphics into the program although I can create documents using text. I have tried contacting Signa Publications at the address in the manual but I have not received any reply. Can you help?

Pat McNeilly, Harlech

A Signa Publications vanished some time ago, the present UK distributors of Calamus are JCA

A FEW FALCON ANSWERS

Is bigger better?

I am planning to write games for the Atari Falcon, I intend to write games for the 4MByte version rather than the 1MByte version. Is this a good idea?
Brian Boothe, West Midlands

stf: Yes, write for the 4MByte Falcon. The 1MByte version of the Falcon isn't really good for anything large, there is less memory available to run software on a 1MByte Falcon than on a 1MByte ST. Make sure your games can be installed on hard drive, there's no need for Falcon games to be restricted to floppy disks.

Combined systems

Are SpeedoGDOS and MultiTOS ever going to be combined into a single operating system?
Dean Kent, Reading

stf: No, MultiTOS is designed for 68030 processors and above – the TT and Falcon030 – while SpeedoGDOS is designed to run on all Atari machines.

64-bit Falcon?

Is the next Falcon going to use a 64-bit processor?
Ray Sharp, Newton-le-Willows

stf: At the moment there's no confirmation from Atari that there is going to be another Falcon at all, let alone a 64-bit version. Atari did say that the Falcon was "the

first in a family of machines" when it was launched, but it seems that it is an only child at the moment. Besides, Atari are now hinting that 64-bit Jaguar compatible computers are to be developed in the next few years, so the future of the Falcon series of machines seems rather uncertain.

High-speed STs

Do you know if Atari are going to write their operating systems in machine code so that full speed can be obtained, especially in the screen handling routines?
Eric Smeddings, Glos

stf: There's really no need to write the operating systems in machine code because C is quite fast enough on computers with 680x0 processors. The main reason for the slow screen updates on STs is GEM itself which slows everything down dramatically.

284156



■ If you want to develop Jaguar or Falcon games like this then contact Atari's Development Support people for full details.

Budding developer

How do I become a developer for the Atari Falcon, the Jaguar and any future machines?
David Jenkins, Merseyside

stf: The best thing you can do is to contact Atari UK themselves by writing to the Developer Support Dept, Atari UK, Atari House, Railway Terrace, Slough, Berkshire SL2 5BZ.

Europe. Give them a ring on ☎ 0734 452416 and give them the serial number of your disk and they can help you out.

Very reserved

SOFTWARE If you are unable to use the C-Font font converter as a Desk Accessory when using Write On then you need a small utility called DC Reserve. This program enables you to reserve memory for Desk Accessories in programs like Write On which grab all the memory, all you have to do is reserve enough memory for the largest GEM font you are likely to generate. When you call C-Font you should have no problem converting fonts from within Write On.

Stephen Shephard, Oxford

A Thanks for that tip, Stephen. If you want DC Reserve you can order it from the ST Club (☎ 0602 455250) on disk UT.370 for £1.25. Remember the ST Club charges £1.25 carriage on every order.

Colourful stuff

SOFTWARE Can you recommend a desktop publishing program I can use on my 1040STE and colour monitor? I am unable to decide between Timeworks 2 and Easy Text Professional. Can either of these programs accept output from Protext 4.3 from your Cover Disk?

Gavin Ramasawmy, Merseyside

A Timeworks 2 works fine on colour systems and should supply all the functions you could possibly want, you can get it from First Computer Centre (☎ 0532 319444) for £39.99. All DTP programs can import text in ASCII format so just save your text files as ASCII from within Protext.

Tricky fonts

PRINTERS I am having problems with Font Tricks 2.0 from your Subscriber's disk. When I print in medium reso-



THE C COLUMN

Mac Marsden takes a break from GFA Basic and delves into the esoteric world of C programming

C here

I have just received Lattice C v5 and had thoughts of becoming a professional programmer, having had a bit of programming experience in Pascal and BASIC. But my hopes of this quickly went downhill as I could not even write my name on the screen. What are header files and how do I make Lattice C ask for my name and age and then print it on the screen?

Duncan Falks, Berwickshire

stf: A header file warns the compiler that there are functions and structures held within your program that have not previously been defined. The code below enables you to input your name and age and then display it on-screen. It's worth noting that C is very case sensitive so please take care how you type in the listing.

```
#include <conio.h>
void main(void)
{
    char name[80]; /* RESERVE SPACE FOR 80 CHARACTERS */
    int age; /* Initialise age as integer variable */

    clr(); /* Clear screen */
    /* INPUT DATA */
    printf("\nPlease enter your name :");
    /* ASK FOR NAME */
    gets(name); /* INPUT NAME */
    printf("\nNow enter your age :");
    /* ASK FOR AGE */
    scanf("%d",&age); /* INPUT AGE */
```

```
/* DISPLAY DATA */
printf("\n\nHello %s, you are %d years old.",name,age);
/* END PROGRAM */
printf("\n\nAll done - Press any key to EXIT");
getch(); /* WAIT FOR KEYPRESS */
exit(0);
}
void cls(void)
{
    int i;
    for(i=0;i<15;i++) printf("\n\n");
    /* IF i is less than 15 then print two new line characters */
}
```

The line gets (name); it calls a function that enables the user to input a line of characters. scanf ("%d",&age); enables you to input a number (%d) and this number is placed at the address (&) allocated to the integer (whole number) "age" variable. In the line DISPLAY DATA, %s takes the string held by name and prints it on the screen and the %d displays the number held by age on the screen, so if we had entered Mac & 21, the display would read "Hello Mac, you are 21 years old."

Recommended reading

I have Lattice C but I am having problems understanding some of the commands, can you recommend a good book on C to get me going?

Richard Sternbach, Tyne and Wear

stf: In our opinion Lattice C is a great package but HiSoft only supply the library manuals, to get to grips with the language you should buy a good C language book. Try C-manship Complete, £14.95 from Kuma (☎ 0734 844335), it teaches both C and GEM programming techniques and is very easy to follow. You can order the book from any bookshop by quoting ISBN 0-7457-0042-X.

lution the text disappears off the edge of the page, and some of the supplied fonts don't work in medium resolution because they cannot be scaled to half height. What does this mean?

Andy Adams, London SE9

A When you are using Font Tricks you must make sure that you have selected the correct font to print with, this can either be the default Epson, ST 8x8 or the Degas font you have loaded. If the wrong font is loaded for medium resolution then the printout is stretched.

Low and medium resolution fonts are designed on a 16x8 pixel grid and medium resolution fonts are mapped onto an 8x8 grid, some of the fonts supplied with Font Tricks are

only in the 16x8 format and cannot be loaded in medium resolution. Why not use Sebra and use the fonts in high resolution?

Memory magic

HARDWARE I would love to add a hard drive to my system to speed up the loading and disk accessing of games, but I just can't afford one. Is it possible to speed up the operation of larger games by adding extra RAM and copying the game files to a RAMdisk? I have a 1040 STE.

Steve Parker, Clwyd

A It's easy enough to upgrade your STE to 2MBytes of RAM, just buy two 1MByte SIMMs and plug

them in. You must remove the four 256K SIMMs from your STE and plug the 1MByte SIMMs into the socket nearest the back of the STE and the third socket from the back, leaving an empty socket in between. 1MByte SIMMs are still fluctuating in price between £30 and £60 each, so shop around before you buy any.

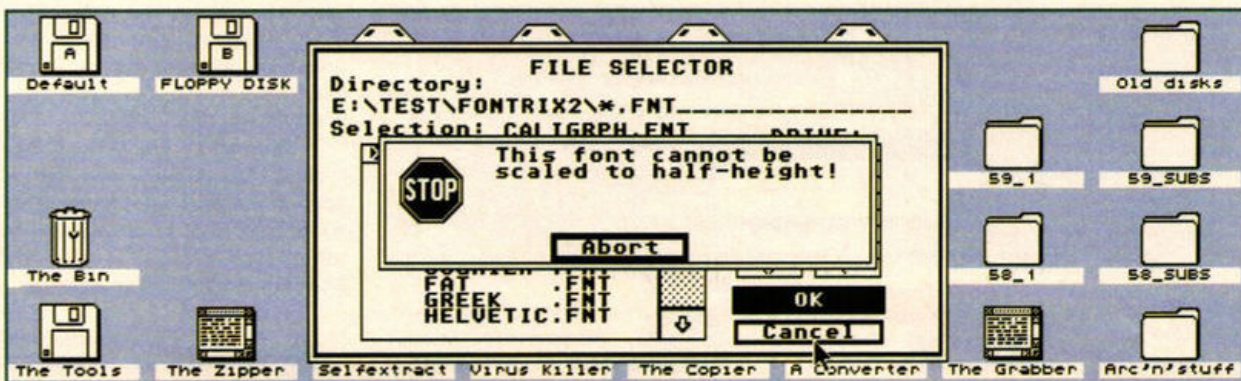
You can only run games from a RAMdisk if they are not copy protected, most commercial games boot automatically from drive A and only look for data in that drive.

Some games can be copied to a RAMdisk by dragging their individual files but they still look for drive A to load new data.

Where's Wally?

SOFTWARE I have Font Tricks 2 from your excellent Subscriber's Wonderdisk. The only problem I have is finding the appropriate Degas fonts to load into it. Please can you tell

Some of the fonts supplied with Font Tricks 2 don't work in medium resolution, you just have to check the ones that do or use a mono emulator.





GFA WORKSHOP

Mac Marsden gets to grips with more of your GFA Basic problems

Sound gamer

I am trying to write a game using GFA Basic, can you help me with these problems? How can I play a sound song in my program without using the SOUND command and in what format? How can I play sampled sound effects and speech? Does the program stop while a song or sample is playing?

Thomas Allen, Notts

stf: You do not mention which machine you have, if you have an STE, GFA Basic v3.6 includes two new commands, DMACONTROL and DMASOUND.

DMACONTROL x controls what DMASOUND does with the sample or song; where x = 0 = Stop sound. 1 = Play sound once. 2 = Play sound in a loop. The controls for DMASOUND a,b,c[,ctrl] are; a = Sample start address. b = Sample end address. c = Sample rate (0 = 6.25 kHz, 1 = 12.5 kHz, 2 = 25 kHz, 3 = 50 kHz). ctrl = see DMACONTROL.

The best way to use these commands is to allocate some memory using MALLOC and load a sample into this memory and then to use the DMASOUND command. Using this method of replaying sound does not effect the running of your program because it is played in the background.

Beep beep!

I am having a problem with the following listing.

```
REPEAT
  REPEAT
    UNTIL MOUSEK
  ALERT 1,"| Hello |Hello ",1,"OK",c|
UNTIL MOUSEK=2
```

Most of the time when the Alert box appears I get a loud continuous beep from the monitor and the message; "NOT BYTE 0255" when <Return> is used to exit the box. I have a 1MByte STE with TOS 1.2.

Frank Dawkins, London W12

stf: We managed to duplicate the continuous beep but were unable to get the error message you received. Theoretically, in your code, you would be unable to exit the outer REPEAT/UNTIL loop as the Alert box only lets you use the left mouse button to exit the box, so that the MOUSEK=2 (right mouse button being pressed) line won't be fulfilled. The way around this is to alter your code as shown below.

```
REPEAT
  ALERT 1,"| Hello |Hello ",1,"OK",c|
  REPEAT
    UNTIL MOUSEK
```

UNTIL MOUSEK=2

Placing the REPEAT/UNTIL MOUSEK loop after the Alert box enables you to exit the main loop because the status of the mouse button pressed is carried forward to be read by the UNTIL MOUSEK=2 line. If you press the right button the main loop is exited otherwise the Alert box is displayed again.

Driving problems

How can you tell which drives are connected and which are not? Is there a routine for searching a drive for a specific file?

Laurence Withers, Berkshire

stf: The following listing should enable you to tell which drives are connected and which are not.

```
r%=BIOS(10,d%)
binary$=BIN$(r%)
length|=LEN(binary$)
drive=65
PRINT "Drives attached ->";
WHILE length|>0
  IF MID$(binary$,length|,1)="1"
    PRINT CHR$(drive);",";
  ENDIF
  ADD drive,1
  length|=length|-1
```



ASSEMBLY POINTERS

Tony Wagstaff sorts out of your puzzling assembly language problems

To the limit

I have a GEM related question. I'm writing in APL and I have a menubar with over 120 entries, which the APL SETMENUS function refuses to increase in size. Is there a limit to the number of GEM menu entries?

Philip Bath, Dulwich

stf: It is possible to have more than 120 entries in a menu bar, although care must be taken that they are not too big for the buffer the AES uses to save the screen when displaying the menu entries, particularly if your program is to run in low res. Besides which, too many menu choices on-screen at once can become confusing. Most people can hold only about seven possible choices in mind at one time. Given too much choice may actually slow things down as the user cannot take in the information in one glance. If you need a lot of menu entries, it may help to spread them across two or more menu bars.

Titled windows

Is there a limit to the length of GEM window titles?

David Borg, Avon

stf: Having window titles larger than about 130 characters makes your ST crash, but that limit should be ample since you are unlikely to have a window that's large enough to see that many characters.

Biplane

Could you tell me how to draw a two bitplane image to the screen?

B Marsh, Wolverhampton

stf: First you need to collect some information about the computer you are running on. This can be gathered with the v_opawk call, after which intout(0) and (1) contains the screen width and height in pixels, and the extended vq_extnd call which returns the number of bit planes in intout(4). If the bit planes match the picture's, then, once you've loaded the picture into memory, you can perform a vro_cpyfm to blit it

to the screen. Check that the picture actually fits inside the screen dimensions. If the planes don't match, then you need to use vr_trnfm to convert it to the correct number of bit planes. Both these calls were covered in issues 52 and 53. See page 94 if you missed it.

Route 66

I sometimes receive a TOS error #35. I believe this error indicates there are too many files open, although I can't see why as there were no files open at the time.

B Reece, Cardiff

stf: Because of the way the AES reports errors, if you receive this error when running a program from the Desktop, it actually refers to GEMDOS error -66; just a little confusing! This error occurs when a program has an invalid program load format, for instance, if you give an ASCII text file a .PRG extension and try to run it.

To convert positive errors numbers, simply add 31 and then push on the negative sign.

Show me

I am writing a replacement text viewer, and I want to know how to intercept the desktop Show, Print and Cancel routine.

J Troup, Malvern

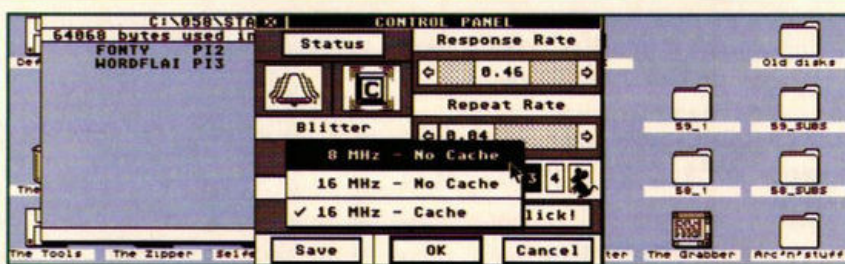
stf: Far friendlier, and easier, is to enable the user to set this up for themselves, using the Install Application feature of the various GEM and replacement Desktops. That way, they can set up which files they want to have loaded into your editor. A user is more likely to want picture files loaded into a picture editor!

With TOS 1.4 or higher, it is possible for you to edit the DESKTOP.INF or NEWDESK.INF files. Once you've installed your application to accept .TXT files for example, and saved the Desktop, copy the line containing the name of your program and change the file pattern from *.TXT to a different file extension. You can now load different file types into your text viewer program by simply double-clicking on the appropriate text file or document specified in your software.

me where i can get them from?

Malcom Garrod, Leeds

A Almost all Public Domain libraries stock disks full of Degas and GEM fonts along with Signum, Calamus and others. You can convert standard GDOS GEM fonts to Degas fonts using Fontkit Plus 4, which costs £19.99 from the ST Club (0602 455250).



■ If you have trouble running games on a Mega STE - and who doesn't - then it's a good idea to adjust the CPU speed and cache options.

Ishaar 2

I have a problem with the protection test for Ishaar 2 on my Mega

STE. When I run the game from floppy drive I can enter the protection code without any problems, but if I run it from hard drive then it is not accepted.

Simarils in France say they know of the problem but there is nothing they can do, it happens on all Mega STEs. Is there any way to solve this problem?

Bastiaan de Bruin, Netherlands

A Almost all games have trouble running on a Mega STE


```
SUB length|,1
WEND
```

We need to turn the value returned in `len` into binary form, for example, if `binary$` returned 10011 we would have drives A,B and E attached. The `WHILE WEND` loop looks for any 1 in `binary$` starting from the right-hand side of the string because in binary you start counting from the right.

The listing below searches through XXX drive, this may be one drive C or D. The line holding the `DIM` statement may be altered to enable you to catalogue more files. You must allow more space than is required because if more than 1000 files are catalogued then the program bombs out, so please be careful.

```
drive_dir("XXX")
FOR cnt=1 TO file_count&
  PRINT file$(cnt&)
REM put search function here
REM if file$(cnt&)="filename.extension"
NEXT cnt&

PROCEDURE drive_dir(drive$)
  ERASE path$(1),file$(1),length%(1)
  DIM path$(400),file$(1000),length%(1000)
  ABSOLUTE length%,BASEPAGE+154
  ABSOLUTE attrib|,BASEPAGE+149
```

```
-GEMDOS(26,L:BASEPAGE+128) ! fsetdta
FOR d%=1 TO LEN(drive$)
  read_dir(MID$(drive$,d%,1)+":")
  WHILE path_count>path_counter&
    INC path_counter&
    read_dir(path$(path_counter&))
  WEND
NEXT d%
RETURN

PROCEDURE read_dir(path$)
  search$=path$+"*.*"+CHR$(0)
  finished&=GEMDOS(78,L:V:search$,&X10000)
  DO UNTIL finished&
    file$=CHAR(BASEPAGE+158)
    IF file$<>". " AND file$<>". "
      IF BTST(attrib|,4)
        INC path_count&
        path$(path_count&)=path$+file$+" "
      ELSE
        INC file_count&
        file$(file_count&)=path$+file$
        length%(file_count&)=length%
      ENDIF
    ENDIF
    finished&=GEMDOS(79) ! fnext
  LOOP
RETURN
```

both from floppy and hard drive. The usual solution is to set the CPU speed to 16MHz and disable the cache from the General Setup option of your Xcontrol Control Panel.

It's also a good idea to disable all Auto folder programs and Desk Accessories when playing games using TOS 2.05 or 2.06.

Cheap memory?

HARDWARE Where can I buy a cheap memory upgrade to give me 1MByte of RAM in my 520STFM?
Jason Burton, Scotland

A Sadly, there's no such thing as a cheap upgrade for the STFM unless you consider £35 cheap! That's how much the Marpet XtraRAM Deluxe costs from First Computer Centre, give them a call on 0532 319444.

SIMM-plistic

HARDWARE I recently upgraded my STE to 1MByte of RAM using two new 256K SIMMs, now some of my software doesn't run any more. The System Information program on ST FORMAT Cover Disk 53 informs me that my STE has 1MByte of RAM installed and the rest of my software runs without problems.
Keith Johnson, Leeds

A You haven't said what software doesn't run on your upgraded STE but it's probably games. Some games for the ST work perfectly on 512K machines but refuse

to run on a 1MByte ST. There is a small Public Domain utility called MAKE_512.PRG which fools your ST into thinking it has 512K. You can get the program from Goodman International (0782 335650) PD library on disk GD 1810 for £1.95.

Dictionary needed

SOFTWARE I have just bought a printer and started to use Protext 4.3 from Cover Disk 41. Do you know if I can get dictionary files for the program, and if so, where can I get them?
S Adams, Cornwall

A You can use one of the functions in the Spell menu of Protext to create dictionaries from ASCII text files, all you have to do is select the Make Dictionary option and enter the name of the text file to be

converted. You can use any text file as the basis of your dictionary or you can get ASCII word lists from PD libraries. The only problem with this function is that it can only cope with files up to 1,000 lines long, so if you get a long word list you have to split it into chunks.

Multi-coloured

GRAPHICS Is there a program that can create pictures using more than 16 colours for the STE? I have some Spectrum 512 pictures and a viewer but no way to edit them or create my own pictures. I find that being restricted to the same number of colours on my STE as my old CPC464 a bit sad.
Andrew Davies, London

A Yes, there is a program you can use to edit and create Spectrum 512 pictures, it's called Spectrum 512! Luckily for you we gave away the program on the extra Cover Disk of ST FORMAT 38, and we still have a few copies available from our back issues department for £4. Turn to page 94 to order a copy.

Keyboard crazy

HARDWARE Is it possible to get a set of Falcon keytops for my ST because the beige ones are really dull and boring.
Mark James, Reading

A You can't get a set of Falcon keys for your ST, but you can buy a replacement set of keytops from System Solutions for £29.95, give them a call on 0753 832212.

Canon fodder

PRINTERS How do I get my Canon BJ-10sx to work without spouting gibberish? I am trying to use Timeworks 2 and Imagecopy 2. How do I find the correct DIP switch settings?
A G Wright, Northants

A Er... the DIP switch settings are actually printed inside the cover of your printer! All you have to do is set the DIP switch 12 to Epson mode and select Epson 24-pin printer drivers from your software, these are usually listed as Epson LQ followed by a number.

Weird port

HARD DRIVES My Gasteiner hard drive has an extra port next to the DMA In and DMA Out that isn't labelled, it looks a bit like a long Centronics port. Do you know what this is for?
Ray Barraclough, Huddersfield

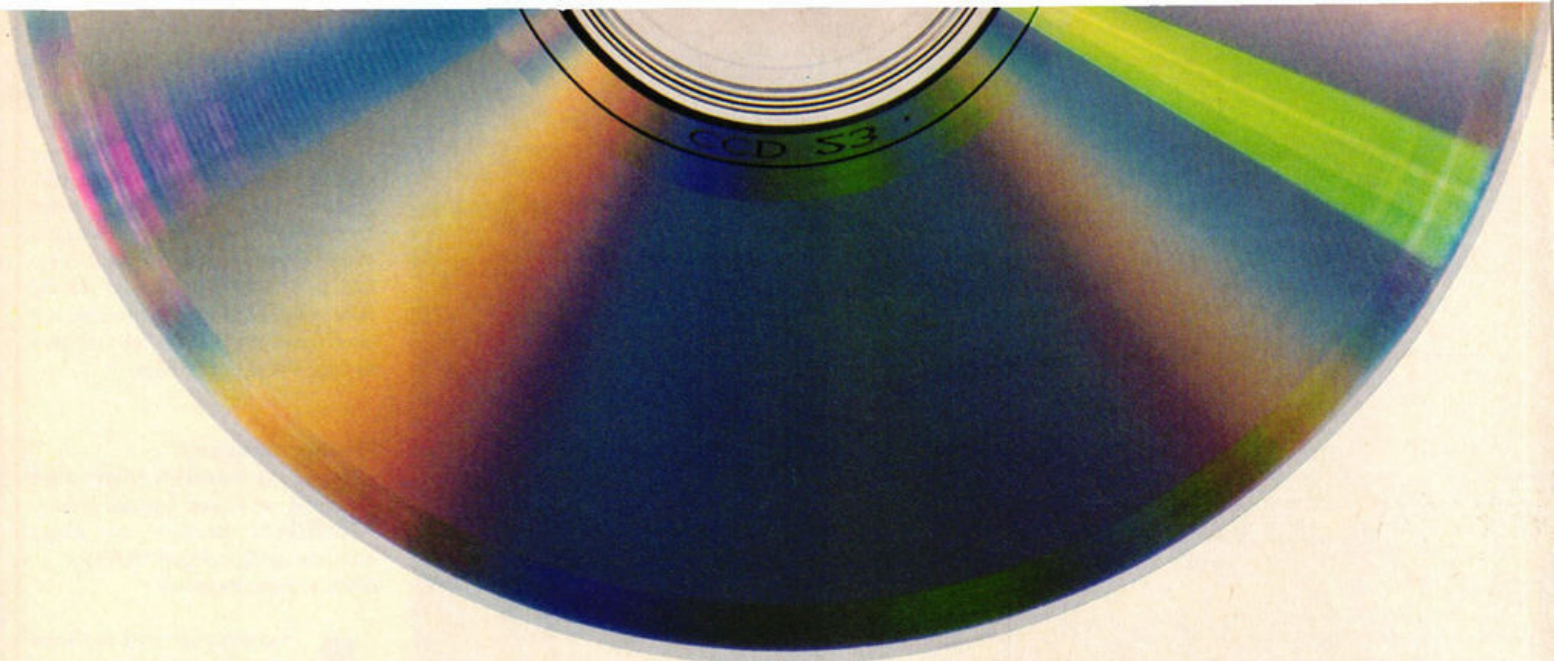
A The port you have described is a 50-way SCSI port. You can use this port to daisy-chain other SCSI devices from your hard drive, or you can use it as a direct connection to the Falcon SCSI2 port - this enables you to use it as an external drive on the Falcon.

Single or double

BEGINNERS I have an STFM, can you tell me if it has a double-sided drive? I can format disks to over 700K.
D Wilks, Cornwall

A You have a double-sided drive, single-sided drives can only format disks to 360K.

■ You can make your own dictionaries from within Protext using any ASCII file you may have lying around, so even those unusual words you invent yourself can be included in your dictionary.



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CD-ROM
Today

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Our magazine, complete with 600Mb disc, is out on March 31st – Easter weekend. See you then!

Future
PUBLISHING

SOUND

MUSIC AND MIDI

Here's Andy Curtis sorts out those tangled MIDI leads

MIDI switch

I have a Yamaha US-1 Electone Organ which has an MDR-2 disc recorder built-in and connected to the MIDI in and out sockets to enable it to work. I have to disconnect these to plug in my Atari ST to use the computer with the keyboards. Is there a switch box which can save me all this plugging and unplugging?

F Edmonson, Burnley

stf: We don't know of a box which switches both lines at once but Philip Rees do an excellent range of MIDI switch boxes that are available from your local music store. A couple of PR2Ss should do the trick for you. Remember to also buy an extra pair of MIDI cables to handle the extra patching.

DD drumming

I am getting a Yamaha DD-12 drum machine that has MIDI ports at the back. I would like to know whether, if I link it to my STFM via the MIDI ports, is there anything I could use it for? Would it be suitable for use with a sequencer?

Robin Byles, Sheffield

stf: By all means connect up your DD-12 to your ST and boot up one of our excellent Cover Disk give-away sequencers. With careful reference to your drum machine's manual you should be able to make great drum sequences on your ST. What you do with your work is limited only by your inventiveness!

Program changes

I have recently purchased a Yamaha DX7 synth and the appropriate leads to connect it to my ST. When

using Sequencer One with the synth I can only play back my music in the voice which is selected on the synth. Can you please tell me how to get my own compositions to play back to me with different instruments at the same time?

Paul Grady, Doncaster

stf: Unfortunately, what you ask is completely impossible. The reason is that your synth is not a multi-timbral instrument, none of the DX7s are. This means that they can only ever play back one sound at any one time. It is, however, possible to change which sound is played as a piece of music progresses by using program changes. This may well be what the demo song in Sequencer One is doing.

Program changes are a silent instruction embedded in the sequence which tell the sequencer to change its current voice. For more info on how to install program changes in a sequence, consult your manual.

Quality sampling

I'm thinking of recording my own samples to import them into music, but I'm not quite sure what to buy. I have a 1MByte STE and a colour TV with a mono emulator. Do I need some kind of cartridge for my STE?

Aki Kanerva, Finland

stf: If you need to use samples made on your STE in commercial or semi-professional recordings then there is really only one choice for quality. Replay16 is a great 16-bit sampling cartridge which can make CD quality recordings on your ST. The price in the UK is around £120 and the cartridge is available through Hisoft/AVR. (= +44 525 718181)

Controller confusion

I have a Yamaha PSR47 connected to my ST and I would like to know if there is a program which gives

me more sounds on my computer that can be controlled by my keyboard. This, in effect, could turn my ST into a tone generator as I can't afford to buy a proper tone generator.

Barrie Lloyd, Hove

stf: Sorry to have to break it to you, Barrie, but what you are hoping for is not possible. The ST's sound chip is not of high enough quality to warrant this kind of use. The only way you can access extra sounds via your ST is by using a sequencer such as Breakthru which enables you to incorporate samples into your MIDI sequences as well as the sounds from your keyboard.

A cheaper option is Sequencer One Plus, both of these programs are available from Software Technology (formerly Gajits) = 061 236 2515 or our mail order pages (page 94).

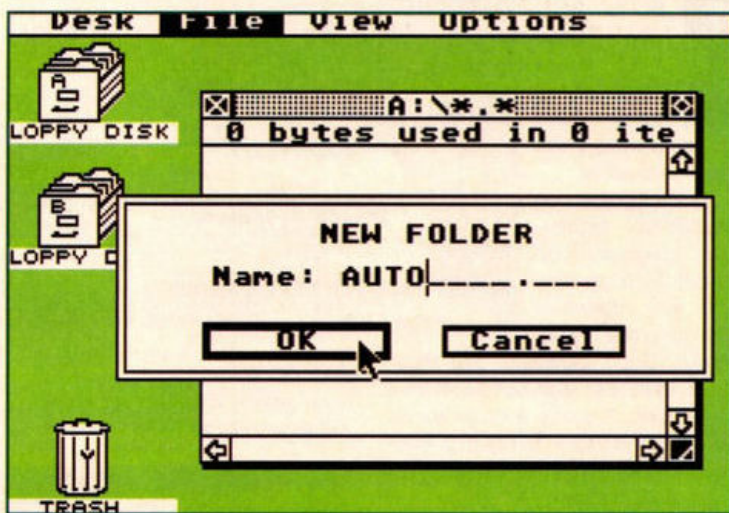
Funky drumming

I am using Cubase v2 and attempting to make very funky drum tracks but without success. When I play the drums it sounds great but when I play the track back it's not so good. I have tried all kinds of quantize, without success. Can you tell me how to quantize so that the beat comes out with good groove?

Pete Porterman, London

stf: There comes a point when quantize is just not enough. Our best advice to you is that you get your head stuck into the drum edit page and edit each drum part individually. Work on a short four bar sequence and keep adjusting the note start times and velocities until you get the effect you need. Try quantizing the music quite strictly to start with and then moving some "on the beat" notes ahead of the beat slightly.

Also make sure that the note velocities are not all the same, variety can emphasise certain notes adding to the excitement and funkyness. Quantizing really is not the complete answer to great sounding drum parts.



■ When you get to this alert box just type in **AUTO** to create an Auto Folder on your disk.

Plain stuff

Where can I get plain white disk labels, I don't need any lines or anything like that on them because I print my own labels for indexing.

M Baines, Kent

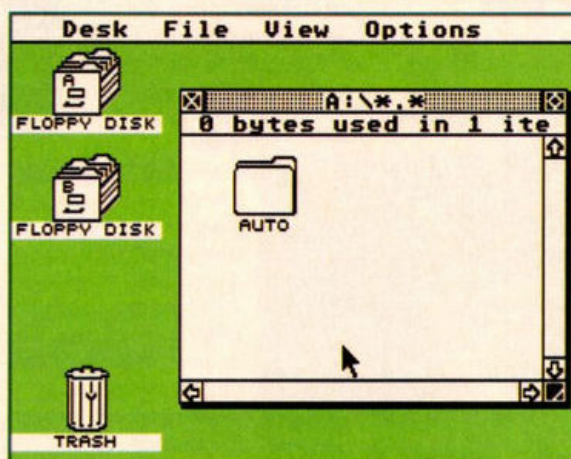
Practically any stationery shop can supply you with plain white labels, usually on tractor

feed rolls. Try the nearest branch of Wildings, they told us that they stock the labels you want in all of their branches.

Auto-matic

Despite following the manual step-by-step I still can't get programs into the Auto folder and make them run. How can I do this on my STE?

A C Borresen, Wilts



■ It appears in the drive window ready for Auto programs to be copied into it.

appears at the top of the window. Now click on the program to be copied into the Auto folder once and keep the button pressed, drag

the mouse pointer over the Auto folder until the folder inverts colour and then release the mouse button. Your ST now copies the program into the Auto folder. Leave the disk in the drive and press the reset button, when your ST re-boots, the program in the Auto folder runs it automatically.

First of all you must realise that any program that uses GEM cannot be used in the Auto folder, you can usually tell a GEM program because it uses windows, the mouse, menu bars, alert boxes and dialog boxes.

Put the disk with the program you want to Auto-load in the disk drive and double-click on the drive A icon to open the drive window.

Now go to the File menu and select the Create Folder option, when the box appears type in **AUTO** and click on OK. Your ST makes a folder called **AUTO** on the disk which

THE STF ADDRESS

Send all your ST related problems to ST Answers, ST FORMAT 30 Monmouth Street, Bath, Avon BA1 2BW. Please indicate the type of problem on the envelope.

INDIE CORNER

We sat Chris Lloyd in a corner with a selection of independent software – these are the pick of the bunch. If you can do better send in your efforts to the usual address

REFLEX

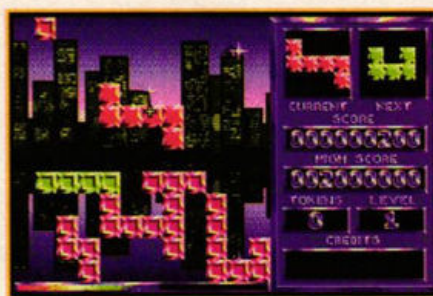
We just had to include this one. *Reflex* is a game of tessellation. You have to fit together various odd-shaped coloured bits to form blocks. If they are of more than one colour then the block must be symmetrical. What the



■ Oh dear oh dear, it's all starting to get awfully complicated. The free space available shrinks and horrible pieces that are really hard to zap start appearing.

program considers a symmetrical shape and what you think is one don't always coincide and it's easy to make mistakes at first. Initially you have four colours to play with. Each piece can be rotated before placing it on

the grid. There is a time limit in which you have to place each block. It's all easy enough to start with and the game starts to suck you in. The time limit gets shorter, new colours appear and worst of all pieces appear that can only be removed by creating multi-coloured blocks. You can earn special abilities, including colour changing and colour bombs.



■ Reflex, like many a good game before it, is a simple and monstrously addictive puzzle game that starts off nice and easy and then slowly sends you mad.

These appear on the grid and you have to put the next piece over them to collect – not always a wise move.

The graphics are bold and colourful, a little too much in some cases.

The red and pink pieces could have been made more different; you sometimes get the two confused when you're up against the clock. There is some passable chip music while the game plays a sexy sampled intro.

It's written in GFA Basic, but don't let that put you off, it's more than fast enough. It's a polished program with lots of slick touches. As the

screen fills up and it gets harder to place the pieces, the simple addictiveness of the gameplay shows. It's hard not to launch straight into another game when you finally succumb to the onslaught of pieces. It's a time-eater if you're not careful.

Reflex is Shareware, the versions in the Public Domain libraries are limited to 15 minutes play, the full version is a fiver direct from the author.

Reflex

£5
Direct from: Ellis Breen, 4 Caroline Court, South Park Avenue, Norwich NR4 7EJ

Highs

■ Simple and wonderfully addictive gameplay.

Low

■ The colours are too similar.

81

BLUDGEON

There are some people who can't get enough of Middle Earth, with its orcs, elves and tea cosies of Tharg. *Bludgeon* is an overhead view dungeon



■ Now from a title screen like this and a name like *Bludgeon* you know exactly what to expect, don't you? It's dungeon time.

bash originally created as an aid to fantasy war-gaming. You give orders to a group of sturdy adventurers as they troll about somebody's cellar casting spells and hitting things.

The game is played over a grid; each character in your party is given an order to follow, such as to attack,

cast spells, go to a certain point, retreat or the like. You then unfreeze the game and off they go. You can freeze at any point and give new orders. The range of possibilities is

wider than many games of this type. You can use it to pit yourself against a dungeon, as part of a fantasy war-game or as a group game where you each take command of a different character. The denizens of the dungeon can be controlled by a player or just left for your ST to handle.

It's not the quickest of games to play, there's a lot of clicking to

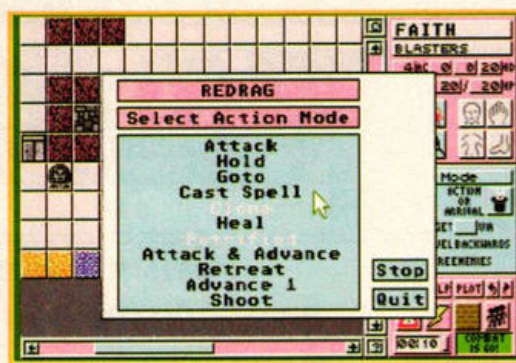
do and it is fairly sluggish to respond. Like real role playing games, it's easy to cheat. Often rather too tempting, especially when you're close to completing your goal.

The best bit of *Bludgeon* is its flexibility. You can create your own characters, monsters and dungeon, or fiddle with any of the multitude of statistics. You can even add your own graphics,



which might be a good start. Behind the scenes there is a good deal going on and it's well screwed together.

Bludgeon is Shareware, registration brings a good quality 50 page manual and upgrades. The program is continually being developed and registered users can also opt to receive newsletters. It is only likely to appeal to you if you're a committed dungeon delver who's not too bothered by the lack of speed.



■ Each character is given a task in turn. All the RPG standard fare is here – spells, swords, sandwiches and the inevitable Satan.

Bludgeon

£10
Direct from: Seaton Shareware Cooperative, 82 Harrington Drive, Lenton, Nottingham NG7 1JN

Highs

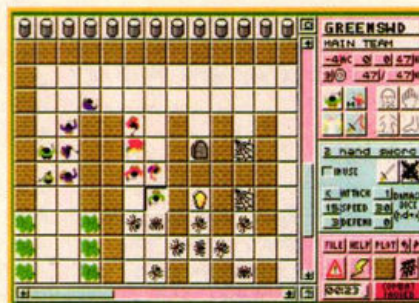
■ Lots of depth and plenty of statistics to fiddle with.

■ Fully configurable.

Low

■ Games plod along.
■ Graphics lack atmosphere.

64



■ Eek! Spiders... and really big ones. The simple graphics hide a good deal of dice-rolling and statistics tables.

DATA TECHNIQUES

At one time or another you need a database, even if it's only to keep track of a CD collection. *Data Techniques* is a pretty comprehensive program that can do that, and a whole lot more. It uses the familiar GEM environment and all the major functions have keyboard short-cuts. It

CONTINUE

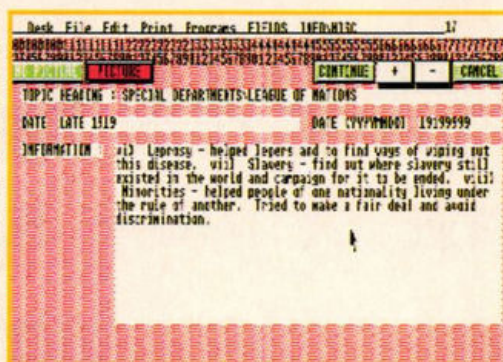
CANCEL

even has its very own file selector. You can design different forms for a database, one tailored for printing and another for screen display, for example. You don't have to worry about the order in which fields are created. Macros can be used to speed up the laborious task of data entry. The interrogation is carried out by a

separate program loaded from the menu, it uses its own interrogation language. For complex sorting it stands up well, with a range of flexible and powerful commands but it's a pain if you just want a quick look.

You can embed pictures into your database and print them out. It can also import and export files in CSV format, very handy indeed for swapping data with other database programs. There is an on-line manual as well as a comprehensive printed manual to help out.

There is no shortage of databases about and *Data Techniques* stands up reasonably well. What lets it down is the presentation. There are far too many GEM fills used and text and boxes don't always line up. It looks sloppy in places, which is a pity. It isn't always apparent how to use it either – having to get to grips with an interrogation language, however simple, is not ideal. Some presets would have been helpful.



■ A record from one of the example databases with *Data Techniques*. Using Edit Record you can browse through a database, but to do much more you need to load a separate interrogation program.



■ Designing your own database from scratch. Here we are creating fields - try not to get too excited, eh?

Data Techniques

£10

Direct from: Peter Wills, 29
Gloster Ropewalk, Dover,
Kent CT17 9ES.

Highs

- Innovative interrogation functions.
- Flexible form layout.

Low

- Mediocre presentation.
- Rather unwieldy.

58%

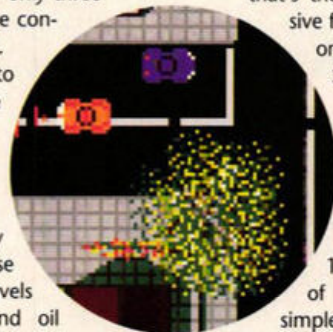
CRIME WAVE

This is a simple overhead game that casts you in the role of the last policeman in New York. Luckily it's a very small New York with only three banks in it, which are constantly being robbed.

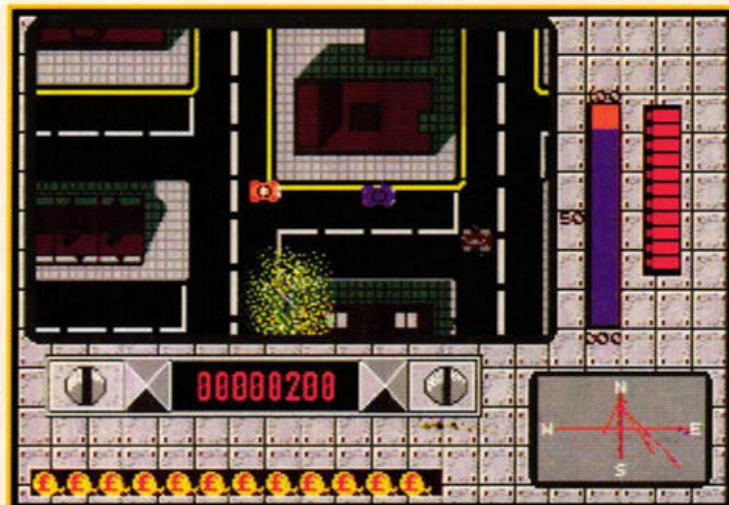
Your job is to chase down the thieves and shoot them – hell! This is New York. If you shoot innocent cars or run over any pedestrians you lose points. In later levels there are mines and oil

slicks dropped by the fleeing felons to contend with.

Your car is controlled either by the joystick or the keyboard. The playing area scrolls smoothly, in fact that's the single most impressive feature of the game. It only runs on 1MByte STEs and shows how superior they are at scrolling. If only the software houses took notice and produced games aimed specifically at 1MByte STEs. The rest of the game is pretty simple, you drive about



■ *Crime Wave* is a simple and fairly playable overhead chase-the-robbers-and-shoot-them sort of game. It shows off the STE's scrolling capabilities rather well indeed.



■ The cheeky sods are at it again, don't these guys have any brains? Can't they see the smashed wreck of the previous bank robbers?

tracking down villains aided by the radar. Let too many escape with the loot and it's back to the start and an overly long intro sequence with lots of disk accessing.

The keyboard control is far superior to the joystick, where the car skids about on the diagonal. The control is often fiddly and you can easily get stuck up against things and have to reverse. There's no cornering, the car turns in 90 degree jumps. All in all, the game soon palls. It's a good try and with extra gameplay and beefed-up controls it could be a winner – as it stands there just isn't enough to it.

Crime Wave

£5

Direct from: Dillon Agoma,
15 Gubyon Ave, Herne Hill,
London SE24 0DU
requires 1MByte, STE only

Highs

- Smooth scrolling over playing area.

Low

- No depth, just one long game of chase the robbers.
- Control of car erratic at times.

52%

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STF RATING 91

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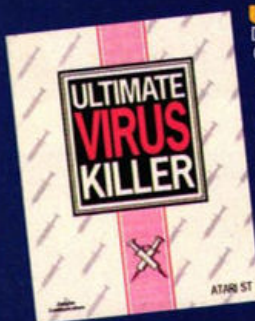
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APRIL 1994

Disk: Demos of UVK v6 and Thought!, plus Tri Hell and Holocaust
Inside: direct to disk recording; Chagall & Cannon Fodder reviewed; move the ST's mouse port.



ISSUE 56

MARCH 1994

Disk: F1 demo, children's colouring book; plus 5 utilities
Inside: Over 100 ST tips; image processing feature; Cubase Audio review; Goal! review; 11 jag pages.



ISSUE 55

FEBRUARY 1994

Disk: Frontier - Elite 2 demo; Stomp; Before Dawn, DM Editor.
Inside: Your ST's future; Atari-Works; Cybermorph reviewed. 16 page Jaguar section.



ISSUE 54

JANUARY 1994

Disks: KCS Omega; Hyperpaint 2; Spherical, Nova.
Inside: Frontier: Elite 2 previewed; best buys of 1993; Vidi ST and Colorburst scanner reviewed.



ISSUE 53

DECEMBER 1993

Two disks: Arabesque, a vector graphics program worth £130 plus a useable demo of Roystar.
Inside: Falcon special plus the index of 1993.



ISSUE 52

NOVEMBER 1993

Two disks: Wordflair - a whole program; Magic Boy demo; **Inside:** Five DIY upgrades; scanning, digitizing and sampling; footie games.



ISSUE 51

OCTOBER 1993

Disk: Zool demo; Fractal Playtime; STOS extension
Inside: Games testing; colour printing; high and low end DTP; using fractals in art and music.



ISSUE 50

SEPTEMBER 1993

Disk: Civilization demo; Supercard database; Mega Depack; Runes
Inside: 50 inspiring ideas; Photo CD; 50 techie terms; Legends of Valour.



ISSUE 49

AUGUST 1993

Disk: POV Raytracer complete program and the Chaos Engine demo.
Inside: Discover the power of raytracing, and take a look at MultitOS.



ISSUE 48

JULY 1993

Disk: 817 demo, the complete Prism Paint and Composer Two.
Inside: Make music on your ST, summer sports, review of Digital Arts' Vector.



ISSUE 47

JUNE 1993

Disk: Legends of Valour demo, three more games, DynaRAM, Picture Monitor.
Inside: Adventure games, upgrade your TOS, Xenomorph review.



ISSUE 46

MAY 1993

Disk: Biz Accounts demo, three games; Kubes, Rayold, and Balls and two vector fonts.
Inside: Be productive with your ST, floppy drive roundup.

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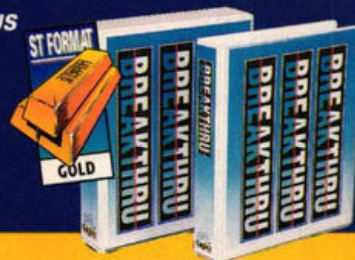
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MONITOR MADNESS



You've decided to splash out on a Falcon but you haven't got a clue what sort of monitor you want. Clive Parker sorts out the pros and cons of RGB and VGA

T rue colour graphics are brilliant, using your Falcon with the new 24-bit colour software enables you to create images far better than anything you've ever seen on your ST.

So what's the best way to view the images, can you use your old ST monitor or do you have to go out and buy an expensive new one? To reap the best results from your Falcon you actually need both types of monitor, the RGB (red, green, blue) type used on your ST is perfect for true colour mode while a VGA (Video Graphics Array) monitor is best suited for high resolution software in 16 or 256 colours.

Talk about a resolution

Falcons have 35 built-in resolutions altogether, ranging from standard ST high resolution in two colours to 32,768 colours in low resolution true colour mode. The graphics chips are capable of more resolution than those available but they are restricted by the Falcon's hard-

"Falcons have 35 built-in resolutions altogether, ranging from high resolution in two colours to 32,768 colours in true colour mode"

ware; some software can bypass these limitations and can use greater resolutions and palettes than those imposed by the operating system. The forthcoming *Chroma Studio 24* from Floppyshop can generate a 24-bit screen display.

You can use the three built-in ST emulation modes to run any ST software that doesn't like the Falcon's screen modes, you can even run high resolution programs on a



■ We normally use a bog standard VGA colour monitor with our Falcon and run the system in 256 colours and 80 columns.

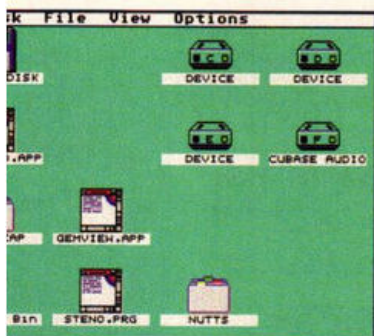
normal colour RGB monitor although it does tend to flicker like crazy. Most ST games don't run on the Falcon even if you use the ST low resolution mode – besides, why buy a Falcon to play games?

Generally you need a VGA monitor to run serious software on the Falcon, you can use your old RGB monitor in interlace mode as a stop-gap

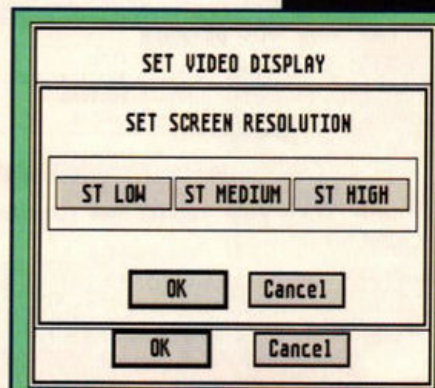


■ Just an example of the superb picture quality you can achieve on a Falcon in 256 or true colour modes.

■ It's simple to switch to one of the ST resolutions. Select Compatibility Mode from the Set Video dialog box and you are presented with three buttons. Just select the mode you want to use.



■ In true colour mode on a VGA monitor the Desktop looks similar to the ST's low resolution mode but a lot more colourful.





■ Floppysnap's forthcoming program - *Chroma Studio 24* - enables you to work on graphics in 24-bit true colour on a VGA monitor. The author of the program claims that the software is as powerful as a Silicon Graphics *Indy Workstation*, the machine that was used to generate the animated dinosaurs in *Jurassic Park*.

measure but the flickering is a bit of a migraine inducer after a couple of hours' use. Serious software is the kind of stuff you'd run on an ST in medium or high resolutions; *Cubase Audio*, DTP, graphics processing and manipulation all work best on a VGA monitor.

Your RGB monitor is useful for true colour graphics processing and animations, Falcon games, Public Domain and Shareware demos. Many PD programs are

"If you do buy a Falcon then you can use your old ST RGB colour monitor straight away and buy your VGA monitor later"

designed exclusively for use on the RGB monitor and don't run at all on VGA systems so you really do need both types of monitor to get the best from your Falcon.

Is it really true?

Your Falcon's manual proudly proclaims that you can display true colour graphics on-screen - well, it's wrong. The Falcon's display is more accurately described as high colour, the 32,768 colours possible on-screen at once from a possible 262,144 represent a 15-bit palette rather than the accepted true colour standard of a 24-bit palette with a possible 16.7 million colours.

The "true colour" tag comes from the Falcon's ability to display any of the 32,768

THOSE RESOLUTIONS IN FULL

With 35 built-in resolutions to choose from it can be a bit confusing getting everything to run correctly on your monitor, see the list below to find out what resolutions to use with your setup. If a resolution works on an RGB monitor then that means that it also works on a standard TV

40 column mode

320x200 pixels in 4 colours, RGB monitor
320x200 pixels in 16 colours, RGB monitor
320x200 pixels in 256 colours, RGB monitor
320x200 pixels in true colour, RGB monitor
320x400 pixels in 4 colours, interlaced, RGB monitor
320x400 pixels in 16 colours, interlaced, RGB monitor
320x400 pixels in 256 colours, interlaced, RGB monitor
320x400 pixels in true colour, interlaced, RGB monitor
320x480 pixels in 4 colours, VGA monitor
320x480 pixels in 16 colours, VGA monitor
320x480 pixels in 256 colours, VGA monitor
320x480 pixels in true colour, VGA monitor
320x240 pixels in 4 colours, line-doubling, VGA monitor
320x240 pixels in 16 colours, line-doubling, VGA monitor
320x240 pixels in 256 colours, line-doubling, VGA monitor

320x240 pixels in true colour, line-doubling, VGA monitor

80 column mode

640x200 pixels in 2 colours, RGB monitor
640x200 pixels in 4 colours, RGB monitor
640x200 pixels in 16 colours, RGB monitor
640x200 pixels in 256 colours, RGB monitor
640x200 pixels in true colour, RGB monitor
640x400 pixels in 4 colours, interlaced, RGB monitor
640x400 pixels in 16 colours, interlaced, RGB monitor
640x400 pixels in 256 colours, interlaced, RGB monitor
640x400 pixels in true colour, interlaced, RGB monitor
640x480 pixels in 2 colours, VGA monitor
640x480 pixels in 4 colours, VGA monitor
640x480 pixels in 16 colours, VGA monitor
640x480 pixels in 256 colours, VGA monitor
640x240 pixels in 4 colours, line-doubling, VGA monitor
640x240 pixels in 16 colours, line-doubling, VGA monitor
640x240 pixels in 256 colours, line-doubling, VGA monitor

Emulation modes

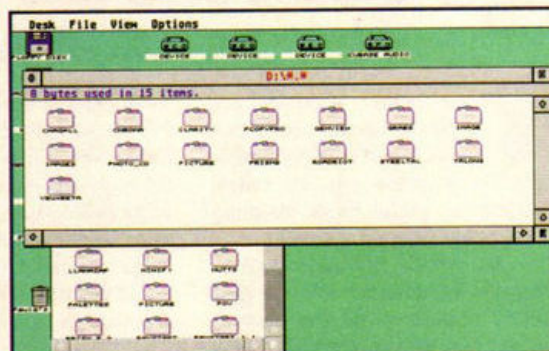
320x200 pixels in 16 colours, ST low, all monitors
640x200 pixels in 4 colours, ST medium, all monitors
640x400 pixels in 2 colours, ST high, interlaced, all monitors

colours on any pixel without having to choose from a set palette of 256 or 1,024 colours. Never mind, perhaps the next Falcon will really use true colour.

Some honest advice

If you are thinking of buying a Falcon then it makes sense to hang on to your old ST setup. Many ST programs just don't work under TOS 4 at all and you'd be lucky to find any ST software that runs correctly with MultiTOS. If you do buy a Falcon then you can use your old ST RGB colour monitor straight away and buy your VGA monitor later. If you do buy a VGA monitor then it's

a good idea to choose SVGA (Super Video Graphics Array) which can display higher resolutions than a standard VGA monitor and is perfect for use with hardware screen enhancers like Hard Up and Screenblaster. SVGA monitors cost a little more than VGA monitors but it is definitely worth it if you do go for the higher resolutions. **stf**



■ You can see the standard VGA resolution here of 640x480 pixels, the same width as the ST's high resolution mode but 80 pixels higher and in colour.

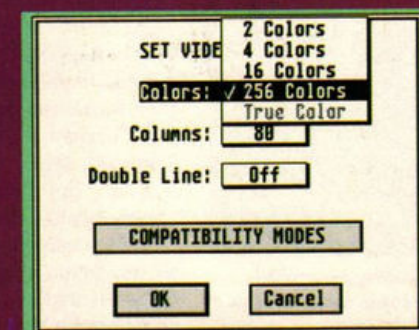
CHANGING RESOLUTIONS

It's dead easy to change resolution on the Falcon and it doesn't reset the machine, you just select Set Video from the Options menu and alter the configuration to the one you want to use. For instance,



■ Go to the Options menu and select Set Video...








if you are using the word processor or spreadsheet options in *AtariWorks* you don't really need to have the system set to 256 colours in VGA mode. Set the number of colours to 16 and all screen updates and scrolling are speeded up considerably.



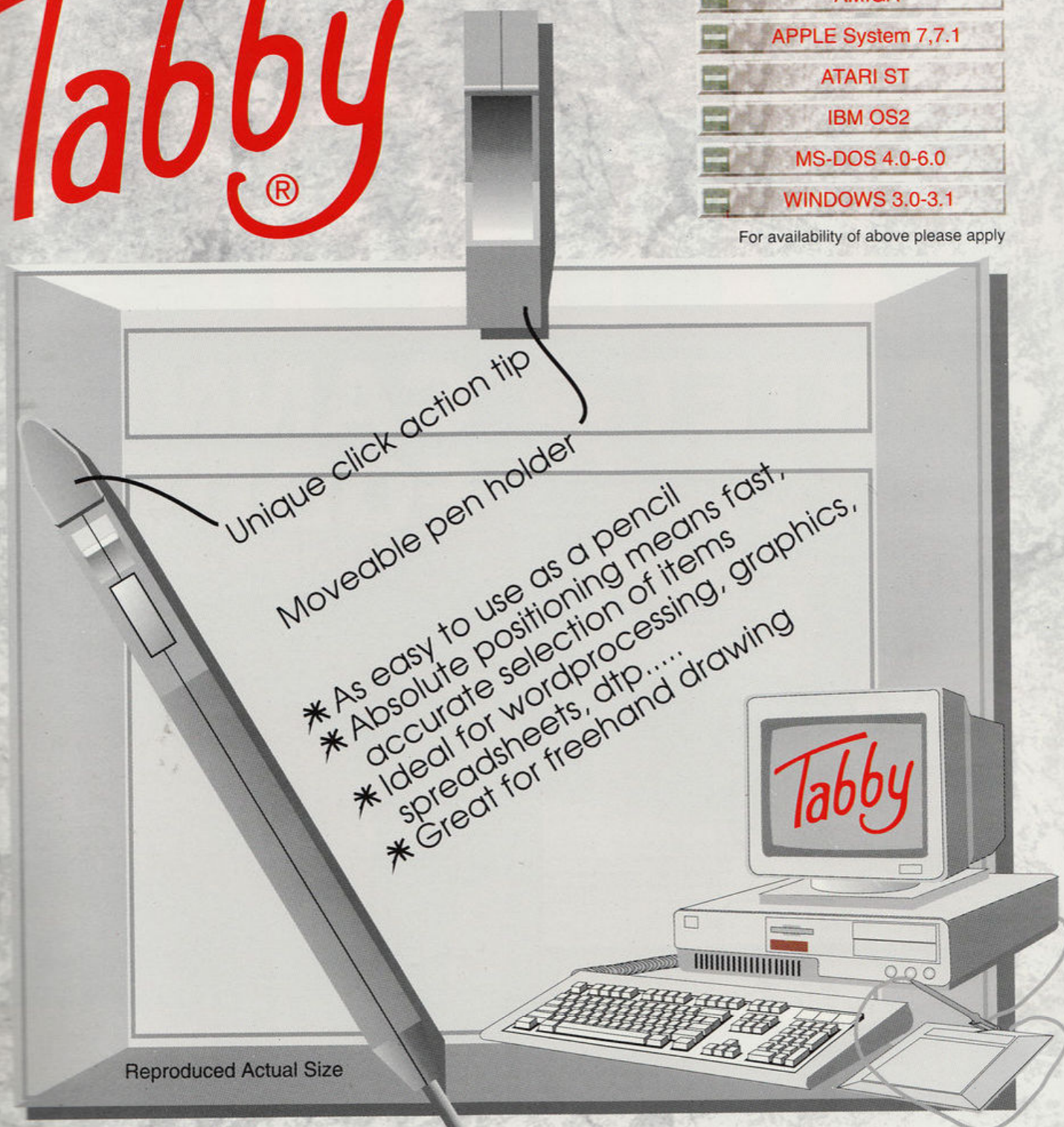
■ ...then alter the settings around a bit.

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