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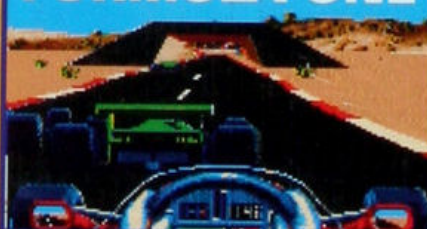
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CONT

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section

JAGUAR

Discover

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- Does *Crescent Galaxy* look as bad as some people say? page 88
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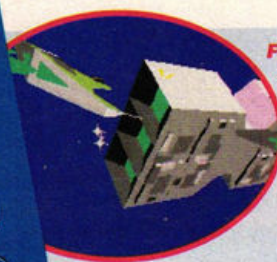


WHAT HAPPENS NOW?

Take a look at your ST's future starting on page 17



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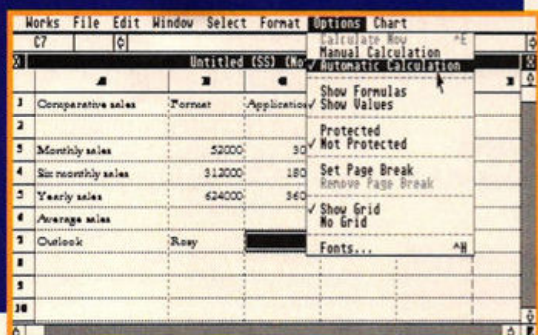
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ATARIWORKS

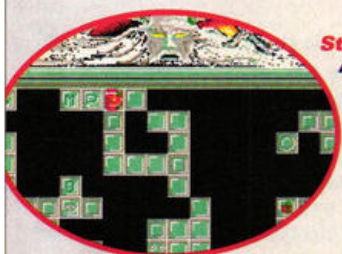
The only business program you need? Find out with our in-depth feature starting on page 23



Formula One



A brilliant game or a clone of Vroom? See page 72



Stomp
A massively
addictive
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TURN TO PAGE 10
FOR YOUR
COVER DISK
GUIDES

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Paula Richards,
EDITOR

ST FORMAT ■ ISSUE 55 ■ FEBRUARY 1994

WELCOME TO ST FORMAT

It's the start of a new year in which the ST faces more competition than ever before for software and hardware availability. With this in mind we take a close look at what the leading players in the ST industry think is going to

happen to the machine and the support for it. It's a very positive overview, in fact, and there appears to be far more enthusiasm for the format than you'd think by looking at its lack of prominence in the high street. Turn to page 17 for that. Atari themselves have finally released their all-encompassing busi-

ness program, *AtariWorks*. We take an in-depth look at it and try to decide whether it really is as indispensable as Atari would have us believe.

This month is also the start of our Jaguar section - 16 pages starting on page 83 devoted solely to this amazing 64-bit console that is to decide Atari's future, starting off by looking at the first games to appear, *Cybermorph* and *Crescent Galaxy* and how the machine works so well from such a compact box.

I'd appreciate it very much if you could take the time to fill out the questionnaire starting on page 57 - the more we know about you, the better for all concerned. Happy New Year.

FEATURES

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Hand Scanner + Scanlite £99.99

Hand scanner. Supplied with Silhouette v1.4, Autotracing vector package (mono monitor only). Scan directly into Silhouette via Scanlite or import IMG, DEGAS, TINY, MacPaint, GEM and SGF bit image files. Exports IMG, GEM (13), SGF, bit image files. Exports IMG, GEM (13), SGF, DXF, EPS (Postscript) vector files.

Hand Scanner/Scanlite/Silhouette £119.99

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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.

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1Mb RAM STE	£199.99
2Mb RAM STE	£259.99
4Mb RAM STE	£319.99

Phone for pack details.

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- Full installation instructions.
- XT or AT Emulation
- Check configuration before ordering.

PC Speed STFM (XT)	£49.99
PC Speed STE (XT)	£49.99
AT Speed STFM (8MHz)	£139.00
AT Speed C16 STFM	£199.00
Falcon Speed	£POA

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Our Atari trained technicians can repair ST's in minimum time 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.

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Courier Pickup	£11.00
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Phone for price and availability of ST spares.

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The Microvitec Multi-Sync displays ST Low, Medium, High resolutions using ST switch box, compatible with FALCON & FALCON screen blaster using FALCON VGA adaptor.

ST Multisync switchbox	£29.99
Falcon VGA Adaptor	£9.99
Falcon ST monitor Adptr	£9.99
Philips SCART to ST/STE	£9.99
8833 MKII to ST/STE	£9.99

Christmas show declared a disaster

by Clive Parker

Perhaps the loneliest place in London was Wembley during the Christmas International Computer Show. Attendance was so bad that at times it seemed that there were almost as many exhibitors as visitors present. Although the stands filled the entire hall, the aisles between the rows of stands were between 20 and 30 feet wide and empty, and this show featured the lowest number of exhibitors yet.

Numbers present were the worst ever for the Christmas all formats show, never becoming busy. It's estimated that as few as 400 visitors attended on Friday. Exhibitors reported low levels of sales across the whole range of computers, not only ST sales but Amiga, PC and console retailers all had a bad weekend.

Nick Harlow of 16/32 Systems wasn't at all pleased with the way the event turned out. "Financially the show was a disaster for us. We can just about absorb the loss, but

it prevented us from attending the Computer Shopper Show on the following weekend where we would have been the only major Atari exhibitor. It would have helped if someone from Westminster Exhibitions had been present when we wanted to discuss the situation. We wanted to speak to them but we couldn't find them,

"Numbers present were the worst ever for the Christmas all formats show, never becoming busy"

the show security staff couldn't find them and the Wembley Events staff couldn't find them. I will never do another of their shows."

System Solutions are regulars at the shows and used to an enthusiastic crowd of Atari devotees. Karl Brandt commented "There were definitely too many shows in London within a short time that affected the overall attendance, and although we didn't do fantastically well we were fairly pleased with the final outcome."

Hisoft/AVR always attend Westminster's shows but David Link of the company was a little disappointed by the event, but remained upbeat about the Atari side of the market. "Owing to an unfortunate combination of factors, the show was disappointing in

"This is the official show catalogue from the Christmas Computer Show - and it features far fewer exhibitors than ever before. Perhaps the entertainment industry is just getting more competitive."



■ The Future Entertainment Show attracted game players from all over the country - some of whom would possibly have gone to the Wembley Show.

terms of attendance. However, we were pleased with the Atari contingent who did attend."

There are several reasons behind the poor attendance - the

"We couldn't find the organisers, the show security staff couldn't find them and the Wembley Events staff couldn't find them"

£7 entrance fee is comparatively poor value for money - the only free attraction was a Nintendo game area - which was practically deserted on Friday - every other activity involved more spending.

There were other shows - the Future Entertainment Show took place on the previous weekend and the Computer Shopper Show was the next weekend. The Atari shows were also within a few weeks of the

Wembley event, but this doesn't explain why owners of other platforms avoided this show. It's likely that the FES attracted the games crowds while the Shopper Show lured away the "serious" crowd.

Timothy Collins, MD of Westminster Exhibitions commented, "Maybe the hype behind the home computer and the small business market has declined since the previous show in February 1993."

"We feel we marketed this show better than we had previous events, it's a constant learning and bettering experience. Attendance was better on Sunday with visitors queuing to get in. We are planning more International Computer shows later this year."

As to the charge that no staff were in attendance on the Sunday, Collins commented "Appointed Westminster Exhibition staff were in attendance at Wembley to manage the show until it closed."

Perhaps they'd decided that a "discreet" presence was more appropriate to the situation...



ARABESQUE COVER DISK PROBLEMS

In our December issue we published the full version of the excellent vector graphics program *Arabesque* on our Cover Disk.

At the time of publishing we were not aware that various aspects of the program and the English version of it were copyrighted by the American company Gribnif Software. We apologise to Gribnif for this misunderstanding.

If you purchased the December issue of *ST FORMAT* you should either contact Gribnif Software or their UK distributor Compo Software for

information on how you can register your copy of *Arabesque*. *Arabesque* is a fully fledged commercial program. As such you may make backup copies for your own use. However, you cannot and should not make copies of it to sell, distribute to friends or upload to any BBS or electronic service.

If you missed the December issue unfortunately you're out of luck. We can no longer sell that copy through our back issues service.

Also, if you responded to the special offer for the manual and *Convector*, you should have

received an explanatory letter plus your money back from Hisoft. Hisoft does not distribute *Arabesque* or *Convector*.

If you still wish to pursue the offer or have any questions about these programs, contact Gribnif Software (PO Box 779, Northampton, MA 10161 USA ☎ 010 1 413 247 5620) or Compo Software (7 Vinegar Hill, Alconbury Weston, Huntingdon PE17 5JA ☎ 0480 891819) in the UK.

Sorry about all this, it's a bit complicated - hope this hasn't caused too much inconvenience.

BUGGY DSPS?

There have been reports that some Falcons need hardware modifications to be able to deal with direct to disk recording correctly, quite a major problem for Atari since the Falcon's D2D recording capability is one of its main selling points.

Apparently a quite simple modification to the DSP sub-system corrects the problem which doesn't become apparent until you actually try to use direct to disk recording software. If you've been suffering from dodgy D2D sessions on your Falcon, System Solutions (☎ 0753 832212) are authorised to correct the DSP fault without invalidating your Falcon's guarantee.

Atari's hard drive software v6.6 also appears to cause difficulties during direct to disk recording where timing is crucial between hard drive and computer. The main problem is with hard drives timing out while recording or playing back sound files. The best solution to the software problem at the moment is to replace the Atari hard drive software with the *ICD Professional Hard Drive Utilities*.



■ The Falcon looks innocent enough but problems are lurking inside that case...

CHROMASTUDIO 24

The best Falcon graphics program yet is just about to go on sale. *ChromaStudio 24* is a combined animation, image processing, morphing and art package and it looks brilliant.

The version of the program we've been looking is almost complete with most of the functions being fully operational. Its main function is as an art and animation package, although the other functions included are so powerful that *ChromaStudio 24* rates as the most complete graphics tool we've seen so far on the Falcon.

The functions available include a 256 colour and true colour animation package and field warping and bending of 256 and true colour images.

There's also a full morphing studio enabling you to create *Terminator 2* style morphing effects by designating images for the start and end frames of the animation -

■ Pretty (er, pretty red?) flamingos notwithstanding, *ChromaStudio 24* has a wealth of toolbox options available directly above and below the workscreen. Hitting the right mouse button gives a full screen display of the complete picture being edited.

all in-between frames are generated automatically. *ChromaStudio 24*'s screen interface doesn't use GEM. Instead, it's based on a mixture of interfaces mainly composed of the GEM, NeXTstep and Windows environments. Specially written DSP assembly code for many of the effects functions gives your Falcon performance very close to that of a professional Silicon Graphics Indy Workstation in 24-bit colour.

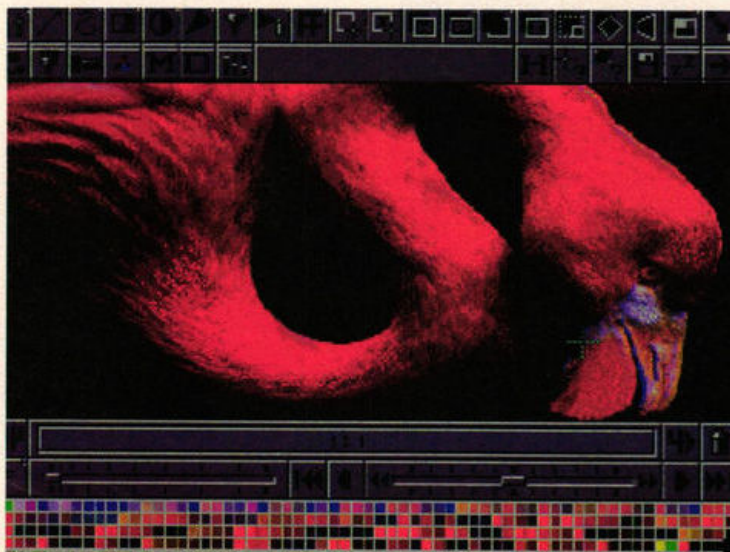
Initial impressions of *ChromaStudio 24* lead us to believe that this is the first Falcon graphics package to truly give you the



■ The top line of icons is the current toolkit, selecting a new toolbox icon in the second row displays a substantial sub-toolkit of its own which pops up along the top of the screen. The function of the icon under the cursor is displayed in a status bar at the bottom.

power of a graphics workstation on a home computer. We can't wait to see the complete version. *Chro-*

maStudio 24 is being distributed by Floppyshop, call ☎ 0221 586208 for more details.

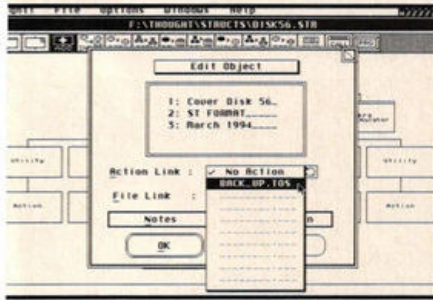


ATARI TT CLONE

The first 68040 TOS based computer is now on sale in the US, and it's not made by Atari! The Medusa T40 is an Atari TT clone running a specially developed version of TT TOS 3.06 with a 68040 processor running at a staggering clock speed of 64MHz.

Lexicor Software have developed the Medusa as a direct competitor to high performance graphic workstations, as such it comes complete with an FPU co-processor and PMMU (Paged

WITH A LITTLE THOUGHT!



■ Programs connected with your project can be launched by using the Action Link option when you double-click on any Symbol. You can link up to ten programs or files to each Symbol.

Titan Designs continue to come up with new and innovative software for the ST in spite of lagging support from other software developers.

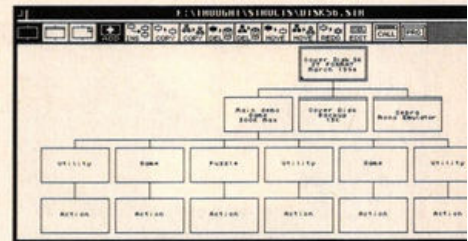
Thought! is described as "a unique ideas processor" although it's probably more realistic to describe it as an outliner.

An outliner is normally a stand-alone program or part of a professional standard word processor which is used to structure the development of programs, reports, novels, technical manuals or even as a powerful filing tool.

Thought! enables you to do all this on your ST, along with a few other features that PC and Mac program-

"Thought! runs like an interactive flowchart, enabling you to add notes and comments to each section"

mers haven't thought of. The program runs like an interactive flowchart, enabling you to add notes and comments to each individual section - called Symbols - as you go along. In addition, you can also call up to ten files from each Symbol, files can range from simple text files to word proces-



■ Using the outlining functions of *Thought!* enables you to plan ahead on a project with ease. Symbols can be added or removed at any time if you alter any part of your plan.

sors. *Thought!* is available now for around £60.

Other STE and Falcon products from Titan Designs emphasise the untapped potential of the ST - these include the Graffiti Video Genlock and the ImPro Animate modular animation suite. Fresco is a studio quality video genlock designed primarily for the Falcon - although it can be used with the STE using a special adaptor - and Expose, a Falcon only true colour, real-time video digitiser. Contact Titan on ☎ 021 414 1630.

■ It's dead easy to add comprehensive notes to any part of your *Thought!* layout using the Notes or the Information pads provided at the Edit Object dialog box.

IMPORTANT BREAKTHRU

New versions of *Breakthru* and *Breakthru Plus* are now available from Software Technology Limited. Retaining all of the features of the original *Breakthru*, v2 is a direct result of a survey of registered *Breakthru* owners. Enhancements include a vastly improved score screen, new block operations, a "humanize" function to make music sound less machine generated and sophisticated MIDI controller graphs. *Breakthru 2* and *Breakthru Plus 2* are priced at £149.95 and £179.95 from Software Technology Limited, ☎ 061 236 2515.



■ Gajits - as well as having a new name they've also got a new set of programs available. Must be the start of a new year...

MULTI-TASKING STS

A new, powerful alternative multi-tasking operating system has been developed for all STs.

Furst Limited have designed SMS2, a new plug-in multi-tasking OS that sits neatly in the cartridge port of your ST. Features of the system include true multi-tasking, built-in networking, a powerful windowing GUI (Graphical User Interface), built-in system utilities and the Thing System, a special memory sharing system.

Because SMS2 is supplied on PEROM (Programmable Erasable Read Only Memory), any upgrades

to the system software can be recorded onto the ROMs so your system can be kept fully up to date. SMS2 runs in high resolution only; 1MByte of RAM is recommended.

SMS2 is not GEM or TOS compatible but is a distinct and separate operating system, so you can't run any existing ST software with the OS. There is a range of software applications, programming languages and PD software available for the OS. SMS2 is available now from £135 from Furst Systems on ☎ 0489 894674, watch out for a review soon in *ST FORMAT*.

ARRIVES

Memory Management Unit). Up to 128MBytes of fast RAM can be installed internally along with a range of 24-bit graphics cards. A 68060 processor board is planned for release later in the year.

And the cost of all this? The basic machine consisting of 64MHz 68040 processor, tower case and ST I/O board is about \$2,500. RAM, graphics boards, multiple VME bus and hard drives cost extra. UK distribution is through 16/32 Systems, call ☎ 0634 710788 for UK prices and availability.



DON'T MISS OUT ON ST FORMAT

MAG*SAVE



Banish those I-can't-find-my-copy-of-ST FORMAT blues by ordering your copy of the magazine direct from your newsagent. As well as ensuring that you get your copy without the fuss of having to search all over town for it, you get a completely pristine copy - nobody's going to have had the chance to get their grubby fingers all over it. All you have to do is what thousands of other people are already doing - just fill out the coupon below and give it to your newsagent who's happy to keep hold of *ST FORMAT* for you. You could even have it delivered to your front door, making life even easier for you.

So go on, fill out the form and take it to your newsagent today. Alternatively, you could always take the even better option of subscribing - see page 62 for details.

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COVER DISK

THIS MONTH'S MENU

Frontier: Elite 2

Exclusive demo of the biggest 3D space game ever.

Size: 84K Page 10

Before Dawn

Animated screensaver program with editor so you can make your very own movies.

Size: 241K Page 11

Stomp

Frustrating block sliding puzzle pitting you against the clock.

Size: 83K Page 10

Audio Calculator

Working demo of this MIDI tool.

Size: 125K Page 14

Sebra

Mono emulator for you to use with AudioCalc.

Size: 12K Page 12

Backwards

ST emulator to use with your Falcon, enabling you to play a selection of ST games.

Size: 29K Page 11

24-pin GDOS fonts

The final batch of printer fonts to go with Hyperpaint 2.

Uncompressed size: 286K Page 14

2.5MByte STE

Updated version of the patch that enables 2.5MBytes of RAM to work with all STEs.

Size: 35K Page 12

Dungeon Master and Chaos Strikes Back Level Editor

Edit your saved games of *Dungeon Master* and *Chaos Strikes Back*.

Size: 48K Page 12



KCS Omega examples

More KCS Omega file to go with this month's tutorial.

Uncompressed size: 160K Page 12

Cover Disk Backup

Keep your Cover Disk safe.

Size: 13K Page 12

FRONTIER: ELITE 2

BY: DAVID BRABEN

RESOLUTION: LOW

MACHINE: ALL STS

MINIMUM MEMORY: 1MByte,

HARD DRIVE INSTALLABLE

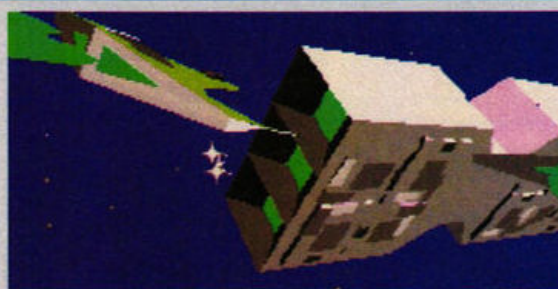
FOLDER: FRONTIER

FILES: FRONTIER.PRG

SIZE: 84K

GET STARTED WITH: SEE BELOW

It's got to be the most eagerly awaited game for years, *Frontier: Elite 2* – the sequel to the smash



Elite is finally here, turn to page 68 for the full review.

Frontier is even bigger than the original game, and much more interactive with over 100 million

Blasting through the universe on your way to fame and fortune on any one of 100 worlds, watch out for pirates in the asteroids.

planets to discover and explore. You can act out the role of a trader, a pirate, a bounty hunter or a mercenary – just get in your ship and set out into the galaxy.

Our *Frontier* demo consists of an animated intro showing off the wealth of work that's gone into creating the most complex and complete 3D game for years. The demo needs at least 1MByte of memory to run on an ST, to get it up and running double-click on the FRONTIER.PRG icon on the backup copy of your Cover Disk. Wait a minute while the data loads into your ST then sit back and enjoy the show.

A superb 3D space-trading adventure-battle thing with a great wibbly soundtrack burbling along.



STOMP

BY: IAIN MELVIN

RESOLUTION: LOW

MACHINE: ALL STS

MINIMUM MEMORY: 512K,

HARD DRIVE INSTALLABLE

FOLDER: STOMP

FILES: STOMP.PRG, MEN.MEL,

TILES.MEL, READ_ME.DOC

JOYSTICK REQUIRED

GET STARTED WITH: SEE BELOW

Stomp is one of the most annoying, frustrating and downright addictive games we have ever come across. There are 35 levels of sliding block puzzles to complete

against the clock, all you have to do is build the word STOMP by sliding the blocks around the screen. Sounds easy enough, but it's not!

The game is joystick controlled; just move the joystick in any direction and you move in that direction, pressing fire at the same time shifts the block with you as long as it's free to move. Different blocks have different attributes, some only move in certain directions while others explode after you pass over them, destroying any adjoining blocks.

To play, double-click on the STOMP.PRG icon. Once the game loads, press fire to start playing.

Stomping around

Simple it's not, there are all sorts of problems with *Stomp*. Squares explode, some blocks don't move and others look as though they're letters, but they're not.

- 1 Number of lives you have remaining.
- 2 Which level you're currently on.
- 3 How many points you've managed to score so far.

BACKWARDS

BY: CYRILLE DUPUYDAUBY
RESOLUTION: ANY 16 COLOUR VIDEO MODE
MACHINE: FALCON030
MINIMUM MEMORY: 4MBYTES,
HARD DRIVE INSTALLABLE
FOLDER: BACKWARD
FILES: BACKWARD.PRG,
BACKWARD.RSC,
CORONER.PRG, READ_ME.TXT
SIZE: 29K
GET STARTED WITH:
READ_ME.TXT, SEE BELOW

If you've got a Falcon then that almost certainly means that you also have an ST of some kind lurking around – at the very least you may still have some games software hidden under the bed that don't work on your shiny Falcon.

The problem with ST games is that they aren't really intended to be used on the Falcon, they use "illegal" programming tricks to get

more mileage out of the ST – these tricks mean that most ST games just don't run on the Falcon.

Enter *Backwards*, an ST emulator for the Falcon. Using this handy utility enables about 70% of ST games to run on the Falcon just by setting a few parameters in a couple of dialog boxes.

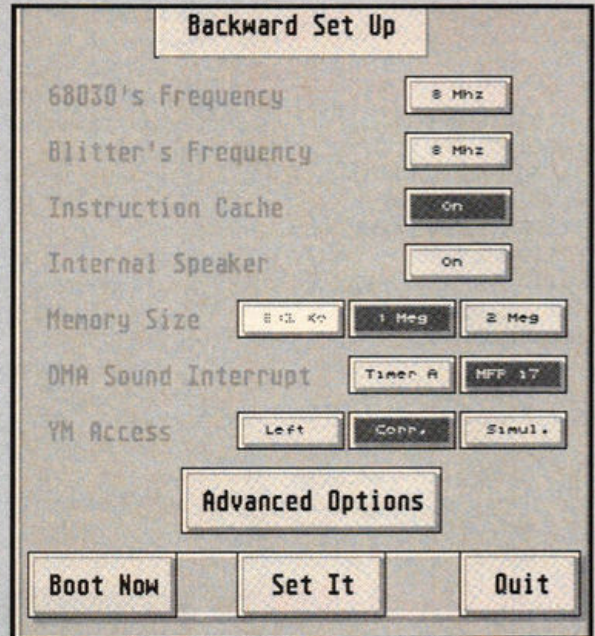
Copy the BACKWARD folder onto any Falcon hard drive partition and then run BACKWARD.APP, then click on SET UP in the initial dialog box. You are presented with a configuration screen with a wealth of options to alter the Falcon's settings.

Once you have chosen the settings you want to try, select SET UP NOW. This stores the settings ready for a reboot. When you're ready, remove any Falcon disks from the disk drive and select BOOT NOW. Your Falcon reboots, when the drive LED flashes once press and hold the <Alternate> key until the *Backwards* info appears

■ This is the main screen of the clever Backward ST emulator. Different games need different setups to work on your Falcon.

on-screen, now put your ST game disk in the drive and press any key. That's all there is to it. Simple, eh?

Certain games may not work the first time you try a setup, so you have to keep experimenting until you get it right for a particular game. The READ_ME file is packed



with hints and suggestions for different setups, you need to read it to get the most from this program.

BEFORE DAWN

BY: ARNE RUDOLF
RESOLUTION: MEDIUM, HIGH, VGA
MACHINE: ALL STS, TT, FALCON030
MINIMUM MEMORY: 512K,
1MBYTE RECOMMENDED
FOLDERS: DAWN, EDITOR,
IMAGES, HOLE, MOVIE, STARS
FILES: DAWN.ACC, DAWN.RSC,
DAWN.CNF, DAWN.TXT,
DAWNAUTO.PRG,
IMAGE FILES IN FOLDERS
HARD DRIVE INSTALLABLE
SIZE: 241K
GET STARTED WITH: SEE
BELOW, DAWN.TXT

Screensavers are a clever way of preventing images displayed on your monitor for long periods of time burning into the phosphor lining of the screen. Most screensavers for the ST just inverse the



■ One of the animations we've supplied on the Cover Disk is Daffy Duck marching across the screen. Other animations on the Disk include Flying Toasters and Flying Disks.

display or turn the screen totally black, other computer formats have more varied screensaver programs complete with animations and

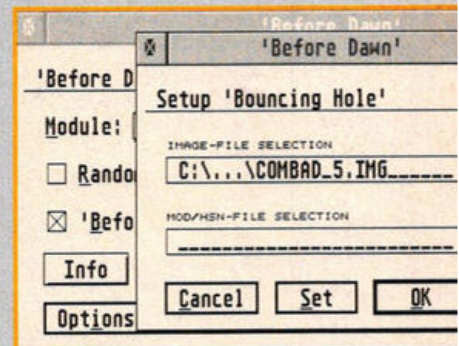
sound. The most famous screen-saver program is found on the Apple Macintosh, it's known as *After Dark*.

Before Dawn is the ST equivalent of *After Dark*, complete with animated films, bouncing holes and *Star Trek*™ style star fields. There's even a sampled sound facility that's enabled once you register your copy of the program. *Before Dawn* is Shareware, if you use it then please send off the fee to the author.

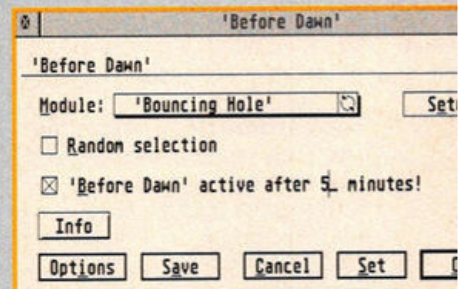
The DAWN folder contains the *Before Dawn* Desk Accessory, the Auto folder program, the Editor folder and the Images folder. To get up and running you have to copy everything that's inside the DAWN folder onto a blank disk or your hard drive's boot partition, then you've got to copy DAWN-AUTO.PRG into an Auto folder on the disk. Once you've copied everything then reset your ST so the Desk Accessory and Auto programs can be loaded into memory.

Configurations

All configuration of *Before Dawn* takes place from the Desk Accessory, select *Before Dawn* from the Desk menu then take a look at its control panels and setup menus.

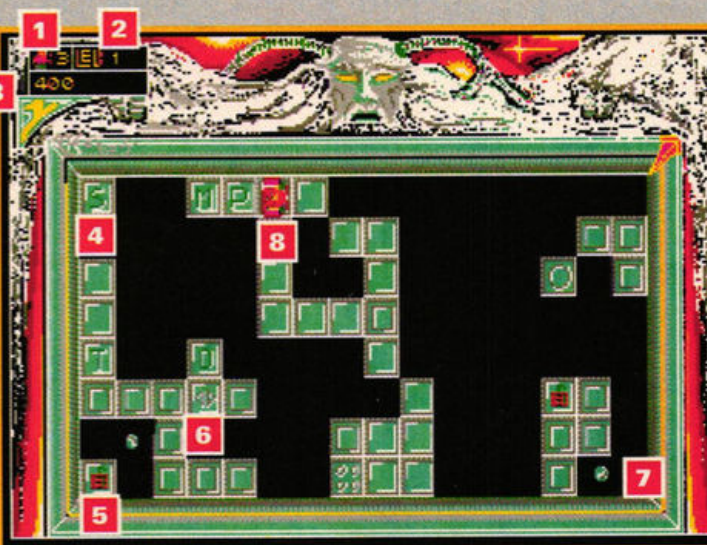


■ Selecting Setup from the main control panel takes you to the Setup dialog box, here you choose the actual animation or image that you want to use. Selecting Set enables the new choice.



■ The first thing you see when you call the *Before Dawn* Accessory is this. Selecting Module determines the type of screensaver; Bouncing Hole, At The Movies or Warp 5 Mr Sulu. This menu also sets the delay time and saves the configuration.

- 4 Letter block to be moved to create the word STOMP.
- 5 Exploding block, destroys eight blocks around it.
- 6 Arrow square, only moves in the direction of arrows.
- 7 Bouncy killer thingy, if it touches you it's game over.
- 8 This odd shaped blob is you, so just zoom about and build the magic word STOMP from your five golden letters.





2.5MBYTE STE PATCH

BY: JAZZBOX INC

RESOLUTION:

ALL RESOLUTIONS

MACHINE: STE ONLY

MEMORY: 2.5MBYTES

FOLDER: 2_5 STE

FILES: STE25MV2.PRG,

STE_2_5.DOC, MEMCHECK.DOC,

MEMCHECK.PRG

SIZE: 35K

GET STARTED WITH:

STE_2_5.DOC

ST FORMAT Cover Disk 51 contained a patch program enabling STEs to run with

2.5MBytes of RAM installed, unfortunately the program didn't work on all STEs because of different MMU arrangements in some versions of the machine.

This updated version of the program has been fixed so that all STEs can now use 2.5MBytes of SIMMs without problems. Full instructions for creating a boot disk and installing the extra RAM chips in your STE are contained in the STE_2_5.DOC.

Make sure you read the documentation carefully before you attempt any modifications to your STE. *ST FORMAT* cannot be held responsible for any damage caused by this upgrade – you make it at your own risk.

COVER DISK BACKUP

BY: BRIAN TILLEY

RESOLUTION:

ALL RESOLUTIONS

MACHINE: ALL STS

MINIMUM MEMORY: 512K,

HARD DRIVE INSTALLABLE

FOLDER: BACK_UP

FILES: BACK_UP.TOS

GET STARTED WITH: SEE BELOW

Always, always, always make sure you back up your Cover Disk. And use BACK_UP.TOS to do it. That's it, really. Seriously, it's vital

to ensure that all disks you use regularly are backed up in case the worst does happen and your Cover Disk is struck by lightning or left too near a loudspeaker or monitor. Most electrical appliances generate magnetic fields which can disrupt data on floppy disks.

Grab a couple of blank disks and run BACK_UP.TOS from your Cover Disk, when the menu screen appears press <1> to start the backup. Follow the instructions on-screen and swap disks when prompted, a backup copy of your Cover Disk soon appears before you. Make another backup and put your original Disk away; you can now use the backups to run all that lovely software.

DUNGEON MASTER EDITOR

BY: SIMON OKE

RESOLUTION: LOW RESOLUTION

MACHINE: ALL STS

MINIMUM MEMORY: 1MBYTE,

HARD DRIVE INSTALLABLE

FOLDER: DM_ED

FILES: DM_ED.TOS, DM_ED.DOC

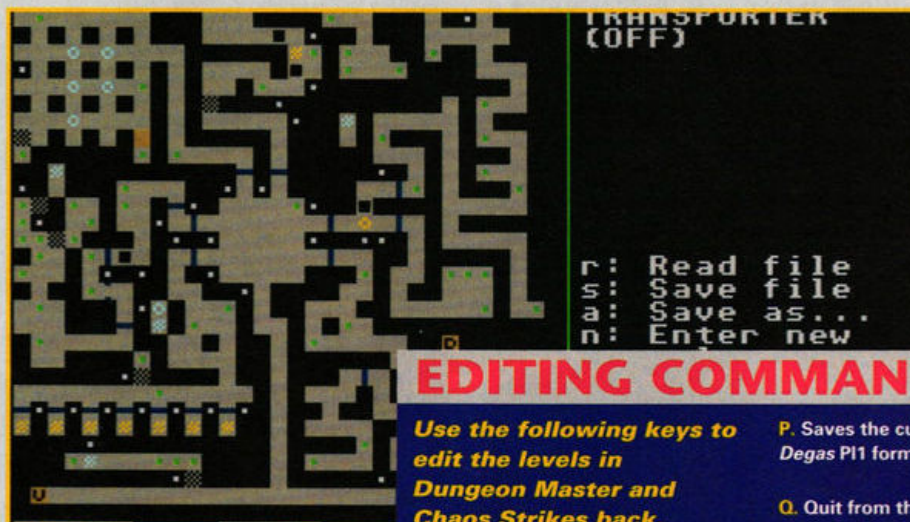
SIZE: 48K

GET STARTED WITH:

DM_ED.DOC, SEE BELOW

The original *Dungeon Master* level editor appeared on an *ST FORMAT* Cover Disk, ooh, ages ago. Unfortunately the original program only works on the STFM, if you have got an STE you can't use the level editor. This new version is totally compatible with the STE as well as TOS 2.06 so you can now edit all your saved games from both *Dungeon Master* and *Chaos Strikes Back*.

Make sure you have a saved game disk handy and run DM_ED.TOS, as soon as the title screen appears put the saved game disk in the drive and press a key. Press <Esc> to display a list of



■ Use the *Dungeon Master* editor to redesign the complete game level by level, make sure you keep track of what you have changed so that levels and stairs match up.

EDITING COMMANDS

Use the following keys to edit the levels in *Dungeon Master* and *Chaos Strikes Back*.

A. Save the current file under a different name.

Cursor keys: Move the pointer around the screen. A brief description of the current map square under the cursor is displayed at the top right corner of the screen.

D. Move down one level.

L. Ask for a level to display.

N. Asks for a new byte value for the square you're pointing at.

P. Saves the current screen image in *Degas P11* format.

Q. Quit from the program.

R. Read a new file for editing.

Return Changes the map square currently pointed at to something else; doors open or close; walls change to empty spaces.

S. Save the current file back to disk under its original name.

T. Toggle whether descriptions of map squares are displayed.

U. Move up one level.

saved games and use the cursor keys to scroll through the list, pressing <Return> while any file name is highlighted loads the game data. The top level of the dungeon is displayed on-screen.

The list of keyboard commands in the box below enables you to get started on redesigning your saved games, read the DM_ED.DOC file for full details of editing the dungeon levels. You can even redesign the original setup of both games to create completely new adventures.

SEBRA

BY: PATRIK PERSSON

MACHINE: ALL STS

RESOLUTION: MEDIUM OR LOW

MINIMUM MEMORY: 512K,

1MBYTE RECOMMENDED,

HARD DRIVE INSTALLABLE

FOLDER: SEBRA

FILES: SEBRA.PRG

SIZE: 12K

GET STARTED WITH:

SEE BELOW

Sebra is a mono emulator that enables you to run high resolution programs on your colour ST setup, we've included it so you can use

the *AudioCalc* demo. To get started copy SEBRA.PRG to the Auto folder of your boot disk – it works from hard drive too – and reset your ST. When your ST boots it runs SEBRA.PRG when it finds it in the Auto folder of your boot disk, you are asked if you want to cancel *Sebra* by pressing <Esc> or install it by pressing any other key.

If you install it your ST acts as if it's connected to a high resolution monitor and emulates a mono display on a colour monitor. You can configure *Sebra* at any time by double-clicking on SEBRA.PRG from the Desktop.

KCS OMEGA EXAMPLES

BY: CHAS STODDARD

RESOLUTION: MEDIUM OR HIGH

RESOLUTION

MACHINE: ALL STS

MINIMUM MEMORY: 1MBYTE

REQUIRED, HARD DRIVE

INSTALLABLE

FOLDER: EXAMPLES.KCS

FILES: EXAM_2.TOS,

READ_ME.NOW

UNCOMPRESSED SIZE: 160K

GET STARTED WITH:
READ_ME.NOW,
KCS MASTERCLASS

To go with the *KCS Omega* masterclass (see page 47) we've got some more *KCS Omega* song files for you on the Cover Disk.

The song files are compressed into a self-extracting file, copy EXAM_2.TOS to a blank disk and run the program to decompress the song files. You can now load the two KCS .ALL files into the *KCS Omega* sequencer we gave you last month – if you missed that issue, turn to page 62 to order your copy now.

AUDIO CALCULATOR

BY: HINTON INSTRUMENTS
RESOLUTION:

HIGH RESOLUTION, VGA
MACHINE: ALL STS, TT
AND FALCON

MINIMUM MEMORY: 512K,
1MBYTE RECOMMENDED,
HARD DRIVE INSTALLABLE

FOLDER: AUDIOCAL.C

FILES: A_C_DEMO.PRG,

READ_ME.ACD

SIZE: 125K

GET STARTED WITH:

READ_ME.ACD

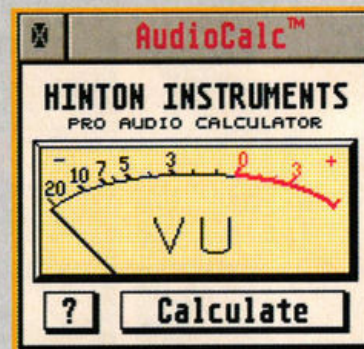
AudioCalc is a MIDI tool
designed to be used by profes-

sional musicians and sound engineers. **AudioCalc** contains calculators covering five important fields of professional audio engineering, - Sound, Tape, Music, Analog and Digital calculations.

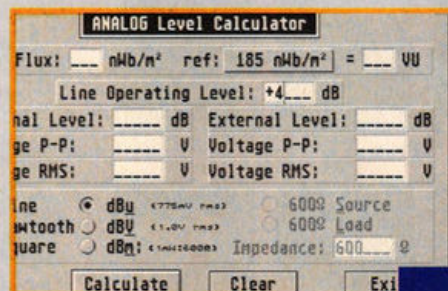
Only two of the calculators are enabled in this demo version of

the program, the Sound and the Analog calculators. Full instructions for using the program are supplied in the READ_ME.ACD file in the AUDIO folder, along with an order form for the full version of the program - make sure you read them thoroughly.

To run **AudioCalc** first double-click on the A_C_DEMO.PRG icon, after a few seconds the main window appears with an old fashioned VU-meter and a pop-up menu activator used to call the five calculators.

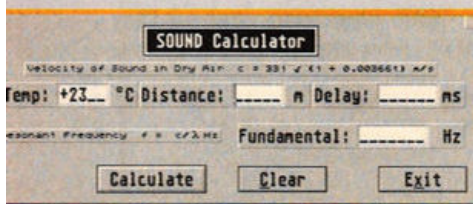


■ This teeny little window conceals five powerful sound calculation tools, click on the Calculate menu bar to call the calculators.



■ The Analog calculator is particularly useful for working out envelopes for voltage controlled instruments.

■ Calculate the mouth-to-microphone speed of sound in an ambient temperature of 23C, don't ask us why you'd want to know - we're not sound engineers.



GDOS FONTS

BY: ATARI

RESOLUTION:

ALL RESOLUTIONS

MACHINE: ALL STS

MINIMUM MEMORY: 512K,

HARD DRIVE INSTALLABLE

FOLDER: 24_PIN

FILES: 24_PIN.TOS

UNCOMPRESSED SIZE: 286K

GET STARTED WITH: SEE BELOW

We didn't have quite enough
room on last month's packed Cover

Disk to include the GDOS Epson 24-pin printer fonts that go with *Hyperpaint 2*, so we've stuck them on this month's Disk - and here they are in all their beauty.

To use the printer fonts with GDOS, copy 24_PIN.TOS onto a blank disk and run it by double-clicking on the program icon. The fonts decompress into a folder called NB_15, you now have to copy them to the GDOS.SYS folder of your GDOS system disk.

Don't forget to add the font names to the ASSIGN.SYS file on your GDOS disk or you won't be able to use the fonts.

EXTRACTING COMPRESSED PROGRAMS

The self-decompressing instructions assume a single drive setup set to medium resolution

- 1 Format a blank disk and mark it as Disk B. This is your destination disk.
- 2 Get your backup copy of your Cover Disk, mark it as Disk A then put it into the disk drive. This is your source disk.
- 3 Click on the Drive A icon, a window then opens with the folders on the Cover Disk displayed within it. If you can't see the Drive B icon, just move the window so you can see it.
- 4 Double-click on the folder containing the file you want to copy so you can see the contents. Click on the file you are going to copy and keep the mouse button pressed, now drag the file over the top of the Drive B icon.
- 5 When the Drive B icon turns black, release the mouse button. The Copy Files dialog box

appears, click on OK to start the copy process.

- 6 An alert box appears telling you to put Disk B into Drive A. Do so, and then click on OK. Your ST now tells you when to swap disks, follow the instructions on-screen and don't mix up the disks.
- 7 When the file is copied over completely put the Cover Disk away and close all windows on-screen. Put Disk B into the drive and click on the Drive A icon.
- 8 When the window opens, double-click on the TOS file to start the extraction process, after a few minutes a message tells you to press <Return>. Follow its instructions - it knows best, you see.
- 9 You can now delete the TOS file from disk B. Follow the instructions in the magazine for the particular program you are using and read all doc files on the disk.
- 10 Repeat as necessary for any other self-extracting TOS files on the Cover Disk.

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 special *ST FORMAT Back-Up* program, see the instructions on page 12.
- 3 Always read the instructions for the program you are using on the Cover Disk pages and in 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.
- 8 Send the disk and a padded self-addressed envelope to:
ST FORMAT February Disk Returns, PO Box 21, Daventry, NN1 5BU
We pay the return postage. Please don't send faulty disks to our Bath or Somerton offices because we don't keep stocks of Cover Disks there.
- 9 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.
- 10 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.
- 11 *ST FORMAT* Cover Disks are double-sided, if you have an old STFM with a single-sided drive 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 _____
Daytime phone _____ Program title _____
Total size in K _____

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.

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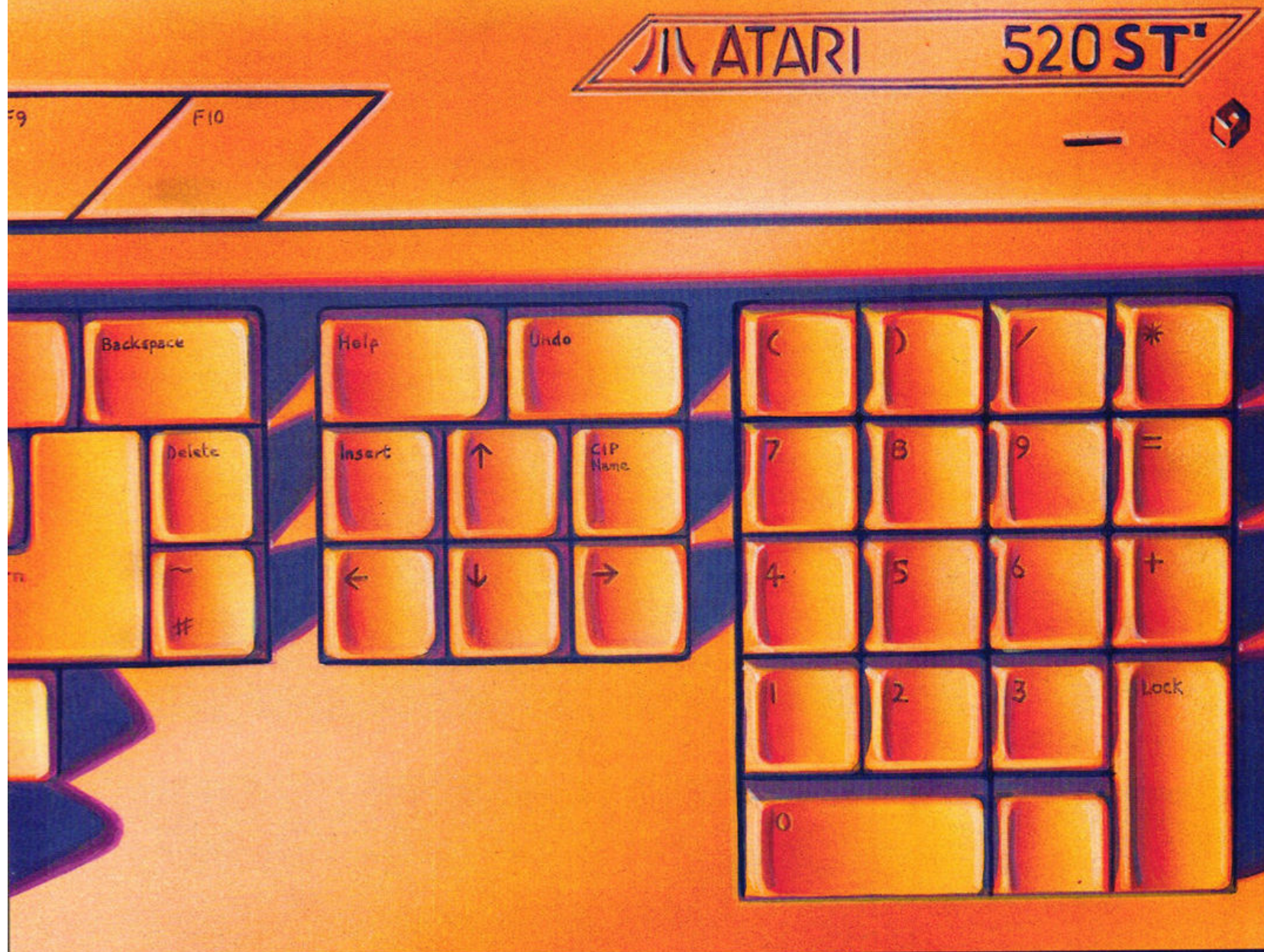
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LONG LIVE THE ST!



Yeah, that's right. Long live the ST, because although some pundits are turning elsewhere for their thrills, Andy Nuttall finds there's life in the old dog yet...

We know the ST is a superb machine. We know it's capable of many things, and in the eight years of its existence we've seen some amazing packages for it across the spectrum. Games such as *Jimmy White's Whirlwind Snooker*, *Populous 2* and *Frontier*; music software like the professional standard *Cubase*; graphics packages such as *Xenomorph* and *Deluxe Paint*. The commercial games scene was thriving last year but now there are just a handful of games produced by companies who still believe the ST is excellent entertainment, non-ST owners might think this is the rot setting in. So can the serious side follow the entertainment side? Can it

heck, because, almost without exception, each package that's released is much better than the last – things are still improving, continuously.

It's all very well *ST FORMAT* saying that, but you might think we're biased because we love the ST. Well, we are – but we're also realistic, and that's why we asked the opinions of the people in the know, the people who actually develop and distribute products for the ST. Companies such as Titan Designs and Compo who develop serious hardware and software; Jeff Minter and Binary Asylum for games; and Floppystore and Goodmans for Public Domain – all of whom intend to support the ST for some time to come.

THE SERIOUS STUFF

There many more graphics, music and business applications available for the ST than games – the serious side is as strong now as it ever was. Just look through the recent releases, and you can find packages for raytracing, image processing, structured drawing and general artwork, digitising, sampling, scanning and sequencing – just about every creative tool you could possibly need.

As well as being confident about their position in the market, the companies which are developing this hardware and software are generally confident about the future. We spoke to three of the leading developers and distributors for the ST in the UK.

COMPO

Compo describe themselves as Atari specialists, because the whole focus of their business worldwide is on the ST, TT and Falcon. Their most recent release is *Studio Photo*, a photo retouching program (82%, STF issue 53), but Compo are perhaps best known for their word processing packages *Write ON* and *That's Write*.

Compo's Neal O'nions: "We probably have the largest installed base of users apart from Atari themselves. Because of this strength we are continuing to develop both our existing products and new products for the ST mar-



Studio Photo is an excellent image processing package, capable of working with 24-bit colour pics like this Photo-CD image.

ket. Lots of new things mean we are looking forward to 1994 with our future strategy dedicated to the ST and Falcon."

Neal reckons that performance-wise the ST still has a lot to

"We are continuing to develop both our existing products and new products for the ST market"

Neal O'nions

offer, and that being an established computer platform definitely has its advantages. "I'm currently

working on version three of *That's Write*, which pushes word processing further than ever before on the ST. As a developer we see the quality of ST development tools improving all the time – and newer more powerful tools enable us to develop better applications a lot more quickly."

Positive words indeed, but the feeling in Compo is that sales of the ST have undoubtedly peaked. "Unless Atari do a re-engineer," says Neal, "that enables them to bring out a box based on the ST at around £79.99, I think the majority of new buyers will be musicians wanting a cheap but powerful MIDI system."

So as well as the Jaguar console, where do Atari go with their

computer development? "What developers want to see in '95, if not '94, is a generation of computers based on the Falcon. Our hope is for a more viable entry-level product, and further developments at the high-end too. In the meantime there is a huge base of ST owners, of course, and they aren't going to disappear. We'll still be developing for them in 1995!"

TITAN DESIGNS

Like Compo, Titan Designs are Atari specialists. They too are increasing their range of ST products, and they feel very comfortable with the market having increased in size steadily over the last two years. Titan's David Encill explains: "Companies that have

ENTERTAINMENT NOW

The ST was once the leading games computer. For the first couple of years after its release, it even led the Amiga on releases, and the games were generally better. Until roughly a year ago, full-price games for the ST were plentiful, but sadly since then things have started something of a downturn.

Still, there's a silver lining, as they say, to even this particularly gloomy cloud. There are still a few developers out there who are committed to producing good ST games – even a couple that have recently set up, and are producing their first game for the ST. Can they succeed where many of the bigger players have pulled out? We spoke to them, and to some longer-term Atari developers, to find out.

JEFF MINTER

If you play ST games, Jeff should be well known to you by now. If not, then just take it from us that



Left - Jeff Minter is one of Britain's best programmers, responsible for the classic below...

Right - OK it doesn't look much, but *Llamatron* is probably the best Shareware game ever.



he's possibly the world's biggest Atari fan, and he's programmed on Atari computers since they first came out in the early '80s. His games include *Revenge of the Mutant Camels*, and the classic *Llamatron* (95%, STF 31).

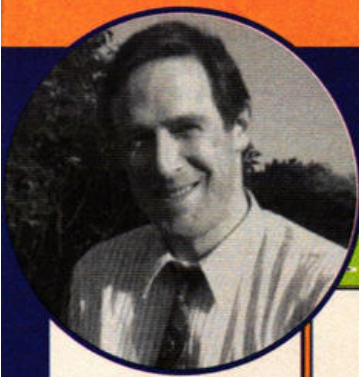
"We still receive a regular trickle of registration fees from all

over the world for *Llamatron*, a game released over two years ago," Jeff told us. "From our experience in both Shareware and conventionally-sold games, ST owners are particularly keen to get good software at a decent price. Over three formats we've tried Shareware in (ST, PC and Amiga), ST

users are by far the most willing to pay Shareware fees."

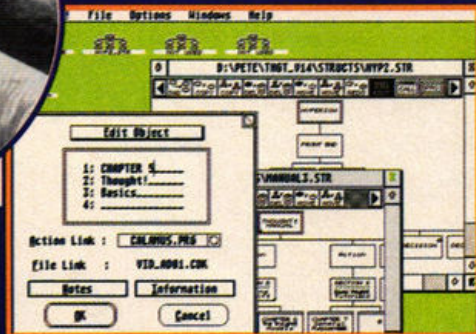
Jeff is currently developing a title for the new Jaguar console called *Tempest 2000*. He feels that Atari are right to push the Jaguar as much as possible, because that might have a knock-on effect and push the ST and Falcon further into the public eye as well: "The ST is near the end of its life, the Falcon has yet to establish itself, and Atari no doubt would like to make some money as they've just spent millions developing the Jaguar. They really need to push the Jaguar right now, with everything they have got, because they've got a unique shot at a big hole in the game console market."

"Sega have a 32-bit system in the wings, but they're committed to the Genesis/Mega CD platform for at least another year. Nintendo



■ Left - Titan Designs' David Encill reckons that some companies pulling out on the ST is a blessing for the smaller firms.

■ Right - Most PC word processors come with ideas processors. *Thought!* is just that - for your ST.



abandoned the Atari market in the past have normally been those motivated by large sales returns, such as the large games software houses who have seen a diminishing return. For smaller companies this is less of a problem."

Titan Designs best-known product is the Reflex graphics card, which expands the resolution of your mono monitor. However, their upcoming products sound very exciting. There are two video genlocks, a digitiser, an integrated software package called *ImPro* which controls them, an ideas processor and a file manager; and they work on all Atari computers.

David thinks that sales of the ST may tail off towards the end of 1994, but agrees that the established user base can keep the ball rolling: "Products will continue to

be developed for it, although many [games] software houses will switch their attentions towards the Jaguar. I feel that Atari have taken the right stance by concentrating on the Jaguar, although this could be detrimental to the Falcon, the natural progression for ST owners, in some respects. A lack of real marketing, for instance."

JCA EUROPE

JCA have supported the Atari computer range for seven years, originally starting off as Riverdene PD library. Now, while they are involved in the PC and games console markets, they are continuing to support the ST because of their large customer base.

"We still have around 2,500 customers who use our services," says Alistair Craig of JCA. "Cur-



■ Subliminal advertising, anyone? There's a prize for the first entry with Alistair Craig's best-known product...

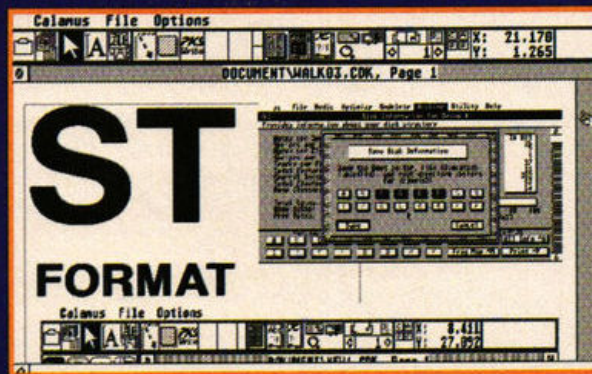
rently, JCA sell the DMC range which includes the *Calamus* products, our biggest seller being *Calamus 1.09n*.

"I believe there is a large market place for new hardware and software products for the ST, but unfortunately people don't want to waste their time and money in developing a product that may only sell a handful of units."

Fortunately, the *Calamus* range still sells well, so developments continue - but what of the

future? Alistair, like Neal and David, has some strong opinions: "The positioning in the market-place for the ST will be virtually non-existent by 1994 because of the lack of support from Atari themselves."

"Atari should concentrate heavily on existing ST users, and try to get the existing user base to upgrade to the Falcon. Commodore had some success with the trade-in schemes from the A500 to the A1200 - what's stopping Atari from doing the same with the Falcon?"



■ Yes that's right, it's *Calamus*, from JCA Europe in Reading. Did you get it right? You could be a winner. Well, the winner is... A Craig of Reading. Hang on...

are making noises about the SGI connection, but they're not expecting any home consoles until late '95. And a Reality Engine for \$250? I'll believe it when I see it, thanks. 3DO are out now, but they're way too expensive at \$700 - they've 'Archimedesed themselves.'

"So, here are Atari with a real, working 64-bit console that's cheap and available now. They've got a solid-gold chance at re-establishing themselves as a major player in the game console market, against all odds and despite Sega and Nintendo. They must do it. Atari are still committed to the Falcon and TOS-based machines, and it would be better for all Atari users, whatever their machine, if Atari do well out of Jaguar."

BINARY ASYLUM

Hey - Binary Asylum's owned and run by lots of ex-Future employees (the people who bring you this very



■ Binary Asylum, yesterday. Andy Smith's the handsome chap in leather - second on the left.

"So, here are Atari with a real, working 64-bit console that's cheap and available now"

mag), so we love 'em all. But that's not why we're featuring them here, of course; that's because they feel strongly about the ST, and want to

■ Zeewolf - Asylum's now infamous, er, screen shot. Game soon, honest.



develop and continue to develop for the machine.

"There are many reasons for deciding to publish our first game *Zeewolf* on the ST, but the primary reason is the fact that we believe the ST market is vibrant," Andy is confident that there are enough ST owners out there willing to buy good games, and assuming enough of them do just that, the game's economically viable.

"Obviously we don't know if we're going to rake in money with

the ST version," he continues, "but we only need achieve modest sales to recover our investment. Because we believe that *Zeewolf* is a strong game, we're sure it's going to sell well. However, if *Zeewolf* is critically and publicly acclaimed and yet sells disastrously, then our perception of the market will change dramatically and we'd have to think very long and hard about publishing any future games on the ST."

"It's quite understandable for Atari to be pushing the Jaguar so hard. If they want to carry on being major players in the computer business then it's important for them to keep up with the technology race. But of course they also need to support the massive ST user base that's already out there - which is most important."

US GOLD

US Gold are one of the biggest software development and devel-

ENTERTAINMENT NOW

opment houses in the UK. They've been well-known by ST gamers for years for games such as *Secret of Monkey Island* (94%, STF 23), *Cybercon 3* (91%, STF 22) and *Operation Stealth* (93%, STF 15). However *Kingmaker*, their latest game, (71%, STF 53), could possibly be their last full-price release.

We talked to Bridgett Hirst from US Gold about their plans: "We have no plans at the moment to release any further full-price ST titles. However, we intend to continue to support the format by releasing titles such as *Another World* and a number of Sierra



■ Are US Gold the saviours of the ST? Naw, but they are re-releasing lots of classics on their budget Kixx XL label.

games on our Kixx XL label. Titles such as *Street Fighter 2* and *Secret of Monkey Island* have proved very popular on Kixx.

"It's a shame that the concentration has moved away from the ST, but that's progress. The Jaguar appears to have a lot of potential."

Inspiration FX

IFX are a subsidiary of Titan Designs, which has been formed to redress the lack of games software for the Atari. David Encill told us: "Already we have several titles on the drawing board, all of which take advantage of the machine's capability. These include *Brain Dead*

(Metamorphosis), written specifically for the STE, taking advantage of the untapped potential of the machine; *Munchkins* for the ST and *Wayfarer* for the Falcon."

■ *Street Fighter 2* is one of the most successful games of all time - making the name of the SNES, and selling bucketloads on the ST as well.



FREE FOR ALL

What's the best way to combat piracy of games and serious software? Easy - give it away. OK, so it's not quite as simple as that, commercial software costs thousands to produce, with artists employed for graphics, musicians for music, and the best programmers to put the whole shebang together - so to give it away would be commercial suicide.

However, there are many companies out there who specialize in giving software away, with only a minimal fee required to cover overheads and an operating profit. If you haven't come across the concept before, it's called Public Domain, and it involves collecting together programs covering a wide range of subjects created by hobbyists and computer enthusiasts worldwide. The ST Public Domain is thriving, with many companies distributing the software in the UK. We spoke to two of the largest companies.

GOODMAN ENTERPRISES

Goodmans PDL have been around for some years, building up contacts worldwide, and spending time searching out the better Public Domain and Shareware titles. Mike Goodman also believes that the ST market is still very active: "At the present time, many owners who

purchased the ST for games are just discovering the versatility of the machine, such as WP and DTP, because there is no affordable alternative on the horizon. I constantly come across users who are only just getting to grips with the power of the ST - when shown, they are simply amazed with what the ST is capable of. I see this trend continuing through 1994.

"I firmly believe that we will still be supporting the ST for some years yet"

Mike Goodman

"I suppose as some have moved out, the market is left more open to those who have stuck it out. I firmly believe that we will still be supporting the ST for some years yet."

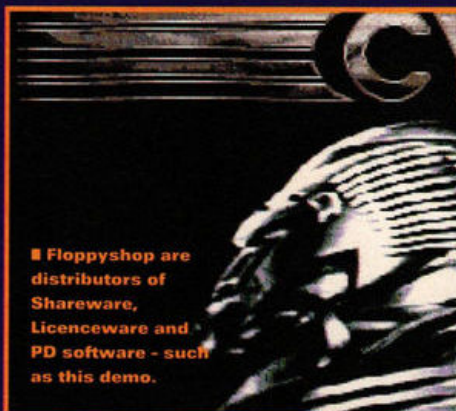
FLOPPYSHOP

Steve Delaney's Floppyshop is a Public Domain library with around 2,500 disks of software in stock, with another 60 or 80 new disks added per month. "We still make a living on ST software," Steve told us. "On the PD side we are receiving more Shareware PD, and Freeware releases than we ever did. What's more, STE-specific software is actually appearing in decent quantities for the first

■ You can get most PD from many sources, but this particular puzzle came from Goodmans International.



■ For one of 2,500 ST PD disks, nip down to Steve's Floppyshop, and he can sell you some.



■ Floppyshop are distributors of Shareware, Licenceware and PD software - such as this demo.



time since the machine was released in 1989."

That's pretty encouraging news, because as we all know the STE has far superior hardware to its predecessor, and we would all like to see it prosper. As Steve puts it: "The ST itself has probably been pushed to its limits, but developers have been too cautious in their support for the STE preferring to make software compatible with all Atari platforms."

As well as releasing PD software, Floppyshop also produce a

rather healthy output of commercial software. At present they have a few projects nearing completion, the first being *Easy Art Professional*, the follow-up to the PD program *Easy Art* which was rated 90% in *ST FORMAT* some time ago. Next there is the ST version of *ChromaStudio 24*, the professional graphics suite for the Falcon 030 due out in February.

In summing up, Steve says: "ST owners should not feel deserted, there are plenty of companies continuing to support the machine. The fact that Atari have moved on to pastures new is no reason for doom and gloom. For as long as ST users are supporting the industry by buying new software releases in decent quantities, I believe that the software companies will be happy to continue developing new titles."

Steve, we really couldn't have put it better ourselves. **stf**

■ No, this isn't Mike Goodman. Actually, there's a chance it could be, but this *Morph* demo is from Floppyshop, and damn good it is too.



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ATARI

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Falcon 030	£99.00
SVGA colour for Falcon 030	
.28 dot pitch	£239.00
includes adaptor cables from	
Falcon to the monitors.	

Fold-a-FaxModem

AFM-9624P



- **Foldable:** Can be turned up and down within a 180-degree arc.
 - **Space-saver:** Occupies only 5cms of rear space.
 - **Maximum Safety:** Prevents accidental bumping that may lead to disconnection and eventual damage.
- | | |
|--|---------|
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| Fax/Modem with straight fax software | £179.00 |

SCSI BARE HARD DRIVE

40Mb	£99.00
52Mb	£199.00
85Mb	£229.00
127Mb	£279.00
170Mb	£299.00
240Mb	£399.00

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Internal Power Supply for	
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Keyboard Atari STFM-STE	£59.00
STE Motherboard No RAM	£99.00
D.M.A. Chip	P.O.A
TOS 2.06 STE/STFM	£59.00
1/2Mb STFM Motherboard	£69.00
Outercasing STE/STFM	£28.00
Atari Original Mouse	£8.00

FALCON 030

EXTERNAL HARD DRIVE



An economical enclosure designed to mount single, half height, 3.5" device. Features a 40 watt power supply with a universal AC input for use throughout the world and a low noise 15C.F.M. fan to provide device cooling. Also includes the Falcon SCSI cable.

SCSI II Casing	£129.00
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52Mb + SCSI II Casing	£259.00
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540Mb + SCSI II Casing	£699.00
1.2 Gigabyte + SCSI II Casing	£899.00
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INTERNAL HARD DRIVE

High quality internal 2.5" IDE Hard drives the Falcons, including mounting bracket and IDE cable.

40Mb	£129.00
65Mb	£169.00
85Mb	£199.00
120Mb	£249.00
240Mb	£499.00
330Mb	P.O.A

FALCON 030 EXTRA

SCSI II Cable	£34.00
ST Monitor Cable	£15.00
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Musicon	£43.00
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OFFICIAL ATARI

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

How to order

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

Delivery Charges

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

ALL YOU NEED?

AtariWorks is the new all-in-one business package from Hisoft, Clive Parker finds out if it is the only program you're ever going to need

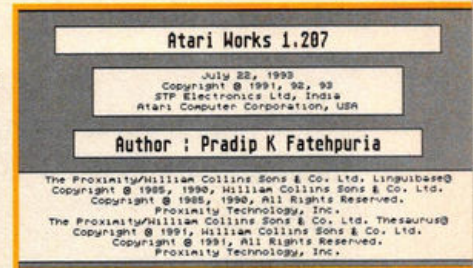
AtariWorks is billed as "all the office tools you may ever need to automate your work," a pretty sweeping statement for a single program for your ST.

AtariWorks attempts to be all things to all men – and women – it's a combination of word processor, database and spreadsheet and

you can transfer data from one type of document to another. You can, for instance, export text from the database or the spreadsheet and incorporate it as part of a word processed document.

Although designed primarily for the Falcon, AtariWorks runs happily on any ST with at least 2MBytes of memory and a hard

drive, but 4MBytes is recommended if you want to create large documents. Remember, Speedo GDOS uses up 1MByte of RAM on its own and AtariWorks is over 500K in size not including the dictionaries. AtariWorks runs in medium or high resolution on STs and in VGA resolution on the Falcon, using 16 colour mode on the



AtariWorks hails from the Indian sub-continent. Funny, we didn't know there were Atari developers in India. They do get about.

Falcon is recommended to speed screen scrolling.

THE WORD PROCESSOR

The word processing section of AtariWorks is almost powerful enough to be a separate program in its own right, with many features that aren't available in other word processors. Visually, the main work screen of AtariWorks looks more like Calligrapher with a standard GEM menu bar across the top of the screen with the tool bar and main text window beneath. All the typical file functions are present along with standard block functions and window tools.

You can import ASCII or RTF files into AtariWorks along with GEM Bit Image (.IMG) or GEM Metafile (.GEM). Sounds and memos can be embedded into a

document using the Marginalia function, this enables you to use a sound sample to go with an on-

"The word processing section of AtariWorks is almost powerful enough to be a separate program in its own right"

screen image. Editing a document is easier in AtariWorks than most other ST word processors. If you want to delete a block of text you just highlight the block and press the <Delete> or <Backspace> keys and the block's deleted. Another way of replacing a highlighted sec-

tion of text is to just type in the new text, the old highlighted text is deleted and replaced by the new.

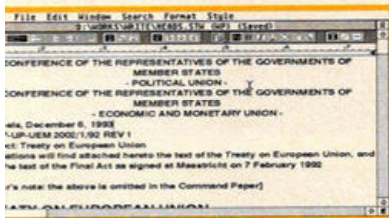
Pressing <Undo> after a block function reinstates the original text. Pressing <Control> <T> transposes the two letters in front of the text cursor, very handy for correcting the most common type of spelling error where two letters are simply transposed. Single words are selected by double-clicking on them, lines are selected by pressing <Shift> and double-clicking anywhere in the line, while paragraphs are selected by pressing <Control> and double-clicking anywhere in the text. Copying, cutting and pasting is well implemented with simple keyboard shortcuts.

Changing the style and layout of the text is easy and is controlled by highlighting the area to be altered, you can now change the text in a number of ways. A series of icons in the tool bar enables you to change the text layout between left aligned, right aligned, centred



You can define style macros so you don't have to keep hunting through the font options to set up a new text style.

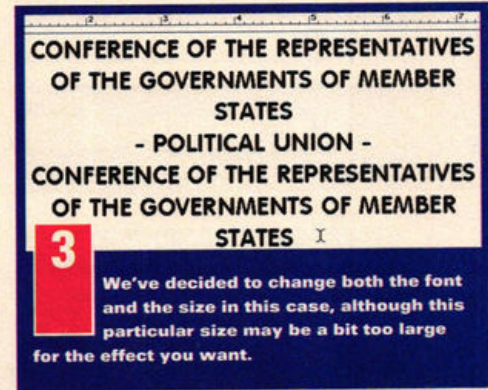
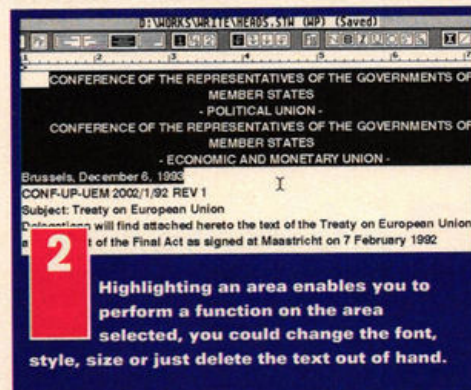
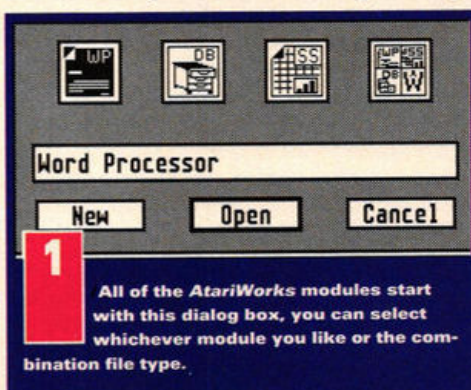
or justified just by clicking the icon. You can select pre-determined style macros from the macro icon or by pressing a function key, these macros also contain font information. Line spacing can also be selected from one of three icons along with text styles ranging from bold to superscript. Finally, the font can be changed by selecting Fonts from the Style menu which takes you to the font selector screen, once you have selected a font your highlighted area changes.



The main screen of AtariWorks. The toolbox along the top enables you to select styles, page layout, line spacing, tabs and shapes for drawing.

HEAR THE WORD

It's certainly the best looking word processor we've seen for the ST and its abilities undoubtedly match its looks

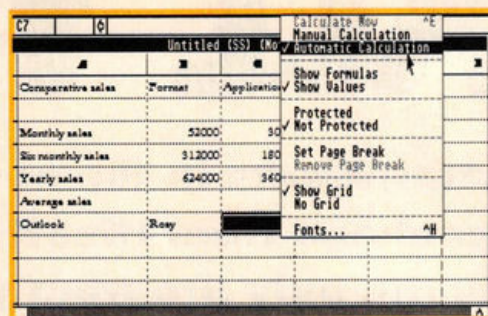


THE SPREADSHEET

Spreadsheets are just about the most complicated type of business program for the uninitiated to get to grips with, but they're not really as complicated to use as you may think. Just think of a spreadsheet as a giant calculator. The spread-

sheet in *AtariWorks* enables you to perform calculations such as taxes, statistics, sales, cash flow analysis and accounts. The spreadsheet is split up into little boxes called cells, and each cell has its own specific ID code derived from the column

You can set calculations to be updated automatically from the Options menu of the spreadsheet so you don't have to update manually.

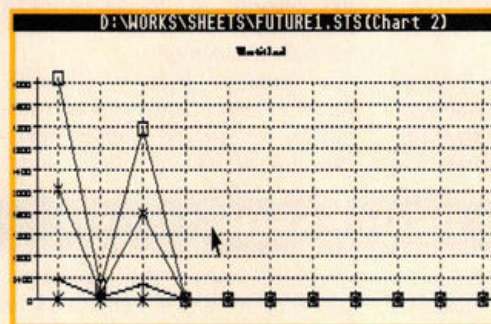


number and the row letter so the value contents of a specific cell can be used as part of a calculation. Each cell can contain several different types of data including text, labels, dates, numeric values and mathematical

formulae. This means that if the value of a figure in a cell is altered, every formula that refers to that cell is automatically recalculated and then updated.

In this respect the *AtariWorks* spread-

Line graphs can be an important way of presenting data in an easy to understand way, *AtariWorks* can generate all kinds of charts from spreadsheet data.

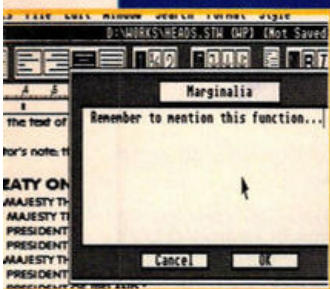


MARGINALIA

Unusually, you can embed notes into the left margin of a document that can be opened and read at any time. Clicking on the left margin while pressing the

<Shift> key causes a small menu to pop up, this menu enables you to either enter a note into the text or to load an AVR format sound sample into memory. A small icon appears in the margin, either a page to represent the text or a speaker to represent the sound sample.

The Marginalia sounds and notes are saved as part of the document, so you can leave explanatory notes, messages or sounds embedded in your document. The sound sample facility only works in Atari computers with DMA sound capability, the STE, Mega STE, TT and Falcon.



Make your documents more informative by embedding text and sounds in the margins. Why? We don't know.

THE DATABASE

The way that the *AtariWorks* database operates enables you to create a complex automated filing system that's simple to update and edit. Selecting New from the File menu enables you to start a database document, simply click on the database icon and the database window opens.

As soon as you open a new database document you can enter the names of the fields you are going to use into a dialog box, you can keep adding fields until you have the number you need. There's no need to mess about entering field lengths because each field can be

individually sized by dragging out the length of the box on-screen after you have finished entering the field names. Additional fields can

While in form mode you simply click on the right edge of the box and drag it out to the right. By clicking on a box you can drag it to any other point on the form.

be added at any time by clicking on a blank area of the form and dragging out a window, the fieldname dialog box pops up and you enter the name.

The way the fields are organised on-screen is quite novel. At first, each field appears to be

exactly the same size every as other field and are displayed below each other on an open plan form. Each field box can be moved to any other position in the form and you can stretch them to any length by clicking on the right edge of the box and dragging it. The only

PICTURES AND PATTERNS

You're not just restricted to using text in your word processor documents, *AtariWorks* can import GEM bitmap image files and GEM vector Metafiles and mix them with a page of text. You can also liven up plain text

pages by adding some basic graphics such as lines, circles, boxes and rounded boxes. Using the various line widths enables boxed text to stand out, ideal for creating eye-catching headings or boxouts.

DATABASES

It's easy to get a database started with *AtariWorks*, just work out how many fields you want and get under way

1 After selecting the New Database option you are presented with the New Field Name dialog box. You can continue adding fields until you click on Done.

2 After you have decided on your field names you can start entering your data. Start with the first field and you are taken to the next on pressing <Return>.

3 When you finish entering data in the last field a new record form is automatically created so you can continue, enabling data to be entered quickly.

SPREADING THE NEWS

A bare spreadsheet - who'd have thought so much power could be concealed in such a simple looking grid?

Works File Edit Window Select Format Options				
B3	✓	X	C52000	
D:\WORKS\SPREADSHEETS\FUTURE1.STS (SS) (C)				
1	Comparative sales	Format	Applications	Others
2				
3	Monthly sales	52000	3000	40000
4	Six monthly sales	312000	18000	240000
5	Yearly sales	624000	36000	480000
6	Average sales			

1

The cell at the start of a numerical calculation contains a simple figure, all other calculations and formulae relate to the starting cell.

Works File Edit Window Select Format Options Chart				
C4	✓	X	C=C3*6	
Untitled (SS) (Not Saved)				
1	Comparative sales	Format	Applications	Others
2				
3	Monthly sales	52000	3000	40000
4	Six monthly sales	312000	18000	240000
5	Yearly sales	624000	36000	480000
6	Average sales			

2

A formula can relate to any other cell on the spreadsheet, here the contents of cell C3 are being multiplied to generate a figure in cell C4.

Works File Edit Window Select Format Options Chart				
C5	✓	X	C=C4*2	
Untitled (SS) (Not Saved)				
1	Comparative sales	Format	Applications	Others
2				
3	Monthly sales	52000	3000	40000
4	Six monthly sales	312000	18000	240000
5	Yearly sales	624000	36000	480000
6	Average sales			

3

Now the contents of cell C4 are being multiplied again to give a value to be displayed in C5. By chaining formulae a change in a single cell affects the whole chain.

sheet is no different than any other in its basic functions, some of the conventions used for entering formulae may be different from previous spreadsheets you may have used but the rules are easily learned. Setting up is easy to do, just select the spreadsheet option from the new dialog box and you

are presented with a blank grid. Data can be entered into any cell in any format by clicking on the cell and then clicking on the input bar at the top of the screen, you can edit cells with data in them by just clicking on the cell to be edited.

New calculations and updates are performed very quickly al-

though the actual screen update speed depends on the font you are using at the time. For spreadsheets a plain and simple typeface speeds everything up, you can always change the font later if you want a more fancy printout.

AtariWorks includes a built-in charting ability which enables you

to convert your spreadsheet data into a visual format such as bar charts, line charts, stack charts or as a pie chart. Displaying your data in this way makes it much easier to understand and you can get a point across very quickly. Great if you are presenting figures to a client or your bank manager.

2.1766	C10	Bath
D:\WORKS\DATABASE\USERS.STD (DB) (Saved)		
Names	Addresses	Age
Clive Parker	Bath	57
Jon Burrows	Maccyfield	99
Vicky Lencard	Dreamland	107

You adjust the size of a field in list mode by clicking on the dividing line between two fields and dragging to the left or right...

restriction is that you are unable to overlap fields.

Entering data is easy; highlight a field and then enter the text, or other data, into the input line at the top of the window. Pressing <Enter> inputs the text into the field and the next field becomes highlighted automatically. Once you have entered the last piece of data into the last field on one record form, AtariWorks then creates a new record form ready for another set of data. In this way you can quickly build up large databases without having to select each field or create new records, you can enter the data as fast as you like and AtariWorks builds up the records for you automatically. It really is quite effortless to use.

In form mode you can only view one record at a time on-screen, to view all of the records as a list double-click in any blank area of the form screen or select Show

List from the Format menu. To switch back from list mode to form mode double-click in the box to the left of any record in the list, the form record is then displayed.

You can configure any field to contain any type of data including text, numbers, dates, times and computed output. Each type of data has further sub-divisions and can be styled using the same Speedo GDOS fonts as the word processor and spreadsheet.

AtariWorks has just about the easiest database to set up and use that we have ever seen, and the fact that it's easy to use doesn't detract from the power of the program at all. The ability to export database data in ASCII format and PC compatible .DBF format is an added bonus that enables you to make your information transferable between many different formats.

OOPS!

Atari have a clear set of guidelines concerning keyboard shortcuts for opening and closing files, cutting and pasting text and other functions. The programming guide states that the <Alternate> key is to be used for these shortcuts, unfortunately the developers of AtariWorks seem to have their own ideas and have used the <Control> key instead. Ah well, never mind.

A FINAL FEW WORDS

AtariWorks is a very well written, well designed and easy to use suite of programs that stand up well individually in comparison to dedicated programs of the same type. Taken as a whole there is nothing else available to compare with AtariWorks.

Some obvious drawbacks are the amount of memory that's required and the fact you need SpeedoGDOS installed in order to print anything from any of the modules, it would be a good idea to have a non-Speedo printing option although this would mean developing separate printer drivers. Still, a basic set of Epson 9-pin and 24-pin drivers built into AtariWorks would make it compatible with practically every printer on the market.

Another point is the speed of the program. At times the screen updating slows to a crawl, even if you are using a 16MHz Mega STE or Falcon. The current version of NVDI and AtariWorks don't work together even if the GDOS section of NVDI is disabled, although the document loads the SpeedoGDOS fonts are invisible restricting you to the basic operating speed of your ST or Falcon.

The find and replace option in the word processor is extremely slow even if you have a document of only 20 pages in length, each line appears to be scanned individually character by character and

the screen scrolls up and redraws with every line.

Apart from these few minor drawbacks AtariWorks is a powerful, integrated piece of software that covers practically every business need and definitely should be installed on your hard drive. You get three business packages easily worth £100 individually, and even if you include SpeedoGDOS in the price, it's a bargain. **stf**

AtariWorks

£99.95 without SpeedoGDOS, £129.95 with SpeedoGDOS Hisoft/AVR, ☎ 0525 718181

Highs

- Powerful with lots of features.
- Easy to learn and use.
- Point and click options for almost every function.
- Good keyboard shortcuts.
- Works in medium, high and VGA resolutions.

Lows

- Some areas can be quite slow.
- Needs SpeedoGDOS to print.
- Only imports GEM Image and Metafile graphics.
- Needs at least 2MBytes of RAM and a hard drive.

ST
87
%
RATING



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SILICON STORY

You know that your ST works when you put the disk in the drive and switch on, but do you know how it works? Clive Parker, ST FORMAT'S technical guru, lifts the lid...

Pictures and sounds don't just burst forth from your ST because you shove a disk in the drive, in fact a very specific set of events occur. If you know what they are then you're better placed to understand how your machine works and do your own trouble-shooting.

The bedroom ST setup is simple – you've probably got an ST connected to either a colour monitor or a TV set. Both the ST and the monitor are connected to the mains power supply with a mouse connected to the ST, a joystick may also be permanently connected for games playing.

All connections such as monitor, mouse, joystick and printer cables must be connected while your ST is turned off. Connecting any of these items while your ST is running can cause damage. Your ST should be the last thing you switch on when turning on your setup, so you should turn on the monitor followed by the ST.

Internal booting

Turn the power on and the very first thing that happens is that the operating system program called TOS is copied from ROM into RAM using up about 192K of memory – RAM – space. It copies TOS into RAM because parts of the operating system are constantly updated and modified while your ST is running – it's not possible to do this if it remains in ROM because data in ROM cannot be changed.

A 32K area of memory is also set aside for storing the screen display, once this is done the monitor flicks into life. After the screen memory is allocated your ST hunts for a floppy disk prior to displaying the Desktop. The entire process is governed by the 68000 processor and the operating system's TOS ROMs.

Coming to life

The screen of your monitor comes to life with a plain white picture; if no disk is in the drive the normal

Desktop display of icons appears after 30 to 40 seconds. The reason for the long pause is that your ST keeps checking the disk drive to see if there is a disk inserted, it

"Inside your ST everything works in a specific order when the power supply is powered up"

can't quite believe that the drive is empty so it keeps checking until it's sure. You can see this happening because the disk drive light flashes on and off and the disk drive may make a noise while your ST is trying to read the disk.

If you have a disk in the drive when you switch on, then one of two things can happen. If it's a

game disk then the ST starts to load the game almost immediately, this is because the first part of a disk looked at – the boot sector – contains information telling the ST where to look for the game code on the disk. If the disk is a normal ST program or data disk then the Desktop appears after a pause of about ten to 20 seconds. During this time your ST is reading data about the Desktop layout and screen resolution from the DESKTOP.INF file on the disk, this file contains codes which tell your ST whether it should be in medium or low resolution and whereabouts the icons appear on-screen.

Disks may also contain special program called Desk Accessories and Auto programs which slow the boot time of your ST. These are written to provide extra features and utilities for your ST, all Desk Accessories and most Auto programs are stored in memory and can be used from within other programs.

INSIDE YOUR ST

STFM (ST Floppy Drive and Modulator)

The most common type of pre-STE machine is the STFM, the FM part of the name simply means that the ST contains a built-in floppy disk drive and a TV modulator. Early STs had external power supplies and disk drives and



■ The most common STFM circuit boards have either two or six chip ROM sets depending on their age. All other aspects of the STFMs are basically the same except for the actual positioning of the components.

could only be used with a monitor. There are several different versions of the STFM with the motherboard slightly different in each one, components in different places and so on. The basic specification is 512K of RAM, a palette of 512 colours with a maximum of 16 on-screen at once, MIDI in and out, hard drive port, printer port, modem port, cartridge port, monitor port, TV port.

STE (ST Enhanced)

Apart from a cleaner internal design there are some very basic differences between the STE and the STFM, mainly related to memory, sound and colour.

There are two major advances with the STE design. The use of easy-to-install SIMMs memory modules make upgrading to 1MByte, 2MBytes or 4MBytes a simple matter of removing the lid and plugging in the RAM. The inclusion of DMA sound enables stereo sound samples to be played independently of the main 68000 processor and opens up the prospect of games using more realistic sound effects. Sadly, the enhanced potential of the STE has never been truly utilised even though several companies – including Atari –

promised enhanced STE-only games. The colour palette is increased to 4,096 colours with just 16 available on-screen at once, the screen resolutions remain exactly the same as the STFM.



■ The main board of your STE is a much cleaner design than the STFM. Some of the custom chips have been combined and the video shifter has disappeared. Socketed TOS 1.6/1.62 ROMs are used for easy upgrading and SIMMs sockets for easy memory upgrading.

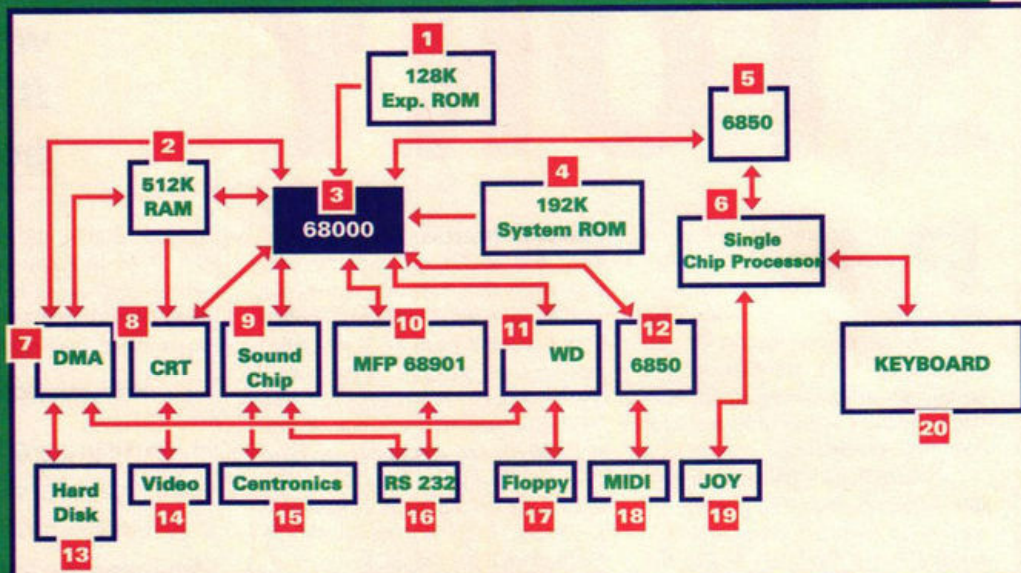


Internal connections

The heart of your ST is the 68000 processor, it controls the actions of all the other components inside the machine

- 1** Cartridge port.
- 2** Memory.
- 3** Motorola 68000 processor.
- 4** TOS ROMs.
- 5** Keyboard and joystick serial interface.
- 6** Keyboard processor.
- 7** DMA chip.
- 8** Video generator.
- 9** Sound chip.
- 10** Multi-purpose processor.
- 11** Floppy disk controller.
- 12** MIDI serial interface chip.

- 13** Hard drive port.
- 14** TV and monitor ports.
- 15** Printer ports.
- 16** Modem ports.
- 17** Floppy disk drives.
- 18** MIDI ports.
- 19** Mouse and joysticks.
- 20** Keyboard.



The STE that never was

The original specification for the STE included SIMM memory and DMA sound but also included a top graphics resolution of 640x480 pixels with a maximum of 256 colours on-screen at once from a palette of 216,144 colours. Sound familiar?

Prototypes of this version of the STE – complete with an early version of TOS 2 and a 68020 or 68030 processor – were tested in 1988 but it was decided not to market it because it would prove be too expensive and the potential market too small. If it had been launched, Atari and the Super STE could have dominated the home computer market by 1990. **stf**

Jargon busters

Oooh, all those technical terms make your head ache. Here's a list of some of the more common terms associated with your ST

BOOT-UP: The name given the sequence of events that take place when your ST is switched on.

CPU: Central Processor Unit, the CPU controls and directs the actions of every other part of the

ST. The ST uses the Motorola 68000 CPU.

CRASH: If a program doesn't run correctly then it may cause a crash, this means that your ST keyboard becomes frozen and you have to re-boot your ST.

DMA: Direct Memory Access, used in the STE and STE for high-speed transfer of data to hard drives and laser printers. Also used in the STE for accessing sound samples at high speed.

MIDI: Musical Instrument Digital Interface, a special interface that can communicate with keyboards and other electronic instruments.

RAM: Random Access Memory, area of memory used for temporary storage of data.

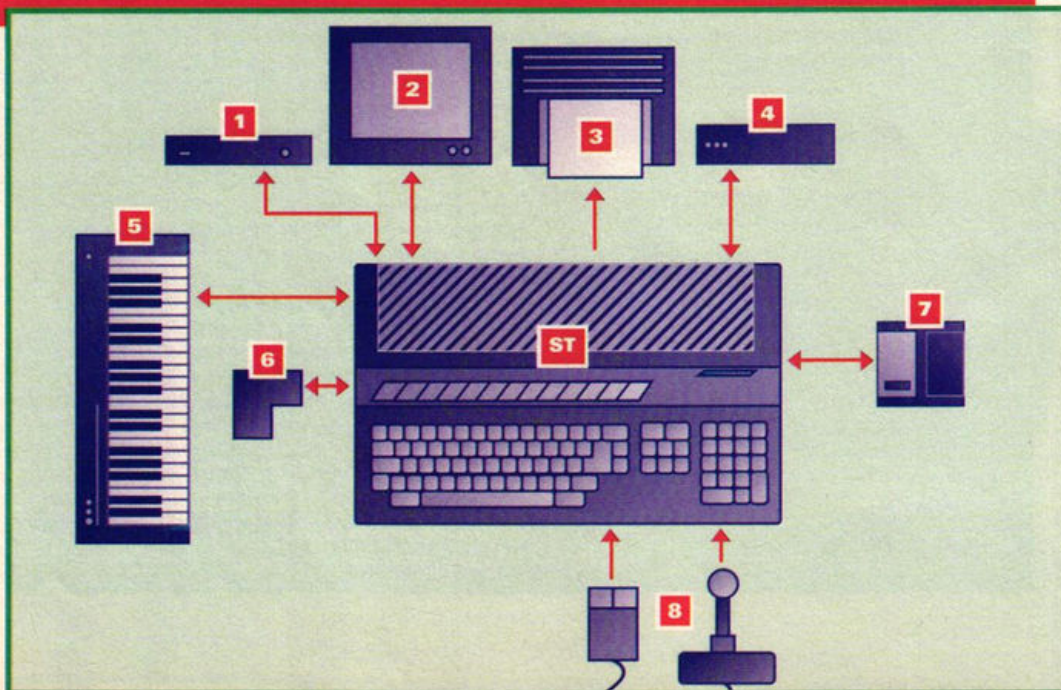
ROM: Read Only Memory, type of memory that permanently stores data. The ST's operating system is stored on ROM chips.

SIMMs: Single Inline Memory Modules, memory for the STE.

Outside connections

Your ST can communicate with all kinds of external devices including modems, scanners, sound samplers, hard drives and printers. Some communication is two-way

- 1** Hard drives
- 2** TV and monitors
- 3** Printers
- 4** Modems
- 5** MIDI keyboards
- 6** Scanners, samplers, digitisers
- 7** Floppy disk drive
- 8** Mouse and joysticks



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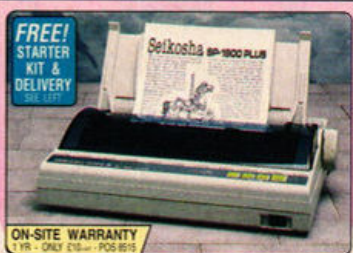
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- Epson LQ850 Emulation
- Windows Driver as Standard
- Semi-Automatic Sheet Feeder, Paper Parking, Optional Automatic CSF
- FREE Silica Printer Starter Kit

PRINTER RRP £189
STARTER KIT £25
TOTAL VALUE: £214
SAVING: £75
SILICA PRICE: £139
+ VAT = £163.33 PPI 8203

24-PIN COLOUR PRINTER



- Seikosha SL-96
- 24 pin - Dot Matrix
- 240cps SDraft, 84cps LQ
- 42K Printer Buffer
- 2 Scalable Fonts + 8 Bitmap Fonts
- Parallel Interface
- Graphics Resolution: 360 x 360 dpi
- Epson LQ870 Emulation with Colour Function
- Colour Windows Driver as Standard
- Colour Printing as Standard (Includes Colour Ribbon - Black Ribbon Optional Extra)
- Friction Feed/Push Tractor
- Optional Automatic Cut Sheet Feeder
- FREE Silica Printer Starter Kit

PRINTER RRP £249
STARTER KIT £25
TOTAL VALUE: £274
SAVING: £105
SILICA PRICE: £169
+ VAT = £198.58 PPI 8311

180CPS INKJET



- SpeedJET 200 - Inkjet Printer
- 50 Nozzle Inkjet Head
- 180 CPS Draft, 120 CPS LQ (10cpi)
- Print Through 2.67 Pages Per Minute
- 128K Printer Buffer - 3 Built-In Fonts
- 1 x IC Card Slot for Buffer Expansion/Fonts
- Parallel Interface - Graphic Resolution 300 x 300dpi
- HP Deskjet Plus Emulation (PCL3+)
- Windows Driver Standard
- Semi Automatic Single Sheet Feeder
- Optional Automatic Sheet Feeder - 70 Sheets (£35 + vat)
- Ultra-Quiet - Less Than 45 dBA

PRINTER RRP £235
TOTAL VALUE: £235
SAVING: £56
SILICA PRICE: £179
+ VAT = £210.33 PPI 8022

300CPS INKJET



- SpeedJET 300 - Inkjet Printer
- High Capacity 128 Nozzle Head
- 24K Printer Buffer - 3 Built-In Fonts
- Large Ink Tank - up to 4.2 Million Characters
- 300 CPS Draft (10cpi) - 300 CPS LQ (10cpi)
- 80% Faster Than Most of the Competition
- 2 IC Card Slots for Buffer Expansion + Fonts
- Parallel Interface - Graphics Res. 300 x 300dpi
- HP Deskjet Emulation PCL3 - (Windows compatible using Epson/HP drivers included as standard in Windows 3.1.)
- HP Deskjet Automatic Sheet Feeder - 100 Sheets
- Economical to Run - only 1.3p per page
- Ultra Quiet - 46dB(A) Maximum

PRINTER RRP £359
TOTAL VALUE: £359
SAVING: £110
SILICA PRICE: £249
+ VAT = £292.58 PPI 8030

4PPM LASER



- HP-104 - 4 Pages per minute
- HP LaserJet 1100 Emulation (Windows compatible using Epson/HP drivers inc. as standard in Windows 3.1.)
- Resolution: 300x300dpi - 14 Fonts
- Uses Original HP® Font Cards
- Postscript Emulation Option (Extra)
- Optional IBM, Epson & Diablo Emulation Cartridges
- Centronics Parallel & RS232C/RS422 Serial Interfaces
- 512K RAM - expandable to 2.5Mb
- Flexible paper handling: Standard paper cassette - 100 sheets, Optional 2nd bin - 300 sheets
- Cable required: CAB 7500 for PC - £9.95 or CAB 7614 for ST/Amiga - £12.95

PRINTER RRP £899
TOTAL VALUE: £899
SAVING: £480
SILICA PRICE: £419
+ VAT = £492.33 LAS 6004

THE SILICA SERVICE

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

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- TECHNICAL SUPPORT HELPLINE:** A team of technical experts will be at your service.
- PRICE MATCH:** We match competitors on a 'Same product - Same price' basis.
- ESTABLISHED 15 YEARS:** We have a proven track record in professional computer sales.
- PART OF A £50M COMPANY** (with over 200 staff!): We are solid, reliable and profitable.

- BUSINESS + EDUCATION + GOVERNMENT:** Volume discounts are available. Tel: 081-309 0888.
- SHOWROOMS:** We have demonstration and training facilities at all our stores.
- THE FULL STOCK RANGE:** All of your requirements are available from one supplier.
- FREE CATALOGUES:** Will be mailed to you with special offers and full details of hardware, peripherals and software.
- PAYMENT:** We accept most major credit cards, cash, cheque or monthly terms (APR 29.9% - written quotes on request).

HOT LINE 081-309 1111

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CROYDON SHOP: Opening Hours: Mon-Sat 9.00am-6.00pm Late Night: Thursday - 9pm	Debenhams (2nd Floor), 11-31 North End, Croydon, Surrey, CR9 1RQ	Tel: 081-688 4455 Fax No: 081-686 4658
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IPSWICH SHOP: Opening Hours: Mon-Fri 9.30am-5.30pm (Sat 9.00am-6.00pm)	Debenhams (2nd Floor), Waterloo House, Westgate St, Ipswich, IP1 3EH	Tel: 0473 287092 Fax No: 0473 287092
LONDON SHOP: Opening Hours: Mon-Sat 9.30am-6.00pm No Late Night Opening	52 Tottenham Court Road, London, W1P 0BA	Tel: 071-580 4000 Fax No: 071-323 4737
LONDON SHOP: Opening Hours: Mon-Sat 9.30am-7.00pm	Selfridges (Basement Atrium), Oxford Street, London, W1A 1AB	Tel: 071-629 1234 Extension: 3914
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To: Silica, STFOR-0294-84, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND A BROCHURE ON THE SEIKOSHA RANGE

Mr/Mrs/Miss/Ms: Initials: Surname:

Company Name (if applicable):

Address:

Postcode:

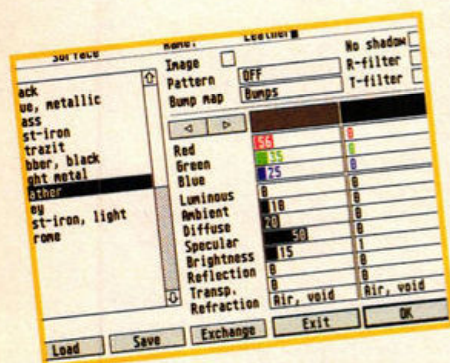
Tel (Home): Tel (Work):

Which computer(s), if any, do you own? 84P

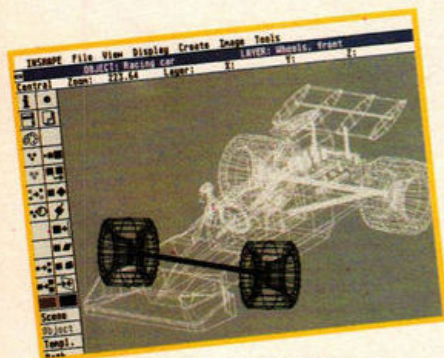
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INSHAPE

Colour vector graphics, raytracers, image processors now a 3D modeller and animator. Falcon graphics get serious with *InShape*



■ Editing the surface colours and materials of each object is made simple with *InShape* using its large library of materials and textures.



■ Each object in *InShape* is made up of separate layers, so you can edit each layer individually to make any changes or alterations.

InShape is a combination of two powerful graphics tools; a 3D design suite accurate to a thousandth of a millimetre for creating 3D objects and a 3D rendering and animation suite for creating animated 3D objects and graphics.

It is designed to be a professional 3D CAD tool, that's why such accurate tolerances are available in the modelling studio part of the program; using *InShape* you can design complex mechanical objects with astounding accuracy.

Because *InShape* is a professional tool, it's presented as a pick up

"You can design complex mechanical objects with astounding accuracy"

and use program. The manual assumes throughout that you have a full working knowledge of CAD and 3D software to an almost professional level – descriptions of tools and functions are perfectly adequate if you have some notion of what you are doing but they seem to be rather terse if you're a newcomer to the sub-

■ *InShape* really has the power to create brilliant 24-bit pictures like these. This is a 640x480 16.7 million colour picture rendered at photographic quality – it took several hours to generate.

ject. To remedy this there is a tutorial section with several examples that gives you a good basic groundwork in the program.

Building objects

In common with most 3D CAD tools complex objects are built up from a series of less complex shapes called primitives – shapes such as discs, cylinders, tubes, cones, planes and spheres can all be added together to create other shapes. *InShape*'s object

creation suite uses just these main primitives to build upon. However, *InShape* is much more versatile than this. Every object you enter into a scene can be edited with up to 32 surfaces using a special dialog box, and each surface can be defined from two materials using colour and light characteristics. You can project images and patterns onto any object, images can be either true colour, greyscale or monochrome while patterns consist of textures like marble

INSHAPE'S SHADER

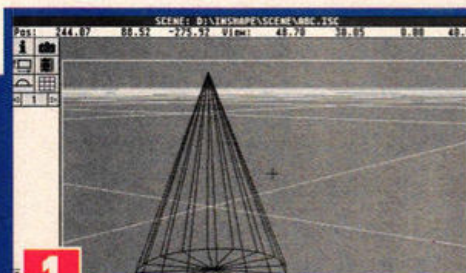
InShape's Shader always creates pictures from modeller scenes in 24-bit colour with up to 16.7 million colours. It doesn't matter what resolution or palette you're using for the display, the *InShape* file is always 24-bit, *InShape* generates an approximated dithered version of the picture on-screen using a special ordered dithering algorithm. *InShape*

images are saved in their own format with an .IIM file extension, animation files use the same extension and a sequentially numbered filename for each frame.

If you want to use your *InShape* images in other graphics software you can convert *InShape* .IIM files to TIFFs using a utility that you get with the program.

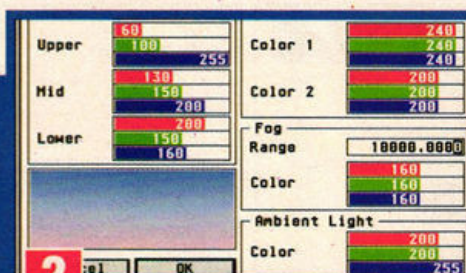
CREATING A SIMPLE OBJECT

You can only get to know any software by using it, it's best to start with simple shapes and build up from there.



1

We don't want to get too ambitious so we're sticking with simple objects. How about a nice crystal cone standing on a marble plain?



2

Define a simple plain with a randomly marbled surface using some unusual colours. We've added a touch of haze to the horizon and defined a blue sky.



3

Rendering the image in test mode enables you to have a quick look at your work, this is our quick rendering in 24-bit colour.

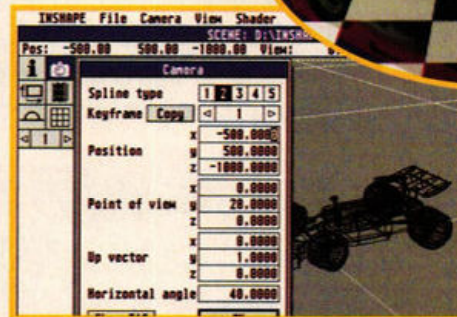


■ Another example file supplied with InShape showing the effects of many of the environment variables in action. A gently shaded sky, a patterned and coloured floor with a hint of reflection shows how powerful InShape is.

■ You've never seen modelling like this; InShape surpasses everything we've seen so far for the Falcon.



■ Place the camera in the 3D world of InShape using a system of X, Y and Z co-ordinates. Setting camera direction is as easy - enter the co-ordinate of the spot you want the camera to look at.



illuminate an entire scene, objects can even be luminous if you want it to.

Ambient light can be defined for general lighting in any of the 16.7 million available colours along with all of the other environment options. A master dialog box enables you to choose the colour of the sky, the clouds and fog for a hazy distant horizon; with careful planning you can create some remarkable effects.

InShape enables you to view a scene from anywhere within the 3D world, moving the camera position between keyframes enables you to "fly" the camera around the scene in an animation. You can determine the smoothness of the camera's movement by selecting a variable between one and five, with five being the

smoothest setting. Camera parameters can be simply copied between keyframes of animations to make adjustments to the camera's position, point of view and orientation. Combining camera movements with

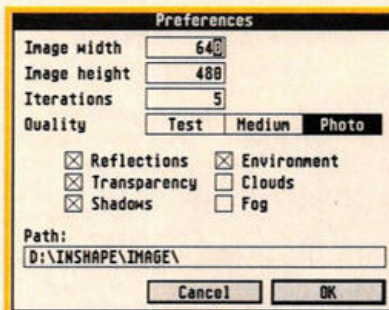
"With careful planning you can create some remarkable effects"

InShape's ability to animate individual objects enables you to generate some very complex animations.

Verdict

InShape only works on a Falcon with a 68882 co-processor fitted; the fact that the program also needs a minimum of 4MBytes of RAM and a big hard drive is obvious - 14MBytes of RAM would be

■ You can determine the level of detail in any scene you render by using the Preferences dialog box, the image size, quality and environment variables can all be varied from this menu.



INSHAPE MODELLER

InShape's 3D Modeller uses up to 64 objects in a scene and all objects are placed in hierarchical order, so each object interacts fully with every other object in the scene. So, if you had an object standing on another - perhaps a cup on a saucer - moving the saucer also moves the cup in

absolute relation. The Modeller camera has 32 settings for you to define and a full range of lighting options ranging from candlelight to floodlights. A very useful function is the keyframe animation facility enabling you to create complex animations quickly and effortlessly.



■ Our preliminary rendering of the racing car model saved as a 320x220 picture in "quick test" mode, it still takes almost two hours to generate this picture even if you're using the 68882 co-processor.

better. If you don't already have a 68882 in your Falcon then CGS can supply one with the program along with full fitting instructions; it's easy enough to install it yourself in under three minutes. Even with the co-processor installed generating images from scenes can still take an hour or more depending on how complex the picture is.

InShape is designed to perfection and enables you to retain perfect control over the construction of your entire scene or animation and is, without doubt, the best 3D modeller and animation program we've seen yet for the Falcon. Everything is beautifully GEM controlled with large, clear and easy to use dialog boxes, icon bars and pop-up menus putting you in charge of the process.

Its ability to define positions down to a micron makes it absolutely perfect for professional engineers and design studios, and its 24-bit colour capabilities makes it the perfect tool for creating true colour animations. It's the best there is.

CLIVE PARKER

InShape

£149 CGS ComputerBild
☎ 081 679 7307
Atari Falcon only, 68882
co-processor required, call
CGS for current price of
co-processor

Highs

- Powerful animation features.
- Very accurate object placement and design
- 16.7 million colours as standard.
- Easy to use interface.
- Not too expensive.

Lows

- Only works with co-processor installed
- All single scene images saved with the same name.

What else?

- Xenomorph, £79
- 16/32 Systems ☎ 0634 710788. Excellent raytracing; no animation.



and wood. These are just a few examples of the versatility of InShape's object editing.

Actually creating objects is easy, what's not quite so easy is getting the objects to do exactly what you want them to do or to get them in exactly the correct position, but a little practice is the answer here. Remember that InShape is a professional CAD tool for designers, it's not supposed to be as easy to use as Degas Elite.

Setting the scene

InShape's scene editor is where you have to decide on how your objects are arranged in the picture and how you want to define the overall environment, the lighting and the animation of the scene.

You can select objects created in the object editor for use as many times as you like, you don't have to have more than one original object to show two identical objects. Light sources can be assigned to light each individual object so you are not dependent solely on ambient light to



The eagerly awaited new version of *Prism Paint* from Lexicor finally arrives and is taken for a few handbrake turns in the *ST FORMAT* car park

As soon as you load the latest version of *Prism Paint* and take a look at the mass of icons that appear you realise that version two isn't so much of an enhanced version but a whole new proposition altogether. It has been expanded enormously with a myriad of new drawing functions. It's an amalgam of the *Prism Paint* and *Artis* paint packages.

Prism Paint 2 runs on all STs with 1MByte of memory or more. If

If you are lucky enough to have a graphics card it runs with those, including the Nova 24-bit card.

It's expandable using modules, printer and scanner drivers and loading and saving different file formats.

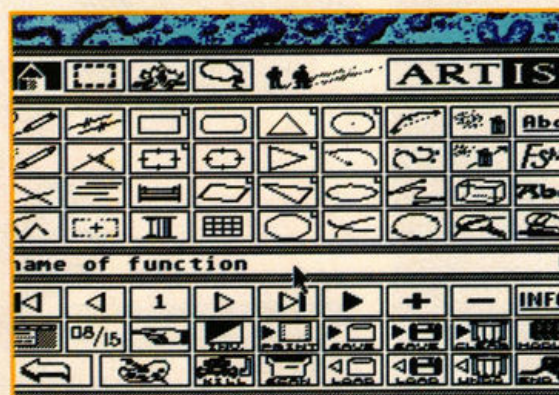
All the functions are accessed from the same screen, this almost completely fills the ST low resolution screen, you flip between it and the drawing screen with the right mouse button. All the drawing functions are accessed from this screen. That's the basics, what's it like to use?

On one hand

Prism Paint 2 has some surprises in store, along with the normal drawing functions there are some new and very effective ones mostly based around geometric line drawing. There's more than the usual boxes and circles, everything from slanting isosceles triangles to quarter ellipses.

It supports Speedo GDOS and Signum fonts, with adjustable size, rotation, slant and proportion. Combined with the excellent block effects,

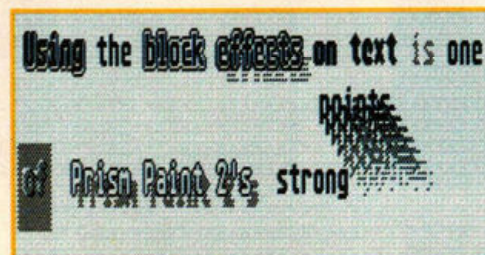
PRISM



■ *Prism Paint 2's* main menu. The top section switches between the four menus of drawing icons. Along the bottom are the general controls for file control, animation, printing, colour selection and setting the parameters.

"It has been expanded enormously with a myriad of new drawing functions"

you want to make full use of the extra modules and animation then 2MBytes or more are recommended. It runs in all ST, TT and Falcon resolutions, from ST low res to true colour.



■ The program is best suited to manipulating pictures and creating simple line drawings. Text is handled particularly well.

impressive text is a piece of cake, say adding a 3D effect and a shadow. If there aren't enough effects for you then you can even program your own using the built-in graphics programming language.

It loads pictures of nearly any size, if you load 256 colour pictures into a standard ST then they are converted in 16 colour ones. Colours are picked using either the standard Red, Green and Blue method, Yellow, Magenta and Cyan or Hue, Light and Saturation. You can also pick colours from the drawing screen, essential when dealing with 256 or more colours, finding a match from

the palette is often impossible. You can also carry out global palette changes affecting the contrast and brightness of a whole picture.

You can cut and paste blocks from the four clipboards and use a process called contour clipping

which enables you to mark areas you don't want the block to affect. Animation is supported and *Prism Paint* has an efficient compressed file format to load and save your creations, these can be in any resolution, even 24-bit colour.

And on the other

Although generally a good program, *Prism Paint 2* suffers badly from a number of basic faults. The design of the icons and menus isn't nearly as accessible and friendly as it should be. To change colour while drawing takes five mouse clicks and involves selecting four different icons or buttons, terribly tedious and frustrating and considering its colour handling capabilities, very poor design. There is no way you can leave a small menu of tools or a palette on-screen while you draw, you have to switch between the drawing screen and the toolbox to access everything.

There are some powerful and useful functions but there are some obvious ones that aren't included such as block distortion and mapping, graduated fills, colour swapping, lock to grid and anti-aliasing. The lack of a hotspot zoom box or X and Y co-ordinates makes accurate positioning of blocks



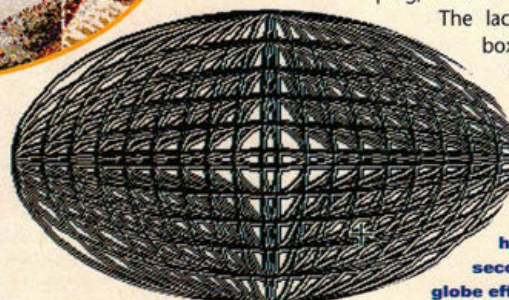
■ Left - The rather crude zoom function, you select the area of the picture from the full size section displayed on the right, a small zoomed section appears that you can edit. It is set at a fixed resolution and no drawing tools are available.



■ Left - Eight of the block effects given a trial run including thickening, thinning, lightening, crystallisation, inverse and rounding.



■ Left - A picture of Mickey with a few *Prism Paint* additions including soap bubbles, star spray, spotlight and a block effect or two.



■ Left - *Prism Paint 2* has some remarkable drawing tools, this pattern here took all of five seconds to draw using the globe effect and the 3D block effect. Pretty good, eh?



PAINT 2



■ The main parameter box, from here you can set line thicknesses, the parameters for a number of the drawing tools and the size of the canvas you are going to work on.

and effects very difficult. Without extra modules it doesn't support enough file formats, although this is easily corrected. It is also riddled with bugs at present, more than one of the functions simply doesn't work properly, like picking a colour from the zoom box, moving pictures larger than the screen and others. It also features rather too much German, leaving you to guess at some of the alert boxes.

To be fair this is the first version and many of the problems are being sorted out, but at a price like this it is bad news to release such an obviously under-developed product. Although it can handle pictures with up to 24-bit colour, that's 16.7 million colours on the screen, there are no effects that make use of this. Nearly all of them operate with just one colour. It has a smart animation file format but there are no drawing or block functions to take advantage of animations such as tweening or special effects that can be spread over a number of frames. You can't even copy one frame from one place to another.

And in conclusion

The support for the ST's art packages has been disappointing in most places. Programs such as *Deluxe Paint* and *Degas Elite* have been left untouched. Any package which promises the kind of support that *Prism Paint* has is good news, Lexicor are committed to the Atari range.

Prism Paint 2 has plenty of problems that need sorting out, but once it finds its feet then it could be a really plum program. It runs on the entire Atari range, meaning you can use it on your ST and when you upgrade to a Falcon or fit a graphics board you can continue to use it.

As it stands *Prism Paint* can't really be recommended very highly, we await future developments with interest, the potential is there for much greater things.

CHRIS LLOYD

TOUR OF DUTY

Prism Paint 2 uses four main menus of icons to control all the drawing functions, and an impressive collection of over a 100 functions to navigate your way through. To help get things rolling along a brief piece of text, describing its function, appears as you move the mouse over each icon, very useful indeed.

Less fortunate though is the fact that the program doesn't remember which drawing function you have selected. Every time you go to the menu screen you have to re-select the icon again which after a few minutes becomes rather tedious.

■ **CLIPBOARD** - *Prism Paint* supports four clipboards and contour-clipping.

This is like a stencil, you can paste blocks behind other graphics. Blocks can be rectangular or irregular, cutout using a series of straight lines. Blocks can be cut, pasted, moved and duplicated, saved and loaded separately.

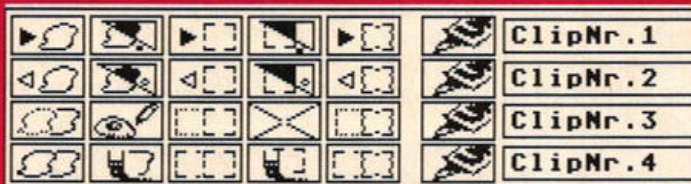
■ **DRAWING FUNCTIONS** - An impressive array of functions and geometric drawing tools. You can create all kinds of lines and shapes including right angle lines, parallel lines, rotated triangles, slanting triangles, arcs, curves as well as the usual range of boxes and circles. *Prism Paint* can use Speedo GDOS and Signum fonts.



■ **BLOCK EFFECTS** - A range of effects which can be applied to a rectangular area of the screen. These include a 3D effect, shadows, various contour, shadow and outline functions. You can also enter and run your own block effects using the built-in graphics programming language. It's a simple version of a BASIC-like language that gives you direct control.



■ **SPECIAL EFFECTS** - These feature a range of effects most being unique to *Prism Paint 2*. These include geometric patterns, quill pen, spotlight and a distortion effect called Rambo. There is also a standard set of tools. Also among the goodies are some peculiar functions such as soap bubbles, which spray randomly sized circles on the screen.



■ The main colour selection menu. There are three methods of colour definition as well as the ability to pick directly from the picture. On the right are the range of fill patterns. Unfortunately the sliders used to select the colours have no numbers or values on making matching colours difficult.



■ Left - You can ensure your drawings are pixel perfect by using the powerful zoom function of *Prism Paint 2*. This can be very useful, especially if you're working on very detailed images.

Prism Paint 2

£129
16/32 Systems
☎ 0634 710788
All STs and Falcon 1MByte memory minimum

Highs

- Some excellent and unique abilities.
- Runs in all resolutions on all machines.
- Expandable range of effects and functions using modules.

Lows

- Lots of bugs to be ironed out.
- Some basic functions missing or very awkward to use.
- Limited file formats without extra modules.
- Very expensive.

65%
ST
FALCON
1MByte
memory
minimum

GENEVA



Multi-tasking with MultiTOS needs loads of memory and a go-faster processor. Geneva brings true multi-tasking to your ST

While Atari have been busily splicing together PD programs with slightly improved versions of GEM to create MultiTOS, Gribnif Software have been working away on their own multi-tasking operating system, *Geneva*.

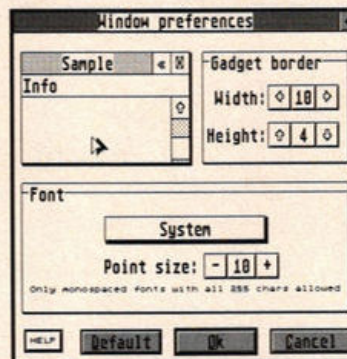
Geneva is the multi-tasking system that MultiTOS should have been, enabling as many programs to run on your ST as memory permits without taking up too much space itself. This means that *Geneva* actually works on 512K STs although the number of programs you can run in 0.5 MByte is obviously limited, at least 1MByte of RAM is recommended when using *Geneva* and a hard drive is an advantage. Given these minor restrictions, *Geneva* functions flawlessly on all STs and the Falcon.

■ If you want to change the way Geneva looks on-screen you can customise the window buttons, sliders and gadgets until it's exactly right.

Where are my icons?

Using the software supplied enables you to perform installation of the program with a minimum of fuss both to floppy disk and hard drive. You can run *Geneva* either from your Auto folder when you boot your ST or by double-clicking on the program from the Desktop, using the Auto folder is best because it frees extra memory to run software.

When running *Geneva* you are faced with a blank screen with just three items in the menu bar, this is a trifle daunting if you're used to instant Desktop icons when you boot



your ST. The reason for this is that although *Geneva* supplies a replacement version of the AES (Application Environment Services) that controls your ST's windows, dialog boxes and menus, it doesn't replace the part of GEM that displays the Desktop icons you are used to. You can run a replacement Desktop program such as *NeoDesk 3* or *Teradesk* after running *Geneva*, but only *NeoDesk 3* supports *Geneva*'s multi-tasking mode. Other replacement Desktops enable you to run more than one program but only the top application is in operation.

If you're not too worried about the lack of Desktop icons then you can simply launch programs and load

Geneva™
Multitasking Application Environment
by Dan Hilga
Copyright © 1993 Gribnif Software
All Rights Reserved.
Release 002 Sep 29 1993

Registered for:
ST FORMAT
#000000609

Use, duplication, rental, or sale of this product, except as described in the Geneva Licensing Agreement, is strictly prohibited. Violators will be prosecuted.

■ Geneva has been created by those clever chaps at Gribnif Software in the US, enabling real multi-tasking on any ST.

Desk Accessories by using the Open option from *Geneva*'s File menu.

Geneva in action

Geneva is good. In fact, it's very good indeed. We tested *Geneva* over a period of several weeks without encountering a single crash resulting in a loss of data – although we can't claim the same results using MultiTOS, even using memory protection on the Falcon.

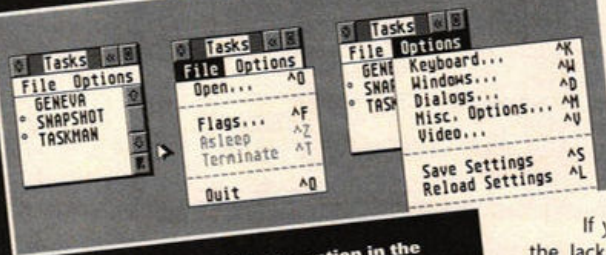
When you encounter a problem under MultiTOS you are almost invariably presented with an incomprehensible error message followed by a re-boot of the system. *Geneva* can't run some older – and perhaps badly written – programs, but instead of forcing a

■ Pressing the <Help> key when you're using the Task Manager program brings up a handy help feature which uses hypertext-style links to explain the features of Geneva.

The task manager

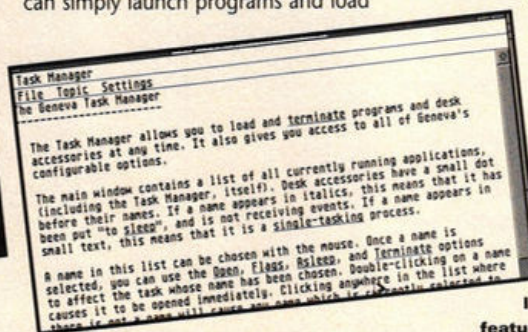
There are two ways to access software – either programs or Accessories – currently in held memory, you can either select the program from the *Geneva* menu or select the Task Manager Accessory. The Task Manager is a small Desk Accessory that opens a small GEM window when selected, in the window is a list of currently active programs and Accessories. Programs and applications are listed first while Desk Accessories are signified in the list by a small circle before the filename.

Clicking on the filename enables you to use any of the options in the Taskman File menu. Selecting Open either opens a DA or brings a running program to the foreground,



■ Using the Tasks option in the Desk Accessory menu enables you to switch between any programs and Accessories in memory and switch them on and off at will.

Asleep turns off or restarts the program, Terminate exits the program and Flags enables parameters to be assigned to programs.



Er, what's this multi-tasking thingy, then?

Multi-tasking is a method of running two or more programs at the same time on your ST, so for example you can download a file from a BBS in the background while working on a word processing program in the foreground.

Actually, multi-tasking systems rarely work exactly like this on personal computers. The most common multi-tasking method used by personal computers is actually a form of high-speed task

switching, the processor shares its time between two or more programs switching between them so each has an equal share of the processor time, in this way it seems as if they are both running at the same time.

This is the method *Geneva* uses and it's called co-operative multi-tasking, this method is also used by Apple Macintosh and Microsoft Windows to multi-task. The other common multi-tasking

method is to have one program running while the other program "sleeps" in the background, this is called task switching.

Geneva uses a mixture of these two methods to enable your ST to multi-task efficiently, some programs share the processor time while some are unsuited to this method and *Geneva* puts any other software running to sleep while the single tasking program is in use.

GENEVA'S FEATURES

Geneva is crammed full with so many features and options that it's impossible to list them all, so here are just a few of the most noticeable features

- 1 No limit on running programs except memory.
- 2 Customise windows and dialog boxes.
- 3 Improved dialog boxes with keyboard shortcuts.
- 4 Keyboard shortcuts for almost all functions.
- 5 No limit on Desk Accessories except memory.
- 6 Customisable and attractive three dimensional buttons.
- 7 On-screen hypertext-style help at the touch of a button.
- 8 Put programs to sleep if they don't multi-task.
- 9 Up to 256 GEM windows on-screen at once.
- 10 You can Select more than one program or Accessory to load at once.
- 11 Task Manager program gives complete control over multi-tasking of all programs.
- 12 Runs TOS programs in GEM windows.

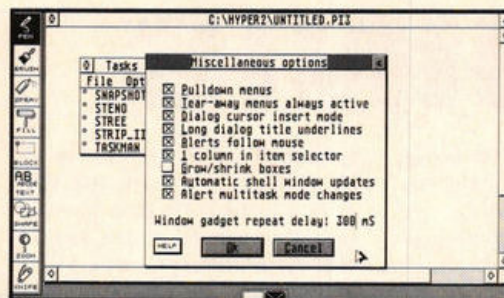
system crash Geneva politely informs you of the problem and enables you to continue using any other programs that you may have running.

If you use an incompatible program then you can simply exit Geneva and go to your ST's standard

GEM Desktop and run the program from there. This is undoubtedly one of Geneva's best features.

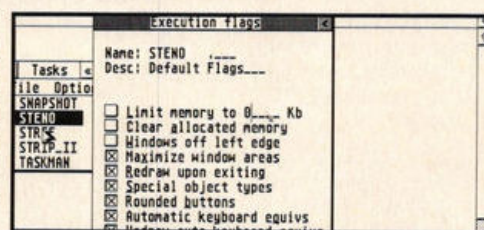
Running a replacement Desktop program is the best way to use Geneva, and using NeoDesk 3 is the best choice because it supports Geneva's multi-tasking. With NeoDesk running you are presented with a working environment very similar to TOS 2.06's Desktop with a few added enhancements. NeoDesk 4 is under development and is designed to be fully compatible with the Falcon so you can use Geneva to its full abilities without losing the advantages of a friendly graphical user interface.

With NeoDesk running you use Geneva exactly as if you were running your standard Desktop but with one major difference, you can go to the Desk menu, return to the Desktop and load a second program. You are now able to switch between pro-



Using Geneva's unique "tear-away menus" you can position a menu anywhere on screen for convenience. This option, along with many others, is controlled from the Misc Options menu of the Task Manager.

To make sure that your programs don't try to grab all available memory you can set specific flags for a program so that it acts correctly when running under Geneva.



grams in memory simply by selecting them from the drop-down menu. Geneva also enables you to load Desk Accessories at any time, you are not just restricted to loading them on booting your ST.

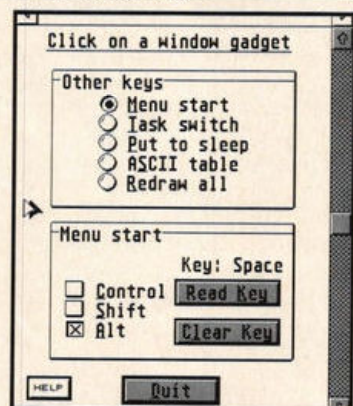
The best programs to run under Geneva are GEM based although most TOS programs run without any problems. Newer programs designed to be MultiTOS compatible run flawlessly with Geneva as long as they don't rely on the Falcon's hardware.

A "must buy"

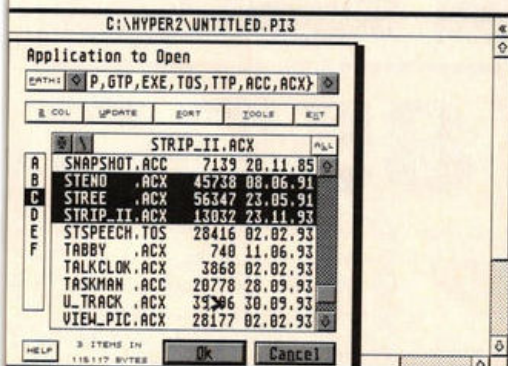
Geneva is probably the most stable multi-tasking application and switching program ever designed to run on your ST, almost all ST software runs with it in either multi-tasking or background mode without problems. If a program should be incompatible then you are presented with an error message rather than a crash, and you are returned to the Geneva system manager ready to run the next program.

Couple this inherently stable system with your favourite software and you have the perfect multi-tasking working environment on your ST. We heartily recommend Geneva without reservation.

CLIVE PARKER



The keyboard shortcuts are underlined in menu items, so you can define the specific key combinations to control any shortcuts. This makes it easy for you to control all aspects of Geneva.

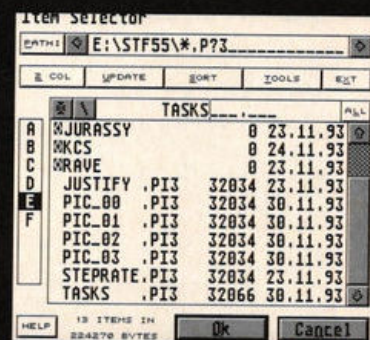


More than one program or DA can be loaded at once if you select them using the left mouse button and the <Shift> key, you can load programs and DAs until memory is full.

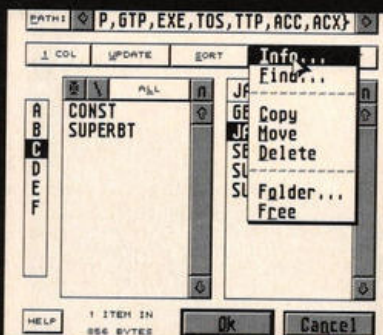
A new file selector

Geneva comes complete with its own improved file selector with many extra features that aren't found in the standard GEM offering, these are arranged in a row of options above the file windows. You can display files and folders in separate windows, toggling between sorting methods is

easy, clicking on the update window re-reads the current drive, new file extensions are easily changed and a full toolkit enables you to move, copy and search for files. The Geneva selector is a vast improvement over the Atari Selector and deserves to be a separate utility in its own right.



All of the standard Atari options are present along with a scrollable path info line and a row of buttons accessing the extra features.



The Tools button enables most normal file manipulation tasks to be performed from within the file selector itself.

Geneva

£59 Compo Software
☎ 0480 891819

Highs

- Load as many Desk Accessories as memory permits.
- Run as many programs as memory permits.
- Up to 256 GEM windows available at once.
- Virtually crash-proof.
- Simple to use.
- You can exit at any time to run incompatible software and then return to Geneva.

Lows

- No GEM Desktop on running Geneva means an alternative interface such as NeoDesk or Teradesk must be used.

What else?

- MultiTOS of course, not nearly as stable as Geneva and requires rakes of memory and a hard drive to run effectively. Really designed for the Falcon. £49.95 from Hisoft/AVR ☎ 0525 718181.

93



MINIS

This is a drive to hanker after – it's small and smartly cased and, it looks neat enough to sit tidily out of the way on your desk. So aesthetics aside, what's

so good about it? Well, it's fast and it's inexpensive. In fact, the MiniS range is probably the most affordable hard drive around at the moment with prices starting at around £300

for the 105MByte model. All System Solutions drives are pre-formatted and ready to run after you've connected them to your ST, all you have to do is connect the drive using the supplied lead and boot your system. Quick and easy.

The drive is so small it seems impossible that there's a mechanism inside, amazingly System Solutions

have managed to cram a fan inside the case to keep everything cool. The drive stands on its side using a couple of brackets and takes up very little room, in fact, three or four of these drives occupy the space normally used by a traditional hard drive. Obviously there's no room for adding another drive inside the case, so the MiniS is equipped with two SCSI ports enabling extra drives to be daisy chained together. The SCSI ports, power and SCSI ID switches are on the back panel.

In operation the MiniS is fast and quiet and can shift large chunks of data around with the minimum of fuss. If you want a good, reliable and inexpensive hard drive, you'd be a fool not to consider the MiniS; it's the best you can get.

CLIVE PARKER

■ The new MiniS range of SCSI drives work on the ST with the ICD Link or you can use it with a Falcon without any adaptor at all.



MiniS

£299 for 105MByte drive,
£399 for 240MByte drive
both including ICD Link
System Solutions
☎ 0753 832212

Highs

■ Small, fast, easy to set up, inexpensive.

Lows

■ Needs Link for STs.



PROGATE 2 85DC

The high quality hard drives produced by Protar of Germany have been conspicuous by their absence from the UK ST market for some months, now Analogic Computers have acquired the rights not only to distribute the Protar drives in the UK, but build the drives here too, using all original components supplied by Pro-

tar themselves. The Progate 2 85DC is an 85MByte model with disk cache – caching is standard on all of the Progate drives – supplied complete with all leads needed to hook it up to your ST.

The software supplied is Protar's own – currently at v4.17 – which can format, partition and manage your drive for you. A very good software

cache is also provided, along with a suite of smaller utilities such as a bug-fix for the infamous 100 folder bug in pre-1.4 versions of TOS.

The drive is already formatted and partitioned with auto-boot capability, so you can plug it in and get going. If you do need to re-partition the drive (we did, because we needed a larger boot partition than the 3MByte one that's installed), the software's graphic displays make it easy to understand what's going on, even if you're a total hard drive novice.

The drive comes in a solid, well-built case with power and drive access lights on

the front. All cable connections are at the rear of the case including a SCSI through port. One niggle we found was the placing of the power switch – it's right next to the cable input at the back making it a bit fiddly to use.

In use the Progate is almost silent. The manual quotes an average access time of 19ms, and our tests agreed with this. If excessive noise is a consideration for you, take a look at this beastie – you hardly know it's there. The 85DC is a well constructed, dependable drive and is good value for money.

FRANK CHARLTON

Progate 2 85DC

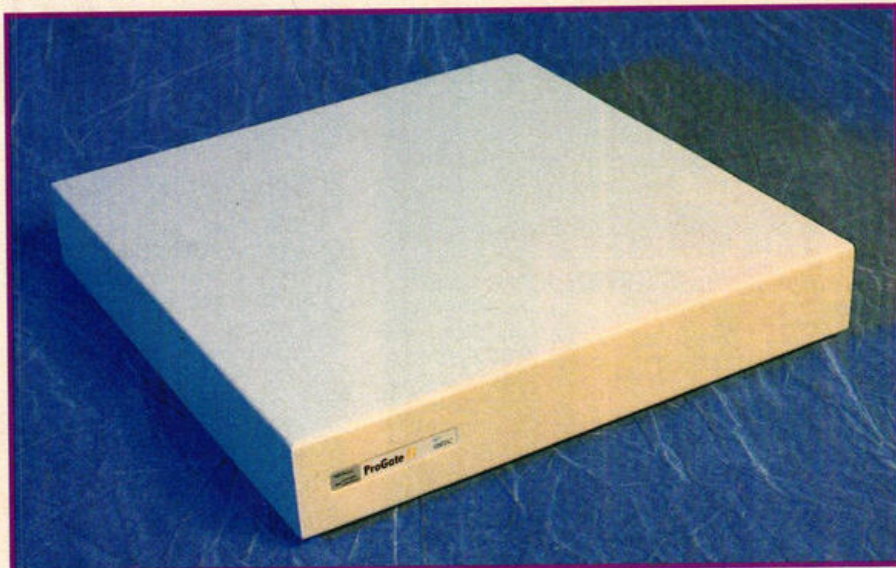
£299
Analogic Computers
☎ 081 546 9575

Highs

■ Excellent build quality, fast and quiet, supplied ready for use.

Lows

■ Power switch is awkwardly placed.



■ Well, what can we say about this drive that hasn't already been said? Just take it as a visual representation of the words on this page and everything fits into place.



S128MO

Magneto-optical technology is the latest and potentially the most exciting way of storing large amounts of data on removable storage media. The System Solutions S128mo drive contains a Fujitsu optical disk drive that uses 3.5 inch 128MByte optical disks. The disk is almost exactly the same size as a standard floppy disk but twice as thick, so there's no problem storing disks because they fit into your floppy disk box.

The drive itself is housed in the standard System Solutions case with the usual array of connectors on the back, twin SCSI ports, SCSI ID and power switches. You can connect the drive directly to your Falcon but you need the Link if you want to connect it to your ST. In use the drive operates

in the same way as a standard floppy with one small exception, the disk must be in the drive when you boot the system or it won't be recognised. Data transfer speeds are a bit slower than modern SCSI drives but com-

pare favourably with drives over two or three years old and are faster than SyQuest drives.

The average seek time is a very respectable 30 milliseconds while data transfer rates vary from 0.256MBytes per second when writing and 0.768MBytes per second reading. In practice, you can use the drive exactly as you would use a standard hard drive, and unless you use a

fast hard drive in conjunction with the optical drive you're unlikely to be bothered by its comparative snail pace. The initial high cost of the drive may put you off buying it, but with each additional 128MByte disk costing just £40 it quickly becomes cost effective when compared to traditional hard drives. You won't regret adding this drive to your system.

CLIVE PARKER



■ This little beauty copes with 128MBytes on each removable optical disk. The large storage capability of optical disks makes them ideal for backing up your standard hard drive in minutes rather than hours.

S128mo

£989 including ICD Link and one 128MByte optical disk. System Solutions ☎ 0753 832212

Highs

■ Fast, quiet and convenient data storage.

Lows

■ Initially expensive, need the Link on STs.



S44SY

System Solutions S44sy is a removable hard drive that uses a standard SQ555 SyQuest drive mechanism housed in the standard System Solutions hard drive case. An 88MByte version is also available.

The SyQuest cartridges are basically hard drive disk platters in a removable case that can be popped out and replaced by another cartridge; the main use for SyQuest drives is for data backup and archiving.

The S44sy drive is a good deal slower than a standard SCSI drive so it's not particularly suited to applications that need high speed access to data such as direct to disk recording. It's ideal for DTP, sampling, music

and graphic software that creates large files – you can use the cartridges to build up a library of work.

As with all System Solutions' drives, the S44sy is formatted and ready to go, just

■ A good sound drive that should last a lifetime, the S44sy drive is as sturdily built as all System Solutions equipment.



connect it to your ST and boot up. The drive is reasonably quiet and functions perfectly without any problems, and although the cartridge loading sequence is a bit tedious at first, you soon get the hang of it. It's best to consider the SyQuest as your

second drive, using it as a main drive is not as cost effective as a magneto-optical drive or a MiniS.

CLIVE PARKER

S44sy

£449 Falcon/TT, £499 ST including the ICD Link and one 44MByte cartridge, 88MByte versions cost £100 extra.

System Solutions ☎ 0753 832212

Highs

■ Reliable, absolutely superb for backup, archives and data storage.

Lows

■ Quite expensive, slow, needs the Link on STs.



PROGATE 2 R44

The Progate R44 is based around the SyQuest SQ555 mechanism, which uses removable cartridges with a capacity of 44MBytes. The actual removable bit is roughly the same size as an old 5.25 inch floppy, and just over a centimetre in depth.

The cartridges aren't as flimsy as you might think, and you can use them to exchange large amounts of data without mucking about with floppies. You can format the cartridges in two ways, a generic format offering full compatibility with other machines, or an Atari specific format that can also auto-boot.

Using the R44 means observing a different procedure to normal hard drive use. The cartridge must be out

of the slot when you switch on, and a red LED blinks briefly. When this stops, insert the cartridge, and the drive powers up and goes through a self-test, taking about ten seconds. Only when this stops and the green lamp comes on is it safe to boot your ST. Changing media while your ST is on is similar – push the

eject button until the red lamp stops, then use the lever to eject the cartridge and insert a new one. It sounds complicated, but after one or two tries it becomes second nature.

The R44 is slower than a normal hard drive and much noisier but is

well worth considering if you need to exchange data with other machines.

CLIVE PARKER

■ Analogic supply the R44 with a formatted, auto-booting cartridge, Protar software and cables.



Progate 2 R44

£449.95 including one cartridge Analogic Computers ☎ 081 546 9575

Highs

■ High quality build, and it's supplied ready to use.

Lows

■ Noisy in use, slow to initialise.



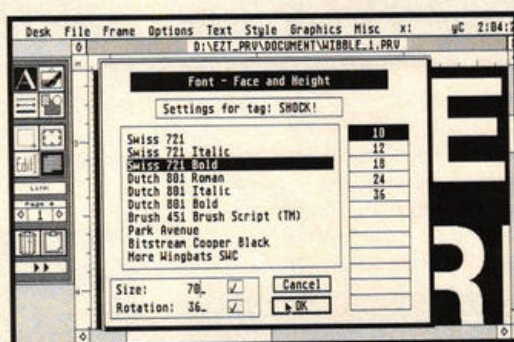
EASY TEXT PROFESSIONAL VECTOR



How does the *Easy Text Professional Vector* compare with its predecessor?

Back in issue 47 we reviewed *Easy Text Professional* – a GDOS frame-based DTP program offering facilities way beyond its price, giving it a *FORMAT* Gold rating of 90%. This latest upgrade dumps the original GDOS bitmapped fonts in favour of the smooth vector ones supplied with the SpeedoGDOS system.

ETP Vector comes on a single floppy with a full ring-bound manual and an easy installation program. SpeedoGDOS is not supplied though, so you need to buy it before you can use the program (Hisoft/AVR £39.95 + 0525 718181). There is one Speedo font supplied, Brush Script 451, an elegant handwriting style



■ The new font style dialog box - you can see the text rotation angle at the bottom of the screen.

face. Installing takes a few minutes, and you're ready to go.

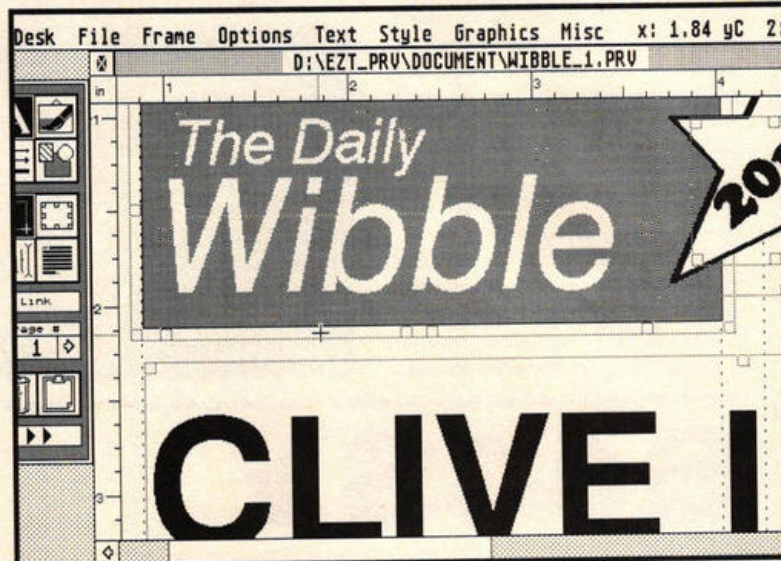
The bulk of *ETP Vector* itself is identical to the original, with only a few changes being made to take full advantage of Speedo's facilities. With the original GDOS, each point size needed separate files on disk, with



■ All those lovely SpeedoGDOS fonts, in whatever size you want them to be.

So what's new with *ETPV*?

- 1 It takes full advantage of the SpeedoGDOS vector font system for excellent printouts.
- 2 Page zoom now has six stages rather than two, for easy close-up work.
- 3 Text can be any point size that you need.
- 4 Text rotation can be used at any angle to create varied and interesting designs.



■ Zoom right into the page and you can see how smooth the fonts are. The top right-hand corner shows how rotated text can be used to emphasise a point.

versions for different resolutions as well as printer fonts. Speedo does away with this, so this version takes up much less disk space, as well as the main feature – text in any point size that takes your fancy from

“You can swivel your writing about at any rotation angle to produce some eye-catching results”

unreadably tiny print to the huge tabloid type headlines.

Another new feature is text rotation. This enables you to swivel your writing about at any angle to produce some eye-catching results, although you can't bend text around curves – it just slopes along whatever angle you choose. Rotation opens up possibilities for much more pleasing designs than before, but like any effect, overusing it can make the page look a bit cluttered.

The original *ETP* had two page views – the working page and a full page view. *Vector* gives you a much more useable zoom function, so you can get right in to the page to align frames perfectly. Because the fonts are vector based, they also look good however close you zoom in.

SpeedoGDOS is a lot more memory hungry than the bitmapped original – *ETP Vector* needs at least

2MBytes to run in, and as with all Speedo applications, it works best from a hard drive. You can run it from a floppy by using a RAMdisk, which zzSoft thoughtfully provide, along with comprehensive details on how to set everything up.

If you already have SpeedoGDOS, *ETP Vector* is the only DTP package to take full advantage of it at such a low price. Even if you have the original *ET Pro*, this is as good a reason as any to buy Speedo – the difference is amazing. And even more reason to buy especially at this price!

FRANK CHARLTON

Easy Text Pro Vector

£39.95 zzSoft
+ 0254 386192
(Upgrades £10 from *ET Pro*,
£25 from *ET Plus*)
ST/Falcon, 2MBytes RAM
and SpeedoGDOS required,
hard drive recommended.

Highs

- Power without the price.
- Excellent printouts.
- Easy to learn and use.
- Makes full use of SpeedoGDOS.

Lows

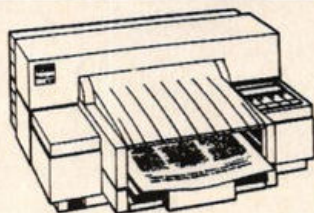
- Slow screen updates.
- Display occasionally messes up.

91%
ST FORMAT
DTP

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New Colour Printer £439+VAT
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Canon Inkjets

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BJ300 360dpi	£329	£387
BJ330 wide carriage	£379	£446
BJC800 fast & colour	£1219	£1433

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Swift 90 9pin Mon	£118	£139
Swift 90 9pin Col	£130	£153
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Swift 200 24pin Col	£172	£202
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Swift 240 24pin Col	£206	£242
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Similar to Deskjet but Epson and
Deskjet compatible
Special Offer £160+VAT
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Stylus 800 360dpi
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compat.
New Piezo Inkjet Epson Printer
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Epson	Exc VAT	Inc VAT
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LX400 9pin Mono	£94	£111
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Stylus 1000 Inkjet A3	£353	£415
EPL5000 6ppm Laser	£439	£516
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Panasonic KXP1123
Probably the best 24pin
mono printer available.
£132+VAT
£154

Panasonic	Exc VAT	Inc VAT
KXP1170 9pin Mono	£95	£112
KXP2180C 9pin Colour	£139	£163
KXP2123C 24pin Colour	£164	£193
KXP2124 24pin printer	£215	£253
KXP4410 5ppm Laser	£442	£519
KXP4430 5ppm Laser	£535	£629
KXP4440 11ppm PS	£825	£970

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	Exc VAT	Inc VAT
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Deskjet 510 mono	£207	£232
Deskjet 550C colour*	£389	£457
Deskjet 310 mono	£169	£199
Colour kit for 310	£30	£35
Deskjet 500C col. replaced by 310		
*550C has Colour & black cartridges resident at the same time.		
Deskjet prices include 3 year warranty		

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Deskjet 310C
300dpi optional colour inkjet printer.
(This printer replaces the 500 Colour)
310 Mono £169 £199
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Prices include 3 years warranty

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Laserjet 4P 4ppm PS2	£737	£866
Laserjet 4ML 4ppm 4M	£755	£887
Laserjet 4MP 4p 6M PS2/£1047	£1230	

Star	Exc VAT	Inc VAT
LC20 Mono 9pin	£101	£118
LC200 Colour 9pin	£153	£179
LC2420 mk2 24pin	£166	£195
LC24100 Mon 24pin	£136	£159
LC24200 Col 24pin	£195	£229
LC24-30 Col 24pin	£187	£219
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True Mouse	14.90
Mouse/Joystick Autoswitch	12.95

Ataris

Falcon

16MHz 32bit CPU, 1.44M floppy, 1-14Mram, 8 channel sound	
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4Mram 64Mb Hd	£779
4Mram 127Mb Hd	£879
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with STARTER PACK software	
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1040STE 1M ram	£199
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Phone to check stocks	

Above 520's are supplied with
STARTER PACK Software:
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GAMES: Missile Command, Crystal
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0.5M ram 1M Disk
(FM only model) **£139**

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4M Simm ram upgrade	200.00
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14" Stereo Colour Mon. 240V UK.
0.42mm. Medium Resolution
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with cable without cable
Add £6 for Amiga / ST game

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stereo sound **£59**

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1M external floppy. High quality build.
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1ST Basic, NEOchrome, ST Tour,
+ 4 GAMES: Sim City, 9 Lives, Final
Fight, Robot Monsters
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RAVE

Party on down with this knee-trembler of a budget sequencer from Digital Muse

At last, a budget sequencer that's aimed at the home entertainment market as well as the more serious user. With an surprisingly low price tag you've just got to check out *Rave*, the new sequencer from Digital Muse.

When it's loaded, *Rave* completely overwrites GEM and installs its own operating system, this is possible because the program is written entirely in machine code. The downside to this is that there is no way to use any Accessories which you may have loaded, you also have to put up with *Rave's* own file selection system. We found the program to have an unexpected sluggish feel to it. The mouse pointer movements were jerky and key presses took a fraction of a second to register. This, we are reliably informed, is because the majority

of the processor time is given over to guaranteeing MIDI accuracy.

Using the Left and Right position marker system it's simple to build up sequences using this program. The Section Edit page makes copying large chunks of data completely painless. If, as the name of the program suggests, you are into rave music and you work in set bar blocks *Rave* is ideal. Simply record your blocks one after another and then copy or move them to the locations you desire. You can make some great 12 inch mixes using this method.

Rave is presented in a great big colourful box with a tiny little manual and disk. Even though the manual is little more than a leaflet (30 pages) it does manage to tell you clearly how to use the program. If you're not keen on long technical descriptions



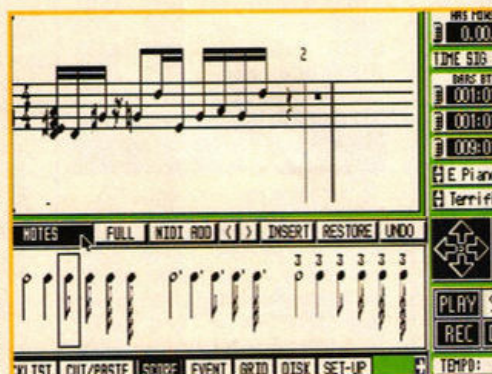
The file selection system in *Rave* leaves a lot to be desired - while you can have long file names, many of the operations are fiddly and feel clumsy.

you may be surprised how easy it is to get started with this program.

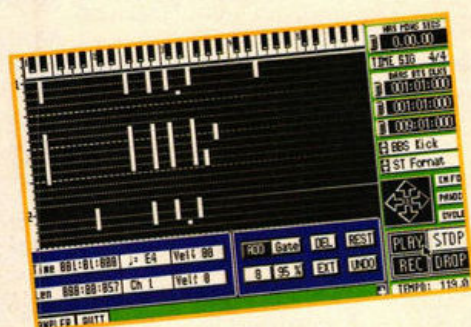
Verdict

Rave is a competent sequencer with many features you would only expect to see on more expensive packages. It's easy to use and the sample playback system works well. However, the lack of contact with GEM is annoying and the built-in file selector is far too clumsy. You certainly get excellent value for money if you buy this package but after six months or so you may well be looking for something to upgrade to.

ANDY CURTIS



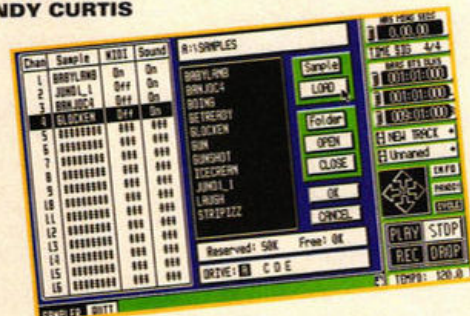
Score Edit is a feature usually associated with more expensive sequencers. *Rave* even enables you to print out the scores on any Epson compatible printer.



The grid Edit page looks very much like an old-fashioned pianola roll - it works the same way too. When the notes hit the keyboard you hear them. Once you get the hang of it, this becomes a very useful page.



If you're looking for a cheap sequencer that's a piece of cake to use yet is packed with yummy features, you could do a lot worse than *Rave*. Although you can only see 16 tracks here, there are up to 32 available as you scroll down this list.



With *Rave* you can load in as many samples as you want, as long as you have enough free memory. The only snag is that you can only play one back at a time.

WHAT'S IN THE BOX?

EVENT EDIT - A comprehensive list of MIDI events scrolls by as you run the sequencer. Simply stop it at any time or scroll through without the sequencer playing and edit any event. Remember that MIDI events are not just notes, they include Sustain Pedal, Volume, Aftertouch and Pitch wheel changes.

GRID EDIT - Here your music scrolls vertically past you until it hits a virtual piano keyboard at which point the notes are played. It's a bit like a pianola roll to look at. Simply click on a note to edit its length, velocity or start position.

SAMPLE PAGE - *Rave* handles standard mono samples in .AVR format.

You can load in as many samples as you like, limited only by the available memory of your ST. The snag with *Rave* is that there is only one sample sound channel that's active which means that you can only play one sample at any one time.

SCORE EDIT - Not only can you see each track displayed here whenever you want but you can also edit and insert notes and rests. If you're used to looking at conventional score notation this page is definitely a great help to you.

SECTION EDIT - Global operations can be done here to tracks or groups of tracks. First set up the left and right markers and then select the

operation you wish to perform; COPY, WIPE INSIDE, WIPE, OUTSIDE or MOVE.

TRACKLIST - This is the most frequently used function in *Rave*. Here you can view all 32 tracks at the rate of 16 at a time.

There are the usual bar-graph style MIDI activity indicators and the song position is displayed in minutes and seconds as well as bars and beats. Other parameters can be assigned individually to each track such as Volume, MIDI program number and loop point. There is also a handy little button which sends the note A440 out on all MIDI channels so that you can tune all your synths at the same time.

Rave

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All STs, medium resolution 1MByte recommended

Highs

- Excellent value for money.
- Simple to use.
- Runs on any ST.

Lows

- Only runs in medium res.
- No access to GEM.
- Only one sample playable at a time.

What else?

- *Midistudio Master* is a bargain at £9.95 from Ladbroke Computing International (☎ 0772 203166).



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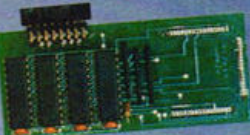
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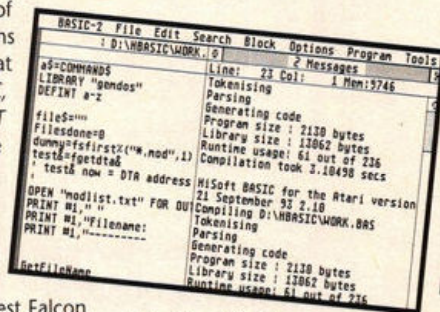
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HISOFT BASIC 2.10

Programming languages come and go and this version of BASIC has just hit the streets – you can even develop programs on your Falcon

There's a long line of programming systems for the ST, starting at the original PowerBASIC, through the cut-down FirST Basic bundled with some STs, up to the present day. Hisoft Basic is touted as the only BASIC still written and supported in the UK and has been updated to enable you to access the latest Falcon hardware and operating systems like MultiTOS and MiNT.

It uses the standard Hisoft multi-windowed editor, as used with Lattice C 5 and Devpac 3. The editor makes full use of GEM, and enables you to have multiple documents in memory. Switching between windows is simple, and you can cut and paste sections between windows with the mouse. You can also set the editor to convert all command words to upper case, and to automatically indent sub-routines and functions to give you a clean looking listing. Files are saved as straight ASCII text, and



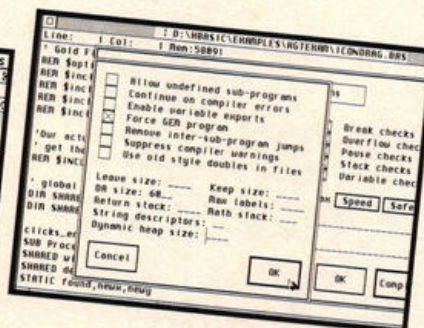
■ The Hisoft Editor enables you to have multiple windows - here we have the listing on the left, with the compiler's message window in the centre.

you can use your favourite text editor if you like, as a separate .TTP version of the compiler is provided.

Basic v2 is a compiler rather than an interpreter, and it converts the entire program to machine code before it runs it. Every possible option is catered for here, from Desk Accessory memory allocation to TT/ST RAM parameters. You can compile and run the program right away, or save to disk as a full-blown application.

Extra options in the new version also enable you to access the Dynamic Heap, making for smooth running MultiTOS-friendly programs. The snag with a compiler like this is speed – change one line in your listing and you have to re-compile it. Hisoft have helped by

■ Our first GEM program, produced in half an hour with the tutorial, WERCS and the HGT.



■ The compiler's advanced options page, including the MultiTOS Dynamic Heap.

giving you the chance to include pre-written routines at compilation time without having loaded them into the editor – good practice, as it teaches you the value of structured modular programming – you can re-use tried and tested bits of code over again. You can also dump the compiled file

“Every possible option is catered for here, from Desk Accessory memory allocation to TT/ST RAM parameters”

to disk as “tokens” – sort of half-compiled programs – to include in your finished work, and this speeds up compilation a lot. Basic v2 can link object code produced with Lattice C 5 and Devpac 3, providing a fully integrated development environment.

The program is heavily library-based. A library is a disk file containing pre-compiled functions for you to use in your own work. Libraries are provided for accessing low-level functions like the BIOS and XBIOS routines without the hard work. All you do is declare at the start of your code that you're using a library, and then use the instructions as shown in the manual. You can also get extras so you can use STE, TT and Falcon specific functions.

The brilliant GEM Toolbox makes writing GEM applications much easier than before. Hisoft have written sub-routines and functions for

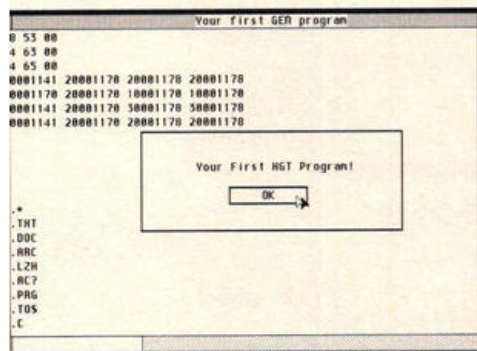
■ The compiler options page, where you can specify just how you want the finished program to behave.

you to access difficult parts of GEM, like using windows, resource files and the mouse, without the advanced knowledge you always needed before. If you've been intimidated by GEM, this is for you! Everything is fully documented, and you can have your own GEM programs running in a quarter of the time.

Brilliant for all

If you're new to programming your ST, Hisoft Basic 2 can guide you from the simplest principles, and the power available is there as you progress. If you're a seasoned programmer who wants to create programs to take full advantage of every Atari platform without going right into the hardware, this is an absolute corker, and the easiest way to get into serious programming with strong future compatibility.

FRANK CHARLTON



All that documentation

Hisoft Basic comes in a huge box with three manuals. A thin manual covers the latest additions like using form windows (dialog boxes inside windows) under MultiTOS. The remaining two are hefty ringbound tomes – The User's Guide explains the system from the ground up, including excellent chapters on using the Editor and the basics of programming.

The tutorials provided are backed up with disk examples, and are explained simply – you can actu-

ally learn something by following these, even if you're not a total novice. The Technical Reference Manual gives a complete explanation of every command, and provides a full section for each one of the supplied libraries. Both manuals are excellent – up to the usual Hisoft standard – and they're well indexed. The program comes on three disks, and a custom installation program creates your working copy on floppy or hard drive.

Hisoft Basic 2.10

£99.95 Hisoft/AVR

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(Upgrades from Hisoft Basic 1 – £24.95)

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Highs

- Makes GEM programming easy.
- Produces fast and compact stand-alone programs.
- Excellent documentation and support.
- Falcon, MiNT, MultiTOS and SpeedoGDS libraries provided.

Lows

- Compiling large programs can be slow.
- Complex for complete beginners.

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GETTING INTO THE MUSIC MATRIX



Last month we gave you the wondrous **KCS Omega** on our Cover Disk. Chas Stoddard shows you some more things it can do

One of the continuing joys of using *Omega* is the sheer flexibility of the system. Having said that, the large number of choices that *Omega* presents you with can be intimidating if you don't know what you're doing. All you have to do, though, is to be as methodical as you can –

because *Omega* enables you to get up to all sorts of mischief, it is possible to get yourself into a tight corner although never irretrievably so, as you can always take things apart again fairly easily.

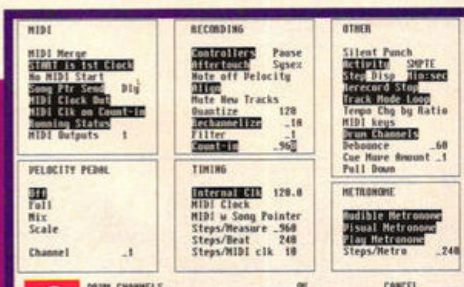
As with all things, a little forward planning can save you lots of time so here are a few things to do

when starting to record. If you're working on a song, if you have an overall idea of the structure you can set cue points in advance so you can focus on different sections of the piece. Take a look at the box-out below; this shows the initial stages of recording with Track Mode. Of course, every musical sit-

uation is different so you might need to change things to suit you. One important consideration is tempo; *Omega* responds to the tempo setting in the Environment page but there may be situations when you need to speed up and slow down. Track 1 is the conductor track and can only contain TM (tempo) events, SM (time signature) events and a few other things like Song Select. If any music data is here, *Omega* politely moves it for you to a spare track.

It is always advisable to place your opening tempo value as the

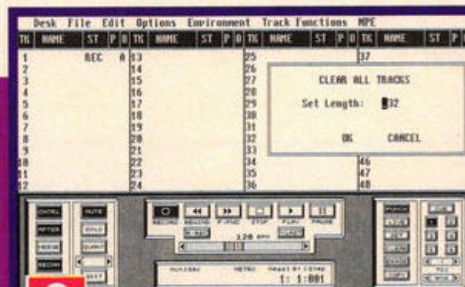
A BRIEF TOUR – WAYS TO GET YOU STARTED



1

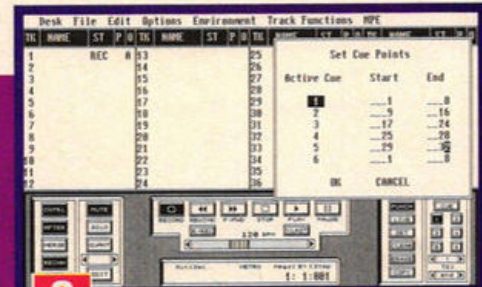
This is the Environment page. This page enables you to carry out the most important settings in *Omega*, such as your current MIDI setup, Velocity, Timing and Metronome.

You should always check your setup before you start recording. Setting up your Environment page like this is a good start and is suitable for most purposes.



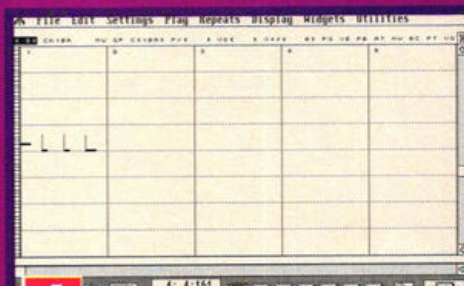
2

Setting Track Mode to start recording. Although you can start recording straight away, having some idea of the overall length of the piece can make things easier to deal with. The "Clear All Tracks" dialog box is used to bring up this box - choose a length to suit you; generally it's worth setting this beyond where the piece ends - you can alter this at any time.



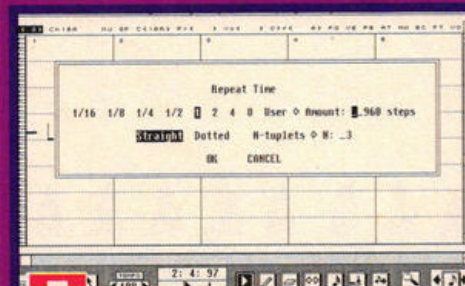
3

You generally want to record and overdub material in sections. By setting basic cue points, you can jump from point to point. Although these cue points are set on points of "musical" interest, you might like to try setting the start point back a bar to give yourself a chance to get to the keyboard and start recording - I usually find that a one bar lead-in is sufficient.



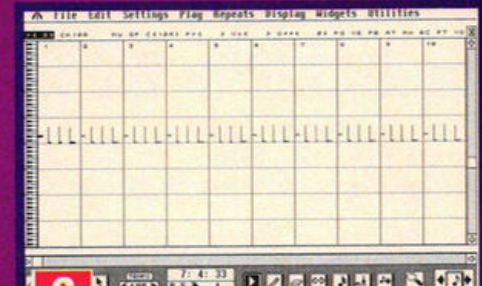
4

While you are using the monitor's speaker for the metronome, you might prefer to set up an actual metronome track which performs in the same way as any other track. The easiest way to make your metronome is to record a one bar drum pattern and then go to Tiger - this is the sort of thing you get to see.



5

By using the Repeats function, you can rapidly create the rest of the track. First click on "Select All" from the Widgets - this selects all the notes for editing. Go to Repeats, select Repeat Time and click on "1" and, unless you're using dotted or triplet figuration in your pattern, make sure that "Straight" is highlighted.



6

Again under Repeats, you can find the Copy Right and Fill functions: Copy Right makes one copy at the Repeat Time immediately to the right of your selected notes and Fill, er, fills your one-bar pattern all the way to the end - and there you have your very own instant metronome! What more could you ask for? Turn the page for the next steps...



very first event of Track 1 – this is vital if you plan on using other tempo events later in the piece or need to synchronise to SMPTE or MTC; you can draw it in Tiger or type it into the track. Not surprisingly, tempo events can be drawn and modified in Tiger in exactly the same way as any other controller; this is a very effective way of controlling accelerandos and decelerandos, especially since you can do it in real time – just set up a loop that surrounds the area you want to affect, draw in a curve and adjust it while you listen.

The possibilities for control in Open Mode are enormous and we'd probably fill most of this magazine just describing them – not a good idea! To get you going, there is a couple of example files on this month's Cover Disk.

KARMA.ALL uses a simple series of arpeggiating figures that are played one after the other, along with the bass and melody. Look at sequences 1 and I in the box below and notice how, in Sequence 1

"You can set cue points in advance so you can focus on the different sections of the piece"

which is the one you should play by pressing "1" on the main keyboard, sequences L, I, J and K are started at the same time. Sequence L sets up program and volume changes, Sequence I is itself

another Control Sequence which handles the arpeggiating bits, the bass and melody are played by Sequences J and K. Not all the sequences are used so you could even attempt to create your own version by entering a selection of different sequence numbers in a spare sequence.

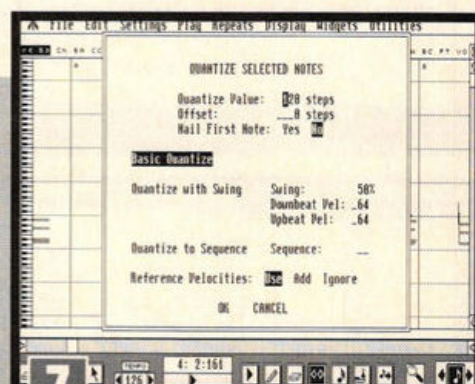
A more advanced application for Control Sequences is shown in the file RANDRUM.ALL. This sounds like a straightforward eight-bar drum pattern but you may notice after you've played it through a few times that it's not playing exactly the same thing. Start it off by pressing "G" and watch Omega select sequences at random. Describing how it works in detail would be incredibly complex, so take a look at Sequence 4. You can see three groups of sequences

separated by RA events. These RA events choose one of the specified sequences and then jumps to the next point in the data, which, in this case, happens to be another RA event.

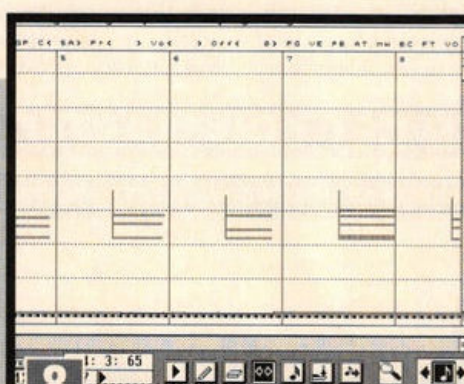
In the first group of six events, notice that Sequence 6 appears three times thus giving this a three in six, or one in two chance of being played; this enables you to control the probability of a sequence playing.

Finally, bear in mind that Omega was designed as a general-purpose system and as such, the level of control is considerable. Though it may look daunting, it makes you look a lot harder at how you write music. Once you're familiar with Omega, you're going to wonder how you ever got along without it! **stf**

MOVING A LITTLE FURTHER THROUGH KCS OMEGA'S SCREENS THESE

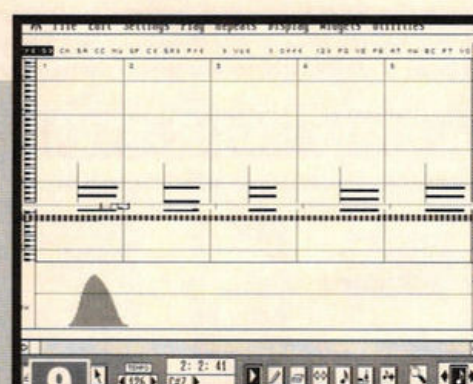


7 Quantising is something you do at one time or another and Omega gives you several ways to do this. The quantising options of KCS are both destructive and fairly simple - Tiger has some other options which are more useful. This picture shows a basic quantise in action but other options include "swing" quantise and the ability to use another sequence as a reference.

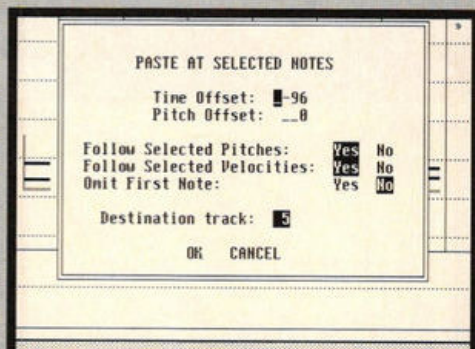


8 The result of our quantise operation. Of course, you don't have to quantise all the material in a track; by selecting only those notes that need it, you can keep something of the original feel.

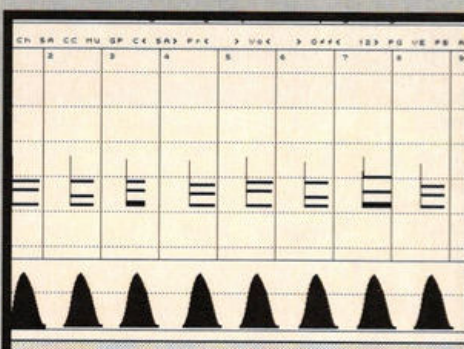
This can be important if you want your music to sound natural, almost as though you're building in slight timing errors to create a natural human-sounding performance.



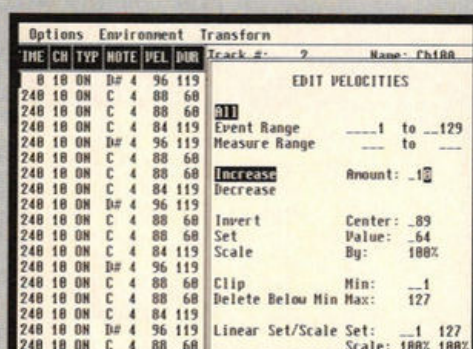
9 There are lots of ways to cut and paste. KCS is better at handling large chunks of data and is more suited to arranging sections in the right order. Tiger has some interesting ways which can often be more musical. In this example, we are adding some mod wheel to a string pad. The first curve has been drawn by hand and then copied into the paste buffer.



10 By selecting one note from chord, the "Paste At Selected" option can be used to place copies of the buffer at every selected note. Notice that we're placing the curve slightly before the note by using the Time Offset field. If we were doing this with notes, other options can be brought in to alter the velocity and pitch of the pasted notes.



11 Here you can see our little mod wheel curve now nestling in the track. It's definitely a good idea to experiment with pasting notes using this tool, adding chords to a melody part can be a fun process to engage in. If you want even more fun and excitement you could take your bucket and spade to the seaside on a winter weekend.



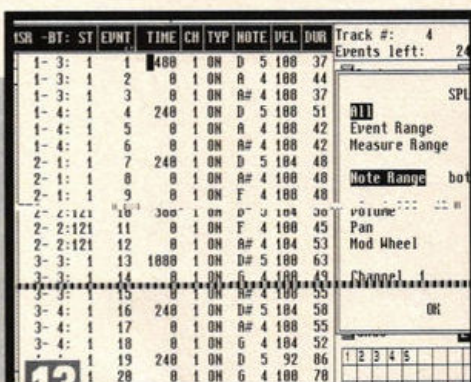
12 Tiger is best suited to working on smallish areas of data. Global adjustments, as this picture demonstrates, are best accomplished in KCS. Here, we're using the Velocity option from the Transform menu to bump up all the velocities of this track. Notice the large number of options apart from a straight linear manipulation.

CONTROL EVENTS

Omega has the unique ability to control music playback using Control Events. Open Mode is generally used for building larger structures from those that have been created in Track Mode. Control Events can be written into a spare sequence which can then be used to trigger off other sequences or modify their characteristics. Each sequence is assigned to either a single key from the main keyboard or a two digit code on the numeric keypad. You can play these from your ST's console, if you desire, and turn Omega into an improvising and performing tool. Here's a brief description of the control events

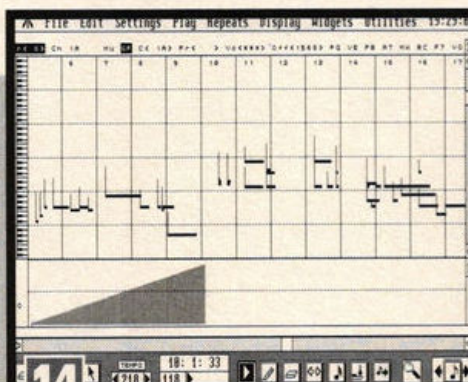
AC	Accelerando – relative to current TM value.	SM	Steps per measure – MIDI-speak for the time signature.
CU	Wait until cue – specified in minutes, seconds and tenths of a second	ST	Sequence start – can also define a pitch transposition and number of times to play
DC	Decellerando – relative to current TM value	TM	Tempo value – absolute
DE	"Deleted" event – a rest!	US	Unmute sequence
MS	Mute sequence	VT	Transpose sequence velocity
PT	Transpose sequence pitch	XL	Sequence stop at end of loop
RA	Random event – given a value which is used to one event to play from the list.	XX	Sequence stop – used to stop specific sequence, all sequences occurring on a particular MIDI channel or all sequences

ARE THE SORT OF THINGS YOU MIGHT SEE...



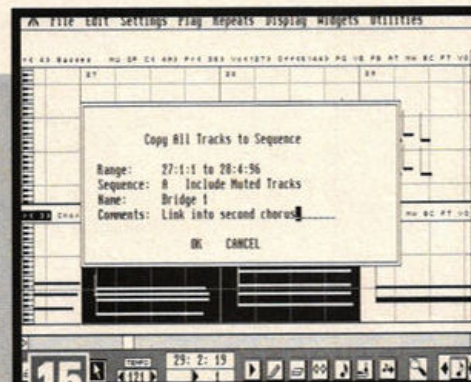
13

The ability to extract elements of a track to a new one can be very useful. The Split option is just the ticket for these circumstances. All sorts of different types of data can be split out in one operation, handy for moving controller data together. You should also take a look at Tiger's Split option; this is best used for orchestrating a series of chords out onto different tracks.



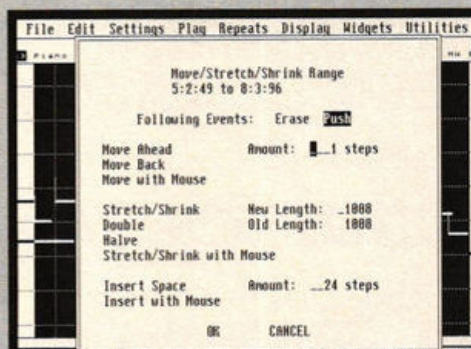
14

Another one of Tiger's little tricks; getting a straight ramp on a controller is tricky to do freehand. In this example, a volume event has been drawn in at 0 at the left hand end of the controller's window. The mouse is then placed at the point where the curve has to end; click on the left mouse button with the <Control> key held down and Tiger fills in the rest.



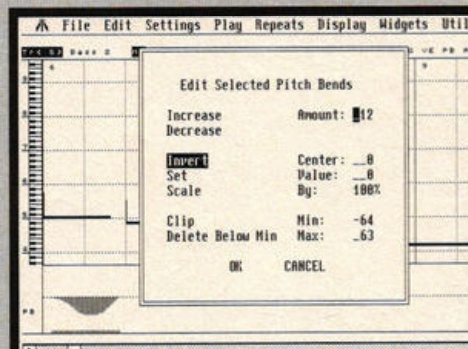
15

Tiger being used to copy a range from Track Mode. The range has been selected with Quantise Range Borders on; if you want to copy something which is not aligned on the beat boundary, turn this function off. With any section that is currently looping, pressing <C> on the numeric keypad creates a range instantly. This is a quick way of extracting material for use in Open Mode.



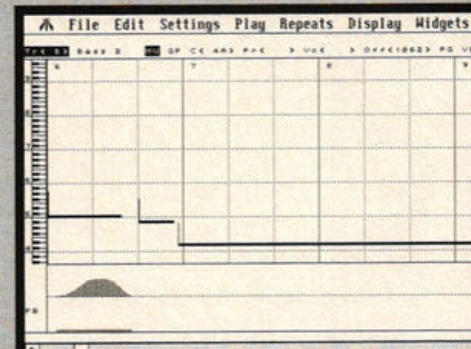
16

The Move function of Tiger is very powerful. You can lift a range and everything in it and place it elsewhere in the track, stretch it out or shrink it. Using the real-time mouse locator, the time at the end of the range is shown in the mouse box at the bottom of the screen; judicious use of this enables you to fit music to specific times.



17

A demonstration of one of the tools for pitch bends; a simple inversion is in progress. Inversion is an extremely useful tool, great for you if you're writing fugues. In general, any musical data can be manipulated this way. Remember to select controller curves by "drawing" over the curve with the left <Shift>.



18

Here you can see that our pitch bend is inverted. There are so many things you can do with KCS Omega that even if you never thought you were musical you might be pleasantly surprised by your now exposed talents. You certainly haven't got any excuse for not trying it out, so load up that disk now. Or don't. The choice is yours.

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- D.367 EXTREME RAGE: Sinecurves, Shadowbos, etc, from Anatomica of Sweden (1Mb STE).
- 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).
- D.360 DREAMZONE: Mega-demo from the Wild Boys (2 disks £3.00).
- D.324 CROSSBONES: STE demo (also known as RED SECTOR DEMO).
- D.287 HARDCORE DANCEFLOOR: Sampled house music by the Wild Boys. D/S.
- D.323 SLAM- HARDCORE DANCEFLOOR II - More house music from the Wild Boys.

MUSIC

- S.145 OPTRONIX MUZAK: Music player that rips tunes from demos.
- S. 4 YAMAHA PSS: Patch editor and facility to print tablature music.
- S. 8 NOISETRACKER: Soundtracker .MOD player with eight starter tunes.
- S. 73 BAD STARS SAMPLES: #1: Over 80 .SPL samples for use with Noisetracker.
- S. 93 HIGH FIDELITY DREAMS: 8 super pieces of music from Auro.
- S. 87 IMAGE FACTORY DIGI-SYNTH 1: Ripped Amiga mods with 'Lemmings' menu.
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- S. 3 ACCOMPANIST: 16 voice Henry Cosh sequencer (full instructions on disk).
- S. 19 ALCHIMIE JR: Impressive Swiss multi-window, multi-task sequencer. (1Mb).

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- U. 65 HARD DISK UTILS: 24 handy programs for hard disk users.
- U. 62 MENU-HACKER: Replace a picture in almost any menu/demo/game/intro.
- U. 60 ST TOOLS: An exhaustive collection of Atari ST utilities.
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- U. 53 TERADESK (1Mb): Replacement Desktop for the ST/STE.
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- U. 34 SAGROTAN: Super virus killer to protect your disk collection D/S.
- U. 52 VALT & TURTLE: Hard disk back-up utilities.

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- A. 88 3D PICS: Apparently random coloured dots become 3D images when stared at.
- A. 81 PDV RAYTRACE: Create stunning, graphical masterpieces (2 disks/£3.00).
- A. 79 FRACTAL ENGINE 2: Multi-functional fractal image generator.
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- A. 75 POLYFILM by Martin Brownlow: Make films from multiple 3D polygon objects.
- A. 70 COMIC BOOK HEROES: 22 Neo pictures of your favourite superheroes.
- A. 62 ART OF DUNGEONS & DRAGONS: Superb collection of pics from Dragonance. D/S.
- A. 1 ANI ST: Commercial quality animation program (once cost £60.00 to buy!).
- A. 30 FULL SCREEN: Display your pictures in stunning full screen format! 1Mb D/S.

PROGRAMMING

- P. 44 GFA BASIC V.2: Full version of popular language with extensive tutorial. (NB This disk is not PD - LAPD have permission to distribute it).
- L. 46 STOS GRAPHIC ADVENTURE CREATOR: make your own point & click games (£3.00).
- L. 62 STOS PAINT: Draw and alter pictures from inside STOS (£2.50).
- P. 37 HEAT 'N' SERVE SOZOBON: A friendlier sort of Sozobon. D/S.
- P. 24 MENU-MAKER: A French program that allows you to make your own menus with music, sprite and scrolling message. Excellent. D/S.
- P. 33 ZX SPECTRUM EMULATOR: Emulate the old Speccy on your ST/STE. (1Mb).
- P. 17 68000 PROGRAMMING COURSE: 10 'How to do it' document files. S/S.
- P. 19 GFA EXPERT: Massive text file and help routines for GFA-Basic 3.0. D/S.
- P. 18 STOS TUTORIAL: Helps make clear some of the STOS commands.

MISCELLANEOUS

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- M.148 INVOICE MASTER: Invoicing system for small businesses.
- M.154 RUNES: Mystical interpretation of the stones.
- M.153 WORLD WAR II: Home front study pack for Sec. school work (2 disks/£3.00).
- M.143 PONDS & WATERGARDENS: A 'how-to-do-it' instruction disk.
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- L. 17 ADDRESS BOOK: Neat database for storing, sorting etc (£2.50).

COMMUNICATIONS

- C. 22 TEDDY TERM: A superb multi-function communications program.
- C. 7 VANTERM V.4: Excellent multi-function comms program.

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- L. 12 MATHS FUN: Maths for children 4 to 7 years. (£2.95).
- L. 37 SUPER FUN: Excellent teaching educational program for youngsters (£2.50).
- L. 20 SUPER SPELL: Teaching program for 4 to 9 year olds by Lexisoft (£2.50).

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Full range of BUDGIE U.K. software available including the following:

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- BU.113 FOOTBALL TACTICIAN: 1st Div. football game for up to 24 users! (£2.75) (Money back offer if you upgrade to the full version!)
- BU.112 GO-MOKU: Ancient Japanese board game against computer or friend. (£2.75).
- BU.111 INTERNATIONAL CRICKET II: Animated 3D game. (1Mb) (£2.75).
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- PRO. 1 ELECTRONIC BANK STATEMENT: Computerise your accounts! (£2.75).
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- BU. 70 PACMAN ST: The definitive version by Robert Leong. (£2.75).

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- Last quarter L.A.P.D. paid out almost £650.00 to its Licenceware authors. If you've written any good software get in touch and you could have a share next time!
- L. 64 STORM: Aliens meet Gauntlet shoot 'em up arcade blast. A must have! (1Mb STE £3.00) (order L72 1MbSTFM version)
- L. 69 BIO-HAZARD: Full version of the sci-fi 'Dungeonmaster' clone (1Mb £3.00).
- L. 67 LOGIC PROBLEMS III: 11 more brain-buzzing problems from Ben Weston (£3.00).
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- B.54 CENTPEDE: Good arcade conversion.
- B.53 LASERBALL: Laser reflection puzzle game
- B.51 COLOSSAL CAVE: The original adventure
- B.44 FLY ROBIN: Cute shoot 'em up game
- B.39 ASTEROIDS: A loving restoration
- B.20 HACMAN: Pacman action
- B.36 8 BALL POOL: Bar game simulation.

PROTECT YOUR DISK COLLECTION

If a virus gets free in your disk collection it can do irreparable damage in a very short time. Don't let it happen to you. Protect yourself with Mike Mee's Professional Virus Killer for just £6.95. The program identifies 529 different types of virus and bootsectors and could save you a lot of heartache if it traps that virus before it breaks free.

TEACH YOURSELF MACHINE CODE

Learn to program like the professionals with ZZ Soft's book and companion disk 'INTRODUCING ATARI ST MACHINE CODE'. Be led, step by step, into the secrets of programming the ST in its native 68000 assembly language. All you need to get started right away. £19.95

AUTHORS

L.A.P.D. are always on the look-out for new material to be included in their comprehensive catalogue of P.D. shareware and licenceware titles for the ST and Falcon. If you have produced anything that you consider worthy of release either as P.D., shareware or licenceware then get in touch to discuss it with us. We can guarantee you worldwide exposure for your program if it makes the grade.

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Please state if you have a Falcon



ST ANSWERS

All the latest hints and tips from
ST FORMAT's unmatched team of experts

Window memory?

HARDWARE Here's a weird one for you to puzzle over. I have both TOS 2.06 and 1.62 installed on my STE and I

have encountered a very odd problem. When booting up using TOS 2.06, it seems that I can't boot up using the new version of TOS because of a memory problem.

When I boot my system in TOS 2.06 everything seems to be OK, the hard drive initialises, my welcome screen appears (I use Superboot 8.1), I can choose my Auto folder programs and Desk Accessories and they all load into memory without any problems. Then I get an alert box that says "Unable to allocate window memory" with just an OK button to click on. Clicking on OK takes me to the Desktop, but there are no Desktop Icons and I can't

A The solution is quite simple, Drive C on your hard drive is full. TOS 2.06 sets up a temporary work area on hard drives for house-keeping purposes, if the hard drive is full you get exactly the problems that you have described.

The best way to cure the problem is to copy folders that you rarely use to another drive partition or delete any Auto folder programs and Desk Accessories that you don't need or use very often.

TOS 2.06 TOP TIPS

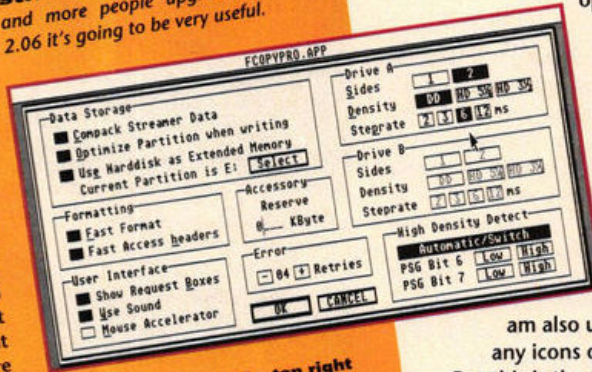
Are you having trouble formatting disks using TOS 2.06 in your STFM or STE? Are you getting odd messages like "Fundamental Error" or "The drive head has not reached track zero" when you format a disk? This is because your drive steprate is wrong, you need to change the steprate from the default 3ms (milliseconds) to 6ms.

I have found two ways to do this with the software I use. The Superboot system startup manager enables you to set the system steprate from the Superboot Configuration Set program, simply click on the option and save the setup. When the system boots the steprate is set to 6ms. The other method is built into Fastcopy Professional, the More Options screen enables you to set the steprate by clicking on a button. Once you have changed the steprate use the Save Config option from the main screen and Fastcopy Professional

always uses the new steprate when formatting a disk.

Kris Brunt, Bristol

stf: Thanks for that tip, with more and more people upgrading to TOS 2.06 it's going to be very useful.



■ The option box in the top right corner of the More Options menu enables you to customise Fastcopy Professional for use with TOS 2.06.

open a drive or partition window using <Alternate> and a drive letter. I get a message that says "GEM doesn't have any more windows available." I

am also unable to install any icons on the Desktop.

But this is the really weird bit. If I switch to TOS 1.62 and re-boot my STE everything works perfectly OK. What's going on, do I have faulty TOS 2.06 ROMs?

Damon Lillis, Avon

What's fastest?

SOFTWARE Can you tell me if there is a speed difference between the internal IDE drive and an external SCSI drive for my Falcon. If there is a difference, is it big enough to warrant buying a Falcon without an internal drive and buying an external SCSI instead?

Ashley Waite, Bristol

A It depends what you intend using your Falcon for. External SCSI drives have a faster data transfer rate than the internal IDE drive, this makes them ideal for direct to hard drive recording applications that need to move large chunks of sample data at high speeds. The internal IDE drive is fast enough for all other applications you are likely to use on a Falcon. It all comes down to price, if you can buy a Falcon and 200MByte SCSI drive for less than a Falcon with internal 200MByte IDE drive then you know what to do. Almost all retailers are offering large internal drives for the Falcon, take a look through the ads in this issue for the best buy.

Disks don't work

DISKS Yet again both of my Cover Disks don't work, I have this problem very frequently and I believe that it has something to do with TOS. Please can you help me?

M Brown, Kent

A We have checked the disks that you enclosed and there is nothing wrong with them at all. A different version of TOS doesn't affect the reading of disks, it's more likely that you have a faulty disk drive

MUSIC AND MIDI

The music master, Andy Curtis, answers all of your music questions

Universal exports

I can't install the 16+ Cartridge into my Cubase setup. The output options still don't include "XPORT 1."

Geraldine Asher-Jones, Macclesfield

stf: Plug the cartridge into the serial (modem) port on your ST and attach a MIDI cable to it leading to a synth or sound module. Locate the "MROS" folder on your Cubase disk or hard drive partition. You need a recent version of MROS to use the cartridge, v3.33 does the job. Depending on the version of Cubase you are running you need to activate one or more drivers here. Activate the "EXPORT.DR" and the "UNITOR.DR" files by changing the suffix on these files to ".DRV" instead of ".DR". If you have done this and when you boot Cubase there is still no sign of the Xport drivers try saving all the default files including "DEF.SET", "DEF.ARR" and "DEF.SNG." When you re-boot you should find that the drivers are now available. If you follow each step very carefully you should have 16 extra channels of MIDI in no time at all.

Quartet conversion

I use Quartet but my friends say that they can't hear the music because it has to be a MOD. I don't know what a

MOD is or how make my Quartet pieces into one. Do you know how I can do this?

Adrian Schofield, Oldham

stf: A .MOD file is a different file format for sampled music and drums but it's more widely used on various computer formats than the Quartet file format. Quartet files are completely different from .MOD files and the attempts that were made to write a conversion program were, we understand, largely unsuccessful. If your friends have STs then there are many player programs in the PD so they can hear your masterpieces.

For details of MOD file players, get in touch with a PD library. See the ST FORMAT PD Directory on page 61.

The bigger, the better

I am considering buying Cubase Audio to use with my Falcon. Can I use a straight 4MByte RAM, 65MByte IDE hard drive to run Cubase effectively?

Andrew Keylock, Lancs

stf: You can use Cubase Audio with the base model Falcon but the lack of memory prevents some of the sound effect functions from working. You really need 16MBytes of RAM in your Falcon for the best results. You can use the internal IDE drive but a large external SCSI drive is recommended.

rather than faulty disks. Take your ST to a local computer repair shop and they can check it for you and make sure that everything is OK with your disk drive.

The other possibility is that you have a single-sided disk drive and you can't read our double-sided Cover Disks. You can get an official Atari replacement disk drive from Power Computing (☎ 0234 843388) for £45, the part number is PC720 01.

Remember, if you have faulty Cover Disks please don't send them to our Bath address because we don't have spare disks here to send out to you. Please send faulty disks to the returns address printed in the Cover Disk pages.

Linking STs and PCs

HARDWARE I use a Mega STE and a PC and I want to transfer files between the two machines, mainly scanned images and text files. What's the best way to do this? I could use a serial link and the built-in comms software in Windows, but what comms software do I need for the Mega STE? My Mega STE's hard drive has a through SCSI port, can I connect this to my PC and use the same drive with both machines?

Christian Payne, Plymouth

A If the files you wish to transfer are less than 1.44MBytes in

size then there is no need to link between the two machines at all. You can copy the files to high density PC disks and use them to transfer the data, if you format a HD disk from the Desktop of the Mega STE it is, in effect, a PC disk anyway. Both your PC and your Mega STE can load and save data to the HD disk.

You cannot link your PC and Mega STE to the hard drive in the way you suggest because PC and ST hard drive formats are not compatible.

High hopes

FALCON Is it possible to link a Falcon, a video camera, microphone and modem with existing software to enable video conferencing as implied by the Atari "If you understand this" adverts. A Telecom video conferencing setup costs about £30,000.

Justin Ward, Surrey

A There is nothing available for the Falcon that can perform this function, adding a comms option into something like VideoMaster is feasible but unlikely to be developed. Getting BT certification for devices to be connected to the phone system isn't a simple process.

Video images contain a lot of data to be transmitted, even BT's own video phones only send video at a meagre six frames per second.

IDE drives and the ST

HARD DRIVES In issue 52 you told Richard Kennedy that it is impossible to use IDE drives with the ST. In fact, you can use IDE drives if you get an upgrade board from Germany. Hard and Soft sell the "AT BUS TOS Card 2.06" which enables any ST to drive up to eight SCSI, eight SCSI and two IDE hard drives and also includes a TOS 2.06 upgrade and SCSI Tools Junior software.

If you have any queries then you can contact Hard and Soft at the following address: Hard and Soft Computerzubehör GmbH, Obere Münsterstr. 33-35, 4620 Castrop-Rauxel, Germany.

Helmut Heider, Austria

A Thanks for that information Helmut, now everyone knows about it. If you've got any tips or interesting bits of information, write to us at ST FORMAT at the address on page 55.

Speaking clock

SOFTWARE When I try to use the Speaking Clock program from Cover Disk 51 the time is always wrong. I set the time using the Control Panel on my Language Disk, put my Speaking Clock disk in the drive and reset my ST. When I select the clock from the Desk menu it always says 12 o'clock! What am I doing wrong?

Steve Pike, Norwich



A You could soon be in conference with your business partners using Falcons, Video Master and a modem. Then again, you may not be.

ASSEMBLY POINTERS

Sort out your programs with the help of Tony Wagstaff

Desktop information

Is it possible to obtain information about the Desktop configuration without reading the NEWDESK.INF file directly?

Andrew Wright, Luton

stf: The information in the DESKTOP.INF, as well as the NEWDESK.INF files on later machines, is stored in the AES shell buffer which can be copied to your own buffer using the AES shell_get call.

Time out

Could you explain how to convert the value returned by the XBIOS Gettime call into a readable format.

R Hinckley, Southampton

stf: This call, which reads the Intelligent Keyboard's (IKBD) clock, returns the date and time in d0. In order to cram this information into one data register, a special format is used. Bits nought to four contain the seconds, divided by two, bits five to eleven the minutes, 11-15 the hour. For the date, the day and month are stored in bits 16-20 and 21-24 respectively, and finally

the year, which needs to be added to 1980, comes in bits 25-31.

The following routine translates this information, placing the individual values for seconds, minutes and so on in their own variables. The data section contains a mask of the bits needed for each time value, and their bit positions. The get_bits routine then shifts the data by the correct amount, which is then ANDed with the mask to extract the correct number of bits. All that needs to be done after running this is to multiply the seconds by two, and add the year to 1980.

```
move.l d0,d7
lea mask,a0
lea seconds,a1
move.w #6-1,d3
next jsr get_bits
move.l d7,d0
dbra d3,next

get_bits
movem.w (a0)+,d1-d2
asr.l d2,d0
and.w d1,d0
move.w d0,(a1)+
rts

bss
seconds ds.w 1
minutes ds.w 1
hours ds.w 1
```

```
day ds.w 1
month ds.w 1
year ds.w 1

data
mask dc.w %0000000000011111
dc.w 0
dc.w %0000000000011111
dc.w 5
dc.w %0000000000011111
dc.w 11
dc.w %0000000000011111
dc.w 16
dc.w %0000000000011111
dc.w 21
dc.w %0000000001111111
dc.w 25
```

Tone control

How do I use the volume and tone control features of the STE?

G Stark, Hull

stf: The MICROWIRE interface can be used to set the volume, bass, treble as well the mix of DMA and PSG output on an STE, and is also available in the TT030. Two registers, data and mask, located at \$FFFF8922 and \$FFFF8924 respectively, both containing word values, are used for this purpose. To use the interface, first set the mask to \$07FF. The command is then placed

in the data register which is laid out as follows. Bits 15 to 11 are ignored, bits 10 and 9 are always %10, bits 8 to 6 hold the command, and bits 5 to 0 contain the settings for that particular command. The MICROWIRE commands boxout below has the full details. The MICROWIRE takes a short time to read the data register, during which time it rotates the mask register.

So, if you want to change more than one setting, you need to check the mask register, which reverts to \$07FF once the data has been read, before issuing the next command.

MICROWIRE commands

COMMAND	SETTING
Master Volume	%011 %000000 to %101000
Left Channel Vol	%101 %000000 to %010100
Right Channel Vol	%100 %000000 to %010100
Treble	%010 %000000 to %001100
Bass	%001 %000000 to %001100
Set Mix	%000 %000000 - 12dB
	%000001 Mix sound
	%000010 Don't Mix

A The problem occurs when you reset your ST, this also resets the time. What you need to do is copy the Control Panel Desk Accessory to your Speaking Clock disk and reset your ST with the disk in the drive. When you go to the Desk menu both the Control Panel and the Speaking Clock are present, set the time and then select the Speaking Clock. Now everything works correctly.

Vision on

GRAPHICS Please can you tell me where I can get a copy of the Persistence of Vision Raytracer for my ST? **Mark Piccart, Belgium**

A POV is available from most good PD libraries or you can download it from the ST FORMAT BBS (# +44 225 465977) file numbers 297 and 298. Alternatively, you can order a copy of ST FORMAT 49 which has POV on the Cover Disk using the form on page 62.



Yes, with just a simple download you can be creating pictures like this on your ST. Persistence of Vision is one of the best raytracing programs about, even if you do need at least 1MByte of RAM to use it.

On the cards

HARDWARE Is it possible to fit both a Crazy Dots graphics card and a Vortex ATOnce 386SX emulator to my STE at the same time? **Ian Simmins, Devon**

A No, you can't install both of these cards at the same time because they both connect to the Motorola 68000 processor. At the moment no developer has come up with an adaptor enabling more than one 68000 expansion card to be fitted to any model of ST, although some Mega ST graphics cards have a through connector enabling two cards to be stacked.

By the time you added a graphics card and any other expansions cards you need it may turn out to be cheaper to buy a Falcon and the FalconSpeed PC emulator.

STOS CORNER

Billy Allan's here to steer you in the right direction

A hard one

I have been running STOS from my hard drive without any problems, but recently I upgraded to TOS 1.6 and now whenever I load a file I get a bad file format error. What's going wrong?

A R Robson, Oakham

stf: The problem is caused by you still having the old pre-STE version of STOS. You can get a patch program which fixes STOS to run on the STE and most other STs from any PD library.

Bouncer

I am writing a bat and ball type game, but I want the ball sprite to bounce around the screen rather than just move in straight lines. I have tried sine waves, but they make the ball look artificial. Can you help?

Brian McReadie, Dundee

stf: Sounds an interesting game... This listing enables your sprite to bounce around, hitting off the left and right of the screen.

```
10 key off : hide : curs ↓
   off : mode 0
20 X=20 : Y=20 : SX=4 : SY=0
30 sprite 1,X,Y,1
40 X=X+SX : if X>300 or X<4 ↓
   then SX=-SX
50 if SY<19 then inc SY
60 Y=Y+SY
70 if Y>184 then Y=184 : SY=-SY
80 wait vbl
90 if inkey$<>" " then goto 30
```

Fire walk with me

I am trying to write a game where the main ship can fire off up to five bullets, but I am having great difficulty in getting pauses between the bullets so that they don't all come out at once.

Robert Engels, Liverpool

Justified and ancient

SOFTWARE When I use 1st Word Plus the left margin is neatly aligned but the right margin is ragged, I thought it was possible to have both margins neatly aligned. Can you tell me if it's possible for me to do this on the ST?

D Brooks, Leeds

A Of course your ST can justify text! Go to the Edit menu of 1st Word Plus and select WP mode, once you are in WP mode you can heartily type away and your text is automatically right justified with extra spaces inserted into the text to pad it out to the end of each line. Problem solved.

stf: This listing ought to solve your problem. It works by using a counter (FCNT) which is set to 5 every time you fire. Only after FCNT has reached zero are you able to fire again.

```
10 FCNT=0
20 if fire+FCNT=-1 then gosub 100
30 if FCNT>0 then dec FCNT
40 goto 20
100 shoot : return
```

Notice line 20 where we have "if fire+FCNT=-1." This is the same as "if fire and FCNT=0," but executes somewhat faster.

All GEMmed up

Is it possible to use GEM windows, icons, fileselector and so on within STOS programs? If not, is there an extension available which enables you to do this?

Gerald Black, Paisley

stf: Unfortunately, it isn't possible to use GEM while you are running a STOS program. There are no extensions which enable you to do this, but there is, supposedly, a new extension under development which enables you to draw Windows 3 style windows and dialogs from within STOS.

A new dimension

I want to add a bit of 3D text to the title screen of a game I'm writing, but I can't work out how to get the writing to look as though it is receding into the distance. How do I do this?

James Fox, Bathgate

stf: If you want your letters to actually move you need to get hold of STOS 3D. If you want static writing then get an art package which handles 3D such as Canvas or Chroma. If you want to do it yourself you need to use this formula:

$F=1.0 / ((Z/SW)+1.0)$

where Z is the Z co-ordinate of the point you wish to calculate, SW is the width of your screen window (320 standard, but try lower or higher values 'till it looks right). F is now the factor which you would multiply your X and Y co-ordinates by before drawing them on the screen. But as we said, you could always use STOS 3D...

I'm so blue

I have written a program where the background colour fades through all of the colours from white through turquoise, blue and eventually to black. Unfortunately, this requires me to type in a lot of data statements, and if I wish to fade through red rather than blue I have to rewrite all of the data. Is there an easier way of doing this?

Iain Patterson, Birmingham.

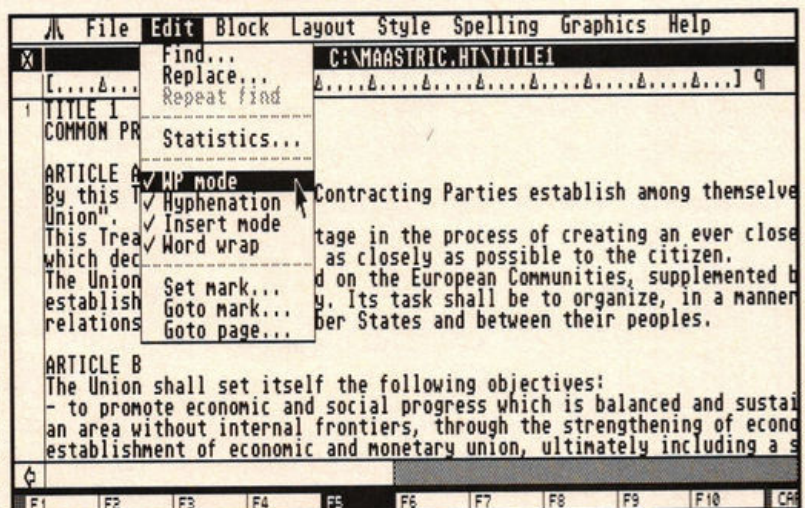
stf: Yes, it is actually possible to automate this whole process, as this listing below demonstrates.

```
10 R=7 : G=7 : B=7
20 colour 0,R*256+G*16+B ↓
   : wait 3
30 dec R : if R<0 then R=0 : ↓
   dec G : if G<0 then G=0 : ↓
   dec B : if B<0 ↓
   then end
40 goto 20
```

You can make this fade through different colours by changing the order of the R, G and Bs in line 30.

FALCOS news

It now seems as though FALCOS, the Falcon version of STOS, won't be released. The French company who were writing it have apparently pulled out of the project altogether. We've also heard that Atari have discontinued negotiations with Euro-press regarding its inclusion in the software pack which would come with the Falcon.



Yes, if you're using 1st Word Plus in WP mode then the text is automatically justified at the end of each line, but don't you think you should get something a bit more up to date than 1st World Plus anyway?

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GFA WORKSHOP

If your GFA Basic is causing you problems Mac Marsden can help you get on the right track

GFA vs STOS

I am new to GFA Basic but still use it more than any other programming language. I used to use STOS but I like Alert boxes in my programs. I have a query about GFA Basic. How do I use the command WAIT KEY which I am used to using in STOS?

Jamie Brown, Durham

stf: The following program emulates the WAIT KEY command that you are used to:

```
t%=TIMER
x=5
DO
  a$=INKEY$
  s%=TIMER
LOOP UNTIL INT(s%/200)=INT(t%/200)+x
Where x is the delay in seconds.
```

Buffer clearing

Is it at all possible to clear the buffer that VOID INP(2) uses?

Thomas Nilsen, Norway

stf: The nearest we can come to solving your problem is for you to use the following small routine:

```
a|=INP(2)
x=V:a|
IF PEEK(x)>=32 AND PEEK(x)<=127
  PRINT "CHARACTER IN BUFFER IS :"; a|
CHR$(PEEK(x))
ELSE
  PRINT "BUFFER EMPTY"
ENDIF
```

The variable 'x' holds the address in memory where 'a|' holds the ASCII character value of the key pressed. If you wish to remove the character from this location you could replace the IF statement with:

```
IF PEEK(x)>=32 AND PEEK(x)<=127
  POKE(x),0
ENDIF
```

The right shape

I have been programming in GFA Basic for some time now and have been unable to draw an arc or Bezier curve, is this possible in GFA or do I have to learn another language?

John Cosy, Surrey

stf: In GFA Basic the command to draw an arc or Bezier curve is CURVE a,b,c,d,e,f,g,h. We have included a small demonstration program below for you to see how the command works.

```
a=10 ! Start x position
b=100 ! Start y position
c=30 ! x position of first magnet
d=30 ! y position
e=100 ! x position of second magnet
f=100 ! y position
g=200 ! End x position
h=100 ! End y position
GRAPHMODE 3
DO
  CURVE a,b,c,d,e,f,g,h
  PAUSE 5
  CURVE a,b,c,d,e,f,g,h
  c=RANDOM(100) ! generate random numbers
  d=RANDOM(100) ! to show the effect of
  e=RANDOM(100) ! the magnets on the
  f=RANDOM(100) ! curve.
  LOOP UNTIL MOUSEK OR INKEY$<>""
```

Variables c&d and e&f act as small magnets on the curve either pulling or pushing, a "normal" curve may be drawn by allowing variables e&f equal g&h. Experiment with variations of this routine.

Side splitter

I have VideoMaster but I need to get a colour splitter, do you know where I can get one that works with VideoMaster?

Marc Piccart, Belgium

A Hisoft/AVR have developed a colour RGB splitter called ColourMaster specially designed to work with VideoMaster. ColourMaster costs £69.95 and can be ordered directly from Hisoft/AVR by calling ☎+44 525 718181.

Clipping along

How do you run a clip-art graphics program alongside a word processor such as Word Writer? I have been unable to get the two to run in conjunction with each other on my 1MByte STE.

Eric Symes, Merseyside

A Unless you have a multi-tasking operating system like MultiTOS you can't run more than one program at a time. You can use Desk Accessories alongside a GEM program, so you could use an art package with the Steno text editor running as a DA. What you really

need is a DTP program where you can mix text and graphics, try Easy Text Professional from zzSoft, it's an inexpensive introduction to DTP and is now SpeedoGDOS compatible.

Steno costs £17.95 from Compo Software (☎ 0480 891819) while Easy Text Pro costs £39.95 from zzSoft on (☎ 0254 386192).

Communication problems

COMMS I am having problems when trying to log on to your BBS, although the phone rings and the BBS modem answers everything locks up no matter what I do. I have tried several different comms packages but have had no luck. I am using a Supra Fax Modem.

G White, Berks

A First of all make sure you are calling the correct BBS number, ☎ 0225 465987. Our old number still has a modem connected but not always switched on. Supra Fax modems have to be initialised with the correct command, for our BBS it's AT&F0, you can input this command from within your terminal program. Set your comms program to 2,400 baud, 8 data bits, no parity, 1 stop bit. This is a standard setup for most



VideoMaster now has its own RGB splitter available enabling full colour pictures to be created without messing about with filters.

BBSs so you should be able to log on anywhere without any problems.

1MByte disks

DISKS How do you format disks to get 1MByte of storage space? I have tried using extra tracks and sectors but I cannot get up to 1MByte.

R Cheek, Sussex

A You cannot reach 1MByte of storage on a normal double-sided disk, the most you can safely get is around 800K. We always use a ten sector, 80 track format for all our Cover Disks.

Time to start up

DISKS I have heard conflicting views on starting up the ST. Some magazines say you should switch on with a disk in drive A to load the extra facilities such as Desk Accessories

and AUTO programs, others say that doing this can harm the disks. Which is information is correct?

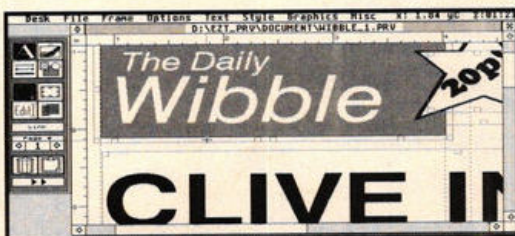
David Bennett, Coventry

A It is possible – but not too likely – that a surge of power to the drive heads can occur when your ST is switched on, this can create a momentary magnetic field which could erase data on a disk.

The best thing to do is to switch on the ST with the disk just sticking out of the drive and wait a moment while your ST tries to access the disk. After a few seconds the drive light goes out for a short period, now pop the disk fully into the drive and your ST reads it on the next disk access.

The STF address

Send all of your ST related problems to ST Answers, ST FORMAT, 30 Mnmouth Street, Bath BA1 2BW. Please indicate the type of problem on the envelope.



Easy Text Pro now uses Speedo vector fonts in its latest incarnation, but make sure you have at least 2MBytes of memory handy under the bonnet of your ST.

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- Other highlights: you can zoom in or out of the picture and still use all the drawing tools. PixArt has very creative block manipulation facilities that will be of great use to DTP users. PixArt is fully Falcon compatible. *Wonderful, wonderful!* is how the German Atari magazine TOS summed up its feelings about PixArt! Available: Now.

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QUESTIONNAIRE

Please take the time to fill out this questionnaire and we can make ST FORMAT exactly what you want

It's that time of the year again when we get all friendly and personal and ask you all about yourselves and your attitudes. This is quite a detailed questionnaire but we'd really be chuffed to bits if you just take a few moments to answer the simple questions – and remember, there's £50 in it for the first questionnaire delicately picked out of the box on 28 February, so get your answers in before then

and you stand a chance of getting all that lovely dosh. When you've finished it, add any extra comments you wish to make to the Editor (who, incidentally, reads all of them) on an extra bit of paper, stick the whole lot in an envelope and address it to ST FORMAT Questionnaire, FREEPOST, 30 Monmouth Street, Bath, Avon BA1 2BW and give yourself a pat on the back for being so helpful.

YOU AND YOUR MACHINE

1. What Atari machine(s) do you own?

- (a) 520 ST(FM) ☐
 (with a double-sided drive) ☐
 (b) 520 STE ☐
 (c) 1040 ST(FM) ☐
 (d) 1040 STE ☐
 (e) Mega ST ☐
 (f) Mega STE ☐
 (g) TT ☐
 (h) Falcon ☐
 (i) Jaguar ☐
 (j) Other (please specify) ☐

2. What other machines do you intend to buy in the next 12 months?

- (a) Falcon ☐
 (b) PC ☐
 (c) Jaguar ☐
 (d) Other (please specify) ☐
 (e) None ☐

3. How much RAM do you have in your machine?

- (a) 0.5MBytes ☐
 (b) 1MByte ☐
 (c) 2MBytes ☐

- (d) 4MBytes ☐
 (e) Over 4MBytes ☐

4. What hardware do you (i) own and (ii) intend to buy during the next 12 months?

- | | (i) Own | (ii) Intend to buy |
|-----------------------|--------------------------|--------------------------|
| (a) CD-ROM | ☐ | ☐ |
| (b) Graphics card | ☐ | ☐ |
| (c) Hard drive | ☐ | ☐ |
| (d) High res monitor | ☐ | ☐ |
| (e) Joystick | ☐ | ☐ |
| (f) Low res monitor | ☐ | ☐ |
| (g) Memory upgrade | ☐ | ☐ |
| (h) MIDI equipment | ☐ | ☐ |
| (i) Modem | ☐ | ☐ |
| (j) Mouse | ☐ | ☐ |
| (k) Printer | ☐ | ☐ |
| (l) Sampler | ☐ | ☐ |
| (m) Scanner | ☐ | ☐ |
| (n) Second disk drive | ☐ | ☐ |
| (o) TOS upgrade | ☐ | ☐ |
| (p) Video digitiser | ☐ | ☐ |

5. What commercial "serious" software have you (i) bought or been given as a gift (that is, not acquired from magazines) and (ii) what commercial software do you intend to buy over the next 12 months?

- | | (i) own | (ii) will buy |
|-----------------------------|--------------------------|--------------------------|
| (a) Accounts | ☐ | ☐ |
| (b) Comms | ☐ | ☐ |
| (c) Database | ☐ | ☐ |
| (d) DTP package | ☐ | ☐ |
| (e) Education | ☐ | ☐ |
| (f) Graphics | ☐ | ☐ |
| (g) Miscellaneous utilities | ☐ | ☐ |
| (h) Music | ☐ | ☐ |
| (i) Programming | ☐ | ☐ |
| (j) Spreadsheet | ☐ | ☐ |
| (k) Word processor | ☐ | ☐ |

6. What do you (i) mostly use and (ii) occasionally use your ST for?

- | | (i) most use | (ii) occasional use |
|----------------------------|--------------------------|--------------------------|
| (a) Game playing | ☐ | ☐ |
| (b) Making music | ☐ | ☐ |
| (c) Word processing | ☐ | ☐ |
| (d) Graphics | ☐ | ☐ |
| (e) DTP | ☐ | ☐ |
| (f) Programming | ☐ | ☐ |
| (g) Comms | ☐ | ☐ |
| (h) Education | ☐ | ☐ |
| (i) Accounts | ☐ | ☐ |
| (j) Database work | ☐ | ☐ |
| (k) Other (please specify) | ☐ | ☐ |

ABOUT YOU

7. How old are you?

- (a) 12 or under ☐
 (b) 13 – 18 ☐
 (c) 19 – 24 ☐
 (d) 25 – 34 ☐
 (e) 35 – 44 ☐
 (f) 45 – 54 ☐
 (g) 55 – 64 ☐
 (h) 65 or over ☐

8. What sex are you?

- (a) Male ☐ (b) Female ☐

9. What is your occupation?

- (a) At school ☐
 (b) Student in full time education ☐
 (c) Unemployed ☐

- (d) In part-time paid work ☐
 (e) In full-time paid work ☐
 (f) Other (please specify) ☐

10. What is your annual income?

- (a) £3,000 and under ☐
 (b) £3,001 – £5,000 ☐
 (c) £5,001 – £7,500 ☐
 (d) £7,501 – £10,000 ☐
 (e) £10,001 – £15,000 ☐
 (f) £15,001 – £25,000 ☐
 (g) Over £25,000 ☐

11. What area describes where you live?

- (a) North West England ☐
 (b) North East England ☐

- (c) Midlands ☐
 (d) South West England ☐
 (e) South East England ☐
 (f) Northern Ireland ☐
 (g) Eire ☐
 (h) Wales ☐
 (i) Scotland ☐
 (j) Overseas ☐
 Please specify ☐

12. How many other people – that is, apart from you, read your copy of ST FORMAT?

- (a) No one else ☐
 (b) One other ☐
 (c) Two others ☐
 (d) Three or more other people ☐



YOU AND ST FORMAT

13. How many issues of ST FORMAT have you ever bought?

- (a) All of them including ST/Amiga FORMAT ☐
 (b) All of them excluding ST/Amiga FORMAT ☐
 (c) Most of them (at least 50 issues) ☐
 (d) Between 25 and 50 issues ☐
 (e) Between 10 and 24 issues ☐
 (f) Fewer than 10 issues ☐
 (g) This is my first issue ☐

14. How many issues do you expect to buy within the next 12 months?

- (a) 12 ☐
 (b) 6 - 11 ☐
 (c) 3 - 5 ☐
 (d) Fewer than 3 ☐

15. Do you subscribe to ST FORMAT?

- Yes ☐ No ☐

16. If no, what attracted you to this issue, in terms of what was on the cover?

- (a) Cover Disk ☐
 (b) Future of the ST feature ☐
 (c) Jaguar section ☐
 (d) Inshape ☐
 (e) AtariWorks ☐
 (f) Geneva ☐
 (g) Nothing ☐

17. What are your three main reasons for buying ST FORMAT?

- (a) Cover Disk ☐

- (b) General information ☐
 (c) Game tips ☐
 (d) ST Answers ☐
 (e) ST game reviews ☐
 (f) Falcon coverage ☐
 (g) Jaguar coverage ☐
 (h) Software/hardware reviews ☐
 (i) News ☐
 (j) Adverts ☐
 (k) Public Domain reviews ☐
 (l) Cover Disk masterclasses ☐
 (m) General features (like this month's Future of the ST) ☐
 (n) Technical features (like this month's How Your ST Works) ☐
 (o) Other (please specify) ☐

18. What is your favourite cover over the last 12 months? Look at page 62 for a reminder of some of the recent ones.

- (a) 55 ☐ (b) 54 ☐ (c) 53 ☐
 (d) 52 ☐ (e) 51 ☐ (f) 50 ☐
 (g) 49 ☐ (h) 48 ☐ (i) 47 ☐
 (j) 46 ☐ (k) 45 ☐ (l) 44 ☐

19. Do you want to see (i) more, (ii) less or (iii) the same amount of each of the following topics:

- (i) more (ii) less (iii) same
 Beginners' information ☐ ☐ ☐
 Comms ☐ ☐ ☐

- Cover Disk masterclasses ☐ ☐ ☐
 Current industry affairs ☐ ☐ ☐
 DIY projects ☐ ☐ ☐
 DTP ☐ ☐ ☐
 Falcon ☐ ☐ ☐
 Games (ST and Falcon) ☐ ☐ ☐
 Graphics ☐ ☐ ☐
 Jaguar ☐ ☐ ☐
 Music ☐ ☐ ☐
 Productivity ☐ ☐ ☐
 Programming ☐ ☐ ☐
 Public Domain reviews ☐ ☐ ☐
 ST Answers ☐ ☐ ☐

20. What do you think of ST FORMAT in terms of value for money?

- (a) Excellent value ☐
 (b) Average value ☐
 (c) Poor value ☐

21. How often do you buy the following magazines:

- | | Never | Occasionally | Often | Always | Subscribe |
|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ST User | ☐ | ☐ | ☐ | ☐ | ☐ |
| ST Review | ☐ | ☐ | ☐ | ☐ | ☐ |
| ST Applications | ☐ | ☐ | ☐ | ☐ | ☐ |
| Edge | ☐ | ☐ | ☐ | ☐ | ☐ |
| GamesMaster | ☐ | ☐ | ☐ | ☐ | ☐ |

YOU AND THE GAMES INDUSTRY

22. Do you play games on your machine?

- (a) Yes ☐ (b) No ☐

23. Have you bought any full price commercial games over the last 12 months?

- (a) Yes ☐ (b) No ☐

24. If yes, how many?

- (a) One ☐
 (b) Two or three ☐
 (c) Four or five ☐
 (d) Six to ten ☐
 (e) Over ten ☐

25. Do you intend to buy any full price or budget games over the next 12 months?

- (a) Yes ☐ (b) No ☐

THE GAMES INDUSTRY

All these answers will be treated in the strictest confidence, but if you do not wish to include your name and address at the end of this questionnaire, you need not.

26. Please answer true or false depending on whether or not you agree with the statement

(i) Full price games are too expensive

- (a) True ☐ (b) False ☐

(ii) People are forced into piracy because

of the lack of availability of games

- (a) True ☐ (b) False ☐

(iii) People are forced into piracy because of the price of games

- (a) True ☐ (b) False ☐

(iv) Piracy has helped to kill the ST games industry

- (a) True ☐ (b) False ☐

(v) Piracy is an acceptable way of building up a games library

- (a) True ☐ (b) False ☐

(vi) Software piracy is illegal

- (a) True ☐ (b) False ☐

27. Do you possess any pirated software?

- (a) Yes ☐ (b) No ☐

28. Have you ever been offered pirated ST software?

- (a) Yes ☐ (b) No ☐

29. Would you report a BBS or a Public Domain library if they had pirated software for public use?

- (a) Yes ☐ (b) No ☐

30. How do you perceive the state of the full price commercial ST games market?

- (a) Booming ☐

- (b) Flattening out ☐
 (c) Declining ☐
 (d) Declined ☐

31. How do you perceive the state of the budget price ST games market?

- (a) Booming ☐
 (b) Flattening out ☐
 (c) Declining ☐
 (d) Declined ☐

LAST BIT

If you wish to participate in our special prize draw whereby you can win yourself the huge sum of £50 just for filling in these few questions, please fill in your name and address in the space below:

Thank you very much for your time. If there's anything else you'd like to add, please include them on a separate piece of paper - the Editor does read each and every one and takes notice everything you've said, honest. Cheers! **stf**



PUBLIC SECTOR

**Cheap'n'cheerful,
or cheap and
nasty? Check out
this month's PD**



BIO HAZARD LAPD LICENCEWARE DISK L69

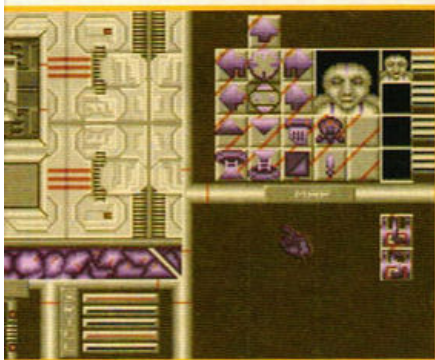
Good grief, another game based around the *Alien* genre. It's entirely different to *Storm*, though – partly because it's a first-person 3D adventure, but mostly because it's very polished and playable. Hell, this could be a commercial game, but because you can pick it up for £3 you shouldn't be

without it. Let's see why. Do you remember *3D Monster Maze* on the ZX81? It's one of the best games ever invented. It pushed the poor little ZX to its very limits, and the gameplay was nothing short of brilliant. It was basically a series of 3D tunnels arranged as a maze, with only two inhabitants: a large tyrannosaurus, and you.

Bio Hazard is similar to that game, but with added use of colour and pretty graphics, and a control system which is complicated but fairly intuitive. Lots of alien eggs lie in rooms in a spaceship, and you are given free run of the corridors with the objective of killing them. The sound effects let it down: just a simple "Aaargh!" sound when you're attacked – but the rest of the game makes up for that.

STF RATING 91%

■ *Bio* moves a like *3D Monster Maze*, but the surroundings are a little more complex.



LASERS AND MEN

DISK GFOG 050
FALCON 030 ONLY
FALCON OWNERS GROUP

Very much in the style of *Wolfenstein 3D* on the PC, *Lasers and Men* is really a Quasar simulator for the Falcon. You move the mouse to walk around in a dark, dingy 3D dungeon, shooting all the blue people and defending the red ones (because you're one of the red

team, you see.) Your laser sticks out in front of you, and a quick press of the mouse button unleashes a red bolt of laser fire – hopefully connecting with an enemy bloke. The walls are texture-mapped, which means that they are decorated with patterns to make them look like stone, and some have logos and names on them. Take it from us, it's a great effect which looks highly realistic when you move around.

The final game is a Shareware demo where you move around and fire at the enemy. It's available for a mere £3 from the Falcon Owners Group. The finished game which is due to be released in the early part of this year is to have improved graphics, music and sound effects, lots more levels, and possibly a link-up version to connect more than one Falcon together. It sounds good. Can't wait.

STF RATING 85%

■ Dark room, texture-mapped walls, laser pistols – all the ingredients for the fantastic *Lasers and Men*, full version coming to a Falcon near you er, about now.



LUNDBERG GAMES

LAPD
DISK G337

Now this is what we like to see – three good solid games together on one disk in PD. Written in STOS by M Lundberg (what the M stands for is anybody's guess), they each involve using the joystick to move a character around the screen, but they are distinctly different and one is even, dare we say it, original...

Good Knight is a simple platform game, with an objective of jumping to the top of a tower while avoiding a number of enemies – quite intelligent ones – that get in your way. There's also a two-player mode, where you and your mate can battle for the top together.

Precipice is a platform game viewed from above, with a ball which you move around a series of square tiles collecting power-ups, and then reach the exit. Various

■ *Mushy Music's* a game mainly for kids, it seems. The character shown here (called *Mushy*, presumably) is responsible for recreating tunes which your ST plays for you. Smart.

obstacles get in your way on later levels, such as laser fire and a coin-op *Breakout*-style ball that knocks the tiles away.

Lastly, and possibly the most interesting, *Mushy Music* is a bit like those old *Simon* games from the mid-'80s. It plays you a simple tune, which you then attempt to play using notes on a staff – but you control a small droid which pushes the notes around.

This is a great idea, quite original, and good for a small child as an introduction to musical scoring. A great package.

STF RATING 89%



SINISTER GAMES

LAPD
DISK G327

Space Invaders. Not so sinister, really. *Painter*, otherwise known in early '80s coin-op arcades as *Amidar*, isn't sinister either. After all, it's only a paint roller attempting to cover the perimeter of a number of rectangles and fill them in with colour. Hardly something to pervert the normal course of young minds. So where did the authors Sinister Developments get their name?

Perhaps if you take it all a stage further, the idea of a hefty number of alien spaceships approaching earth in battle formation, and only you left to defend them in a square metal box with a small gun poking out of it – now that's sinister. Also, given that you always lose – there is no end to good old *Spaceys*, they just keep on



■ The good old *Space Invaders*, after receiving a bashing in *Only You Can Save Mankind*, are dusted off and revitalised in Sinister's version of the game.

coming – that could also be construed as sinister. Well, maybe that's the answer.

Anyway, whatever they're called, these are competent versions of *Space Invaders* and *Amidar*, and that's certainly good enough for us. It's great stuff.

STF RATING 81%

DEMOS

EXCELLENT NEW DEMOS DISK GFOG 051 FALCON 030 ONLY

A collection of demos for the Atari Falcon winging its way to you from the stalwart Falcon Owners Group. The first is a folder containing eight mini-demos, just very simple stuff like plasma effects and shade bobs, but they're tiny programs and could be a good tutorial for demo programming. The second is a full megademo from French coders Pentagon, which strings together a number of effects such as texture-mapped cubes, curved vectors and an excellent raytraced X-Wing fighter image.

The best feature of this demo, though, is the music – a hard body music backbeat, with a strong pounding bassline and a few vocal samples thrown in for good

measure. The third section of the disk is also a megademo, this time with more ambient programmed style music, slightly more easy-on-the-ears. Similar to other megademos, most of the visuals are made from filled polygons winging their way around the screen, but again it's paving the way for Falcon demos to come.

STF RATING 80%



■ Hey, this is good... but it could be a little misleading because it's the best visual part of this demo. The music is equally stunning, but unfortunately we can't show you that. Damn.

UTILITIES

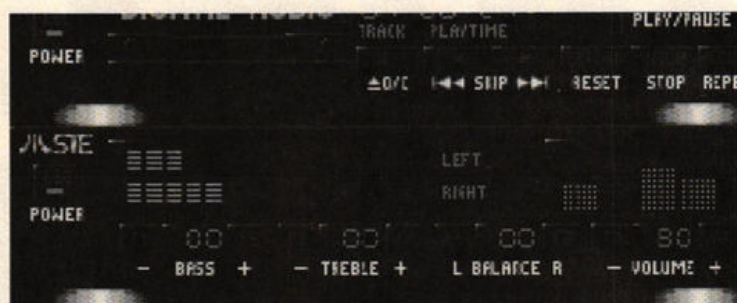
BEFORE DAWN LAPD DISK U66

Apple Macs are blessed with a brilliant screensaver program called *After Dark* which consists of a series of small animated films, now you can use the ST version of the program on your machine. *Before Dawn* is a faithful clone of the Mac program enabling animations, bouncing windows and animated starfields to be displayed on your monitor after a set

time period without any activity. On top of the supplied animations on this disk come full English docs and instructions and an editor program enabling you to create your own animations. *Dawn* uses pictures in GEM Image file format so it's dead easy to create your own graphics to include in the program. The Desk Accessory enables the program to be quickly and easily configured so you can get up and running with the minimum fuss. A classic.

STF RATING 88%

ART AND MUSIC



PLAYER STE AWF PDL DISK STE 9

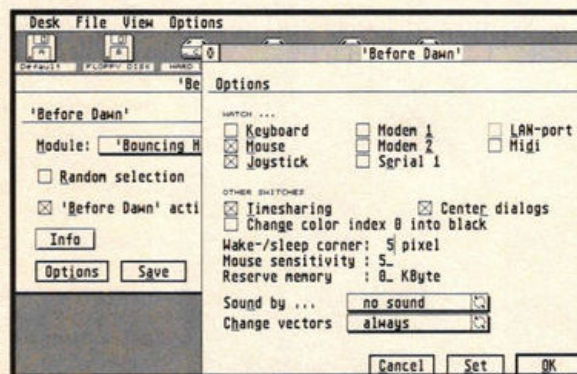
The ability to play sampled stereo sound is one of the big plus points of the STE when compared to the bog-standard STFM. Stereo MOD files are tunes built up from sampled sounds, usually sampled instruments. The player program on this disk is designed to look like a CD player and gives you complete control over which tracks to load and play. Vol-

■ When's a CD player not a CD player? When it's your STE grooving to stereo MOD files, almost all PD libraries have large collections of MOD files ready for you to play.

ume, bass, treble and balance are controlled by the function keys while other options are available to skip tracks, repeat tracks and generally let you use the program as if it's a real CD player. You can have lots of fun with this MOD player and it looks pretty good too.

STF RATING 78%

■ A extensive array of set up options enables *Before Dawn* to be configured down to the smallest detail, your ST can go into sleep mode and be woken up by any activity of the keyboard, mouse, joystick or modem port.



M-DISK 4.3 LAPD DISK U63

M-Disk 4.3 is the best of a mixed bunch of utilities on this packed disk, *M-Disk* is packed with options enabling you to make the most efficient use of your ST's memory. You can configure the RAMdisk to the size that suits your setup best, it can also be used as disk copier, hard drive

■ Apart from crunching, packing, unpacking, self-extracting, squeezing and generally mutilating your files you can create your own disk based ST magazine using *ST-Zine Shell*.

backup program, as a disk formatter and can even install a disk cache for your hard drive to speed accesses. Other goodies on the disk include *Rename It*, the latest version of the *Atomik Packer*, a replacement *Arcshell*, a program to convert LZH files into self-extracting archives and a Shareware shell program enabling you to create your own disk based magazines. Not a bad collection.

STF RATING 68%

DISK MANAGER ST LAPD DISK U62

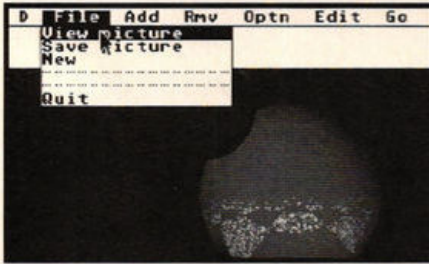
You know what it's like when you get piles of disks mounting up, you start forgetting where your programs are stored. A good solution is to use a disk manager of some kind to keep your disks in order, and that's exactly what's on this disk. The *Disk Manager*

is written in *STOS* and enables you to enter a disk number and a simple description of what's on each of your disks. The data is saved as a simple list that you can display on-screen or print out. The program is very simple to use but limits you to just the disk name and number, it would be better if you could detail the contents of the disk a bit more.

STF RATING 62%



■ A bit simplistic but does what it's supposed to do, the *Disk Manager* helps you catalogue your disks. A few more options would improve its attractiveness.



REALISTIC RAYTRACER LAPD DISK A82

For a quick, simple introduction to raytracing, there's no better package than *Realistic RayTracer* from LAPD. It manages to do away with most of the complex setting up procedures associated with commercial packages, and concentrates instead on being simple and easy to use. You're given a side view and top view of a scene, and you simply select from a menu what type of object you would

■ Oh, damn. Perhaps another light source should have been positioned below the top sphere. Well, *RRT* is so easy to use, we can do it in seconds! Pity the raytrace itself takes about half an hour, though.

like to put into it – a cone, a rectangle or a sphere.

As you select an object, a pair of sliders select the colour, translucency, and reflectivity (how shiny it is). After selecting the objects, including a floor and ceiling if you wish, you position your light sources, and click on Go. The program then goes away and calculates your image, which you can then save to disk.

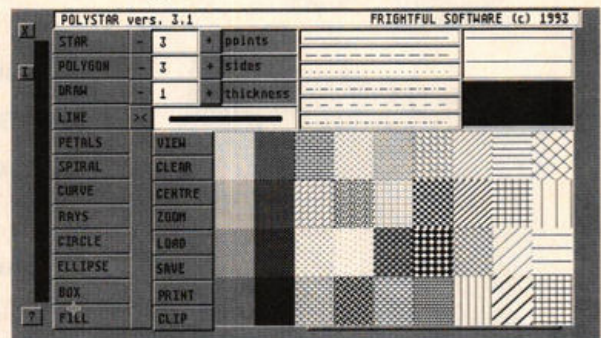
Of course, you're not going to achieve brilliant commercial-quality results, but it's a good introduction to the technique.

STF RATING 74%

POLYSTAR 3 – EMERALD CITY DISK SA26

Polystar 3 is just about the most unusual PD paint package we've ever seen for the ST, it's well designed, easy to use and leans heavily towards creating multi-pointed and multi-sided objects like stars and polygons – hence the name *Polystar*. There are two different versions of the program, one for low and one for high

■ In high res mode *Polystar 3* uses the ZeST push button interface which make its functions easy to use, the area displaying the fills is rather a waste of screen space.



resolution, but both contain the same basic functions. Apart from the stars, polygons, petals and spiral options, *Polystar* doesn't offer you anything other than the most basic drawing functions that you'd find in any other drawing program.

Having said that though, it's a very useful paint package to add to the collection of any budding graphic artist if only just for these unique drawing functions.

STF RATING 72%

LIFE MICROSCOPE LAPD DISK G338

Roy Stead describes himself as a "Pretty weird kind of guy." Oh, my God. Don't you just hate people who describe themselves as "zany," or "wacky," or "weird?" Invariably they're not "weird" at all. A couple of things could be said about Roy though – either he's pretty clever in

the field of microbiology, or he's a pretty clever conman. He's written this program, you see, called *Life Microscope*, which describes the way cells behave in a living creature.

It's all very statistical, being based around three main rules: a cell is alive if it is surrounded by two or three living cells, otherwise it dies of either loneliness or overcrowding; and a dead cell comes back to life if it's surrounded by exactly three living cells. Right, so *Life Microscope* acts all this out, with small rectangles representing the individual cells. The problem is, while watching the little cells reproducing is quite fun, it could really be doing anything – it's quite difficult to understand what's going on. Still, plug away at it for a few hours and it becomes fascinating – in a *Sim Life* kind of way.

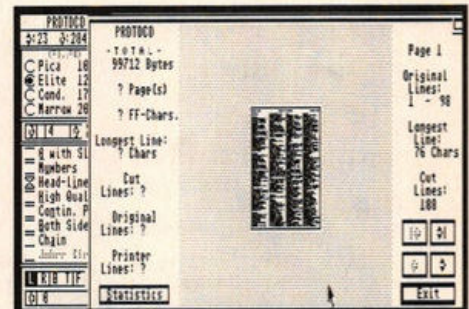
STF RATING 75%

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don't waste paper on something you don't like. All in all *Idealist* is a useful printing program to add to your disk box if you don't have a commercial page layout program.

STF RATING 72%



■ While it's not a fully fledged DTP or page layout program, *Idealist* enables you to produce excellent hardcopies of your text files and even converts files into book format.

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BACK ISSUES



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 Raystart. **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 DA's Vectorr.



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.



ISSUE 45

APRIL 1993
Disk: Nigel Mansell's Grand Prix, No Second Prize demos, Protext dictionary. **Inside:** Get into programming, multi-player games, Protext masterclass.



ISSUE 44

MARCH 1993
Disk: Picture Concept; Grav 2; Insectroid; Screen Snatcher. **Inside:** ST art; scanner roundup; Desk Accessories - and much more!



ISSUE 43

FEBRUARY 1993
Disk: Noddy's Playtime; Fractal Landscape; Animation Tool **Inside:** Animation; god games; printer roundup; DTP masterclass.

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FEEDBACK

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Imminent "death"? Pah!

There seems to be rather a lot of speculation about the imminent demise of the ST. If this is true, how long could I expect support to continue, or should I be converting all my important word processed files to ASCII ready to port to a (forgive me father, for I am about to sin) PC?

Dave England,
Compuserve

stf: People have been anticipating the ST's death for many years, and over the last 12 months what with the console boom of Christmas 1992, the massive reduction of PC prices and Atari dithering about trying to convince everyone that they're launching the Falcon, that message seems to have got



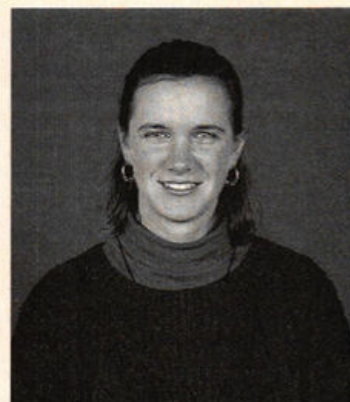
across to a lot of people more strongly than ever.

Pure games players have probably abandoned their STs for consoles – and those that are hanging on in there out of loyalty to

Check out our main feature this issue about where the ST market is headed before claiming its imminent demise.

Atari or their ST or whatever are likely to go for the Jaguar.

Some people – probably those with more money – may have bought a PC. This means (a) that there are fewer potential purchasers of ST software and (b) the whole home computer and console market has got a lot bigger and more competitive than it was about two years ago – software houses are looking at all the options available and going for those that are going to yield the most profits. The place where this is most true is in the games market, largely because this is the most competitive area – and perhaps the main market with mass appeal. While some people



have decided to buy a PC, many are still sticking with their STs – at the last count an average of 52,810 copies of ST FORMAT were sold each month between January and June last year. Our two main com-

“The home computer market is more competitive than it was two years ago”

petitors added together sold nearly the same amount, giving a market of over 100,000 people.

Add to that all the people who share their copy around, the fact that this was at the tradition-

JUST A SIMPLE ONE-OFF

After our special Falcon issue there were murmurings murmured through the ST community about this Falcon Format thing. Like some of these below... A slight over-reaction to a one-off, I thought



I buy ST FORMAT religiously every month, but I shall now look closer at the content. Issue 53 was Falcon Format... I thought I had bought the wrong magazine since I have an STE. I think I shall take a hammer to my machine and go out into the big wide world of the Amiga 1200 sob! sob!

But wait... sitting here on computer death row and wondering where my next game is going to come from. Is there to be a reprieve from the houses of software? I wait and wait and wait. In the meantime I shall play some of the excellent games I have.

Come on, ST FORMAT, support the ST 100%. Believe in the STE, support it, recruit the best software gamers into your army, raise the flag! Call the sign ST-E-E-E-E-E-E-E, it's like a game except

we can win! Thanks, Paula, you seem like a nice girl.

Tom Anderson,
Durham

Hi, I'm just writing to ask when you're going to print more stuff about the Falcon. I am one of the lucky people who own one of them and I want to know about the software for it and perhaps even some software release dates. Perhaps you could even put some programs on the Cover Disks – people would want to see for

“I can understand the need to push the new Atari offerings”

themselves what superb graphics and sound the Falcon has got and may make people go out and upgrade to a Falcon, thus starting the ball rolling.

Robin Bond,
Oxford

Dear ST FORMAT, correction! Falcon Format. Over the last few

issues I have been disturbed by the amount of coverage given to the Falcon and though interested, having heavily committed myself to my present computer setup, find I could not afford to purchase one, even if I wanted to. This, I suspect, applies to the majority of your readers.

December issue arrives, and the Cover Disks look great with two very good complex programs to get my teeth into – can't wait to read all about them. Open up and what do I find? Three pages on the Jaguar to start with, but as I continue it gets worse – 18 pages devoted to the Falcon and also a lot of marginal pages reviewing software that is mainly aimed at the Falcon although it can be used on the humble ST. I can understand the need to push the new Atari offerings, after all they are very weak in the self promotion department, but please, not at the expense of less support for the already committed Atari users.

G Hawkins,
Hull

stf: The Falcon special issue was just that – a special one-off just to put everything Falcon related into



context. We sometimes review more Falcon products than ST stuff because there are more new Falcon package coming out compared to those for the ST in a particular month. Look through this issue, however, and you see that this isn't the case – we've got plenty of ST coverage.

Short of printing retrospectives and roundups of things we've already reviewed once there isn't a lot we can do in terms of reviewing products that aren't there. I appreciate your comments, as ever, especially about what you want to see included in the magazine – turn to page 57 and you can make your comments felt even stronger.



ally poor time of the year for magazine sales and you still have a substantial pool of people who are actively using their machine, who are still buying software and hardware for it and who wouldn't consider moving on to a different platform, if only for the rather banal and financially practical reason that if the machine you've got does the job you want perfectly well, so why should you buy another one?

All this means is that there is still a huge number of people who want to buy software and hardware for their machines and to supply them there are still companies around to do so. On the serious side there are several companies who concentrate on the ST - like Hisoft and Compo - and

"You still have a substantial pool of people who are actively using their machine"

some who stock ST stuff in addition to other home computing platform goodies.

As long as there's a market, there will continue to be suppliers, and therefore support, for the ST. Take a look at the feature on page 17 for more details and the opinions of these suppliers.

Basic programming

About six months ago I decided to try my hand at programming so I ordered STOS. Well, not as easy as I thought, what with gosub goto and where the hell do I go to? In fact, as a total beginner the user guide is quite confusing. On the verge of throwing STOS away I noticed an ad for the *Beginner's Guide to STOS* by MT Software

and decided to give it a try. Now there is a pixel of light at the end of my tunnel. I've written some routines which work quite well. But trying to teach yourself can be frustrating when you need to ask questions. This is where MT Software really excel in their after sales service. On several occasions I have written to and telephoned for advice and on every occasion this has been freely given with helpful and handy tips.

DT Painter, Kent

stf: Glad to hear you've got something positive to say about our advertisers - we certainly enjoyed using the *Beginner's Guide* when we reviewed it in the magazine. Good luck with your programming.

Give us an incentive!

If you want people to subscribe to your magazine you ought to offer them a decent incentive instead of the rather unappetising-looking *Ed Hak* and *Civilization*. Although I enjoyed playing with the demo on your Cover Disk all those months ago it's not really my sort of game.

Chris Roberts, Macclesfield

stf: We've carefully rethought our subscriptions strategy to make it more appealing to everyone and have decided to offer each subscriber a special disk packed with programs as well as a newsletter that gives you all the office gossip and full instructions on how to use your extra disk. Turn to page 62 for more details.

If you have any opinions you want to add to those expressed or if there is any topic which you think deserves an airing, please write to Feedback, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW.

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■ If you would like to correct or add to any of the entries, please write to Essential Contacts, ST FORMAT, 30 Monmouth Street, Bath BA1 2BW.

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PIXEL PAINTING

We've moved this section here this month, but we're still interested to see your artistic efforts - send them to Pixel Painting, ST FORMAT, 30 Monmouth Street, Bath BA1 2BW. Make sure you tell us how you created the picture and where you got the inspiration from. This month's pic Caterpillar On a Mushroom comes from E Cleveland of Liverpool and it was inspired by *Alice in Wonderland*. E (Eric? Eveline? Ernest?) explains that it was created with the POV Ray-tracer and "it is made up of quadratics and planes. The cater-

pillar is just a pile of spheres and the mushroom is a quadratic scaled down into an ovoid. It was then cut in half by a box with a quadratic cylinder underneath which was also clipped by a box.

"The grass is a plane with 'Painted 2' texture on it. This normally resembles paint drips and splashes but if you scale it down to a very small size it gives a nice semi-random grass look.

"There are two light sources; a bright white overhead one and a dimmer two-tinged front one to give some subtle colouring and some atmosphere."



■ The brilliant bright primary colours attracted us to this picture - well, that and the rather cheeky snail. If you think you can do any better than this - and with any art program, it doesn't have to be anything as complex as a raytracing program - send them in to us at Pixel Painting.

SCREENPLAY

Three full-price releases! Anyone would think it has just been Christmas or something. But wait – by a great coincidence, one of them is a turkey...



FRONTIER – ELITE 2
Elite grabbed the attention of the ST world after its release in the late '80s. Now the sequel promises to take the concept even further. Load up *Frontier* and enter a vast virtual universe, but first read our review on page 68.

HELP!



Goblins – The Prince Buffoon is hogging the limelight in *Gamebusters* on page 78, with the start of our full solution. If you've been following our *Ishar 2* solution, you can find the final part there too. But if action's more your cup of tea, then some codes for *Chaos Engine* and a full list of level codes for *Nightshift* are lurking on the first page.



FORMULA ONE

Smart ultra-fast new racing game, or revamped rehash from 1992? *ST FORMAT*'s verdict is... a bit of both really, but we love it anyway. Check out our review on page 72.



ROBOCOP

James Pond's back, elast-o-suit and all, and this time he costs under a tenner! Kixx XL have shown us the light, and we can't wait to share our experience with you. Turn to page 76 now.



BART VS THE WORLD

Written by Arc Developments, originally touted for release from Acclaim, then bought out by Virgin a couple of months ago. Was it worth it? You might think it was, but it's not our place to comment... see page 74.

CHARTS

Your guide to the top-selling games throughout the UK...

This month	Last month	Game	Publisher	Price	STF Rating
1	(3)	Zool	Gremlin	£25.99	89%
2	(2)	Premier Manager	Gremlin	£25.99	85%
3	(1)	Sensible Soccer '92/'93	Renegade	£25.99	91%
4	(-)	Monkey Island	Kixx XL	£16.99	90%
5	(8)	Lemmings 2	Psygnosis	£29.99	96%
6	(-)	Champ Manager '94	Domark	£9.99	N/A
7	(-)	Striker	GBH	£9.99	79%
8	(10)	Nigel Mansell's World Championship	Gremlin	£29.99	69%
9	(-)	Lotus 3: The Ultimate Challenge	Gremlin	£25.99	75%
10	(5)	Street Fighter 2	US Gold	£27.99	91%
11	(4)	Champ Manager '93	Domark	£29.99	80%
12	(11)	Prince of Persia	Hit Squad	£7.99	90%
13	(18)	The Addams Family	Hit Squad	£9.99	74%
14	(17)	Treasure Island Dizzy	Codemasters	£4.99	82%
15	(12)	The Chaos Engine	Renegade	£25.99	94%
16	(9)	Formula One Grand Prix	MicroProse	£34.99	81%
17	(-)	Knights of the Sky	Kixx XL	£16.99	83%
18	(-)	Frontier: Elite 2	Gametek	£29.99	91%
19	(20)	MicroProse Golf	MicroProse	£34.99	95%
20	(14)	First Division Manager	Codemasters	£7.99	64%

And now the news:

Bong! *Street Fighter 2* goes down despite its budget re-release; Bong! Gremlin claim 1st, 2nd, 7th, 8th and 9th places in the chart, their strongest overall position for some time; Bong! *Frontier – Elite 2* makes it into the chart despite claims from Gametek that it's only been released in France and Germany. Confused? We were when the distributors told us they'd received it two weeks earlier...



■ *Zool's* top dog at the mo – but how long can he stay there with *Frontier* snapping at his heels?

STF REVIEW POLICY – It is *ST FORMAT* policy to only review completely finished games – that is, games you could actually buy in the shops, never incomplete or demo versions. We won't be rushed into reviewing unfinished games to beat our "competitors." We assume all games run on 520 STMs unless otherwise stated.

FRONTIER



We said last month that this would be the biggest game of 1994. Expectations are high

Frontier is special. It's not often we're treated to a game which has been five years in the making, a game which accurately maps out our entire solar system, a game which is a damn good out-and-out blast-'em-up. And at ST FORMAT we reckon a special game deserves a special review. So, grab a cup of cocoa, pull up a chair and get yourself comfortable. We're going to tell you a story...

"What am I doing?" mumbled John Jameson as he slid behind the controls of his shiny new Eagle Long Range fighter. He wasn't one for travelling – if the truth be known, he wasn't one for anything, really. He had spent the last five years bumming around the Sirocco space station in the Ross 154 system, earning a slight living working at a fish processing plant.

He hadn't really known his grandfather. A traveller, he traded in anything that could earn him money, killing for bounty, running from Federal Space Law. As a child John's father had

taken him on trips to visit his grandfather, but he was too young to remember much about him – he had left their sector of the galaxy before John was seven. So it came as an unexpected, but not entirely interesting, piece of news to hear of his grandfather's death. The solicitor's letter was typically cold and brief, but the second envelope, containing his grandfather's last will and testament, John treated with some respect.

Tearing it open, with visions of his grandfather's bounty in the back of his mind, John's eyes scanned his grandfather's words: "...a way of life that I loved and now I want you to experience... an occupation for you... trading... odd jobs... mining... abilities as a pilot are to be tested to the full..." John rolled his eyes. "Oh, Jesus. He

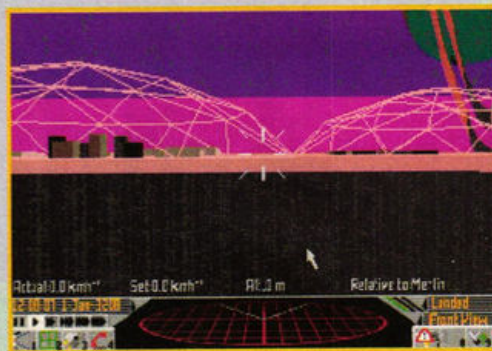
■ This is Merlin, a planet in the Ross 154 system, your start position in the game. you can't go inside them.

wants me to be like him." "...you shall receive an Eagle Long Range Fighter and 100 credits. The ship has been delivered to your local starport..."

So here he was. Quite why the old codger hadn't left him the money instead of a spaceship he didn't know. He could have done with some cash. Still, there's always

"Frontier is special. It's not often we're treated to a game which has been five years in the making"

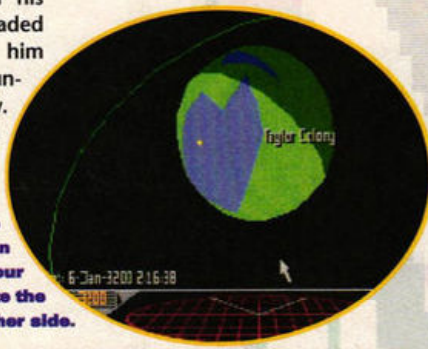
the shipyard, if push came to shove, he could sell it. Anyway, it couldn't do any harm to give it a test drive, could it? He'd booked a week off work, and he intended to have a good time. Cruise the spaceways, have a few beers, pick up a couple of gals from the Alpha Centauri system. Anyway, spur of the moment, that was the way to go.



The beginning

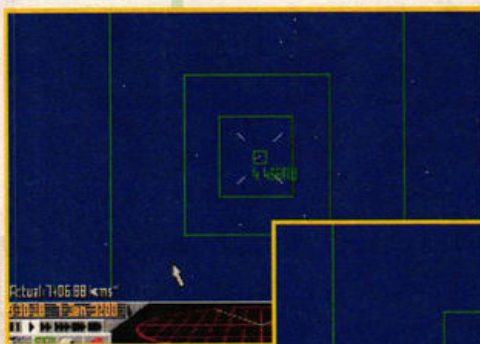
But hey, just out of interest, it might be worth finding out about the prices of commodities in Barnard's Star, his first destination. He knew that on Ross, fish was pretty cheap, so he tapped up the data on Barnard's Star on his console. They would buy fish for 80 credits per tonne, so he'd make 60 credits on each, given that he started with 100. He radioed the stores, which delivered the fish immediately and deducted the credits from his account. Hell, it couldn't do any harm. At least it would pay for the fuel.

The chap in the spacecraft depot told him unless he was intending to fire at a space station and get an entire police force on his back, he would be able to pick out pirates and space debris without a scanner. He offered John a trade-in deal for both the scanner and his Pulse laser for a reconditioned Beam laser, which John



■ The System Map gives you the chance to zoom in on a planetary system before travelling there, so you can easily set your Autopilot for your destination. You can also rotate the planets to see the other side.

■ When you've set the Autopilot's destination and switched it on, the targetting tunnel appears. This shows you the distance to your destination, and your speed relative to it.



■ The docking computer takes you all the way into the space station, which is pretty fortunate because these things are moving in a very fast orbit, so manual docking is nigh-on impossible.



SUPER GUNS

Starting off with a spanking new spaceship, it's easy to just fly around without a care in the world. But, as you progress, the going gets tough, and it's useful to customize your ship to your way of life.

If you like shooting things, then you might add a new laser or two. Several are available, including different types of Pulse and Beam lasers. The main difference between the two is that Beam lasers emit a continuous beam, whereas Pulse lasers, erm, pulse. The bigger the weapon, the more space it takes up in your ship – so money isn't the only consideration in upgrading, you have to make sure you've got a big enough ship to carry all the stuff.

If you've got a big ship and lots of cash, you can buy a Plasma Accelerator – the smaller of which can destroy many ships with a single

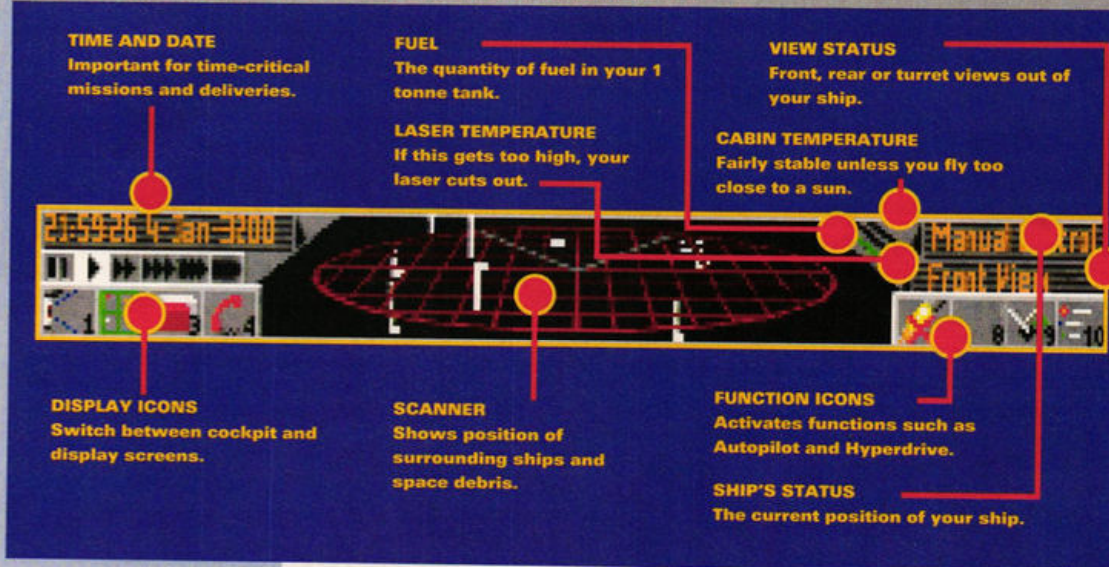


■ Stop and shop at, er, every starport for all your shiply needs.

shot. Also, it's worth remembering that if you're going to shoot things, the chances are they're going to shoot back – so a shield and maybe an ECM (Electronic Counter Measures) unit might be in order.

ELITE 2

ELECTRONIC SCANNING



■ This is the Eagle your grandfather left you in his will. Kind of like your real grandfather leaving you a decent model Sierra, not brilliant, but not bad to start off with.

from John's cockpit. This annoyed him, because he wanted to get out and explore Boston Base, but hey, rules were rules.

The Communicator offered the option of logging on to the Boston Base Bulletin Board. "Snappy title," thought John, but logged on anyway. Scrolling down the list of private adverts, one caught his eye: "Honest John's Bought and Sold. Narcotics wanted: Will pay 2,308 credits per tonne."

He knew from the high price that narcotics were illegal on Birminghamworld, but the prospect of a large wad of cash attracted him. Checking around the local star systems, John found that narcotics were just 98 credits on Lacaille 8760, a nearby system, and decided to give it a go. Also on the Bulletin Board was an ad for a package delivery to Lacaille, which would give him an extra 200 credits on delivery and not too much trouble along the way. At least, that's what the guy told him, but he trusted his instincts and picked that up as well.

Killing a Gecko

Taking off from the space station was far easier than docking, and soon the Eagle was burning up a tonne of fuel on its way to Lacaille. After just one trip he was used to the routine, setting up the Auto pilot and then activating the Stardreamer time control. A few hours later he was awoken abruptly with an attack warning – a pirate ship wanted his package. He steered his craft towards it; targetting the ship using his head-up display when it came into view.

The guy back on Ross was right – targetting was simple. The pirate ship was a Gecko, a slightly larger craft than the Eagle, but from the stuttered fire which glimpsed past his ship, it would be no match for his Beam laser. The HUD told him that the Gecko was just over four kilometres away, and approaching fast. John lined his sights up over the pirate, and

accepted. He had used a Pulse laser in the Virtual Reality arcade as a child, and he didn't like it very much. Continuous fire power, that's what he needed. Just in self-defence, of course.

Getting clearance from the Sirocco starport was easy, and accelerating away he turned round to get a view of the port as he flew slowly away. This was the first time he'd been away from Sirocco in five years, and leaving it came as something of a relief. Accelerating away, he tapped in the co-ordinates of Barnard's Star, and waited for the clearance to use the Eagle's Hyperdrive. Clearance granted, the ship's controls took over and accelerated the tiny craft to light speed.

■ Oh, I don't know. He looks like a bit of a shady character, doesn't he? Would you recruit this man to work on your ship? If you buy one of the larger vessels, you need up to 15 crew members like him before you can take off, so you'd better get used to it.

Stardreaming

Barnard's Star was an unspectacular system: a single red star, orbited by Birminghamworld, a small planet with a single space station, Boston Base.

The Eagle's Auto pilot turned and accelerated the craft towards Birminghamworld, informing John that it would take two full days to reach its destination. The Stardreamer time control immersed the pilot in a trance-like state, but annoyingly the Eagle's manual had no index, so an hour was wasted looking

through the pages trying to find the right button. The Autopilot did everything automatically: hailing Boston Base for landing clearance,

"He sold his quantity of fish, and bought two tonnes of hydrogen fuel for the return trip"

working out flight paths and orbits, and then finally docking the ship. Without an Autopilot, the chances of John performing the docking were minimal, as many days of training were necessary, but fortunately his grandfather was blessed with foresight. Waking from his hypnosis, John was hailed by the local police to log in a password from the Eagle's manual, presumably to check that he was the legitimate owner.

After punching in the code, he sold his quantity of fish, and bought two tonnes of hydrogen fuel for the return trip. Sadly, the rules of interstellar spaceflight dictated that once you were inside your ship leaving was impossible, so all communication took place



■ Ships and space stations in all sorts of shapes and sizes can be found floating around in Frontier. Although they're not all useful, they are very complex objects and great for a quick fly-by.

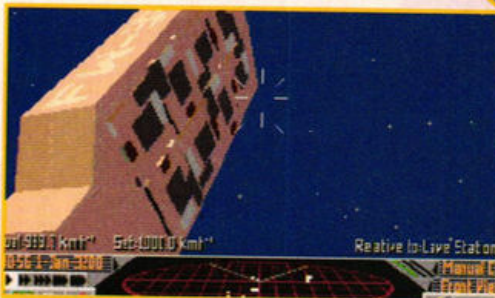


PHOTO-FIT



The people you meet in your journeys are varied, thanks to a photofit system which uses sets of facial features in different combinations. This is about the only use of bitmapped graphics in the game. The skin tones are all similar so that all the features work with each other, and they all have a copper-coloured glow about them, not because of the limitations of the colour palette but because they're all really tanned and healthy.

jabbed the fire button on his joystick. A single trace of red light appeared between his ship and the direction of the enemy – which didn't hit immediately, but John kept his finger on fire and shimmed the Eagle slightly, spraying the Gecko with laser. As it flew past, a single laser pulse caught the hull of the Eagle. John's computer informed him that the Atmospheric Shielding had sustained some damage – meaning that he couldn't enter the atmosphere of a planet.

Turning his ship around quickly, he lined up his sights again on the tail-end of the Gecko, and hit fire again. The beam made contact for a full five seconds, a red light warning that his laser was nearing a dangerous temperature. "Just... one more second," John gritted his teeth for an explosion, and it came. Quickly letting go of fire, John steered left to avoid the flying debris, catching sight of a large container which some other ship would scavenge at a later date – maybe even he would himself, once the Eagle was equipped with a fuel scoop.

Retargetting the Autopilot, John reset the Stardreamer, and when he regained consciousness he was in station at Lacaille. The agent who was to collect the Boston package appeared on his monitor, informing him that 200 credits had been credited to his account. Filling up with Hydrogen fuel, buying two tonnes of narcotics (not illegal on Lacaille), and repairing his Atmospheric Shield, he then set off on the return journey to Barnard's Star. He steered clear of any other missions, because he knew that the narcotics may get him in trouble

with the federation, and he didn't want any more people wading in and joining them.

Game over...

John got into the Barnard's Star system without incident, but before he could switch on the Stardreamer two ships began to attack him, one with a powerful Beam laser, the other with a Pulse laser. They had seen him coming, and waited in ambush. Cursing himself for selling the scanner, John turned and faced both his foes, deciding to target one with a homing missile, and take the other with his lasers.

He launched the missile, and immediately the smaller ship took evasive action, turning and fleeing. This left the other larger craft on its own. Before he could turn, a huge blast

"The game is so big that you couldn't possibly visit all the planets in your lifetime"

of laser fire strafed the left wing of his ship, sending the Eagle spinning injured, off course. Warning lights flashed all around him, the ship's computer calmly informing him of the damage to his shields, and one more hit would destroy his ship.

He turned and fired at the enemy ship, managing to get a few hits before it weaved its way around to face him again. John also weaved, intending to give this guy a run for his money. The enemy fired again, this time

■ The Status screen gives you a picture of your ship, along with an inventory of your weapons, cash, and current status. It might all look like statistical data, but it's pretty useful when you're out there.



■ Targeting an enemy is easy. Just click on the ship, and a target appears on your head-up display. Then click on a missile, and click on Fire – your ST does the rest.

missing him, but as it flew by a missile warning light flashed on John's console. Again he weaved to avoid the missile, but as he turned he spotted the smaller ship which had returned for the kill.

John's mind raced: it suddenly hit him that this wasn't VR anymore; this was reality, and these two ships meant business. He was well trained in arcade battles, but when it came to real life he realised this was his first and last time. The smaller ship fired a single pulse of laser fire, destroying the Eagle fighter in a colossal explosion...

Verdict

The emphasis in *Frontier* is heavily on freedom, you're free to do lots of things with your life in the game. Become a mercenary and assassinate enemies of the Empire or Federation; become a pirate and shoot rich-looking vessels and collect their cargo, or join a bunch of scavengers and search through space for valuable debris.

If you want a more peaceful life, you could always trade for a living – picking up fruit and vegetables, farm machinery and robots and selling them on at a nearby System. That does tend to get a little boring, though, and you soon find yourself picking up illicit cargo and doing a spot of gun-running. This is as fun as it sounds – but you do tend to get into fights a lot, both with police and pirates. The problem is that when using a standard ST or STE the frame rate is quite slow, so fighting a high-speed spaceship can be quite difficult.

Another limitation is that you can't get out of your ship – so you might see a great city from your spacecraft window, but you land in the starport and then you can't leave your cockpit! This is quite restrictive, with all of your communication with the outside world coming from your video screens. Paul Woakes proved with the *Mercenary* series of games that it's possible to create a space flight game where you could get out and walk



■ There's a huge Galactic Map supplied as a poster with the game, you can always call one up just to check your whereabouts.

around – maybe that's something to consider for *Elite 3*?

Lastly, the system used to generate the colours in the game can occasionally get bogged down. Presumably because the 3D objects are so complicated, the odd ship can change colour as you approach it, and occasionally some of the polygons can disappear completely. Such glitches happen quite frequently on a slower machine, occasionally on a faster one.

But hey, while it's limited in some areas, *Frontier* makes up for it in every other respect. The game is so big that you couldn't possibly visit all the planets in your lifetime, so the scope for exploring is massive. The range of ships, accessories and weapons is just vast, and at the risk of running out of superlatives you can even take on a crew for the larger ships for added control. *Frontier* adds new meaning to the old "way of life" cliché – if you buy it, prepare to spend a lot of time in an entire virtual universe.

ANDY NUTTALL

Frontier - Elite 2

£29.99 Gametek
0753 553445
Needs 1MByte. Hard drive installable

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- A dream to play.
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Lows

- On a basic 1MByte ST you might find the frame rate slow in fierce battles.



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FORMULA ONE WORLD

Eeeeeeeeeeeeeooooooooooooowwww
www! Racing games don't come much faster than this. Gentlemen, start your engines

When the very first computer capable of playing a decent game was unveiled, somebody thought programming a racing game would be a good idea, and they've been writing them ever since. *F1* is another in a long line, it puts you in the cockpit of a Formula One racing car and gives you the chance to bomb about on 12 tracks in different parts of the world.

F1 scores over the opposition by being fast and eminently

playable. It bills itself as being very authentic, but don't put any money on it - *F1* is a simple blast around the track. The goal is to win enough points over a series of races to spray champagne over the crowd, wear a big leaf necklace and start a lucrative career in sponsorship and product endorsement.

First up is the options screen where you pick what type of game you want. There are three modes as well as a demo mode, where you sit back and watch the car being driven by an expert. A neat trick is to

Before each grand prix you do a qualifying lap to set your position on the starting grid and get to know the track.



put it into demo mode when people's backs are turned and then waggle the joystick about making out that you're a top-notch driver. Arcade mode is a simple race of overtaking, you have to pass a certain number of cars before you can go on to the next track. Training enables you to test out the tracks and cars in a non-competitive, don't-care-if-you-crash kind of way. Championship throws you into the racing season proper with the goal of becoming world champion.

The two-player game gives you a split screen display and the opportunity to repeatedly lap your friend who hasn't been up half the night practising. You can also adjust the aerofoil wing setting, the hardness of your tyres and pick

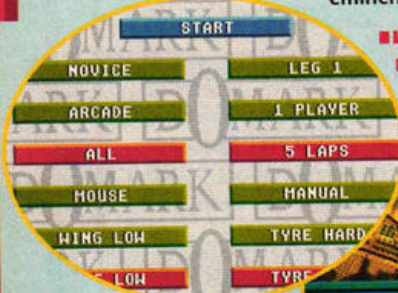
either a manual or automatic gearbox. There are pit stops to refuel and change tyres if you find yourself spinning all over the road. Other than that it's a very straightforward game. Control is either by joystick or mouse, the former easily being the best bet.

Accelerate, skid and crash

The graphics are up to the job, and more detailed than in many racing games. The sky is a flat blue and the ground a flat green or orange, but there are plenty of bits of scenery. There are some neat touches, too. The roadside stuff is a mix of 3D and sprites, zooming under the bridges is particularly smart. The speed which everything moves at is



The arcade game is a simple overtaking game. Just get past a few of the other cars to get onto the next level.



Left - The options screen. From here you pick the kind of race you want and the control method. The frustrating part is not being able to change the number of laps on championship races.

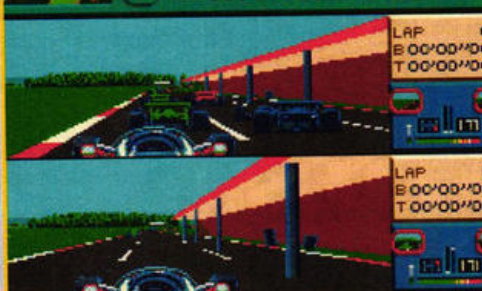
Right - You need to make a pit stop, to refuel, replace worn tyres, buy chocolate and build up your collection of tokens.



Left - Just to show you what it looks like we have crashed this multi-million pound racing car into a bridge - on purpose, of course.



Right - Two-player mode, both cars almost neck and neck as they whizz past the pits. It's still fast even with both of you bombing about at top whack. You need to be close to the screen to see all the instruments though. Look at those wing mirrors.



YOUR CHARIOT AWAITS

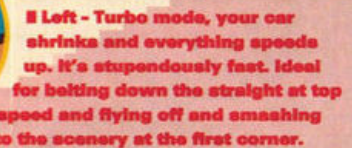
There isn't much to keep an eye on in the cockpit of your F1 car, unfortunately everything you do need to look at is terribly small. Especially your position on the circuit map.

You must remember to keep the revs high, drop a gear or two as you turn into sharp corners and accelerate like hell on the way out otherwise you probably won't last very long

- 1 The circuit map - the tiny dot is you. It is difficult to see, making forward planning tricky.
- 2 Starting lights, make sure you don't jump them.
- 3 The position of you and the other cars in the race.
- 4 Your times, last lap time and your best lap time.
- 5 Fuel. Get in those pits when fuel's low or there's an embarrassingly early retirement ahead.

■ The championship screen, the game includes drivers from this year's season. Making it to world champion is one hell of a slog, as soon as you do it's off to do a series of TV ads.

■ Left - Two-player mode prolongs the game's appeal enormously. You might tire of racing on your own but thrashing it out with a friend's always a laugh, as it were.



CHRIS LLOYD



SPAIN BARCELONA

DRIVER	TOT TIME	LAP
1	2:36''82	G.P.
2	2:09''76	
3		
4		
5		
6		
7		
8		
9		

- Some very small graphics to keep an eye on.



WALK THIS WAY...

Probably the best thing about *Bart vs the World* is the introductory screens. At least at that point you don't know how bad the game really is



Unfortunately the owner of the nuclear power plant is a dodgy dealer...



This is Krusty - collect his mass-produced collectibles.

The art contest was sponsored by the dodgy Burns to get rid of Bart.



THE SIMPSONS:

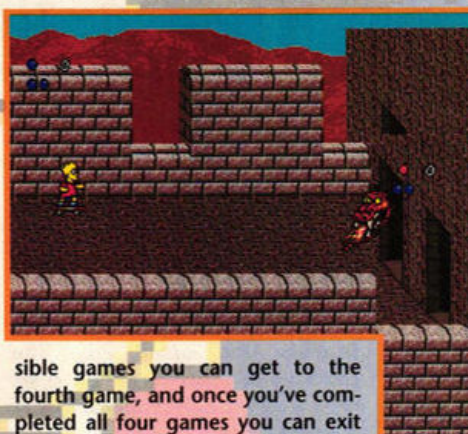
Bart makes his second appearance on the ST but he shouldn't have bothered...

We don't need or want crap games on the ST. If we only have three new releases a month we want them to be at least halfway playable. *Bart vs the World* isn't.

The theory behind the game is incredibly confused, but basically it means you have to pick up loads of collectibles which are scattered throughout the different levels - or worlds - if you don't want Bart and his family to be wiped off the face of the earth. Once you've played through the game a bit you

probably won't care less whether you save Bart or not, but hey! reviews are supposed to be analytical and constructive, so let's go through it bit by bit.

The introduction isn't too bad, the background's set and you're left to get on with playing your way through all the worlds. The first stop is China. On the screen you can choose three games to play - there's also an exit sign and another game symbol which is "greyed out." Once you've played your way through one of the acces-



Controlling Bart as he wavers all over the Great Wall is almost impossible. Just hold on tight.

sible games you can get to the fourth game, and once you've completed all four games you can exit to meet the end-of-world baddie, cunningly disguised as the Burns Boss. Then you can move on.

Frustration abounds

If any thought had gone into this game at all there would have been

are 15 tiles on a board with space for 16 and put in the right order they make up an illustration; a card memory game where you have to make pairs but you get so few turns that there's no way you can do it if you make even one mistake, unless you're incredibly lucky.

On top of this there are a couple of games that Virgin optimistically describe as "main." First there's a sort of mini platformer in which you jump about on a boat picking things up. It's dead easy to find the exit here - all you have to do to complete this bit is go straight there and leave. Admittedly you miss out on the chance to pick up more collectibles, but if you just want to progress, that's all you have to do.

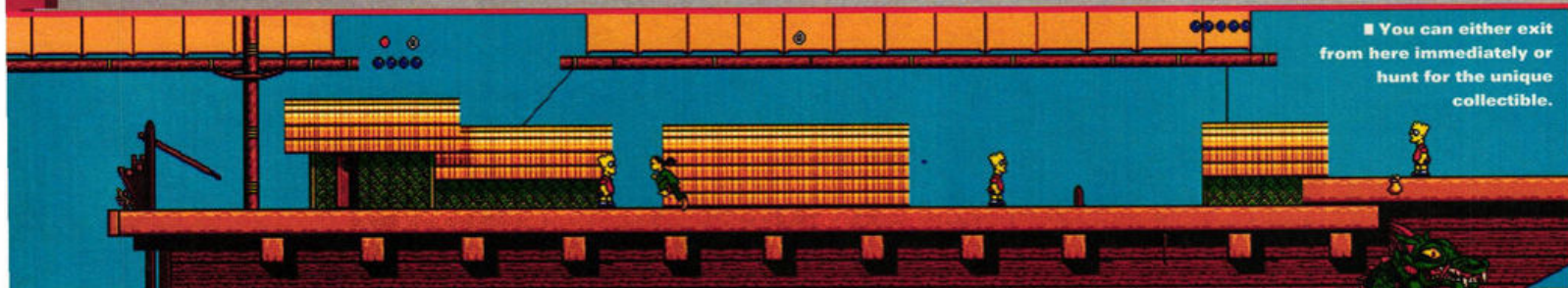
The joystick control is so abysmal and the screen so flickery, however, that's likely to be all you have the patience for. Finally in this

"You probably won't care less whether you save Bart or not"

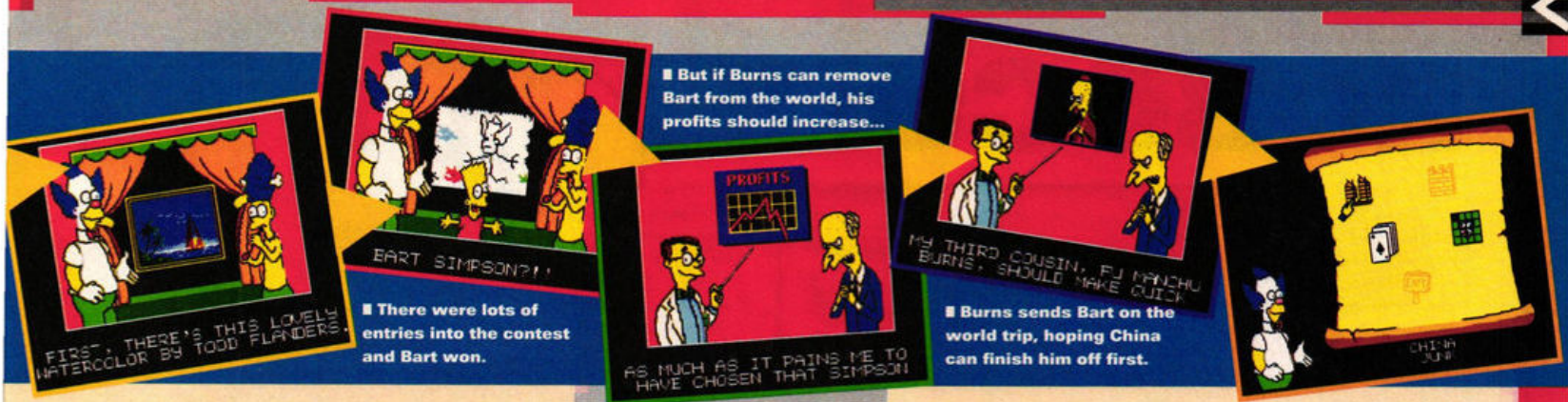
an option whereby you could save your positions - either at the end of a level or after you've completed a single game, or at least something somewhere. As it is you have to plough your way through one of those slidey puzzle things - there



Sometimes you meet peculiarly dressed characters just lurking about under the frozen wastes of the ice world talking to snowmen. Strange.

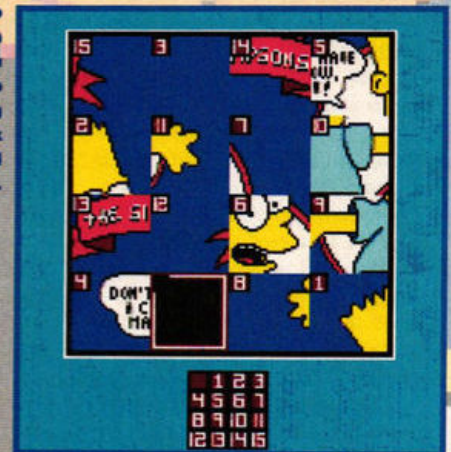
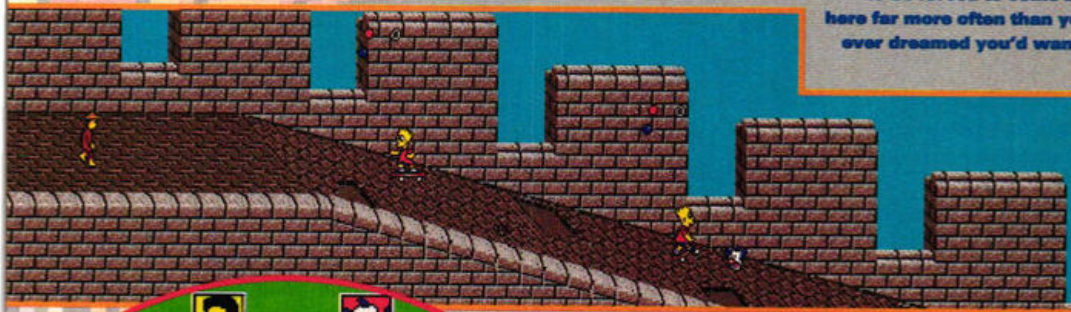


You can either exit from here immediately or hunt for the unique collectible.



BART VS THE WORLD

■ The manual invites you to go back to the single screen games as many times as you like. Problem is, if you die during the game, you're going to be forced to come back here far more often than you'd ever dreamed you'd want to.



■ You have to cheat to get through this and a pen and paper is as good as a photographic memory any day.

■ Keep chucking things at this guy when you reach him. Although it doesn't look like your weapons are doing any damage they seem to erode him slowly.



Verdict

This game is not one to recommend not least because you have

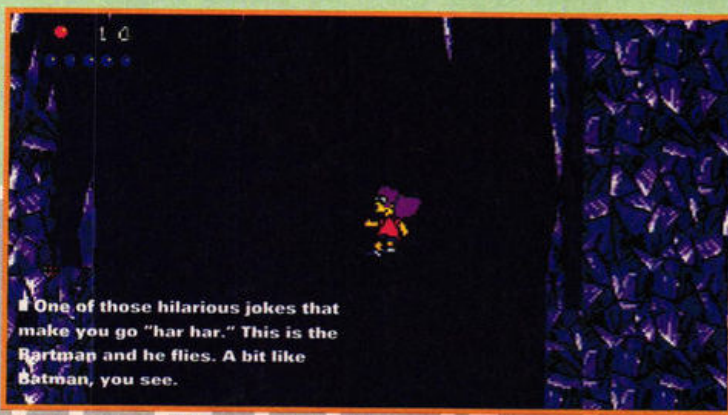
to go back to the beginning so often that this level is likely to be in your nightmares for months.

PAULA RICHARDS

country there's the Great Wall of China - Bart's back on his skateboard on a one way trip along a wall trying to avoid the holes and gaps between sections. It's very tricky largely because the control mechanism is so bad. And that's it.

The end-of-world baddie doesn't appear to be a great challenge - just throw a few things at him and you've won. You progress in this way through the four levels, but when you die you have to start at the beginning again.

The problem is that in actual fact the levels aren't actually very big - nor are they particularly enjoyable. Sliding puzzles are very well, but surely no-one wants to be bothered to play them time and time again? It's more of a punish-



Bart vs the World

£25.99 Virgin
081 960 2255

Highs

■ Keeps you going, if not entertained, for ages.

Lows

■ Pretty much everything, really.



ROBOCOD

■ Big R uses his expand-o-suit to full effect to get away from the approaching Elvis impersonator. Shortly after this picture was taken, he burst. Sorry.



Aha! We've met this little fellow before, haven't we? He's really quite unforgettable. Wasn't he in some children's TV cartoon programme or something? No? Ah. Oh well.

Only kidding. *Robocod* was a major success on every format ever, and even to this day old people clog up the aisles of Waitrose to talk about him and ram us vibrant, younger folk with their trolleys.

This is a really big game in the sense of being big as well. There are loads of levels to explore, and as the game isn't very tricky, you should get to see them all. So it isn't very tricky? That's right. It's not tough or anything. You should be completing it, large size and all,

a few days after you've lovingly removed the shrink-wrap.

That aside, it's smooth, oh-so-colourful and packed loosely with far apart baddies. The beauty of the game is marred slightly by the fact that it appears to take place in an aircraft hangar. There are some enormous gaps between moments of excitement and interest, and if you want to go baddie hunting, take a sleeping bag.

Maybe this is too heartless. But play *Robocod* and, much as you enjoy it, and marvel at



■ Our hero scales new heights of the, er, globe. (Look, say something about the Nikes. There's comedy in those.)

■ P-p-pick up a -- no, sorry, let's stop that "joke" before it even starts. Erm, some penguins. And *Robocod* in a hole.

the pretty graphics, you wonder why there aren't more of them. Or at least they could have put the ones that there are closer together.

Verdict

Very lovely and all, but (oh, I'm going to say it again) there are too



many big gaps in it, which gives it a funny sort of

atmosphere. As Pink Floyd said, "What shall we do to fill the empty spaces?" And I'm glad they did.

The sound is immensely catchy, though, and the cuteness of it may make it perfect for the kiddies, especially those trying to cultivate agoraphobia in later life.

JAMES LEACH

Robocod

£9.99 Kixx
021 625 3388

Highs

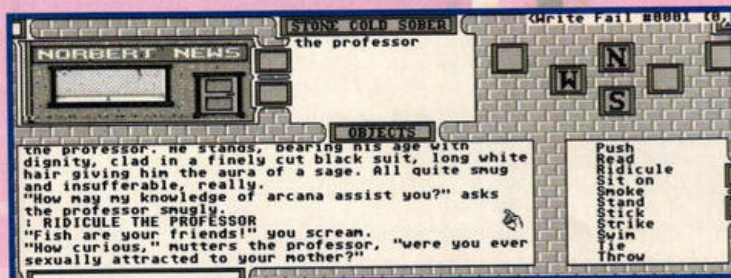
- There is a lovely tune, smart animation as well.
- Oh, and the sugary colours are ace too.

Lows

- Big but empty.
- Yes, that's it. A bit too easy peasy, actually.



STONE COLD SOBER



■ Imagine having a name like "Norbert News." You'd know exactly what you were going to do in life, wouldn't you? A bit like Russell Sports, Scott Tailors James Baker or, er, Devon Savouries. Maybe not.

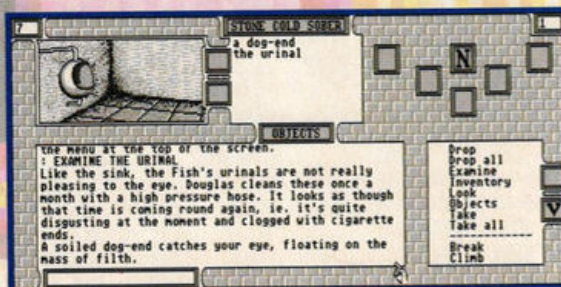
1994 seems to be the year of the text adventure revival, with Topologika's offerings reviewed last issue, and now this tidy little game from the Floppyshop.

At first glance *Stone Cold Sober* is promising. There's a useful interface, making use of the mouse to enter the commands and objects and a tiny image describing most of the locations. The accompanying story is well written, to the point that you wish it actually had an ending... but that's up to you to provide by playing the game.

So, there you are in The Flying Fish, a real ale pub in Brentford, mingling with the clientele.

Interesting locations include The Toilets - a strange square room with oddly-shaped porcelain containers screwed to the wall, containing urine-stained dog-ends; but the more astute adventurer may

■ It doesn't pull any punches with its use of language. It thinks nothing of putting soiled dog-ends in the gents' urinals - and letting you pick them up.



want to wander outside for a taste of real Brentford (no jokes about nylons, please) and the shed with no floor in Tim's allotment.

All this may sound very interesting, and to be honest, while you're playing, it is. However, SCS does seem to have more than its fair share of bugs (being able to pick up things that aren't there, so your inventory is made up of a series of blank lines, for instance). Not the most ideal feature for a game, it has to be said.

Also, while the idea of a point-and-click interface is quite appealing, it does tend to be limiting in the "typing-in-a-swearword-and-getting-an-amusing-reply" stakes. Come on, in all those days

of playing Scott Adams, Magnetic Scrolls and Infocom adventures, you didn't type in a teensy-weensy rude word once? (Remove that halo from your head at once.)

But for all that, *Stone Cold Sober* is an interesting and almost playable game, with a story that makes you itch to know what happens. Just a little more bug-fixing please, Mr Floppyshop.

ANDY NUTTALL

Stone Cold Sober

£9.99 Floppyshop
0224 586208
Medium or high resolution only.

Highs

- Well-written and amusing introduction.
- Good point-and-click mouse interface.

Lows

- Bugged to, er, the proverbial.
- Could do with a modicum of colour.



SPACE CRUSADE

Picture the scene: you've just bought yourself a role-playing board-game, and you've taken it out of the box and arranged all the pieces on your bedroom floor. Then you've realise that all the pieces need painting, so you've nipped down the model

shop for some paint, then spent the next three weeks covering your miniature metal Judge Dredd and Call of Cthulhu pieces with splodges of colour. By that time your friends, hanging around in the den of iniquity known as "Alan's flat," the stench of dubious substances lingering in the air, have long since gone home and, quite possibly, died from boredom.

So why not buy the ST game version? After all, several programmers go out of their way to create an entire board-game on the ST, and invariably they're much cheaper than their "analogue" counterparts. And, of course, you don't have to grapple with 13 different brightly-coloured dice, nobody has to "be" the Dungeon Master, and you don't need to paint anything. Hurrah!

Space Crusade, then. This is the ST version of the best selling RPG board-game, *Space Crusade*. Taken from a positive angle, you could bash on about the great 2D map version of the game, which switches to isometric 3D for the fight sequences. Then, of course, there's the option to play against your friends, and a couple of human opponents never did any harm.

Ah, but you could be highly negative and point out that, for the ST version of *Space Crusade*, Gremlin should really have included some skilful combat features to the game, thus removing some of the luck and



Battles take place from an isometric 3D viewpoint, but only after you've selected your move and rolled the die. After that your ST takes over and plays your move.



Oh, it's all a bit sad and WWF like, isn't it? Choose from only three teams: Ultra Marines, Blood Angels or Imperial Fists - but what if you want somebody else? Maybe somebody with a bit of street cred?

chance elements from the battles. There are obviously RPG purists who require the exact replica of the board-game on computer, but there are more who would like to see some more features which you couldn't do with a board-game. A bit like *ST Pictionary*, or *Trivial Pursuit* - it's got good intentions, but it doesn't quite work.

ANDY NUTTALL

Space Crusade

£9.99 GBH
0742 753423
All STs

Highs

- Neat graphics, and the 3D battle mode works quite well...
- ...But switching to 3D permanently can be hard on the eyes.

Lows

- Gameplay is limited by the roll of the dice.
- The save game function is limiting.



The best way to play the game is in the 2D plan mode, where everything is clear and neatly laid out. It's not as aesthetically pleasing as the 3D game, though - but in 3D everything gets a bit confusing.

PC GAMER

THE ULTIMATE

1994

GAME PREVIEW

This month we look forward to 1994, with a giant guide to the New Year's best games. Starring over 50 of the hottest new releases, from *TIE Fighter* to *Pacific Strike*, it's one feature you just can't afford to miss!



PLUS!

Sam & Max

reviewed! It's

LucasArts' funniest ever game! Find out what makes it so good here!

AND! All the top Christmas reviews, from *Rebel Assault* to *SubWar 2050* to *Aces Over Europe*. And, in *Terminator: Rampage*, we've got the best *Wolfenstein* lookalike cover demo you've ever seen.

NOW, MORE THAN EVER, YOU CAN'T AFFORD TO MISS IT!

Issue 2 on sale
Thursday, 23 December

IT'S THE IDEAL CHRISTMAS
HOLIDAY READ!

GAMEB

Ah, Christmas is over and it's 1994. Chances are, if you've got stuck on a game or two, you may have come across a couple of problems – and this section just might help!

THE CHAOS ENGINE RENEGADE

This is the "Ultimate Code" for Chaos Engine, or so proclaims S Morgan of Pontypool. Enter one-player mode with CPU as the second character, and use the code JSP99G416LY2 to obtain 30 lives and 41,993 credits at the start of Level 2. Pah, I reckon there's somebody out there can do better than that. Perhaps that's what we call a

"challenge" – so get busy and write in with your codes.

NIGHT SHIFT KIXX XL

LucasArts' recently re-released platform smash *Night Shift* and it's been the cause of a lot of headaches for all you ST owners, certainly if the number of letters Captain Blunder received was anything to go by. So, here are the level codes and a cheat

GOBLINS: THE PRINCE BUFFOON DIGITAL INTEGRATION



12 year old Anthony Sheldrake got his dad's help ploughing through this French puzzle game and has sent in the complete solution to prove it. Remember: timing is crucial when you're getting Fingus and Winkle to do things – you often need to make several attempts before you get it right

MONDE One

Village – Winkle uses the sausage. Fingus gets the bottle while the old men laugh. Go to the Fountain.

Fountain – Fingus touches the fountain. Winkle uses the bottle on the jet of water. Winkle uses the bottle on the frog. Get the stone. Fingus uses the stone on the mechanism. Fingus uses the rung. Winkle climbs the ladder. Fingus uses the door. Fingus talks to the wizard. Winkle uses the chimney. Go through the door into house. Now go to the wizard.
Wizard – Use Winkle on the tail of the rug. Fingus gets the matches from his head. Fingus uses the

matches on the kettle. Winkle uses the kettle. Get the spring key. Winkle uses the key on the cuckoo clock. Fingus also uses the clock. Winkle uses the stone on the big key. Get the big key. Now go on to the fountain.
Fountain – Fingus uses the big key on the cellar. Get the wine. Go to the Village.
Village – Fingus uses the bottle on the flowers. Get the flowers. Fingus uses the flowers on Notable. Winkle stands on the platform. Fingus uses

the switch. Winkle gets the sausage. Go to Giant.

Giant – Winkle gets the chicken. Fingus uses the sausage on head. Get the egg. Fingus uses the sausage on the pothole. Winkle passes the dog. Winkle goes down the hole. Both Fingus and Winkle go through the burrow. Winkle uses the matches on the woodpile. Fingus uses the egg on the fire. Fingus uses the sausage on the giant. Fingus uses the wine on the giant. Go to door.



■ The village in Monde One contains a sausage and a bottle. Make sure Winkle touches the sausage before Fingus grabs the bottle.

MONDE TWO

Trench – Fingus goes to the tower. Fingus picks up the bomb. Winkle uses the matches on the bomb. Winkle goes to the tower. Fingus picks up the bomb. Winkle uses the matches on the bomb. Fingus goes to the tower. Winkle picks up the bomb. Fingus uses matches on the bomb. Fingus uses the carpet. Winkle uses the carpet. Now go to Kael.

CAPTAIN BLUNDER

Can't get any further with that adventure? Stuck solid for ideas about that dratted arcade game? You know what to do – say "hello" to the man with the pants on the outside of his tights



■ Ah, the slippery-slidey world of Fire and Ice, where Cool Coyote has problems approaching creatures of the opposite species – basically because he can't stand up. Find the second puppy to get more lives.

USTERS

just for you, from **Stephen Murray** of **Liverpool**.

LEVEL CODE

2	CH BA BA LE
3	BA CH PI PL
4	PI LE PI PL
5	PI PI LE CH
6	CH PL PL PI
7	CH PI LE BA
8	PI BA PI CH

9	PI LE LE CH
10	LE BA PL PL
11	BA PI CH PL
12	CH PL BA PL
13	PL CH BA PI
14	PI CH PL BA
15	PL PL PI PI
16	BA BA PI BA
17	BA PL CH PL
18	PL LE LE PL
19	LE PI CH PL

20	CH PI PI CH
21	LE CH PI PI
22	PL CH LE BA
23	PL CH CH LE
24	PL PI LE LE
25	BA PI PI LE
26	PL CH CH BA
27	BA CH LE BA
28	PL BA BA PI
29	CH PL CH PI
30	CH CH BA PL

LEVEL CODES

CH = Cherry
BA = Banana
LE = Lemon
PL = Plum
PI = Pineapple

Also, if you want to move onto the next shift without finishing the previous one, simply enter your name as "mpickle" in the high score table.



■ The band gets into full swing - especially the Inspiral Crapets (sic) - inspired snaky-thing on the left. Oh, damn, there's no room for a caption now.

Kael - Winkle uses the bottle on the nymph. Fingus uses the bottle on Kael. Fingus gets on the hand. Winkle stands on the hand. Winkle stands on the rock. Fingus uses the branch. Fingus stands on the rock. Winkle uses the branch. Fingus uses the flower on the stone. Fingus uses the stone. Winkle uses the stone. Fingus uses the bee. Fingus uses the

honey on the nymph. Fingus gets the mushroom. Winkle uses the door. Winkle uses the mushroom on Vivalzart. Go through the door.

Vivalzart - Winkle uses the mushroom on the machine. Fingus uses the machine. Winkle gets the worm from the jar. Fingus stands on the left platform. Winkle uses the switch. Winkle uses the worm on

the vulture. Fingus uses the meat on piranha. Get the bone. Fingus stands on the bin lid. Winkle uses the bone on Vivalzart. Fingus gets the elixir and the clothes peg. Winkle uses the bottle on the container. Fingus uses the bottle on the container.

Musicians - Winkle uses the peg on the tube. Winkle uses the headlight. Fingus uses the spring. Winkle uses the headlight. Winkle stands on the spring. Fingus uses the spring. Winkle uses the drumstick on the hood. Winkle goes through the hole. Fingus goes through the door. Fingus talks to the guitarist. Winkle uses the fly-

■ Well, well, er, well. The boys do a spot of diving down a... well, you can guess, can't you? Good grief, the caption writer's been sacked.



catcher on the note. Fingus uses the pump on the saxophone. Winkle uses the flycatcher on the note. Fingus goes through the hole. Winkle uses the pump on the saxophone. Fingus uses the flycatcher on the mosquito. Winkle uses the mosquito on the headlight. Fingus uses the flycatcher on the note.

Tom - Fingus uses the stone on the ball. Winkle goes through the door next to the boy in window. When the boy comes out Fingus goes through the top door.

Fingus uses the ball on the player. Winkle uses the basket. Winkle talks to the mayor. Winkle goes to the clockmaker. Fingus uses the melody on the bottom left door. Fingus goes to the clockmaker. Now go to Trench.

Street Fighter kids

Have you got any cheats for *Fire and Ice* or *Street Fighter 2*?
Manjit Dosanjh, Luton

CB: *Fire and Ice*: if you get the key on Level One, don't go in the door. Instead go up to the top, across the ice bridge, carry on to the left, then when you come to the edge wait for a while until another puppy comes along. You now have two lives and some more points.

Street Fighter 2: Pause the game, then type in 7KIDS for a battle with the same characters. Also, try placing the



cursor over Blanka on the character selection screen, and type in PATIENCE. Now select your player, and press F10 when you want to top

■ Mr Fountain actually wrote "Monitor" instead of "Minotaur." Oh, how we laughed.

up your energy, although you won't get to see the end-of-game sequence.

Hang back

Can you help me get past the Minotaur in *Ishar*? I've tried everything but I can't do it.

Stephen Fountain, Hull

CB: The trick is to make sure that you don't go into the attack straight away. A bow and arrow is essential, and you should weaken the Minotaur with arrows from a distance, then go into the attack with the two strongest players in front.

Arresting problem

Do you know how to arrest the drunk man in *Police Quest 1*? I've tried everything I know and failed every time. I've even threatened him with a gun!

Laura Pavey, Portland

GOBLINS: THE PRINCE BUFFOON - CONTINUED DIGITAL INTEGRATION



Trench - Fingus uses the hourglass on the trench. Fingus and Winkle go through the opening.

MONDE THREE

Guards - Fingus gets the mayonnaise and drops it below the cow's

■ What a strange bunch. They lounge around all day, and they don't bat an eyelid when somebody snatches the chewing gum out of their mouths.

head. Fingus goes up the ladder and jumps on the mayonnaise. Winkle gets the sword. Collect the mayonnaise. Winkle talks to Rustik. Fingus gets the gum from Stalopicus's mouth. Fingus uses the gum on the cupboard. Go to Forge.

Forge - Collect the stool. Fingus gives an imprint and a sword to the blacksmith. Winkle uses the stool on Otto. Fingus uses the lance. Fingus uses the bellows. Get the key and the anvil. Winkle uses the mayonnaise on Focus. Fingus uses the stool on the meat. Go to the guard.

Guard - Fingus uses the meat on Amidat. Fingus uses the key on the

cupboard. Fingus and Winkle use the cupboard. Go to the well.

Well - Winkle goes up the tunnel. Winkle uses the hatchet. Fingus presses the switch. Fingus goes up the tunnel. When he presses the button Winkle goes through the door. Fingus uses the stool on the hoist. Winkle uses the false teeth on Schwarzy. Fingus uses the anvil on Schwarzy. Fingus and Winkle use the diving suits on the well.

MONDE FOUR

Wreck - Winkle climbs the mast. Fingus uses the lantern. Winkle gets the fish lamp. Winkle uses the fish lamp on "???" zone. Go to Mermaid.

Mermaid - Fingus goes through the hole. Winkle uses the shell. Fingus catches the shell. Winkle goes

ISHAR 2 DAZE/SILMARILS

It's been a while, but here it is at last - the final part of our excellent solution to Ishar 2, Silmarils' huge role-playing adventure. Good luck...

Akeer's Island

Return south-east to the corridor with handles. Go due north into the passage and follow the corridors to the west. Beware of the destroying wizard of chaos by preparing psychic protection, then kill him. Pick up the treasures and the skull.

Return to the passage entrance and take the corridor to the south-east. Watch out for the magician, kill him, then click on the button which is underneath the eagle-heads, revealing a secret passage. Continue along the corridor to the north, place the six skulls on the six scales. Continue along the corridor, kill the guard and pick up the relic. Return to the landing stage, and re-enter the town.



■ The shopkeepers that inhabit Irvan's Island have to deal with many people, of all shapes and sizes. Especially, it seems, slightly deformed two year olds.

Zach's Island

Buy five evening tunics from the clothes shop. Put on the tunics and the ent pendant, and enter the night-club. Pick up the end of fortress parchment. With 20,000 po, go to the cul-de-sac of the four

towers at between one and two o'clock in the morning. Give 20,000 po to the dodgy-looking character, then pick up a relic.

Buy the ingredients for five anti-vertigo potions (Mildong), then eat and sleep. At the harbour,

select the mountains and the north-east landing stage.

Jon's Island

Find a passage to the west. Follow the road, kill the dwarves, then enter the mountains to the north. Pick up two edelweiss plants - one in a cul-de-sac to the west, the other in a cul-de-sac to the east. Return to the passage entrance.

Continue east, kill the vultures, then enter the mountains to the north. Pick up one edelweiss plant, return to the passage entrance, then go east followed by north. Take the passage to the east, and pick up two edelweiss plants. The place is cursed, so cast a curse-lifting spell. To continue, each character has to drink an anti-vertigo potion. Follow the road, pick up a relic, then return to the harbour. Select the mountains, then the north-west landing stage.

Jon's Island

Travel west along the coast. Fight the guards, then get rid of one of



CB: You need to walk over to the driver's window, and type in SMELL BREATH. Type GET LICENCE, then type GET OUT. When Art is standing outside his car, type ADMINISTER FIELD SOBRIETY TEST. Now type CUFF MAN. He complains and asks to

be cuffed in front: type NO. Type READ RIGHTS. Lastly, type ARREST MAN. You are now ready to take him to the station.

Pooles of wisdom

In Leisure Suit Larry 2, please can you tell me:

1. How to get past the KGB agents disguised as Buddhas;
2. How I get into the nudist beach on the tropical island;
3. The meaning of life relative to a kumquat, and in contemplation of my nose why the snail god

leaves only a slimy trail for us as guidance in our journey to become true dunderers?

Richard Anness-Potts, Poole

- CB:** 1. Give the agents the flower you found in the jungle.
2. You don't - you simply need the bikini bottoms from on top of the rocks just outside the nudist beach.
3. Er, what?

Nil point

Do you know if Flashback is coming out on the ST? I wonder, because

there was an advert in your sister magazine PC Format which said Flashback was coming out on PC, Amiga and Atari ST. It was also mentioned by Martin Smith of US Gold in your games testers feature, in issue 51. Is it going to come out on the ST?

Alan Gorham, Kinlochleven

CB: Sadly, Flashback isn't going to be released. US Gold have confirmed that Flashback was originally intended for an ST release, and all the early adverts for the game said so. However, Delphine eventually backed

through the hole. Fingus uses the stool on the seahorse. Fingus uses the cavity. Winkle drops the shell on the glove. Winkle gets the shell. Winkle uses the seahorse. Winkle uses the glove on the blob. Winkle gets the bottle. Winkle uses the pearl on the mermaid. Fingus uses the bottle. Fingus uses the parchment on the octopus.

Wreck - Fingus stands on the shell. Winkle uses the lantern. Winkle uses the rudder. Winkle uses the starfish on the chest. Fingus uses the statue. Winkle goes through the door. Fingus uses the word on the skull. Get the diamond. Now go to the mermaid.

Mermaid - Fingus uses the seahorse. Fingus uses the diamond on the mermaid. Collect the glove and the stool. Go through the door above the octopus.

MONDE FIVE Storeroom

Fingus touches the swordfish. Get the salt. Fingus uses the cover. Winkle uses the salt on the fellow.

Get the file from the pots. Fingus uses the rope on the right. Winkle uses the rope on the left. Fingus uses the file on the chain. Fingus gets the thumbtack. Winkle uses salt on the meatballs and stands on the platform above the cook. When the hand grabs the cook, Fingus uses the thumbtack on the case. Winkle uses the kind elixir on the meatball thrown in the air.

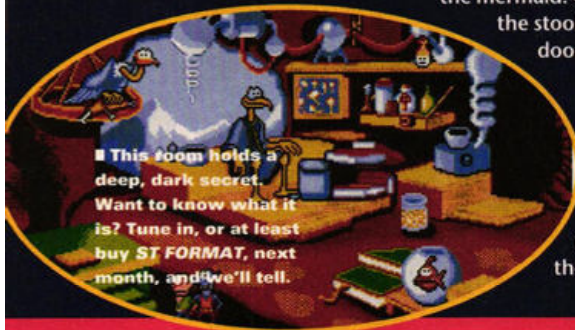
Throne - Get the pepper. Winkle uses the stool on the cornice. Fingus uses the hands. Fingus uses the switch. Winkle uses the door. Fingus and Winkle go through the right ear. Winkle goes through the left ear. Fingus uses the tongue and Winkle gets the crown. Fingus uses the left ear. Winkle uses the tongue. When the cockroach comes

out, Winkle uses the orifice, Fingus uses the ear. Fingus uses the glove on the hole. Fingus uses the cockroach on the hole. Fingus uses the kind elixir on the cockroach. Get another cockroach. Fingus and Winkle go to left of head. Door to Armour should open on the left.

Armour - Fingus gets the feather to use on the can. Fingus uses the cockroach on the hole. Fingus uses the brush on the cockroach. Fingus uses the pepper on the cockroach. Fingus uses the kind elixir on the cockroach. Fingus uses the stone. Fingus uses the helmet twice. Fingus uses the crown on the helmet.

Throne - Fingus collects Buffoon.

Armour - Fingus stands under machine. Buffoon uses the machine and Winkle stands under. **stf**



the characters (dismiss or cast into the void). Enter the mountains to the east, then kill the guards.

At the end, leave five relics on five pillars, and the druid revives. Recruit the druid, who is essential for his fire-protection spell. Return to the landing stage and select the end of fortress. Return to the town if you need to replenish supplies.

Olbar's Island

Fight against the Fire Elemental: put the magic shield on one of the characters, activate the fire-protection spell, approach the Elemental then strike.

At the first crossroads, turn right and travel right around the block. Take the access open to the north, then at the next crossroads go to the west (not essential). In the maze fight against the Orcs, pick up arms and treasures, then to the north pick a fight with the dragon. To kill the dragon, use the same principle as the Fire Elemental - the protection spell must always be validated, otherwise you've had

it. Use the healing spell as often as necessary, and you can have several goes at killing the dragon.

Continue to the north, pick up the treasures in the crannies. At the next crossroads go north, then through the secret passage in the north wall. Continue, and fight against the wizard and the skeletons. At the end of the maze with invisible walls, activate the handle. Return to the crossroads, go down to the south. You must slalom into the room because there are spikes in the walls.

Reach Shandar's fortress. In the large room, move along the

edges because there are missiles in the ceiling. At the south-east end, pick up the treasure; then at the north-west end fight the knight and take the access behind him. In the next room access to the north, follow the corridor, and there's a mechanism to be activated in a small room to the west. At the end, fight against the Gorgon (beware, she inverts), then go into the large room with a fountain which raises life points.

Return to the room. The diversion to the north is not necessary. You can move directly south when you enter the room, you

should reach the labyrinth with the mummies and the witch. Take the passage to the south, then to the east. There's a mechanism to be activated in the small room to the west. Carry on and fight the lion guards. The trapdoor can be activated to open the closed grille. At the next crossroads head north, then at the end get the treasures and activate the mechanism. Return to the crossroads, then go down to the south.

Follow the corridors to the end, then find a small room with a magician. Listen to what he says (don't hit him!), then take the north access in the previous corridor. Put the parrot in front of the ear and the passage opens.

In the next room, slalom otherwise you bash your head; then in the next room move along the edges. Prepare psychic shelter, then fight against Shandar in the north access.

Kill Shandar, go back to the country - and that's it, you've finished. Hurrah hurrah! **stf**



Here we have the combined strength of petite Obarmon, threatening Akorh, ageing Molga, menacing Targhan and, er, Aramir, who appears to have mutated into a series of little boxes.



out, and the advert was changed - so no Flashback for us. Well spotted, though.

Missing virus

Please could you tell me if Turrigan, 3D Galax, Shadow of the Beast, and Virus are still available on the ST? If so, can you tell me how much they cost, and whether they are any good?

Edward Barker,
Barton-Under-Needwood

CB: You can get Turrigan for £6.96 from DataGEM (☎ 071 608 0624) - and it's a great game. Turrigan 2's better, though - and that's available from the same place at the same price. The others, it seems, have all been deleted. Unless somebody knows any different, of course...

Behold the Shadow of the Beast, er, title page. We considered it best to print this because, believe us, it looks a lot better than the actual game.



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Attention To Detail, programmers of Cybermorph

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 rating out of a maximum of five

SOUND ● ● ● ●

Sound rated out of a maximum of five

CAPABILITY ● ● ● ● ●

Does the game uses Jaguar's capabilities?

GAMEPLAY ● ● ● ● ● ●

How does it play?

STF RATING

90%



JAGUAR

Get yourself a Jaguar and you get to be at the cutting edge of videogame technology for the next five years. It's an offer too good to resist

You've probably noticed that we're not avoiding the Jaguar. In fact, you've probably noticed that we're positively embracing it. This, despite the fact that it's a console and, on the face of it, has absolutely nothing at all to do with all those useful and interesting and creative things you can do with your ST or Falcon that we normally cover in *STF*.

It doesn't even have the appearance of an ST as every other machine. Atari pro-

duce seems to have to – it actually looks rather attractive, what with being black and red and coming packaged in a nice box... Aesthetics aside, there are plenty of good reasons for us to talk about the machine – and we've put it in a convenient section hidden at the back of the magazine so if you want to pretend that it's not there then you can.

"We know Atari. We know how they work. We are committed to them and to their machines"

Q So the Jaguar doesn't fall victim to the 3DO, Sega Saturn, Amiga CD32 or other multi-media machines like the Philips CD-i, I believe it must be marketed correctly with a massive advertising campaign and not the hush hush affair that we saw with the Falcon.

A Atari reckon they're a changed company – they know they've made mistakes in the past and they say now that they're aware of what they should be doing. They have a huge vested interest in doing well because otherwise Atari are unlikely to survive as a company. The advertising campaign for the Jaguar is due to start in the UK around Easter.

1 First off, and most importantly, you want to know about the machine. Letters have been flooding in asking questions about it, covering everything from the types of games that are going to be available to extremely technical queries.

Q Is it true that first games for the machine are nothing special?

A No! OK, so *Raiden* and the uncannily disguised *Humans* as *Evolution Dino Dudes* aren't original or especially brilliant showcase choices, but *Cybermorph* and *Crescent Galaxy* look amazing, and are very special. *Alien versus Predator* is also eagerly awaited by the industry.

● A Jaguar pack, a TV and a pair of hands are all you need to be able to play the latest and greatest games.

● Atari are a funny bunch; they've got this great machine, they try and promote it and then they complain they're getting too much attention. It really is quite amazing.



the next big thing

We're going to be addressing all of these issues in some form or another in this regular Jaguar section. The thing is, you see, we're simply the best people in the business to do it...

2 STF have been dealing with Atari on a very regular basis since its incarnation – in fact since before then, when we were ST/Amiga Format. We know Atari. We know how they work. We know the best way to deal with them. We are committed to them and to their machines...

Q Inexperience with Jaguar technology means programmers are going to take years to learn how to exploit the software.

A It's going to take several months for software developers to really exploit the hardware because it is so far ahead of anything they're used to working with. The games available at the moment are streets ahead of, say, SNES and Mega Drive games and that gap is only going to widen as programmers learn more about the hardware.

3 We are committed to Atari's machines because they are technologically brilliant. Back in 1985 the ST was the first 16-bit home computer with an easy-to-use interface – you know it as GEM (Graphics Environment Manager) which made the ST generally popular and accessible even to technophobes. The Jaguar continues in this innovative tradition – it's the first 64-bit console and it's at a price you can afford...

4 For £199 you can get a controller, a game and a Jaguar – assuming you get it from the UK. This is excellent value when you take into account its technological level and the comparative price of the other available consoles. This goes back to Atari's original mission and ambition of being able to sell the "power without the price," started with the ST.

"The Jaguar is the next logical step for any ST games player... you want to play great games, you need a Jaguar"

5 The ST games scene is not as healthy as it could be – although there are the occasional exceptions you don't often see new ideas or innovative games coming first to the ST. We have got used to having often delayed Amiga and PC conversions. We shouldn't have to stand for always being last in the queue. The Jaguar is the first in the queue because...

Q Don't you think Atari should be pressing software houses to release games with mass appeal like *Street Fighter 2* or *Mortal Combat*. I'm sure the Jaguar can produce beautiful texture-mapped 3D structures but these games only appeal to the older game players and not to most teenage game players.

A Atari are aware of this and are trying to get together a portfolio of games that is as varied as possible. *Kasumi Ninja* is going to be one of the first releases and is rumoured to be even more gory than *Mortal Combat*. *Zool 2* is another confirmed game with huge amounts of mass appeal.

"The ST games scene isn't as healthy as it could be... you don't see innovative games coming first to the ST"

6 The 64-bit Jaguar has the capability to put it at the cutting edge of videogame technology, and it's also future proof to a large extent, so...

7 The Jaguar is the next logical step for any ST games player – you know Atari and enjoy their machines, otherwise you wouldn't be reading this. Simple – you like (or at least know) Atari's technical capabilities and you want to play great games, you need a Jaguar.

8 Although it's "just" a games machine at the moment there are other exciting things you're going to be able to do with it when the CD peripheral becomes available next spring, so you can get into video, music

and other different applications. Even more companies than those supporting the ST and Falcon may be jumping on the bandwagon. Atari are committed to making subsequent machines upwardly compatible.

9 Atari have decided not to get into censoring the Jaguar's games available, so you can expect to see even more violent and explicit games. With the amazing graphics capability of the machine you're going to be able to see even more detail. Atari are going to be using a series of warning certificates so you're aware of what you – or your parents – are buying.

Q I'm concerned that Atari has fallen into their old trap of launching new hardware without adequate software support.

10 The whole system really is incredibly exciting – and anything that gets the Atari name bandied around a bit more can only be a good thing for anyone who owns a machine from Atari. It's the next big thing...

A At the last count Atari had well over 30 software houses lined up and raring to develop for the machine, and with ten varied titles expected to be finished by now, that's quite a lot to be going on with – at £40 you're not going to be buying a new game every day. Unless you're very rich.

• It cost £631 to get a Jaguar from the US up and running – \$260 for the machine, \$80 transport; £68 import duty; £300 multi-system TV, £25 for a power pack – but that's still cheaper than a 3DO!





Jaguar demand

by Paula Richards

You're going to find it very difficult to get hold of your own Jaguar in the UK before Tuesday 15 March, the official European release date for the machine. Within Atari it appears that the European marketing team have been accused of doing too well in getting the Jaguar drawn to the attention of the public. They've had appearances on the GamesMaster TV show, which has a viewing figure of around four million dedicated computer games players, as well as coverage in national daily newspapers and specialist magazines.

Demand is far outweighing supply of the machine; Atari are being bombarded with demands for information and Jaguars. The high street stores HMV and Virgin



have, rumour has it, taken deposits for more machines than

they're going to receive – certainly during 1993 – creating a few disappointed Christmas present hunting customers. There are several probable reasons for this dearth of machines compared to the num-



● Don't get too excited about getting your own Jag, you're more than likely to have to wait until Europe's "Jaguar Day" – March 15.

ber of people who want them.

First, and perhaps most tellingly, Atari are aware that they have made marketing mistakes in the past. Consequently they expected their job in bringing the Jaguar to the attention of a sceptical – and very competitive – console industry to be very difficult. They have therefore attempted to promote the machine energetically, on a word of mouth and trips to New York basis, as opposed to tangible bribes like free machines. They seem to have achieved a remarkable amount

HOLY ZORKMIDS!



● Taking leave from the original Infocom text-only format, *Return To Zork* features stacks of digitised graphics, and an icon-driven graphical interface.

game giant Activision. Interestingly, the new game has a graphical interface, making use of icons to enable the player to move around. This is in direct contrast to the text-only interface which originally made Infocom so famous.

Return to Zork features full-motion video sequences, filmed using real actors including Jason Hervey (from *The Wonder Years*), and contains over an hour of CD-quality speech.

Return to Zork, the next game in the classic *Zork* series of adventures, is to be released for the Jaguar CD in the first half of 1994. Originally text-only adventures created by adventure wizards Infocom, the *Zork* series last produced a game in 1987 with *Beyond Zork*, shortly before Infocom was bought out by video

INTERPLAYING CHESS?

One of three games under development for the Jaguar by Interplay is *Battlechess*, a chess game with some excellent graphics and animation sequences.

Each piece is represented by a detailed colourful character. As you make your moves, either against the Jaguar or a human opponent, the characters are animated as they walk around the board. If you take an opponent's piece, the board is magnified and all other pieces are

removed as a mini-battle takes place. The dominant piece destroys the other using a weapon or a magic spell, then the other players return and play continues.

We first saw this game on the ST some years ago, but the Jaguar version promises to make use of the Jaguar's sprite-scaling routines, high resolution and large colour palette. We sure hope so.

● Here we see a typical *Battlechess* board. The two sides represent warring armies, hence the soldiers and castles, and each piece moves with lots of frames of animation.



SPORTS ACCOLADE

The Jaguar is to be treated to an all-star lineup of sports simulations from console champions Accolade.

Hardball 3 is the third incarnation of the excellent series of base-

ball simulations, the first of which made it onto the ST in the late '80s. A one or two player game, *Hardball 3* enables you to play the role as team manager, as well as controlling the players' performance. Also under development are *Brett Hull Hockey* (an ice

● Al Michaels is apparently one of America's best-known sportscasters, and he "presents" *Hardball 3*. Which means his face appears from time to time in the game, and he says something exciting,

hockey game including such features as "authentic organ music;" *Charles Barkley Basketball* and *Jack Nicklaus' Power Challenge Golf*.

On the more traditional video game front, Accolade's star of the SNES, *Bubsy*, is also to join the Jaguar line-up. Subtitled *Claws Encounters of the Furred Kind Bubsy* is a platform game featuring cartoon-style animation, an original movie-style musical score; and, according to Accolade, gives new meaning to the expressions "Ah-ooga!" and "Fluff Dry!" Ah, American humour...



● Just to give you an idea what *Hardball 3* looks like, here's a PC screenshot. The PC version was released in 1992, though, so hopefully the Jaguar version will be more colourful.

outstrips supply

with virtually all the media attention being positive – acclaim for the machine has come from right across the board; suggestions that people are bored with the current 16-bit console offerings certainly seem to be true.

Second, Atari want to concentrate on supplying the New York and San Francisco markets as they always planned initially. Judging by the difficulties we had in attempting to get a New York shop to sell us a Jaguar because they didn't have sufficient stocks seems to indicate that supply hasn't been exactly overwhelming in the Big Apple. Perhaps IBM aren't creating Jaguars as swiftly as Atari had anticipated they would be. This means their primary target markets aren't even being satisfied. Add to this the likelihood that

Virtually all the media attention about the Jaguar is positive

there are fewer machines in Europe than had been anticipated; original estimates assumed there would be around 30,000 machines for European test marketing but it seems the figure is closer to 10,000. Channels of distribution have almost been too efficient – the chain stores and retailers like Thornley undoubtedly aren't going to have as many machines as they had ordered for customers.

No decision has yet been made about whether Atari are going to be importing more Jaguars into Europe during the first couple of months of 1994, but they do promise a big launch on the official release date in March, by which time there should be a few more games available, and, with any luck, all media interest won't have completely died down.

GETTING HOLD OF A JAGUAR

If you desperately want a Jaguar now, you're probably going to have to try and persuade one of the stores in New York or San Francisco to send you one. But take heed, it's not quite as simple – or as cheap – as it might seem on first appearances. Learn from our tale of woe.

After days of ringing what seemed like virtually every toy store in New York, we finally tracked down Leigh's Computers in NYC where the kind people there agreed to sell us a machine, without making any excuses about not having any in yet or not wanting to export them. When they eventually got a delivery, they only had received one Jaguar from Atari, but despite having several other members of the public fully paid up on a waiting list, they took the step of deciding to send us the machine – all good for publicity,

after all. They packed it up and sent it off to us via UPS.

Two days later a package arrived in the ST FORMAT office. We eagerly looked inside only to find a load of shock absorbers – somehow our Jaguar had got lost somewhere along the way. After loads more 'phone calls all over the place all UPS could suggest was that someone on their staff had probably stolen our machine while it was still in the States.

Mass depression settled on the office until about four days later when our Jaguar mysteriously reappeared – but were UPS going to let us have it? You must be joking – they took it away again because the boys in our post room didn't have the cash to pay the £68 import tax... Aaaargh!

Just remember that it's important you have a substantial bank account and plenty of patience...

AH YES, WE HAVE NO LLAMAS...

Jeff Minter, the master of Atari games software, is currently adding the finishing touches to his first game for the Jaguar.

Tempest 2000 is a version of the classic arcade coin-op *Tempest*, brought bang up-to-date using many of the Jaguar's powerful features including texture mapping and sprite scaling. Jeff told

ST FORMAT: "There are three modes: original *Tempest*, which is just like the coin-op; *Tempest Plus*, which has solid webs and objects; and then there's *Tempest 2000* which has really good texture-mapped webs and two-player simultaneous action."

At the time of writing, Jeff had just cancelled his winter skiing

holiday so that he could complete *Tempest* by Christmas. If it's anything like Jeff's other games, it's likely to be fast and frantic. The turnaround between finished game code and carts in the shops is around two or three months, so *Tempest* should be on sale at the time of the Jaguar's European launch on 15 March. Hooray!



EXCITING DEVELOPERS...

...Who we haven't been able to talk to yet, are:

Williams/Midway, because they have been responsible for some (if not most) of the best arcade coin-ops and pinball tables in history (including the arcade version of *Defender*, along with *Eight-ball Deluxe* and *Twilight Zone* pin tables.);

Argonaut, because they made *Starglider 2* for the ST, and more recently *Starwing* (Starfox) for the Super Nintendo. They've never made a poor game, so their first should definitely be one to watch out for.

And ID Software, who were responsible for possibly the best PC Shareware game ever, *Wolfenstein 3D*. They are converting their latest game *Doom* (pictured here) to the Jaguar, and early rumours suggest it's looking pretty hot...



• The sequel to *Wolfenstein 3D* on the PC, *Doom*, is being written for the Jaguar by the acclaimed software developers ID. Featuring texture-mapped everything, really, it should certainly prove to be something special.

STRONG AND BRUTAL



• ...Ah, that's more like it. *Mortal Kombat*? Pah! we say. Flying heads, that's the order of the day, and plenty of 'em.

Millennium, creators of the *James Pond* series for the ST, are to convert their top "sport" simulation *Brutal Sports Football* to the Jaguar. Based loosely around the American football theme, *Brutal* differs from the usual ball game conversions in that it gives you the

option of cutting off your opponent's heads and using them instead of a ball. This is a tentative step by Millennium, with *Brutal* being a relatively simple and inexpensive game to convert. Millennium's Keith Smith told us: "*Brutal Football* should be ready at about



• Hmm, all looks very brutal to me. Not much blood, though, is there? Perhaps Millennium were telling us fibs...

the same time as the [European] release of the Jaguar in March. It's our strongest title this year [on other formats] by far. We'll be looking at how it sells on the Jaguar before we convert something like *James Pond 3*."





PREVIEW

The Jaguar's first standalone game is a horizontally scrolling shoot-'em-up starring a lion, Trev. It comes from Atari and while the graphics do look totally stupendous, our first impressions of the game are that it seems to lack any sort of originality or depth.

Basically it's an interesting combination of the classic '80s games *R-Type* and *Asteroids*, the latter was popular on the coin-ops – a ship rotated in the middle of the screen while shooting at rocky asteroids. When these asteroids took a hit, they split into smaller versions of themselves.

**Almost every
sprite and
still image is
either digitised
or rendered**

R-Type was the same sort of thing but set in a horizontally-scrolling world with baddies lurking ready to ambush you.

In *Crescent Galaxy*, however, the bewhiskered heroes, the bizarrely named Trevor McFur and his assistant Cutter, zoom about in a horizontal direction. You've got to shoot everything in sight that moves and pick up extra weapons to help progress further into the game.

As you can see from the pictures on these pages, the graphics are amazing.

Almost every sprite and still image is either digitised or rendered, including some incredibly realistic-looking rocks and crystal shapes which pose as



● The backgrounds can get a little on the confusing side. This level contains stacks of bad guys, but disappointingly only one level of parallax scrolling.

the enemy. They are joined by some intelligent enemies, includ-

chance of surviving – not the first time you play anyway.



● Gratuitous fill-in plot alert! Good grief, are we supposed to believe that this is a real lion in uniform? Do us a favour, leave it out.



● As you reach the end of one of the four levels, you're approached by a menacing, er, coat. Or maybe it's some kind of suit or something. Whatever it is, what's it doing floating around in space?



● The end-of-level enemies are rendered too, and usually involve some kind of animation – even if it's just wiggling about like this *Thunderbird*-type spaceship.

Weapons and widgets

In a shoot-'em-up the amount and strength of fire power available is one of the most important factors, and it looks as if *Crescent Galaxy* scores well here too – Trevor has a huge array of weapons which become available as pickups when specific enemies are wasted.

The original weapon is a kind of pea-shooter that requires some shots to destroy even the meekest of meek enemies.

As you grab power-ups, the obligatory double-fire switches on, and then some serious fire-power kicks in. Details of the names of the weapons are sketchy at the moment, but from having a quick whizz about the levels we're warning you that there's some really effective stuff on offer.

However, when you lose a life you return to basic shot power, so if you spend ten minutes building up a super-powerful ship it only takes a tiny green alien to fly in at you unnoticed and knock you for six. Believe us, we speak from bitter experience.

Sad ideas

Trevor and his friends are represented as digitised animal heads superimposed over the torso of soldiers, dressed in uniform. The mere idea of doing this is a little on the sad side, and the relevance is also a little dubious, but the results certainly show off what the



● This is your spaceship. Only a bit bigger. In fact, this is the ship from the title screen, but it moves and everything. When it's off the screen, it zooms back into the distance.

Crescent Galaxy



● Hey - another example of some gorgeous background graphics... The animated running thing's quite clever as well - but damned difficult to kill.



● Before each end-of-level baddy, an image like this Jacob's Ladder-type face appears, and warns you of the dangers soon to be faced...



● Our pre-prod version of *Crescent Galaxy* doesn't enable you to enter your name. But mine's third from the top.



● The naturally-occurring enemies, such as the rocks, are joined by man-made objects such as the floating cubes that, er, float. Into you.

would certainly look pretty good sitting in the corner of a shop in demonstration mode.

ST FORMAT's judgement on the more important aspect of the gameplay shall

be reserved until the March issue, though, so we have the time to give the game a fair and thorough going-over.

So until then, just drool over these sumptuous

screen-shots... **stf**

Jaguar can do in terms of colour and quality.

So, it seems the emphasis with *Crescent Galaxy* is providing a showcase for Jaguar-buying aesthetes, something it achieves very well - it

Crescent Galaxy*, an interesting combination of the classics *R-Type* and *Asteroids



● The planet selection screen enables you to zip to either of four planets, and a fifth becomes available when you complete them.



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CYBER

Atari's Jaguar carries the much vaunted *Cybermorph* in its bundle – could this be the game to sell the console to the masses?

No console ever succeeds without a good base of games to support it, and the first game is possibly the most important of all. The SNES and Mega Drive consoles, as well as having an installed base of disciples from the lesser 8-bit platforms, also had the *Super Mario* and *Sonic* games to sell them. And they succeeded...

But can you spot a certain similarity between the two games? Yes – they're both platformers, starting a certain character jumping around lots of colourful levels picking up goodies and bouncing off baddies' heads. The main reason for this similarity is because both consoles were primarily designed for scrolling and shifting sprites about the screen. So naturally the main genre for them has always been platformers and shoot-'em-ups.

While the Jaguar's power can obviously be turned to producing cracking shoot-'em-ups – for the first one take a look at the *Crescent Galaxy* preview on page 88, Atari have taken the brave step of packaging something rather more complex along with their new baby. It's still easy to play, it's difficult to master, and it's technically stunning. And it's *Cybermorph*.

● The Spider (right) is an enemy which would have looked good in the *Loathe Thy Neighbour* boxout below, but we couldn't get close enough to grab it properly. Where's David Attenborough when you need him?



● Pod Prisons hold our dear, lovable little Pods captive until you come along and shoot the hell out of them. Then they release our little friends. Well, come on, they don't even let them move – it's sickening, it really is.



The story bit

The basic premise is that the Pernitian Empire (the baddies) are taking over lots of planets with the view of expanding their business. Along the way they have hijacked most of your people, their weaponry and scientists, and sealed them into Pods. Then – hey, where would we be without story-

It's still easy to play, it's difficult to master, and it's technically stunning
And it's Cybermorph

lines? They've gone and spread the Pods around 40 planets throughout the universe, the little tinkers. In true *Rambo* style, you're left to stop the rot and recover all the Pods single-handedly.

You and your ship are automatically beamed to the planets, so all you need to do is nip in, complete the mission, and nip out

again. To help you along your way you have Skylar, an advisor, and a small radar screen. An arrow on the radar points to the nearest free Pod, but on later levels some Pods are trapped in Pod Prisons

LOATHE THY

Like all good shoot-'em-ups, *Cybermorph* has a large selection of enemies which provides a varied challenge for even the hardened gamer. Here we take a look at just a few of them

KAMIKAZES



Kamikazes are very nasty, mean, evil things. The problem is they don't fire anything, you see. And they're quiet, too quiet damn quiet. Oh, and of

course they fly into you without so much as a by-your-leave. That goes without saying.

GUARDS



Hanging around in groups, the Guards lurk around pods and shoot as you approach. If their fire fails, they fly into you just like the Kamikazes, because they don't care.

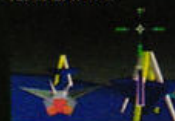
NEIGHBOUR...

RADAR



Radar dishes locate your position and inform the enemies where to find you. They take a few shots to destroy, but it's worth it to make your life on the planet a darn sight easier.

ANTENNAE



These aerials seem to be a little on the dormant side, because they don't move, surprisingly. However, they are relaying radar messages to the enemy about your position, so it's a pretty good idea to destroy them as soon as you can. They aren't particularly tough, either.

VORTEX TOWERS



Evil pollution is spread around the land by the Vortex Towers, which the enemy uses to destroy pods. The Pod Carriers pick up pods and then drop them around the Towers, and they are gradually poisoned to death.

WORMS



The Sand Worms are the hardest, toughest, baddest, er, baddies to grace the worlds in *Cybermorph*. Weaving their way around the landscape, they move very rapidly and destroy your ship on contact. Avoid at all costs.

● It doesn't just stop at 40 levels, though. There are another ten or so which lurk as bonus levels which Skylar awards for good work.

MORPH

which don't show up on the radar. The scanner also detects the presence of enemies. Technically anything that moves is an enemy, but some shoot at you while some just go about other tasks, like shifting cargo of power-ups and collecting pods. The more friendly enemies, if enemies can be friendly, are displayed on the radar as green skulls, and the nasty attacking ones show up as red skulls.

Added into the equation is a pollutant unit known as a Vortex Tower. This is a sort of yellow totem pole which sits on a small island on some of the planets. You can disable it by offloading the odd missile or two, but if you leave it alone it spreads a thick black layer of pollution over the landscape – showing an excellent use of the Jaguar's Gouraud shading capability. The Pod Collectors try to grab pods and deliver them to this area, so that they become poisoned and die. The Pod Collectors continue to deliver the yellow pods around this area, so you can often pick them up for a song. Occasionally, you can find more than one Vortex

Ships in the night

The Cybermorph play area contains more than meets the eye. Actually, that's not true, but you do need to keep your eye on lots of dials and gadgets to keep alive while you're flying around at top speed. So, here's a guide to help you on your way...

1 NUMBER OF SHIPS

The number of lives remaining. Also, the "holographic advisor" Skylar appears here from time to time.

2 SCORE

Your current score.

3 SCANNER

Displays your hostile enemies as red skulls and passive enemies as green skulls. Also arrows direct you to Vortex Towers, Pods, Teleporters and the Exit Portal.

4 ALTIMETER

Your current altitude. Your height is displayed as a black bar, while other bars show the height of the ground above sea level and the ceiling height.

5 POD COUNTER

This shows the number of Pods that you need to collect.

6 SUPER WEAPON

Displays the number of Super Weapons that are available, such as detonators which destroy buildings.

7 WEAPONS

Twin Shot, Three Way, Cruise Bomb, Mine and Incinerator.

8 MESSAGE WINDOW

Displays the latest information.

9 SHIELD

Amount of power remaining in shields.

10 SPEED

Speed forward (green) or backward (blue).



Tower on one planet, especially on later levels when things get difficult.

Flight stimulation

First impressions of *Cybermorph* are that it's a flight sim, but before you yawn and turn over the page, fear not, it isn't a knob and dial game.

It's been made in true arcade style, with high-quality graphics and growling sampled sound effects adding to the coin-op atmosphere. And while you fly, all the flight mechanics are kept to a bare minimum.

At the heart of the game is your ship, the T-Griffon, a "morphing attack craft," apparently. It seems it's called this because it changes shape depending on which direction it's flying, and what weapon's being used. Controlling the T-Griffon is simple – you use the direc-

As well as all these exciting baddies and pickups, there are loads of buildings which you can shoot just for the hell of it. Sometimes you find enemies hiding behind them, so it's best to shoot them just to make sure.



Here a Pod wriggles about inside its trap, waiting for you to come along and free it. A problem arises with the Headhunter (right) who, like the Jokers, pops up and spits missiles at you. But he moves around as well, so he's even more deadly.



JOKERS



Horrid faces that lie flat on the ground, Jokers sense your position when you approach. Make sure you keep one eye on the scanner when you stop to rescue a pod, or they pop up unexpectedly and set off a rocket or two.

PIRATES



There are four different types of Pirate, some which follow you, some which fire, some which simply hang around and shoot as you approach. They're all guided by the Radar, so kill that and you've nobbled them.

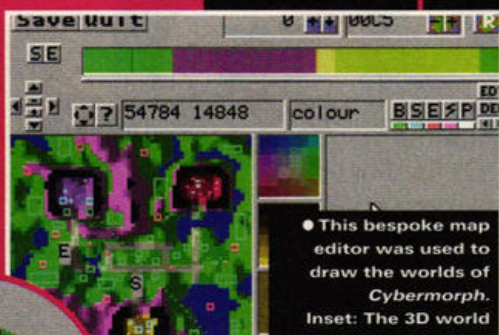
Cybermorph's creators have hidden a clue to a bonus level on one of the earlier worlds – how long can it take you to find it?





CARTOGRAPHY MADE SIMPLE

To create the levels in *Cybermorph*, Brian Pollock created a specific map-making program. The designers used this program like an art package to draw and map out the levels, and to insert the objects and bad guys. When launched, the program converts the map into a seed value for a fractal algorithm. This value, along with the colour information and object positions, is then entered into the *Cybermorph* code to create the 3D world. Clever, eh?



tion pad to turn left and right, and to climb and dive; while the three fire buttons are for accelerating forwards, backwards and firing (what a surprise).

The Option button flips between your weapons, which are many and varied, while the keypad buttons detonate Super Weapons, and do little fiddly bits like changing your view of the craft.

You can look at the action from directly behind the T-Griffon (if you've ever played *Starwing* you know what we mean), from the left, right or front, or you can sit inside the ship and look out. A cross-hair can be switched on if you want to know which direction you're firing, which is kind of useful but not essential. While that might sound hideously complicated, it isn't really. You need only learn the basics at first, then move on to the stronger stuff later on.

Play the game...

The worlds of *Cybermorph* are made up from fractals; gorgeous, colourful landscapes which can move along at breath-

taking speeds. The coders have made great use of the 24-bit graphic capabilities of the Jaguar to create wonderfully smooth colour gradients, using Gouraud shading to add texture to the landscape. The story of each level is slightly different to help keep the interest in the game alive, because what we have is 48 levels which are very similar – just collect Pods and shoot enemies.

Cybermorph throws in some different enemies towards the later levels, and lots of puzzle elements such as mazes and clues to further bonus missions. Also lurking in the landscapes are portals – colour-coded teleporters to take you to different places on the planet – this is when things start to get hard. After Level 24, this is probably one of the hardest games you're ever going to play – but you won't be put off, just spurred on to complete more levels.

Oh, yes, and the levels are split into five levels of eight planets each. These are accessed by level codes which are given to you as you complete the last one. In any given level you can choose which planet to try first, and you get as many attempts as your lives can withstand; so if you find one planet hard you can zip into another one first.

And now we come to the real problem: Skylar, the advisor, who's programmed to tell you where you're going wrong and to congratulate you when you're doing well. She has a soft, feminine voice, like that which has formed the basis for computer-generated voices for years – *Blade Runner*, *Red Dwarf*, the Austin Maestro. Well, the latter at

Each of the six levels has eight different planets which you have to conquer before you move on to the next. The selector gives you an idea of the mission, then you press a button to move on to the debriefing.



Sometimes you find odd structures and buildings that don't seem to do anything, like this floating city. Investigating them is a bit like walking through a ghost town.

least for a while, until drivers got sick of the patronising voice informing them that "Your door is open," and "Please fasten your seat belt." And this, folks, is the one bugbear with *Cybermorph*. Yes, we need fast action; yes, we need colourful and detailed graphics, yes, we need good gameplay. What we don't need is a patronising voice which bleats "Avoid the ground," and "Where did you learn to fly?" every single time you make even the slightest contact with terra firma.

There is an option to turn her dulcet tones down, or even off. But then the problem arises that you can't hear the important things she says, such as "Portal now open," thus taking away a key point of the game. Six people have now played *Cybermorph* in the ST FORMAT office, and everyone has slagged off Skylar within five minutes. This is a basic design problem, and in such a technically clever and complex game you don't expect to find such a flaw.

That tedious and bothersome detail aside, this is fantastic. It's a good showcase for the Jaguar, showing off some of its finer features, but above all it's a great game to play. If this is the standard of Jag games at the moment; hell, we've got a bright future to look forward to.

ANDY NUTTALL

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GRAPHICS

Very fast 24-bit fractals, Gouraud shading.

SOUND

Stonking coin-op quality sampled effects.

CAPABILITY

No music, little variation in gameplay.

GAMEPLAY

Smooth, responsive control.
Easy to pick up and play.

STF RATING

87%

ATD are already creating the sequel to *Cybermorph*. *Battlemorph* will feature loads of texture mapping, making it even prettier...

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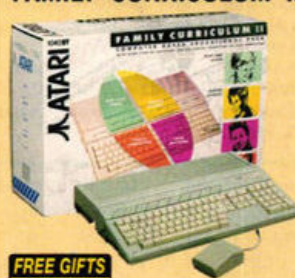
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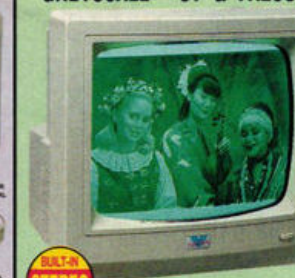
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12" GREYSCALE MONITOR

REPRESENTS COLOUR IN UNLIMITED SHADES OF GREY

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The Falcon also requires an ST-E monitor adaptor to work with the VT12

Graphics Monitor - Ref: CAB 5772

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H-RES EMULATION SOFTWARE

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JAGUAR

jarg

There's loads of enthusiasm behind the Jaguar because it's technically astounding. Clive Parker finds out exactly what makes it so powerful

Behind the sound and graphics capabilities of the Jaguar lies a pair of specially designed processors – nicknamed Tom and Jerry – and the Jaguar's 64-bit wide data bus. This enables the Jaguar to move around four times as much data in one operation as any of the 16-bit consoles.

Tom is a 64-bit graphics processing chip containing three separate processors, an object processor, a combined blitter and object shading processor and the

At-a-glance specifications

- 16MBits of 64-bit RAM (2MBytes).
- 48MBits of data storage on cartridge (6MBytes).
- 24-bit true colour graphics generating 16.7million colours.
- 32-bit DSP engine which generates CD quality 16-bit stereo sound.
- 32-bit expansion port enabling networking.
- 50MBytes of data storage on cartridge using JagPEG data compression.

- 64-bit RISC graphics engine capable of generating fractal, rendered and texture-mapped graphics in 3D in real-time.
- CD-ROM compatible.
- DSP port enabling connection to digital recording devices such as DAT and DCC.
- S-Video (Super VHS), RGB, composite video and standard TV output.

erate 3D textured and shaded objects on-screen while you are playing. When you're flying over the fractal generated landscape of *Cybermorph* everything in the landscape is created as you turn and fly towards it, it's not stored in memory and simply painted onto the screen. Everything happens so incredibly quickly that you don't realise that the Jaguar is actually drawing

● The two joystick connectors are at the front of the Jaguar and are easy to get to. Joystick one plugs in on the left and joystick two on the right. Other analog and digital devices are planned for use with the joystick connectors such as mice, keyboards and lightguns.



main 64-bit graphics processing unit. Working in combination with each other, the three processors provide the Jaguar with its stunning range of graphical

effects, enabling games to use high speed 3D graphics using a 24-bit true colour palette of 16.7 million colours at any time. Obviously there aren't enough pixels on a TV screen to display all 16 million colours at once, but

Jaguar games are certainly going to be the most colourful ever seen.

The object processor combines effortlessly with the object shader to gen-

ing the images in real-time. The Jaguar's graphics chips are so advanced, compared to other systems, that they can deal with all types of graphics with equal finesse.

Jerry is another highly advanced processor specifically concerned with the Jaguar's sound capabilities. It is a powerful 32-bit processor containing a specially-designed DSP used solely for generating and manipulating the Jaguar's CD quality stereo sound, digitised speech and sampled sound playback. The sound quality is so good that it can be output to hi-fi systems, DCC, DAT and MiniDisc recorders.

The other main controller chip is the Motorola 68000 running at 13.3MHz. This is the same processor that's used in the ST but it does a very different job in the Jaguar. In the ST the 68000 runs the whole show and gives orders to every other part of the system – see the feature on page 27.

In the Jaguar the 68000 processor has the more mundane task of looking after the minor processing functions such as reading the joystick commands and passing them on to the main processors. This enables the Jaguar's custom chips to get on with the more important graphics and sound processing.

The icing on the Jaguar-shaped cake is the 16MBits (2MBytes) of 64-bit fast page mode RAM, very fast memory chips that enable 16MBits of game code to be stored in memory at once and be shifted about at lightning speeds.

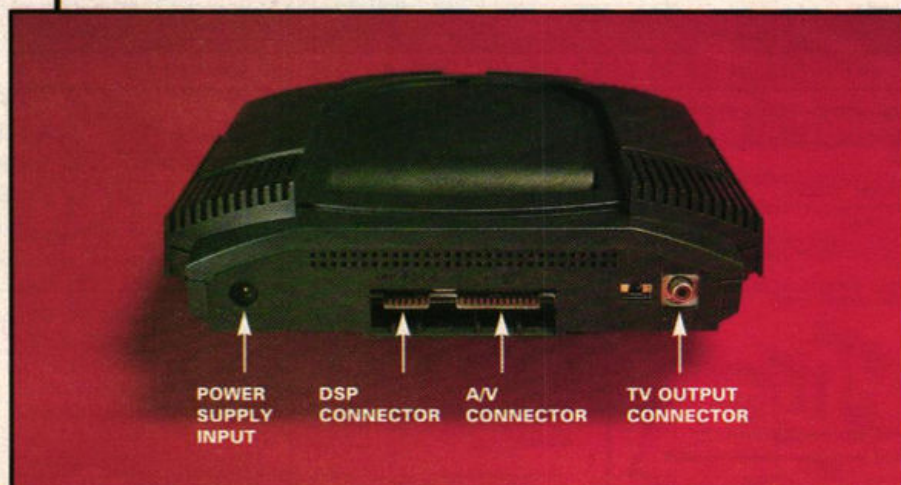
Jaguar's expandability

You can expand the Jaguar far beyond just the basic games console, the first

In the back of my Jaguar

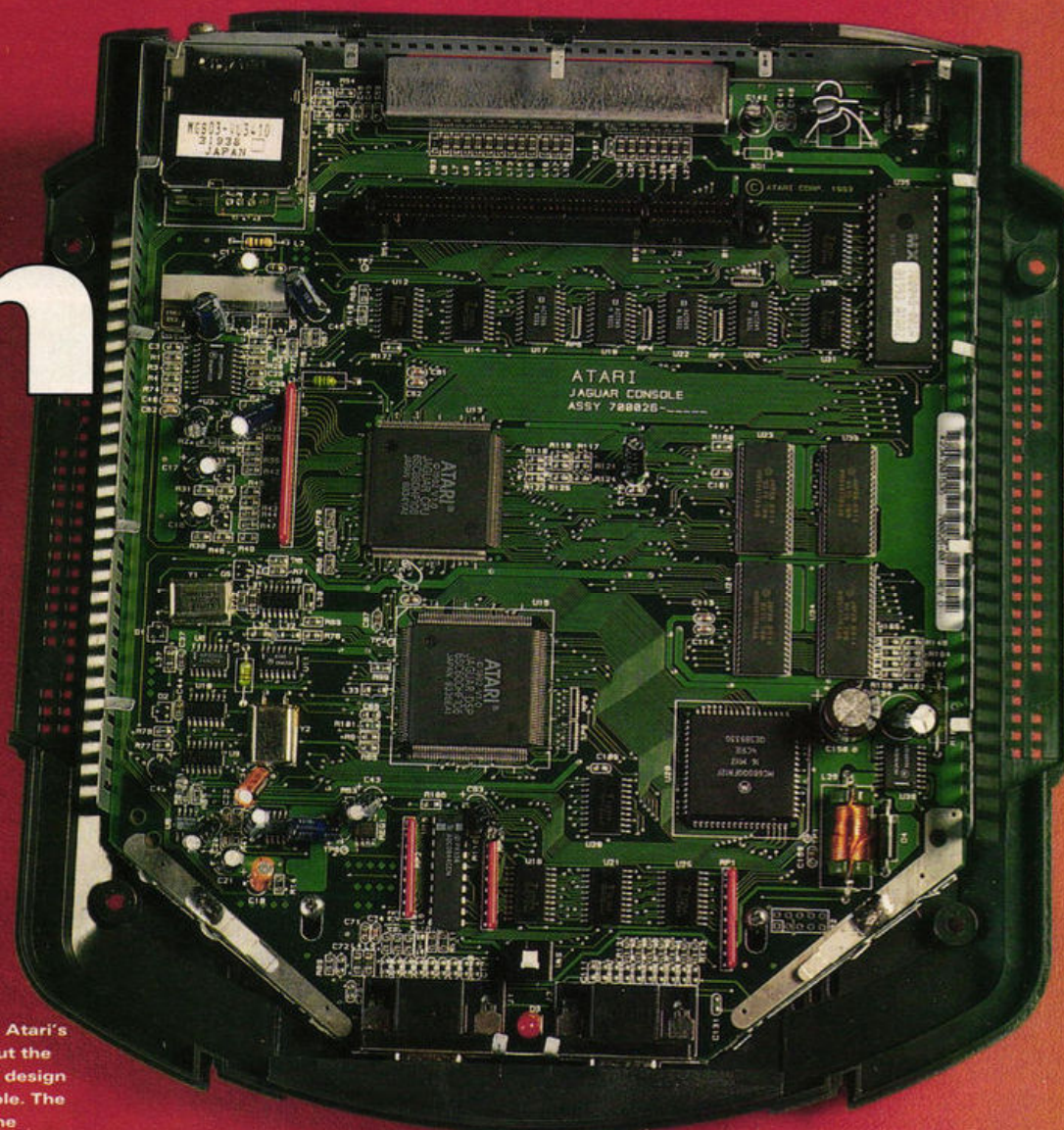
Most expansion options plug into the edge connectors at the rear of the Jaguar, the DSP connector is used for modems, multi-player games and other networking options. The larger A/V edge connector has

different types of video output available on its pins, RGB, S-Video and composite video can all be displayed by using the appropriate connector. Standard TV output is also available from the separate modulator.



● Jaguar enthusiasts in the US seem to want a revival of old classic games, the card game *Blackjack* being a popular choice. That really would use the Jag's capabilities – or, not!

on



● Inside the beastie. Atari's Jaguar has just about the tidiest motherboard design ever seen in a console. The two large chips in the centre provide the Jaguar's power; they're the custom graphics and sound processors Tom and Jerry.

major add-on – the CD-ROM drive – is due to arrive this year in both the US and the UK markets.

The way the Jaguar is designed enables extra hardware to be interfaced very easily through both the DSP and A/V expansion ports on the rear of the console or through the cartridge slot itself; this is where the CD-ROM drive sits.

These expansion capabilities give the Jaguar the potential to be connected to modems, cable TV, QWERTY keyboards, video, digital audio and even virtual reality helmets. Another touted addition is special MPEG decompression cartridge enabling FMV (full motion video) – digital video films to be played using the Jaguar CD-ROM. Whether the films used by Philips in their CD-I players are compatible remains to be seen. This open architecture provides a solid base for a range of Jaguars with all software upwardly compatible with all models, the Jaguar 2 is already well under development and Atari have hinted that a Jaguar based computer is in the pipeline. Who knows what else could be on the way?

Jargon busters

Some of the terms used in the console world are almost – but not quite – the same as those used with computers. For instance, a 16MByte cartridge doesn't use 16MBytes of memory. Confused? Then read on...

1MBIT: A megabit, called "a meg" by console PR chaps and software houses, is, in fact, just an eighth of a megabyte in size. So 8MBits is equal to 1MByte. It makes the cartridges sound much bigger, you see.

BLITTER/SHADER: A special graphics chip that zooms graphics data around the memory of the Jaguar at very high speeds. Combined with the other graphics processors, the blitter and shader enables brilliant 3D graphics, shading and textures to be used.

CD-ROM DRIVE: Special kind of CD player to play CD-ROM games on your Jaguar. You can't play CD-ROM games using a normal music CD player, but you can play music CDs on a CD-ROM drive. Crazy, but true.

CD-ROM: One day all games are going to be like this. CD-ROMs are a special kind of CD that can store masses of sound, graphics and other game information – they also help prevent piracy. Typical CD-ROM games can hold up to 650MBytes of game code.

DAT: Acronym for Digital Audio Tape, a digital recording system.

DCC: Acronym for Digital Compact Cassette, a digital recording system.

DSP: Digital Signal Processor. A special kind of processor that can manipulate digital data at very high speeds, used in the Jaguar to run the CD quality 16-bit sound system.

GRAPHICS PROCESSOR: The special 64-bit chip in the Jaguar that makes its graphics so brilliant, with over 16 million colours available and the ability to create graphics in real-time.

JOYPAD: Consoles don't use joysticks, they use joypads – basically a joystick with the stick bit removed and a wobbly multi-directional button stuck in instead. And they have lots of fire buttons and things – the Jaguar joypad has an impressive 17 buttons.

MINIDISC: A digital recording system using small erasable CDs.

RISC: Acronym for Reduced Instruction Set Chip/Computer – a special type of processor that uses a basic simple command set. Because the commands are so simple they are processed at very high speeds.

● Tom and Jerry, the custom chips, were commissioned by Atari and designed in the UK for the Jaguar range of machines.





presenting...

ATTENTION TO DETAIL

Makers of Cybermorph, the world's first Jaguar game

● Chris Gibbs and Fred Gill, the main men at Attention to Detail posing uncomfortably for the camera.



● Many many years ago, before ATD got really fussy about the platforms they developed for (these days they don't even create games for PCs because they're not "cutting edge" enough) they developed this little ditty called *Nightshift* for the ST. You might know it.

● Attention to Detail are a 14 people strong team, headed by Chris Gibbs. They work in a converted farmhouse which has problems with electricity overload in rural Warwickshire. They have also employed sub-contractors like Brian Pollock to create specific bits of *Cybermorph* such as the 3D engine and the map creator.

● *Cybermorph* originally started out as a magic carpet demo, similar to *Virus*. It makes good use of the 3D polygon capabilities of the Jaguar and ATD are now keen to exploit the texture-mapping options in *Battlemorph*.

● Their previous games have included the Lucasfilm titles *Nightshift* and *Indiana Jones and the Fate of Atlantis*.

● ATD are continuing to develop games for the Jaguar with *Battlemorph* which is the sequel to *Cybermorph* and a development on from the Lynx game, *Blue Lightning*. They are both expected to be out at the end of 1994.

● ATD developed *The Last Ninja* for the unsuccessful Konix Multisystem. It wasn't a complete waste, though, since their experience of that machine stood them in good stead with the Jaguar, because the people who developed the multi-system developed the Jaguar hardware.

● ATD were sceptical about Atari's commitment to the Jaguar, fearing it would be treated in the same off-hand way as their other machines, but the invitation to the launch event was a turning point, for the better, in their confidence in Atari.

● As well as having an interest in software, ATD also employ some hardware engineers. They are

presently working on an innovative video device that surpasses the BLITTER.

● ATD wish they could speed the getting-Jaguar-games-out process along by helping to create the PC development system. At the moment Atari are providing TTs for softies to develop Jaguar games on, but however loyal you are to Atari you have to admit that because TTs are not as standard in business as PCs, they do not have the same selection of development software available for them – or the networking facilities – as PCs.

● ATD have worked on the introductory screens for a selection of coin-op quiz machines.

● ATD agree with the common belief that there are probably only five original games around in the

world – the only way you can increase the "buzz" you get from a game is by making you more in control and increasing the number of things you can do within the experience; basically just getting you more involved.

● ATD are very excited about games such as *Alien vs Predator*, and expect that because it has such detailed graphics which really show off the Jaguar, it is

likely to be included as the boxed game once it has been finished.

● About 30% of their work is directed towards producing business software.

● ATD appreciate how important gameplay is to the survival of the machine – and that's why they spent six months after the main engine of the game was complete working on the different levels to give you the chance to do lots of different things in different ways.

They were the first software house in the UK to be involved in the development of Jaguar software - they started working on it around the summer of 1992. Their involvement started when they were asked by the UK hardware developers to debug the chipset

series 900

The Series 900 HD features a buffered through port, optional battery backed clock, high speed 20ms seek rate, write protect switch, power supply and ICD interface and utility disk.

Series 900 52QMB£299
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icd link

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power drive



The award winning external disk drive which includes a virus blocker, built-in Blitz Turbo and is able to boot from drive B. This is the ultimate in external disk drives for the Atari ST computer.

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drive-b cable

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

blitz turbo

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