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Atari ST screen shots.

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Vol 3 No. 10 December 1988

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FEATURES

News

All the latest stories and events from the ever-expanding world of the Atari ST, including the highly popular Gallup Chart of top-selling games.

Brillig



Our resident wizard continues with help for bold wayfarers everywhere. Plus an in-depth review of Lancelot.

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Virus

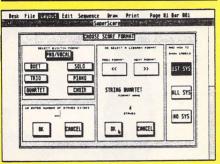
A detailed look at the dangers from computer viruses and some useful methods of protection against them.

Education

Nic Outterside continues his expert investigation of the growth of the Atari ST in British education. This month, its impact on the primary sector.

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Midi



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Mailbag

By land, sea, air and MicroLink too, here's a further selection of the brightest and most informative letters from our ever-bulging ST mailbag.

MORE FOR YOUR BINDER ...

Part 5 of The Complete Atari ST. Over the months this illustrated pull-out, which comes free with Atari ST User, is building up into the definitive guide to the operation and uses of this powerful micro.

Continuing this month with:

- **Progressive C programming** routines for defining your own functions.
- **Collecting artifacts and building** up your treasure trove in text adventures.
- Examining how to use Basic's logical arithmetic operators to make programming decisions.
- **Further creation of user-defined** fill patterns within the Gem environment.



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Software

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Stos



Mandarin's top-selling game writing utility is reviewed by our man in the know, ace programmer Mick Randle. 48

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1st Word Plus

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Eliminator, Nebulus, Cybernoid and Exolon

Hewson is a software house that really delivers the goods. We focus the microscope on four of its excellent Christmas games releases.



Exolon

Technist

A super new computer aided design package is tested and compared with its rivals. How does it work out?





This easy-on-the-pocket robotics interface for your ST is given a complete road test as we examine its value in education and leisure.





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Eliminator

Pro-Punter

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LISTING

Destroyer

This utility will destroy any file on disc for total security: Use with care.





CONCIL 101 FOR THE ATARI ST

Presenting Super Conductor, the professional 16 Track MIDI sequencing package that no musician should be without. Packed with powerful features, Should be without. Packed with powerful readires, Super Conductor can quantize (auto correct), filter, transpose, edit and mix music played from any MIDI instrument. Comprehensive editing gives musicians precise control over their performances, including the alteration of controllers such as volume pedal, pitch bend, and modulation settings.

Super Conductor is ideal for performers, allowing them to hold up to 10 different songs in memory at once and quickly change from song to song and to play and edit. SOUND ON SOUND magazine (August 1987) says "Super Conductor really must get the thumbs up as it is a very powerful music program at quite a remarkably low price".

Each song buffer has its own individualized settings for its tempo and song structure information. Blocks may be copied from one song buffer to another at will.

The Super Conductor main menu displays the names of the ten songs currently held in memory and gives access to the System Exclusive data transfer mode. This versatile feature aflows diou synthesizer voices and data to be transferred and saved on disk. The simplified data storage method allows the System Exclusive data to be edited using a wordprocessor.



NEW REPLAY SOUND EDITOR SOFTWARE VERSION 4

After the runaway success of the REPLAY sound sampling package by 2-BIT SYSTEMS Ltd., comes a new release of the sound editor software. Completely re-written, REPLAY 4.0 is the result of listening to the requirements of you, the end users of REPLAY. Here are just some of the new features to be found in the new version 4 software:-

some or the new reatures to be found in the new version 4 software:-●FULL GEM / MOUSE user interface ● Maximum sampling frequency of up to 50 Khz ● Adjustable SAMPLE triggering on input signal ● Low pass software filtering on samples held in memory ● Integrated REAL—TIME freeze frame oscilloscope ● Integrated REAL—TIME Spectrum Analyser with peak hold and reset ● Up to 10 sample memories / presets ● Easier to use 'pick and drop' cursor positioning ● User selection of waveform display style display style

Comprehensive new MIDI facilities which include:

Up to 10 samples individually assignable to different MIDI KEYS OR

Up to 10 samples played from MIDI or ST-Keyboard (freq. shifted) Unique REAL TIME pitch shift, controlled by MIDI or ST-Keyboard All 10 samples may be saved and re-loaded at a stroke as SETS

The package also contains a much modified and improved version

ofthe ECHO program, now called EFFECTS. Full control of echo depthand reverb time are retained with the addition of some preset effectssuch as ROOM and HALL All of this coupled with a much moreattractive screen and almost total MOUSE control.

Drumbeat software:-

The Replay 4 package now also includes the successful DRUM

BEAT sample sequencing program Up to 16 samples can be held in memory at once • 3 channel polyphonic sound output • Accepts samples digitised by REPLAY to create your own drum 'KITS' • Sound output via monitor speaker of REPLAY cartridge output • Adjustable rhythm (4 to 32 beats per bar) 99 drum patterns can be stored in memory at once • Up to 70 page output • Adjustable rhythm (4 to 32 beats per bar) 99 drum patterns can be stored in memory at once • Up to 70 song entries can be held in memory at once

Of course, all of our software is fully functional in both Medium resolution colour and High resolution, mono chrome screen modes and will operate through the ST computer's audio output and REPLAY

> by Phil Macker Version 1.4

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Super Conductor

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NEW/S

ATARI BACKS BOOM IN ENTERTAINMENT

THE theme for this year's Atari Christmas Show is entertainment – and that means games galore for both 8 and 16 bit owners. The show, at London's Alexandra Palace on November 25-27, will play host to more than 70 exhibitors, all offering new products or bargains in hardware, software and add-ons.

Heading the all-star line up will be Atari itself, with a range of products designed to back the recent boom in ST sales. That commitment is evident from the leading software houses too. One of the biggest stands will be Tynesoft with a complete range of software.

New titles on show for the first time will be Barnum and Bailey's Greatest Show on Earth Circus Games, Superman – Man of Steel and The Last Guardian, a follow-up to Tynesoft's successful Mirax Force.

Atari's own software will be in evidence too, with the first of the promising Battlescape series on show – meticulously accurate wargaming simulations which stretch the ST to its considerable limits.

And there'll be the first UK showing of a truly wysiwyg DTP package for the ST – DMC Calamus. Among a host of powerful features, it offers the facility to vary font size from 0.1 to 999.9 points in steps of one tenth of a point – and as it uses identical routines for screen and printer output, it's impossible for hard copy to differ from what's on-screen.

Mandarin Software will be on hand too, with its latest release – Lombard RAC Rally – which is claimed to leave other racing simulations on the starting grid.

For do-it-yourself enthusiasts, Mandarin will also have its best-selling Stos games creator package on display.

One of the biggest attractions for gamers though will be the Big Game High Score Contest, which will be open to all visitors.

Featuring Double Dragon, the ST version of the arcade game of the year from Melbourne House, the free competition will offer a major prize for the eventual winner from Virgin-Mastertronic.

But the show won't be all fun and games – there'll be plenty for visitors who take their computing a little more seriously. Arnor will be putting its highly respected Protext word processor through its paces, while Precision will be giving the first public showing of the enhanced version of Superbase Professional.

The new version – at no increase in price – makes available to ST users many of the features of Superbase 4, Precision's PC product which won the prestigious Database Challenge in June.

Also available for the first time will be Superbase Personal 2, which adds mail merge and word processing features to Precision's best selling Superbase Personal.

And Database Software will have the ST version of its popular Mini Office suite of integrated programs up and running in the public eye for the first time.

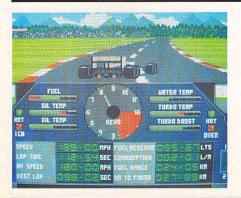
For the educationally minded, Adamsoft will be launching two new packages at the show, Higher Mathematics – tied into GCSE material – and a more general product called Concept of Statistics.

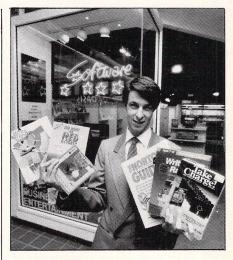
These are the first in a projected range of software, and titles aimed at the GCSE chemistry syllabus and at junior/ secondary school maths are already in the pipeline.

More generally, there'll be any number of utilities on display for both the 8 and 16 bit machines, including a new release from Care Electronics – Flexidump, which can generate high quality printer dumps for use in conjunction with Degas and Neochrome.

Capable of varying dump size from Imm square to 10 metres in length, Flexidump also has in-built text and manipulation features and includes Flexispool for label printing.

And visitors looking for that extra add-on, or just a fresh batch of discs to fill up, will be spoilt for choice, with bargain prices being the order of the day.





Accent is on software

SOFTWARE publishing group Paperlogic has opened the first of a planned nationwide chain of speciality stores in London's Oxford Street – and software for the ST will be one of the major lines carried.

The store – Software Circus – already boasts more than 500 software titles covering everything from business to leisure.

The venture is headed up by managing director Steven Markham, pictured above.

"We have created a new concept in software retailing", he said, "where products are displayed in much the same way as in book or record stores".

Where the Circus differs is that an ST is on-hand for try-before-you-buy demonstrations, and after sales service is provided by a free telephone hotline or mail service.

Markham is positive there's a niche for this particular style of approach. "Although some software stores do exist, these concentrate mainly on the games market", he said.

"If we don't have a particular program, then we'll endeavour to get it – fast".

Take the wheel

MARTECH (0323 768456) has launched two major arcade games for the Atari ST. Nigel Mansell's Grand Prix racing simulation, priced at £24.99, has already been enthusiastically received on other formats, while Hellfire is being blurbed as "a breathtaking multi-level arcade experience".

Hellfire is another simulation, this time of a Supercobra attack helicopter battling through enemy infested skies all over the world. Price £19.99.

DISCOUNT SOFTWARE

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For the Atari ST

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Data Manager	£29.95

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Atari ST for Beginners£12.95 Programmers Guide ST£16.95 Atari ST Internals£14.95 Intro Sound and Graphics£14.95

GRAPHICS

Quantum Paint	£12.95
K Graph II	£32.95
STOS	
Timeworks DTP	£68.95
Advanced Art Studio	£16.95

MISCELLANEOUS

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Hisoft Saved	£19.95
Disector	£18.95
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ACCESSORIES

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ST/FM Keyboard Cover	£3.95
Mouse Mat	

PRINTERS

PANASONIC 1081: 80 Column, 120cps, good quality£169.95 STAR LC10: 80 Column,120cps, front panel, NLQ selection .£239.95 STAR LC10 Colour: as above but with colour option£279.95

All of the above printers include a lead.

COLOUR MONITOR Philips CM8833 with stereo speakers, 600 x 285 resolution £279.95

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NEW/S

K-Resource upgraded

ENHANCEMENT is the order of the day at Kuma (07357 4335) with major upgrades announced on two products.

K-Resource 2, priced at £39.95, takes over where K-Resource left off, being more user friendly and offering extra editing options. The product is a complete resource editor for creating and maintaining AES resource files on the Atari ST and is an essential tool for Gem programmers.

It operates in both high and medium screen resolution and will produce files for inclusion in C, Pascal, Modula 2, Fortran 77 and Fast Basic. Upgrades from K-Resource are available for £15.

Kuma has also produced K-Graph 3, an enhanced version of its popular business and scientific graphics package K-Graph 2. New features include more flexible output facilities and the ability to read Ascii files. Price £49.95 - upgrades for existing users are available for £15.

STOS on li

MANDARIN Software's best-selling game-creation package, STOS, has already carved a niche for itself on the MicroLink bulletin board.

In response to the growing volume of queries on the product, a category dedicated to STOS has been set up, opening a direct channel of communication between developers and users.

The board will provide speedy responses for anyone having problems with STOS - and it's also the fastest and most effective means for enthusiasts to share and spread ideas.

Existing subscribers to MicroLink can go directly to the STOS section by keying >STOS.

DTP success

THE Atari ST made its presence felt at the recent International Desktop Publishing Show - and was a strong contender in the prestigious awards made during the show to oustanding publications produced via DTP.

David Rohl, using an Atari ST 1040 and Fleet Street Publisher, entered the Desktop Editor category with a copy of the Journal of the Ancient Chronology Forum he edited for publishers Isis.

Ranged against some very heavy commercial guns, David was a creditable runner-up, and earned a commendation: "In terms of sheer application of text, graphics, charts, maps and page layout, this deserved a special mention", was the judges' verdict.



The next best thing

THE F16 fighter is one of the most advanced multi-role fighters in the US Air Force armoury – and the latest simulation from Digital Integration (0276 684044) has taken pains to do it justice

F16 Combat Pilot is the work of four programmers and graphic artists, headed by Dave Marshall, author of Tomahawk and Fighter Pilot and himself a pilot.

The software simulates all the plane's five major roles - air defence,

battlefield support, offensive counterair, interdictor strike and reconnaissance - and players can put the plane through all its paces, from dogfighting to tank busting.

The F16 is the most challenging and exciting aircraft in the world", said Dave Marshall. "F16 Combat Pilot will take people as close as possible to experiencing the exhilaration of flying it without actually joining the US Air Force

Price £24.95.



THE recent postal dispute has speeded up plans to make fax available on Micro-Link (0625 878888)

Subscribers will be able to key a message into their micro and have it instantly transmitted to any fax machine anywhere in the world.

Head of MicroLink Derek Meakin said: "We will be offering a multiple fax service. This means that as with our telex service, users will be able to send a fax to up to 50 addresses simultaneously"

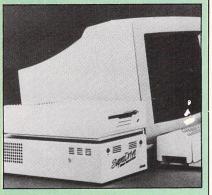
Another new feature on MicroLink is the famous cult game Shades which up to 128 people can play at one time.

Shades is claimed to be Europe's most popular online multi-user game. So far more than 6,000 people have entered its massive and mysterious universe - but only half of one per cent have achieved the highest rank of Wizard.



HEADING for expansion with the new year, Cascade (0423 525325) has appointed a new operations director, Peter Wilkinson and announced the first of a promised series of releases.

Immediately available for the Atari ST is Ace 2088, a full price release described as "set to be the ultimate space flight combat simulation". Price £19.95.



Supra news on prices

RECENT price cuts from Frontier Software, sole UK importer of Supra hard drives, will be welcome news for ST users.

The 30Mb SupraDrive is reduced by £100 to £599.95, bringing it into direct competition with the Atari SH205 hard drive at the same price and the Supra model offers 50 per cent more capacity as well as an almost 30 per cent increase in speed.

The SupraDrive is supplied with a complete range of utilities, including the formatting program which allows auto booting and up to 12 partitions, Frontier's own fast hard disc backup Hardback and the STache caching program.

NEW/S

THE long awaited \$599 Atari CDAR504 CDrom player has entered the United States in its final production form and is now waiting for formal certification and more software support.

It can store 540Mb and read almost any compact disc format, including High Sierra, Gemdos and ISO High Sierra extension.

It will also allow you to add other CD formats via software drivers. Potentially, you'll be able to read a CD from the Apple CDrom under the Magic Sac or Spectre 128 Mac emulators – with the correct software.

Software support for the player is promising. Software Mart has finished a multilingual visual dictionary that takes advantage of the ST's sound and video, while Hybrid Arts is developing Midi software.

Companies in West Germany are reportedly using the Gemdos format to place programs on compact discs.

* * *

DAVE Small's new company, Gadget's By Small, is now selling the Spectre 128 Macintosh emulator. Unlike the Magic Sac, one of his earlier ventures at Data Pacific, the Spectre 128 uses Macintosh 128k roms. Compatibility is expected to be around 99 per cent – excluding Midi software, which will not work with the emulator.

In addition to greater compatibility, the Spectre 128 offers much faster disc access times, screen operations and boot-up times. Overall, it's 20 per cent faster than a Mac Plus and its screen is 30 per cent larger.

* * *

HEWLETT Packard's \$995 DeskJet is a fast inkjet printer that offers 300 dpi graphics as well as 240 cps text output. The printer is supposedly compatible with the LaserJet II from HP, but some problems may occur with a LaserJet driver. Nevertheless, several DeskJetspecific drivers are now available for a variety of ST software.

* * *

ATARI was present at the third annual Seybold Desktop Publishing Exposition with a small but formidable force, and made its booth available to companies either introducing or demonstrating DTP products.

Soft-Logik (314 894 3270) demonstrated its Publishing Partner Professional and the long-awaited DTP software should now be in its final form. Moniterm (612 935 4151) makers of Seen in the USA

Compiled by STEPHEN MORTIMER

the large Viking 2400 high-resolution monitors for the ST, unveiled a board adapter for the Mega.

Migraph (800 223 3729) introduced a number of graphics software packages: ScanArt (£49.95), DrawArt (£69.95) and TouchUP (£TBA).

Canadian-based ISD Marketing (416 479 1880) demonstrated Calamus (£299.95) and Calamus Plus (£449.95) DTP software.

Navarone Industries (408 378 3920) introduced its own ST Scan Image Scanner (flatbed, £1,779; sheetfed, £1,239) which allows you to capture any image with resolutions of up to 300 dpi.

* * *

PRECISION (214 929 4888) has opened an office in Texas, taking over support and distribution for Superbase Personal, Superbase Professional and Logistik from Progressive Peripherals and Software. The Superbase series has sold more than 130,000 copies worldwide.

* * *

RUMOURS persist that Atari is interested in buying a manufacturing facility in Houston, Texas. An Atari executive said Atari will "continue to pursue any manufacturing opportunities in the United States" which would supplement the plant in Taiwan.

* * *

THE West German band Tangerine Dream is touring the United States sponsored by Atari Computer. Look for Atari to sponsor more bands.

* * *

THE ST Xformer II 8 bit Atari emulator has a companion product that lets you connect an 8 bit disc drive directly to your ST, permitting copy-protected software to be run from the emulator. Contact Darek Mihocka for more information at 310-D Bluevale Street North, Waterloo, Ontario N2J 4G3, Canada.

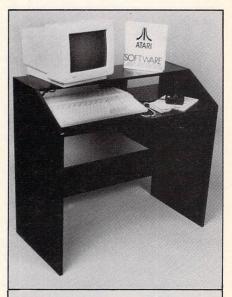
Active is just that...

RECENT agreements with two European software houses will mean a flood of releases from Active (01-385 7622). A tie-in with French company Coktel Vision means that Active now has the rights to the Walt Disney licence for Jungle Book. The game of the same title is available now, priced at £24.95, and seems certain to do well.

"Jungle Book is a classic film which appeals to both young and old", said Active's Robert Stallibrass. "And Walt Disney is re-promoting the film again this Christmas, which will ensure a high level of product awareness".

Other products for the ST will include Freedom, Emanuelle and Terrific, priced at £24.95 and Peter Pan, priced at £19.95.

And two more pre-Christmas releases are on the cards as a result of an agreement reached with Germany's EAS – Zero Gravity, described as a cross betweeen tennis in space and pinball, and Ringside, a boxing simulation. Price £19.95 each.



ANYONE buying the new Atari 520STFM from Compumart (0509 610444) is in for a bonus. While stocks last, the company is throwing in a free desk, joystick and £400 worth of software – all for £399.

The software includes ST Organiser, the integrated business package, and 21 arcade games.

Fast video

AN enhanced version of its A-Magic Turbo-Dizer video digitiser has been announced by Software Express (021-328 3585).

Developed specially for the Atari ST, it is claimed to be one of the fastest video digitisers on the market. Price £149.95.

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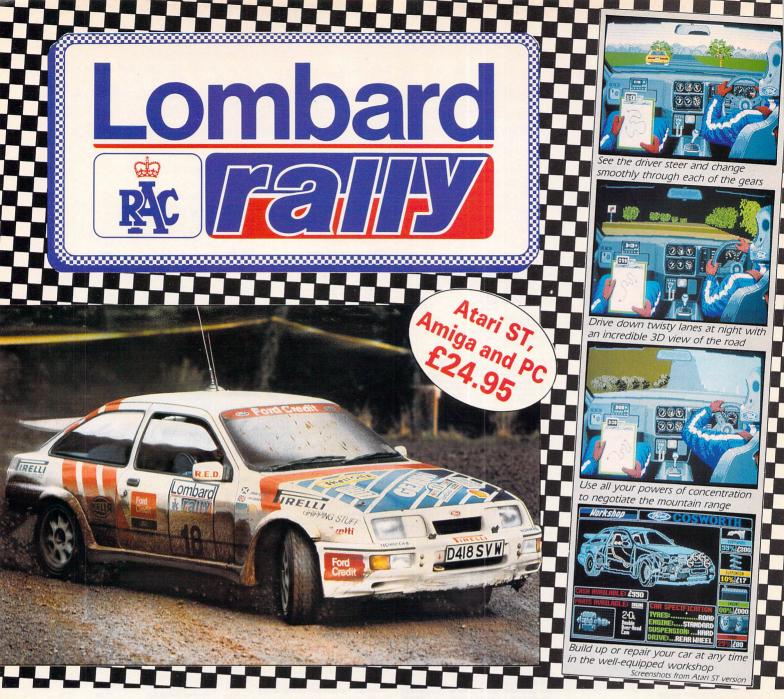
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This month

Last month	Title (Software House)	Price	Month reviewed in Atari ST User		Marks from 10
•	STAR GLIDER 2 Rainbird	24.95	Oct	Straight to the number one spot for this sequel. A must. It works equally as well on mono and colour monitors.	9
Λ	STOS GAME CREATOR Mandarin	29.95	Dec	Read the full review in this issue – create your own games using this superb French system. The only non-games title in the charts.	*
•	SUPER HANG ON Electric Dreams	19.99	•	Another game that has been a long time in coming. Is it as good as the arcade and the advertising? – Only you can decide.	*
∇	VIRUS Rainbird	19.95	Sept	Originally Zarch on the Archimedes, it is very very different to other games for the ST. Another essential buy for any hardened games fan.	9
•	LEADERBOARD BIRDIE US Gold	19.95	•	If you are a golf fan you will definately have bought Leaderboard. There are multiple additions to this range, and this is the latest.	*
\bigwedge	DUNGEON MASTER Mirrorsoft	24.95	May	Animated graphics and spot sampling effects make this quest worth dusting your codpiece off for. A superb role-playing adventure.	9
3	ALIEN SYNDROME Ace	19.99	Sept	Great fun and so frenetic it's a danger to your joystick. Rick and Mary pit their wits and photon peashooters against a myriad of nasties.	8
4	GAUNTLET 2 US Gold	19.99	Sept	Now transfered from the arcades to an ST near you – new potions, amulets and characters invade your computer to hinder your quest.	10
•	NIGHT RAIDER Gremlin Graphics	19.99	•	Fly through the skies on a mission of secrecy and skill. If this is your forte, fasten your harness and prepare to meet your destiny.	*
2	EMPIRE STRIKES BACK Domark	19.95	Oct	Fans of the original will welcome this with open arms, and if you haven't seen it before, then why not? It's a brilliant game.	8
16	OVERLANDER Elite	19.99	•	This one has received a mixed reaction among car racing fans. It may not be your choice, but hate it or love it, it is climbing the charts.	*
5	OUT RUN US Gold	19.99	July	After nine months' wait this is one of the best car simulations. A great improvement on other versions for home micros.	9
V	FOOTBALL MANAGER 2 Addictive	19.99	Sept	Sequels are good sellers, and football games are always popular. The ST has not been used to its full potential here, but the result is enjoyable.	9
8	SPACE HARRIER <i>Elite</i>	19.99	Nov	Must surely go down as one of the all time great conversions, with some of the best ST graphics seen despite the lack of a hydraulic arm.	7
15	GUNSHIP Microprose	24.95	May	Gird your loins for the ultimate flying combat experience. There is only one word for the ST version of Gunship: Awsome.	9
•	GARFIELD The Edge	19.99	Dec	If you like big mean orange cats with a liking for lasagne, loopy dogs and cute kittens – this one is just for you.	9
•	BARBARIAN Psygnosis	24.95	Sept 87	Popping back into the charts is a fine hack and slash with good graphics. Watch out for the imminent return of Drax and his lady.	9
•	WHERE TIME STOOD STILL Ocean	19.95	Jan	If you like, and remember, Doug McClure in the film it might help. Stranded in a world full of dinosaurs you must escape this arcade adventure.	8
•	WHIRLIGIG Rainbird	19.95	Nov	This is it if you want an original arcade game with cracking sound and graphics. It requires a full quota of skill though.	8
•	PLATOON Ocean	19.95	Nov	Yet another game set in Vietnam based on the film, but if you have good reflexes and a lot of staying power it shouldn't disappoint.	8

CYBER PAINT

CYBER PAINT is a powerful animation and paint program. Use it by itself to create colourful 2D animations, or add the final touch to your three-dimensional Cyber Studio animated sequences.

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only studio you need is your ST. Whether you use Cyber Paint on its own or with other Cyber products, you'll be amazed at the results. Professional animation is here at last! only studio you need is your ST

CYBER CONTROL

CYBER CONTROL is an easy to use, BASIC-like programming language specially designed to work with Cyber Studio. It enhances CAD-3D 2.0 with a host of new fortures. There are two new comprise free tennances GAU-3U 2.0 with a nuscuinew features. There are two new cameras, free to move around or through your 3D creations. Movable, multi-layered Cyber Paint blocks for colourful cel animatione creations. Movable, multi-layered cyber Paint blocks for colourful cel animations. And the power to create complex curved objects, using spline generation techniques. objects, using spline generation techniques. Together they let you animate complex objects you never thought possible — like a skeleton doing backflips! Cyber Control is an independent desk accessory, so it's always ready for use from CAD-3D 2.0, or any other GEM

program.



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Want to get right in with the action on your Cyber screen? Well, now you can! The amazing STEREOTEK glasses give you a startling insight to your creations with a a startling insight to your creations, with a startling insight to your creations, with a true stereoscopic view. Includes cartridge instances unit stores deck accessor interface unit, stereo desk accessory, interface unit, stereo desk accessory, animation and slide show, complete developer's instructions, and source code.

G.I.S.T. is a powerful GEM-based sound laboratory for use in designing, editing, and playing sound effects. Used as part of G.I.S.T. and playing sound enects, used as part of the Cyber series, it allows you to incorporate sound effects into your Cyber Studio and Cyber Control animations.

CYBER STUDIO

CYBER STUDIO combines STEREO CAD-3D 2.0, a three-dimensional design program, with CYBERMATE, a powerful animation control language. Together they transform your Atari ST and turn your ideas

transion your Atal 31 and thin your total into realistic 3D moving images. STEREO CAD-3D 2.0 allows you to create your own 3D objects and scenes — quickly

and easily! Use the built-in 3D primitives to with CAD-3D 2.0's tools, combining several objects to build up more complex shapes. Add the final touch with subtle lighting effects and that's it — from starting point

to starship in a matter of minutes! to starship in a matter of minutes! CYBERMATE is an animation control language designed specifically for use with CAD-3D 2.0. Cybermate's interpreter allows VAU-3U 2.U. Updermate s interpreter allows you to combine standard Forth commands with specialised display control statements, to build up smooth, fast animation

sequences.



NEW! CYBER SCULPT Want to create your own 3-dimensional designs? Need more sophisticated modelling techniques? Then CYBER SCULPT is for you! A mouse-driven, stand-alone program you: A mouse-unven, stanu-aone program that does just one thing: build 3D objects. And not just spun or extruded build builted autobal culled build build - but wisted, pushed, pulled, tweaked and pummelled! The most fantastic shapes

imaginable.

Maginable. Working with Cyber Sculpt is just like working with clay. Your object's not quite the right shape? Then mould it into a new the right shape? Then mould it into a new shape! Grab some vertices and move them into a better position. Or use a "magnet"

Cyber Sculpt has cross-sectional modelto stretch them for easy creation of complex shapes

like boat hulls, and for engineers, there's support for digitizing tablets.

3D DEVELOPER'S DISK

The 3D DEVELOPER'S DISK opens up a "pipeline" into Cyber Studio, allowing you

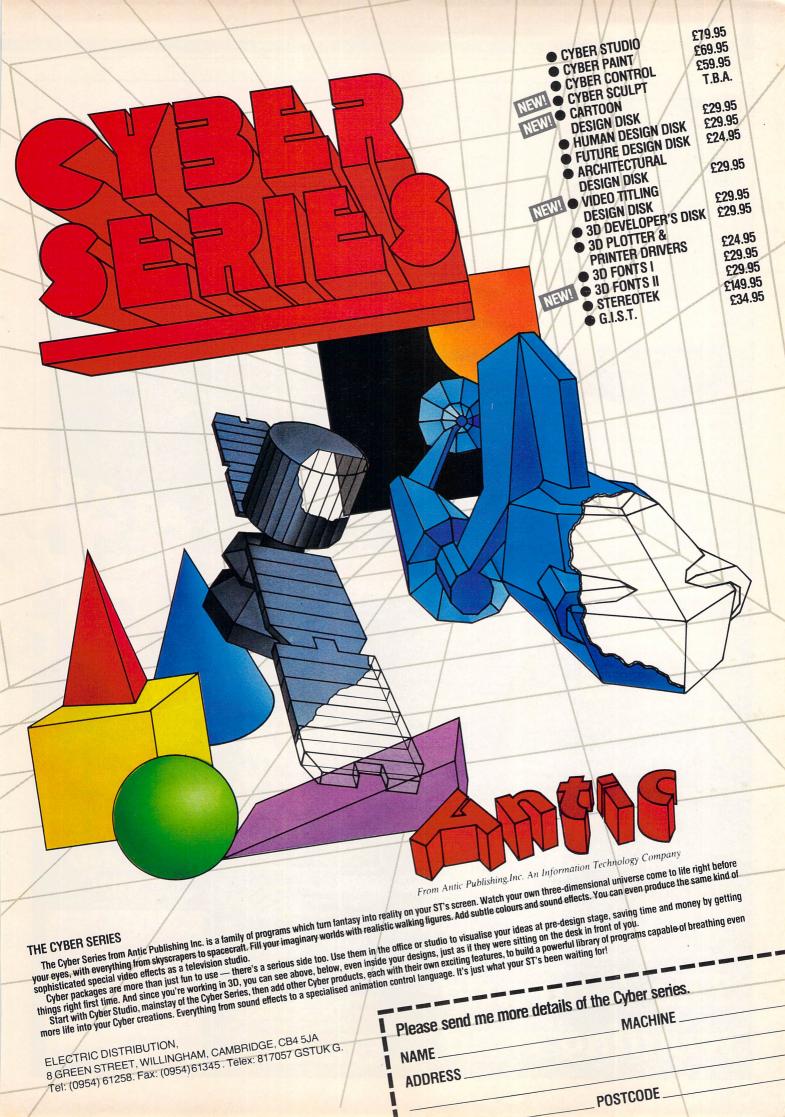
to create your own 3D applications, without the need for specialised 3D mathematic

knowledge.

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A library of drivers for use with Cyber A library of drivers for use with Cyber Studio, supporting Hewlett-Packard pen plotters (and compatibles), plus Gemini, Star, Epson, Okidata, NEC, Panasonic and C Itoh matrix printers.

NEW! 3D FONTS I & II Two packs of spectacular 3D fonts in a variety of styles and effects. Use them in variety of styles and effects. Use them in your Cyber animations or design your own 3D greeting cards, logos, or letterheads. Plus, added bonuses: Tom Hudson's SUPER EXTRUDER TOOL, used to create these fects in pack 1: and multicoloured 3D clip art in pack 2.



SOFTWARE

Product: Exolon Price: £19.99 Supplier: Hewson, Hewson House, 56b Milton Park, Milton, Abingdon, Oxfordshire OX14 4RX. Tel: 0235 832939

NOTHER 8 bit conversion from Hewson. In it you take on the role of Vitorc, a heavily armed humanoid creature battling your way through screen after screen of blood-curdling action. There's no explanation of why you must do this, just the challenge of achieving the near impossible.

The loading screen is excellent and makes way for a simple title screen



A great blast for arcade fans who enjoy treking from screen to screen taking and overcoming all the micro can throw at them. Superb graphics and music, and an instantly playable game that becomes very addictive. There are four levels of 25 screens, but I haven't even reached the end of the first! Recommended.

Andy Richards

which flicks to a scrolling high score table every so often. Pressing the fire button of your joystick takes you to the first screen.

Against the backdrop of an alien planet's surface you find yourself standing in front of a massive gun which is taking pot shots at you. Kneeling, the cannon shells pass harmlessly overhead, but the gun seems impervious to your hand blaster. Fortunately, a grenade can be launched from your back pack, and this smashes it to pieces.

You run right on to the next screen which flicks up as you reach the edge. Here a large radio telescope blocks your path – another grenade is called for.

But what's this? The grotesque heads of alien creatures are flying toward you. By jumping up in the air to gain height your hand blaster quickly despatches them, and it's on



the next screen... only 98 to go!

The next screen but one features a locked metal door at the entrance to a building – it can easily be blasted with a grenade. A matter transporter which can be used to gain access to an upper level does you no good at all, as there is a gun emplacement right outside waiting to blast any unwary traveller.

Immediately following this is a piece of machinery that pops up out of the ground and thumps you between the legs as you walk over it. The graphics are superb with varied and well-drawn backgrounds, and the animation of the sprites is excellent

The music is quite pleasing, but I wish I could turn it off or replace it with sound effects. However, this is a minor criticism of an otherwise brilliant game.

Roland Waddilove

Sound	9
Graphics	10
Playability	
Value for money	
Overall	



Program: Eliminator

Price: £19.99 Supplier: Hewson, Hewson House, 56b Milton Park, Milton, Abingdon, Oxfordshire OX14 4RX. Tel: 0235 832939

HIS has been heralded as the hottest release of 1988. Well after almost four hours of continuous play my joystick hand is red hot and that is pretty fair testament to the game.

Eliminator is a progressive shoot-'em-up set on a long winding track. You sit in the cockpit of the ultimate war machine as you strive to become The Eliminator.

As a hound of death you roar down the highway blasting everything in sight, negotiating boobytraps, walls of fire and stationary tank-like objects.

Ramps allow you to jump over obstructions or even flip on to the ceiling in tunnels, targets need to be devastated and aliens zapped as you progress to further levels of violence. Control is a delicate left/right joystick action, with the fire button doing what it was designed to do. At various points down the highway extra weapons and amunition can be collected to give you awesome power.

You start with three lives and gain more with every 10,000 points. The early stages are fairly easy, but the difficulty and excitement increases quite dramatically once you get beyond level two.

Every few stages you are given a password to type in, which allows you to skip early levels and enter at the heart of the fury.

The graphics are bright, colourful and at times stunning – just watch the explosions when you crash. The scrolling animation is as smooth as anything I have seen and really does create a feeling of 3D realism.

The musical backdrop is atmos-

The long and winding road pheric and doesn't distract from the gameplay, punctuated as it is by sounds of shot, laser and shell.

I can find little to criticise here. All in all, a fabulous excuse for micro mayhem. Buy it, you won't be disappointed.

Nic Outterside

Sound	8
Graphics	
Playability	
Value for money	
Overall	



mas. You may even need to replace

your joystick after playing it.

Strongly recommended. Jayne West

Classy conversion

Product: Cybernoid Price: £19.99

.

Supplier: Hewson, Hewson House, 56b Milton Park, Milton, Abingdon, Oxfordshire OX14 4RX. Tel: 0235 832939

N Cybernoid you control a small space fighter and you have been commisioned by the Federation to retrieve valuable minerals, ammunition and weapons from pirates who have raided Federation storage depots.

You must collect the cargo and return it to a storage depot within a time limit.

These sort of missions always sound easier than they really are, and this game is no different - those pesky pirates have activated all their planetary defence systems.

Fortunately, your craft is also equipped with all the latest antipirate-defence-system gadgets like bombs, beamers, blasters, mines, shields and laser bouncers - all activated at the touch of a function key.

The well-drawn loading screen is quite attractive and leads to the game options menu which flicks back and forth to the high score table if left alone. From the menu screen you can turn the reasonably good music on and off, and the sound effects too, or start the mission.

The view is side on and you have to manouevre your ship up, down, left and right through caverns filled with various alien craft, defence systems and nasty creatures. The opening screen features a harmless but spectacular volcano, plus a bit of extra weaponry that can be picked up and bolted on to your ship.

Moving through the only available exit, the screen flicks to the next - no scrolling here. Next you encounter pirate craft which you can shoot to retrieve their cargo. Also more weaponry can be collected, which takes the form of an orbiting ball. This bashes anything in your way.

On to the next screen and a



A great game that initially seems to be nearly impossible, but one that becomes easier with practice. It features brilliant graphics and addictive gameplay. I wasn't too keen on the music, but thankfully you can turn it off. Overall a worthwhile addition to your arcade collection and one to watch out for at Christmas.

Andy Richards

horrible slimy green plant creature that must be 50 times the size of your ship. It spits green slime balls at you and must be bashed with the orbiting ball. The next screen requires some very tricky flying to negotiate a piece of machinery.

The graphics are top-notch and the play is very addictive, making this a game that is hard to put down. Cybernoid is strongly recommended.

Roland Waddilove

Sound	9
Graphics	
Playability	
Value for money	9
Overall	



Towering inferno

Program: Nebulus

Price: £19.99 Supplier: Hewson, Hewson House, 56b Milton Park, Milton, Abingdon, Oxfordshire OX14 4RX. Tel: 0235 832939

EBULUS is another 8 bit conversion from the Hewson stable, and what a real gem it has turned out to be. Down on the planet Nebulus all is not well. Someone or something has been building giant towers in the sea and they didn't even apply for planning permission.

You have been chosen by your employer, Destructo Incorporated, to destroy each tower - its really a matter of a pay rise or the sack if you refuse. But why did I have to be a green goggle-eyed aquatic pig?

You journey in your well heeled mini-sub to each tower in turn and aim to climb to the top to facilitate its destruction. However, nothing is as easy as it first seems and you must negotiate deadly flying starfish, vicious rolling robots and killer eyeballs among your many enemies. These grow in number, speed and ferocity as you progress.

As you climb the towers the rotational 3D scolling graphics with hidden-surface removal are something else and must be seen to be fully appreciated.

The sprites act in genuine relation to the circular scrolling, which helps make your quest more realistic and challenging.

Entering the final door at the top of the tower sets off the destruction sequence. You are awarded bonuses for the time left and for technique as the tower crumbles into the sea. You then journey underwater to the next high rise hell hole and along the way must catch fish to gain extra bonus points.

Nebulus could be classified as an arcade maze/adventure but it is a lot more besides. At times it really taxes the grey matter as you plan your tactics and general strategy for



Difficult, at times perplexing, but truly addictive. The graphics are lovely, complete with reflection in the sea below. And the gameplay is superb - I keep going back for more. This is one game which has to be played to be believed. An ideal Christmas present - put it on your list now.

Javne West

attacking each tower.

The sound effects are simple but outstanding, and the musical interludes between each level well performed with a slight taste of the Orient.

The game is highly developed and well polished with that touch of class which will surely make it a winner on the ST.

Nic Outterside

Sound	8
Graphics	9
Playability	9
Value for money	
Overall	



Program: Speedball Price: £24.99 Supplier: Mirrorsoft, Headway House, 66-73 Shoe Lane, London EC4P 4AB. Tel: 01-377 4645

DLT on your helmet, check your body armour and sharpen your spikes, this is a game for the toughest of mortals. Set in the future, Speedball is a no-nonsense body contact team sport between two five-a-side teams. It is something akin to the legendary Rollerball, but played instead in a steel clad arena with goals at either end.

Upon loading you are presented with a main menu from which you can select either a demonstration game, one player knockout, one player league – with a choice of from 10 to 100 matches – or a two player game. To begin with I would suggest opting for the demonstration followed by some practise in the one player knockout competition.

Make your selection and up scrolls a second screen from which you can choose your team and captain. The teams vary from the skillful Draco to the strong Verna and powerful Lacerta.

The captains appear to be awesome hunks of beef-flesh with an eye to kill. Below a stunning portrait of each are displayed their vital statistics, including strength, weight, height, stamina and skill. Make your selection carefully, I found that Verin rarely let me down.

In the knockout championship your opponents get progressively tougher as you progress toward the final, while in a league setting the opposition naturally varies in skill and power from game to game. Before each league match you are given a résumé of your opponents' strengths and weaknesses to help you prepare for the battle ahead.

Each knockout round is played on a

timed best of three matches basis, where extra time is available if you bribe an official – I'll come to that in a minute. League games are based on single matches where points can be accumulated as in real sporting leagues. After each match a full league table is displayed showing where you stand.

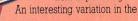
Enter the game situation and you are faced with a bird's eye view of your team against a realistic looking steel room backdrop. The tungsten ball shoots out of the launcher in the centre spot as you aim to slide in to gain possession.

Your nearest player to the ball is highlighted by a light square and as you gain possession the highlight changes to four light arrows. This reverts once you lose control.

Using the joystick you can run with the ball – use a zig zag course as you then become harder to tackle – or launch it upfield to a fellow player. A throw is accomplished by a sharp button press, while a lob requires a one second depression of the fire button.

While the ball is loose or with the opposition a number of options are

open to you. Pressing the fire button while the ball is over the head of one of your players causes him to jump up and catch the ball. Pressing it while he is running executes a sliding tackle, while pressing fire when a highlighted player is stationary lets him punch either an opponent or the ball. Your goalkeeper is an important figure as he can save or win matches - in my last game he scored a startling solo goal. As with the outfield players, he can jump and punch, but can also make spectacular dives to thwart the opposing striker. I sometimes found it difficult to determine whether a defender or my goalkeeper was in control and such confusion led to me conceding some silly goals. All these features have the desired live action effect and create a feeling of organised mayhem as you battle to win the ball and score that next important goal.







It's a knockout

Choosing your team and captain



Smash, kick, tackle, punch... goal! Another one, but I'm not really doing that well, perhaps I ought to bribe another official or buy some extra skill. What's a delicate young lady like myself doing playing a game like this? Having fun, that's what.

This is the most exciting team sport simulation I have played on any micro. There really are some marvellous games in this month's bag, but for my money this has to be the pick of them all.

Jayne West

play involves pitch level game tokens. The spinning ones can be collected and traded at the end of the match for niceties such as bribing officials or trainers. Equally they can be used to buy strength, stamina and skill for your team.

The lettered tokens are coded for immediate effect in the game and initiate all manner of surprises. They may cause opponents to freeze or slow down or your players to gain tackle protection or vast increases in stamina.

Judicious management in your collection of these tokens pays rich dividends in the world of the Speedball league. You may lose your first few games, but once you begin trading your tokens your team strength increases and your match chances improve greatly.

The enclosed documentation also gives some superb hints and tips for winning matches. It was advice which I found invaluable as I struggled to overpower each adversary. The program boasts save and load options so after a tiring session you can save your current position to return refreshed at a later date.

Speedball is definitely a black coffee type of game as you fight tiredness after a four hour stint of action. The graphic representation and animation are startling while the musical backdrop is pleasant and unobtrusive.

However, addictiveness is perhaps Speedball's greatest quality and I'll certainly be going back for more this evening.

Nic Outterside

Sound	8
Graphics	
Playability	
Value for money	
Overall	9

Program: Garfield

Price: £19.95 Supplier: Softek International, 36/38 Southampton Street, Covent Garden, London WC2E 7HE. Tel: 01-831 1801

ARFIELD is alive and well and now on your ST, but how do you start reviewing a program that has you in stitches of laughter, employs superb graphics and animation, is a delight to play yet seems impossible to complete? Garfield must be one of the most enjoyable yet most frustrating games I have played this year.

Loosely it could be called an arcade/ adventure, but even that does not really define it. Whatever, it is an outstanding coin-op conversion of an arcade classic which once started you will find hard to put down.

You play that mega-puss Garfield in side-on view on a stunning laterally scrolling screen. This encompasses the groovy world you occupy with Jon, Nermal and that lovable pooch Odie. The screen is completed by an attractively presented inventory box.

The scenario is that your girlfriend Arlene has been imprisoned in the city pound and you, Garfield, must arrange her rescue. You begin your undertaking in Jon's house and a quick sortie will reveal miscellaneous objects such as a blanket, flashlight, Monday's newspaper, a cup and some fresh fish-

Your chief problem will be carrying them, as your inventory is limited to only three, and one part of that seems permanently taken up by a clockwork mouse. Begin by dropping the bone and the fish in the kitchen and see what happens.

Also that annoying booch Odie has a habit of pinching objects at random from you – and just by to get them back. After over nine hours of play I have discovered uses for only half the items I picked up in the house. See what



Where's Odie got to now? Will someone find the lasagne, and how do I persuade Jon to give me a cup of coffee? You see I'm even starting to think like Garfield. Stunning graphics and purtfect animation make this game compulsive playing, but it's oh so difficult. Help me someone, please. Touch that again Odie and I'll scratch your eyes out. A superb, addictive game which is an absolute must.

Jayne West



Big fat hairy deal

mean by difficult? Other locations include your garden, the shed, cellar, the streets and shops of your town, the bark and golf course and what appear to be the town's sewers I tried in vain to map the game, but after several attempts I ended up with a design resembling meat balls and spaghetti.

In his travels Garfield needs frequent rests to avoid terminal fatigue reported by the immortal words, *Really overdid it*. He must also be well fed, and fortunately there are ample supplies of goodies like cherry pie and beef burgers littering the streets, so careful gluttony is one of the keys to success. However, keep moving and experimenting, if you leave Garfield idle for

imenting, if you leave Garfield idle for too long you are prompted with *Hey*, *anybody there?*

Various objects are scattered about at all locations and need to be collected

in some kind of illogical but methodical fashion. Odie gets in the way most of the time, but just give him the odd kick to relieve frustration and add 10 points to your score.

Alternatively you can play squash with Odie by kicking him against a wall and getting him again on the rebound. It's an easy way to mount your score quickly and will alleviate pent-up frustration in a jiffy.

If you are a dog lover you can sit and

watch the plants grow in the garden. Does Arlene expect a bunch of flowers as well?

A large rat will pose some problems in the sewer, but persevere and the channels will lead you to a lovable kitten which appears lost. I had a nagging feeling that it could be tempted by a morsel of fresh fish, but each time I tried to venture into the sewer with flashlight and fish I was thwarted by hunger or that blasted mut

Humour abounds and more than compensates for the innate frustration that playing Carfield will surely bring. Watch also for the responses as you pick up and examine objects, most are classic Carheld quips. Try playing golf in the park and

Try playing golf in the park and increase your tally by 100 for every hole in one – or by 500 if you manage to pitch the ball into the sewer!

Also have a go at jumping as the big white gull flies over you and enjoy an uplifting experience. Don't forget the bird seed. However, just why that seducive girl was sitting on the park bench apparently waiting for no one, totally escaped my investigations.

I did discover one annoying bug which allowed the game to bomb-out when I travelled beyond the outer hallway with less than three objects in possession. Hopefully this will be cleaned up by the time Carfield reaches the streets.

I enjoyed the game immensely and would recommend it as an ideal Christmas present for young and old alike. This is the ultimate Garfield experience – taske it now.

Nic Outterside

Sound	7
Graphics	
Playability	8
Value for money	8
Overall	











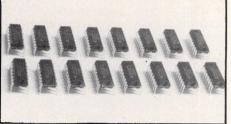
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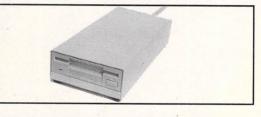
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Some gnomes do 'ave 'em



Program: Ingrid's Back' Price: £19.95 Supplier: Level 9 Computing, PO Box 39, Weston-super-Mare BS24 9UR. Tel: 0934 814450

NOW this really is good gnews for all adventurers – Ingrid Bottomlow has returned! And gno, my word processor has gnot gone on the blink. This gnovel way of spelling is one of the hallmarks of probably the funniest series of adventures ever to grace your ST

Ingrid's Back is the sequel to the very popular and hugely enjoyable Gnome Ranger, a bevel 9 adventure that featured the unforgettable and diminutive heroine, Ingrid Bottomlow, graduate of the Institute of Gnome Economics.

In Gnome Ranger, her enthusiasm and hare-brained schemes virtually demolished the family farm. Her exasperated family sent the wellintentioned but trouble-prone Ingrid off on a holiday to the wilderness. While away on her trip, Ingrid managed to put the wilderness to rights in her own unique fashion – but now she's back home again in Little Moaning.

The old squire of the village has died and the new owner of Ridley's Manor, the avaricious Jasper Quickbuck, aided by the file goblin, Silas (Creepy) Crawley, has laid plans to evict all the tenants. He intends to steamroll the village to make way for a Gnorsegnome marina and an estate of yuppie homes. Can Ingrid foil Quickbuck's dastardly plans?

This text and graphics adventure is divided into three parts. You can play them in any order, but for maximum enjoyment and story continuity it is best to do so in chronological order. An optional demonstration mode gives you a long and detailed familiarisation with the development of the story.

Part one deals with Ingrid's attempts to get her fellow gnomes to sign her petition against the planned eviction. In this episode, Ingrid will need help from her faithful dog Flopsy.

A visit to the Green Gnome for a mug of their famous scrumpy may also be in order,but Ingrid will soon realise why the pub's called the Green Gnome when she drinks the wicked brew.

The ferry is constantly unavailable because the boat is being used by Boney Spratt, the ferryman, for fishing. So there's an unexpected demand for fish meals down at the Green Gnome on account of all the travellers hanging about there waiting for the ferry.

The second part of Ingrid's Back! concerns the defence of Gnettlefield

farm against the depredations of Quickbuck's henchtrolls and their steam roller.

Would you believe that Ingrid, who has a face that would stop Big Ben, actually has to wear lipstick and perfume to achieve her ends?

The adventure is full of humorous incident and equally amusingly named characters and places – Jumbo Butterpat, Soggybottom Field, Gnat Tackhammer, a house called Dunrollin in the Dunes, the rivers Dribble and Trickle, Mistress Rosemary Thyme the sage, Ploughgnome's Lane and many, many more.

The attractively framed and optional graphics are the best yet from Level 9 – at last the pictures really do complement the atmosphere of the advenure.

In addition to Level 9's sophisticated command handler and bountiful text – more than 250,000 bytes – there are ram Save and Load facilities, the option to change the text size to suit your own preference, independently motivated characters, high level commands such as GO TO a place, FOLLOW someone and multi-character puzzles.

A 40 page glossy game guide accompanies the package – 20 pages are devoted to The Second Gnettlefield Journal, Ingrid's immensely entertaining diary as translated by the talented Peter McBride. As well as being very funny, this diary also serves as an introduction to the game's plot.

A hoot from beginning to end, Ingrid's Back has got to be the best yet from Level 9 Computing. If you like your adventures to give you a good giggle as well as to challenge and stimulate you, then this has got to be the one to go for.

Bob Chappell

Presentation	
Atmosphere	
Puzzlement	
Value for money	9
Overall	9



Once again Ingrid had me tied into gnots with her exploits. This is everything you would expect from Level 9, plus a bit more besides. The humour floods through every location and action. Ingrid's Back! has been added to my adventure shelf forthwith and will be played again and again.

Nic Outterside

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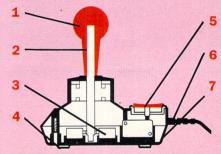
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Program: Space Racer Price: £19.95 Supplier: Loriciels. Eastern Avenue. Lichfield. Staffordshire WS13 6RX. Tel: 0543 44188

ET 44 years into the future in a decadent world bored with television and computer games, the peoples' thirst for death, blood and fear gives rise to a new and savage era and the Space Race.

The action takes place on three planets, each with a different course. You can choose to practise on any one of them or go straight into the

Race into the future

competition. My first impression was that Space Racer was going to be absolutely brilliant. It looked like Space Harrier and played like Pole Position, only better.

Following the twisting and undulating track, you must stay on line to keep up speed and energy levels. Lose too much energy and you may not have enough to get round the course – though you may have an opportunity to top up.

As the course takes you over hills you must keep your height at an optimum - too high or low and speed and energy consumption suffer. At full speed you'll soon catch up the other racers. They'll not let you through easily, though you can pass them.

If you have no patience you can blast them out of the way, but that costs energy and isn't all that accurate anyway. Pushing and jostling opponents was much more fun and got more results.

A glancing blow on one of the pylons along the track edge would

throw the machine up in the air, tumbling out of control. With quick reactions you should be able to regain control before smashing into another. A head on smash is more serious, and mines in the road add to your problems.

Space Racer is instantly playable. Although the middle ground lacks visual interest, the graphics are otherwise excellent. However, despite some great intro music, the use of sound during the game is minimal. The few examples of digitised speech are rather poor and contribute little.

After a few games I soon came to realise that all that was needed to complete the course was to maintain a middling speed without crashing. In this way I got through 5.75 consecutive levels without even having to refuel at only my sixth attempt at Space Racer.

After level three the tracks repeat, with a few additional hazards added each time. The competitive edge was missing, there being no apparent advantage or reward for overtaking competitors, nor penalty for ambling around at half throttle. Can you imagine Alain Prost poodling around Brands Hatch at 40mph and winning? It's a great shame, Space Racer



Program: Sorcery Plus Price: £19.95 Supplier: Virgin Games, 2-4 Vernon Yard, Portobello Road, London W11 2DX Tel: 01-724 8070

Sauce for the Sorcerer



24 Atari ST User December 1988



This is an all action and superbly animated game with excellent graphic enhancements. The gameplay is stupendous and should keep racing enthusiasts and arcade freaks absolutely transfixed. Some lack of the competitive edge slightly mars an otherwise excellent product. Put it on your shopping list this Christmas.

Nic Outterside

should have been brilliant, but falls flat through lack of attention to detail where it matters – in the game itself.

Peripheral niceties such as the eyes in the control panel which show objects ahead on the track, and interlevel screens of great detail and atmosphere are great. I only wish Loriciels had made it more competitive and paid more attention to the lasting appeal of the game.

Niels Reynolds

Graphics	8
Sound	
Value	
Playability	
Overall	



This appears to be a good excuse for sprite-bashing under the flimsy guise of wizardry and spells. Still it is an enjoyable romp, quick and well animated, and will provide hours of entertainment for all arcade-adventuring hacks. It raises the calibre of this type of game to yet a new level.

Nic Outterside

the pace of the game, how you'll get time to draw it - let alone read it - I really don't know.

While Sorcery Plus has nothing new on offer, it is nonetheless a fast, competently constructed and enjoyable game. **Niels Reynolds**

Sound	6
Graphics	7
Playability	
Value for money	
Overall	

Parlez vous Franglish?

Program: Chrono Quest Price: £29.99 Supplier: Psygnosis, 1st Floor. Port of Liverpool Building, Pier Head, Liverpool L3 1BY. Tel: 051-207 0825

HE French are on the march again. Liverpool based Psygnosis has taken on board a new graphics-oriented adventure from Infomedia across the water – and it is by far the biogest and best yet.

Just before his murder, your father sent you a letter in which he told you that he had built a time machine. The letter forewarned that his servant, Richard – a nasty piece of work – might well have it in for him.

You are unjustly accused of the murder and so must set off in a hunt for the time machine, believed to be hidden in your father's chateau, and use it to track down the real culprit.

The largest portion of the screen is taken up with an attractive and detailed picture of the current location. Below this is a panel which displays your inventory – all items are displayed as small icons – and messages output by the program.

In keeping with the current rend of graphic adventures, no text input is required from the player. All commands are executed by pointing and clicking with the mouse at a cluster of icons arrayed down the right hand side of the screen. Most of these icons concern the

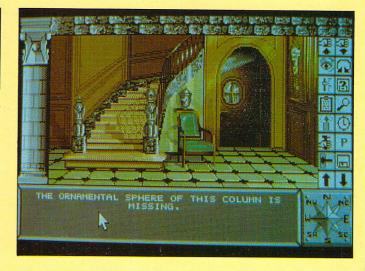
Most of these icons concern the manipulation of objects found either in the picture or in your inventory Such commands include Examine Get, Drop, Open, Close, Light, Get, Turn, and Use. For example to open a cabinet with a key, you would simply click on the Use icon, then on the Key icon – in your inventory – then on the cabinet in the main picture.

The cabinet would open and you could then examine and obtain any objects concealed inside – such previously hidden items are shown as a



Chrono Quest has the most stunning graphics I have seen in any adventure. The gameplay is addictive despite some weaknesses in translation from the French. Very much in the Déjà Vu mould, but 10 times better. This is an essential buy for all adventure stalwarts.

Nic Outterside



small close-up, overlaid on the main scene. All very simple, really.

Other command icons let you display your inventory, save or load a game to disc, go up or down, pause the game, tell the time, nominate any external disc drives and adjust some game parameters. You are only able to carry 11 objects at a time, so care is needed in selecting which to keep since there is much bric-a-brac around.

Directional movement is easy – just click on the relevant portion of a labelled compass rose displayed beneath the command panel or on the up or down icon. If the selected direction is open to you, the picture will change to show the new location.

The adventure starts in the grand, marble-staircased hall of the chateau. Stairs lead up and exits off to the East, West and North East. The east route leads to a library; or, as the text has it, a Librairy. There are a few such minor spelling mistakes in the game which are clearly due to slip-ups in translating the game from French to English.

Elsewhere in the chateau, you'll find a dining room, kitchen – funny place to keep a safe – and bedrooms. One exit leads to a dark place so you'll need some form of longish-lasting light – which turns out to be one of the trickier of the earlier puzzles. Make sure you scour all the rooms, particularly the chapel.

Once you've found the time machine, fixed it and learned how to activate it, you're on your way. The Stone Age seemed a good place to start – all swampy and full of strange creatures. But I didn't see an awful lot of it. Having loitered too long in an unsafe place, I was crushed underfoot by a mammoth.

I fared little better in two trips to India in 1605 AD – mauled by a tiger on one occasion and attacked by a backstabbing fakir on another. Egypt in 1100 BC looked a better bet, but yet again my carelessness quickly brought me to grief. How humiliating to be crossing a desert and getting run over by a chariot!

A final fling in the year 750 AD with the Mayan civilisation brought me face to face with yet more danger and again I rapidly expired. And I still hadn't visited Paris in 2125 AD. Who said timetravelling was easy?

The graphics are of a very high standard, making this adventure one of the most visually pleasing to play. The frame around the main picture changes with each time segment, as does the background music which bubbles quietly away throughout the game.

There are some neat touches of animation and numerous spot sound effects – I particularly liked the hum of the time machine as it sprang into life.

Although you can save a game in progress to a blank formatted disc at any time, you can only save one per disc, so it is worthwhile having two or three standing by. You might also like to know that the game has a little dig at the Amiga, but I'll leave you to find that for yourself.

Chrono Quest is an extremely pleasing adventure, having an engaging plot and challenging puzzles. Graphically, it is superb and happens to be one of the easiest to get into, thanks to the friendly interface. It's not cheap, but you do get a large game for your money – I can't think of any other four-disc adventures off hand. If this is a taste of French adventures to come then I have but one thing to say – encore!

Bob Chappell

Presentation	9
Atmosphere	
Puzzlement	
Value for money	8
Overall	

The Ewoks to the rescue

Product: Return of the Jedi Price: £19.95 Supplier: Domark, 22 Hartfield Road, London SW19 3TA Tel: 01-947 5624

N his review of The Empire Strikes Back in the October 1988 issue of Atari ST User, Andy Richards found it to be very similar in style to the original Star Wars game. Return of the Jedi, however, is about as different from its predecessors as you could possibly have got.

After a pretty standard title screen you select the level of play by moving the Death Star over one of three levels. This is repeated at the beginning of each new game. If you choose the harder levels you will start playing further into the game and will receive extra bonus points.

As always, you play the part of Luke Skywalker. The first level has you travelling through woodlands in battle with Darth Vader's army of stormtroopers. You must dodge both obstacles and enemy fire.

In your absence your two robots, C3P0 and R2D2, have made friends with some local creatures called Ewoks. These are your only aid other than the Speeder Bike on which you are travelling. The stormtroopers can be got rid of by either firing at them or making them crash into trees by ramming them.

Screen two is quite simple, and all you do here is fly down a corridor in the Millenium Falcon making sure you don't crash into walls or run into the path of enemy fire.

The next screen has you inside a mechanical Scout Walker. You will have many problems to contend with, including rolling tree trunks which



I loved Star Wars but was disappointed with The Empire Strikes Back. However, this is a whole new ballgame and had me hooked from the outset. Some of it is a bit like toboganning in reverse but don't let that distract you as there is a job of work to be done and only you can save the world. This one is a must for any self-respecting gamer.

Nic Outterside

will trip you up, rocks being catapulted at you and Scout Walkers being controlled by the stormtroopers. You can blast the tree trunks and stormtroopers' Walkers, but you must dodge the rocks.

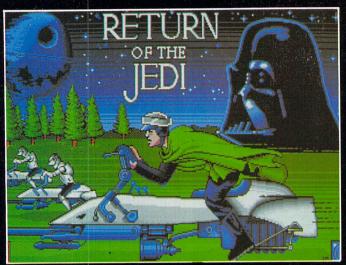
The most noticeable difference I found with this game is the change from the familiar 3D wireframe graphics used in the previous games to the 3D diagonally-scrolling solids used in Return of the Jedi. The scrolling is both smooth and flicker-free and on the whole the graphics are clear and colourful.

Unfortunately my pre-production copy does not have any sound. However, judging from the previous games, I can't foresee any faults with this part of the product, and you can expect music, explosions, zaps and perhaps digitised speech too.

A nice ending to this series of games, with a good conversion from the arcades which will keep you hooked to your ST for hours. If you are a fan of these coin-ops you'll enjoy this version.

John Butters

SoundN/A
Graphics9
Playability9
Value for money8
Overall

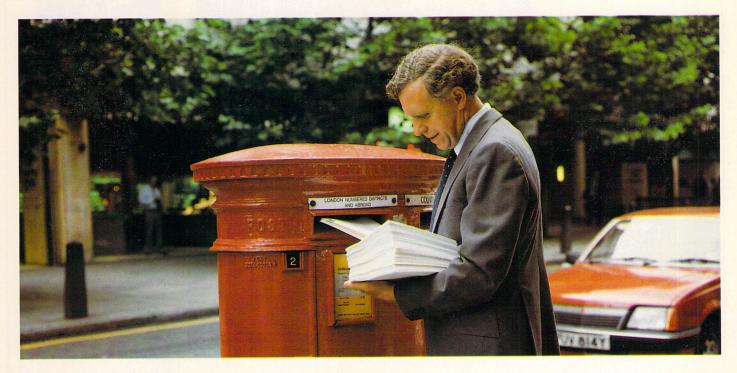






Piloting the Millenium Falcon in stage two

The day Roger Jackson sent his first mailshot.



I was impressed by the fact that Star have now produced a great looking little budget printer with a 24 pin head.

I was impressed by its excellent quality – the 8 resident fonts available and its high density letter quality helped me produce a really professional mailshot.

I was impressed by the extremely swift draft elite speed of 170cps and LQ elite at 57cps and the standard 7k buffer.

I was impressed by the special push-tractor feature that allows the LC24-10 the lowest possible tear off and its ability to 'park' continuous paper and load single sheets automatically – so there's no need to remove the continuous.

I was impressed by the touch-button front control panel that makes using the printer an absolute dream.

But most of all, I was particulary impressed with myself. Because my Star LC24-10 was so inexpensive and no other printer comes close for sheer quality and





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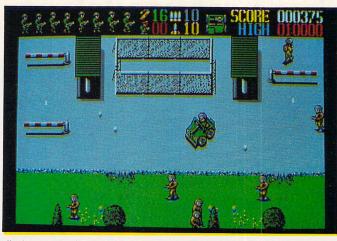
Coup this!

Program: Fernandez Must Die Price: £19.95 Supplier: Mirrorsoft, Athene House. 66-73 Shoe Lane, London EC4P 4AB. Tel: 01-377 4645

SMALL third world country has fallen victim to a military coup led by Signor Fernandez, who has set up eight regional bases to secure his evil grip on the land and has taken many prisoners. Leading a crack commando unit you have been assigned to assassinate the tyrannical crackpot and return the country to its people.

Armed with a machine gun, rocket launcher and jeep, you embark on your vertically scrolling mission to kill Fernandez. Facing you is a sizeable army, with heavy machine gun emplacements, gun boats and tanks.

You start your mission in your jeep. Hang on to it for as long as you can, as it



affords protection from gunfire – though not tank shells.

You'll soon come across prison camps in which valuable points and extra lives can be quickly earned. Access is gained by blowing the double doors of the security hut and then taking out the doors of each hut. That done, prisoners will run out and make a dash to the edge of the screen. Each one that makes it to safety gets you a good many points and for every 10 prisoners freed you get another life.

The game progresses through forests, roads, checkpoints, prison camps and over rivers, becoming more heavily fortified all the time. Extra jeeps are available occasionally, along with a car wash. This isn't for sparkling up your wheels, but for dousing the flames as you sustain more hits on the old jalopy.

I found Fernandez Must Die great fun. There is variety within the game and an addictive quality that had me up way past my bedtime. That said, I had almost completed the mission in my first evening's play. It is perhaps slightly on the easy side.

I may have completed the game but



Fast action enjoyment guaranteed here, so hold on tight and blast everything in sight. I found the graphics rather disappointing and the game bore some similarities to Commando. However, not a bad buy and will keep you amused during the long winter evenings if you like this style of game.

Nic Outterside

for an apparent bug in the software. I had killed six of the eight Junta Generals, when, breaking into another prison compound, I got stuck in the prison security hut.

No further movement was possible and the only option was to abandon the game.

Niels Reynolds

Sound	
Graphics	7
Playability	
Value for money	7
Overall	

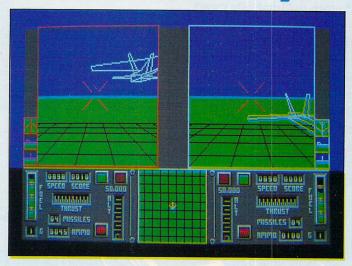
Program: Skychase Price: £19.95 Supplier: Mirrorsoft. Athene House. 66-73 Shoe Lane. London EC4P 4AB. Tel: 01-377 4645

KYCHASE by Image Works is a sort of cross between a flight simulator and arcade blaster. Neither element could really stand up on its own, but together they combine to offer an interesting and entertaining game.

One of the best aspects is the ability to set your own parameters for the game. You can choose one of seven aircraft, including an American F-18 and Soviet Mig, each with slightly different flying characteristics. You can also set fuel and weaponry available, the weapons' accuracy and effectiveness and the size of the playing area.

The screen display shows two windows, the few flight controls and indicators and a map grid. Each window represents the view from each of the two aircraft that will shortly become embroiled in aerial combat. You can opt either to play against the computer or human opposition.

If you take the computer opponent you can choose to black out its viewing screen, which means you'll not be seen when it has you in its sights. The craft



Chocks away...

take off automatically and the dogfight begins.

You hunt each other using the radar map grid in the lower middle portion of the screen until visual contact is made. Flight itself is a relatively easy affair, especially when compared to bona fide flight simulators, with all movement, except for the keyboard thrust key, being joystick controlled. Two weapons are available, machine gun or missiles. Bullets are affected by gravity and curl downwards as they are fired. If the enemy is within missile range a head-up targetting frame appears on your viewing window, in which you must properly align your cursor before firing.

I enjoyed Skychase, but it is not without its faults. The graphics are weak considering what is possible on the ST. The aircraft are depicted in simple wire-frame style, with no detail



Flight Simulator II it is not, but an excellent arcade flying game. Lots of variation and adaptability to suit any level of player. Shame about the sound effects and music, but good fun anyway. Tighten your safety belt and up into the wide blue yonder you go. My advice is to try before you buy.

Nic Outterside

in the background but for the grid pattern on a flat green landscape.

Flight simulator purists may scoff at the game's simplicity and arcade freaks yawn at its graphics and effects. In trying to please everyone Image Works has undoubtedly compromised with both of these main game playing aspects of Sky Chase. Nonetheless, I think the company has still come up with a good, playable end product that has a lot to offer.

Niels Reynolds

Sound	6
Graphics	6
Playability	8
Value for money	
Overall	

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Blast a blob

ner to be replaced be a well designed

For all that, Zynaps works remarkably well. After a very pretty

loading screen, a quick press on the fire button launches you straight into

As the first wave of aliens zoom

indefatigably in for the kill, the first

thing you're likely to notice is the rid-

iculously low rate of cannon fire, and

second the ship's sloth-like response.

But aliens take no prisoners, so this first stretch is tough going. As the last

wobbling blob gets vaporised, your

courage and marksmanship is re-

warded by a glowing energy or equip-

These bonuses hold the key to

winning the game, so it's vital to under-

stand how they work. Each can be

collected in two ways. First, by

ramming - this causes the ship's energy

scoop to collect and store it for later

use. Secondly, holding the fire button

down while collecting a bonus causes it

to activate the new weapon system or

The number of bonuses you have in

reserve dictates which item you get

next - this is displayed at the bottom of

the screen. Go for the speedup first, it's

essential to survive the rest of the wave.

At the end of each wave - there are

14 - you must confront and destroy the

mother ship. In keeping with such

things, the mother ship is big and tough.

It's also well armed, so only a practised

trigger finger is likely to see you

Zynaps is a good shoot-'em-up if

nothing else. While it scores 0 out of 10

for originality, it combines all the

elements required to keep most

gamers happy for many winter

Julia Forester

through to the next level.

evenings.

Sound ..

Value

Overall

Graphics

Plavability ...

horizontally scrolling layout.

the fray.

ment bonus.

rocket drive.

Program: Zynaps Price: £19.95

Supplier: Hewson, 56b Milton Trading Estate, Milton, Abingdon OX14 4RX Tel: 0235 832939

OR the dedicated arcadian, the names of classics like Salamander and Vulcan Venture will no doubt sound an enthusiastic chord. To add variety to what otherwise could have been a pretty dull game, the designers thought up a new idea, collectable and selectable features.

To earn new features the ship picks them up by ramming – or as the instructions tactfully put it – collecting them in the energy scoop. When such features appear the machine drones in pigeon computerish something like, Pick it up for speedup or Pick it up for ripple laser.

Zynaps fits extremely well into the Scramble/Salamander category, although a copy it is certainly not. Cone is the annoying digitised gibberish gracing the otherwise stylish Goldrun-



Press that button and fire those lasers. This is definitely a game for the real arcade fanatics. A lot about it seems familiar, but the ability to customise your craft is quite novel. Collect those bonuses religiously and you will be well on the way to success. Want a rest after a tiring day's word processing? This is the answer.





CRYS

Up and under

Product: Rugby League Boss Price: £14.95 Supplier: Software Publishing Associates, 197-199 City Road, London ECIV 1JN. Tel: 01-251 0967

LTHOUGH soccer fans have been pretty well catered for in the past with an everimproving stream of products, the possibilities of rugby have been largely overlooked. Until now, that is. Unfortunately, the thrills and spills of rugger management seem to have been lost somewhere along the line.

Rugby League Boss follows the trend set by Football Manager in placing you in charge of a team, their finances, and hopefully their rise to the top of the first division. Life being the way it is, you'll probably ruin a few good careers before getting it right.

Beginning with a squad of inexperienced but willing players, your first job is to attempt to assemble a team good enough to do battle with the enemy. This may mean buying or selling players, running to the welcoming arms of your bank manager when necessary for a quick injection of the folding stuff.

You'll need to be familiar with the



The flanker looks a strong boy... he's going hard for a scrum on the Widnes 20 metre line... oh and a beautiful up and under. Unfortunately, this game contains little of the atmosphere and playability to have me hooked, but it was a brave try. Even rugby fanatics will find more excitement than this in Soccer Boss.

Nic Outterside

mechanics of a rugby team in order to maintain the right balance of backs and forwards, It's also wise to have a few reserves in the sidelines to take over from anyone who gets suspended or fatigue-damaged.

If you find that life is difficult and that your team doesn't quite turn out to be the success you'd hoped there's always the option of packing it in and joining a new team at the end of the season.

It's sad that so little effort has been put into programming a game that already faces stiff competition, although admittedly rugby games are a little thin on the ground. The program structure has been reduced to the bare essentials, with very little depth to the strategy and lots of screens of boring names and numbers to stare at.

The game is controlled with a sort of pseudo-Gem interface, clicking on icons to move a marker up and down lists of options. This is slow and frustrating and I kept wanting to ignore the marker and point straight at my choice.

The highspot of the game - the match itself - is merely a readout of the score on the screen as things progress, and the winner is announced at the end. The only graphics and sound are some attractive but rather pointless stills displayed with a musical accompaniment between matches.

All this would be acceptable if underneath lurked a challenging and varied game, but sadly this is not the case. Anyone who is planning on trying to make it to the top should be prepared for a long struggle, with nothing out of the ordinary to relieve the tedium.

Only if you are a really action-starved Rugby fanatic, are you likely to find this interesting.

Jonathan Davies

Sound	
Graphics	4
Playability	
Value for money	5
Overall	

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- channels:
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SOFTWARE

85:85:10

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In the storeroom

3D spectacular

100 5

Searching for a drilling site

GAS AUILA UP

Product: Driller Price: £19.95 Supplier: Incentive, 2 Minerva House, Calleva Park, Aldermaston, Berkshire RG7 4QW, Tel: 07366 77288

RILLER is yet another 8 bit conversion - the software pages seem packed with them this month, and not a rotten apple among them as this is a competent conversion of a wellknown and much praised game.

It features Incentive's Freescape solid three dimensional landscape system and the action takes place on the surface of a foreign planet.

Evath has two moons, and Mitral – now abandoned – has been extensively mined by cowboy outfits. The resultant shafts have slowly filled with gas, turning the moon into a potential bomb.

In four hours a meteor is due to strike it, and the resulting explosion will push Evath out of orbit, causing the death of millions. Only by sinking drilling rigs into each of the 18 sectors of the moon can sufficient gas be vented to avoid an explosion.

The sectors are all different and fiendishly difficult to explore. To make an area safe you must site a drilling rig in such a position that it vents over half of the gas trapped beneath it.

Pressing D teleports a rig to a point directly in front of your mobile. Once in place a readout tells you how



As 3D games go on the ST, Driller's graphics must only be rated as average, simply because of the lack of any form of animation. However, it's still a good game, and the time soon passes as you try to map your way round the 18 sectors placing drilling rigs. The first sector is easy and the demonstration mode shows you how it's done, but they quickly become more difficult. Well worth considering.

Andy Richards

much gas has been released, and if this is sufficient. If it is you can move on to the next sector.

I suggest you take pot shots at all and sundry, as things aren't always what the" seem. The packing case near the start should be blasted to make a doorway appear in an otherwise solid wall, giving access to another part of the sector.

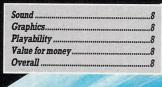
At another position you are prevented from reaching the prime drilling site by a deep trench. Becoming increasingly devious, I questioned the apparently silly positioning of a tall slab placed at one end. A quick blast toppled it over to form a bridge.

Apart from the puzzles and drilling rigs to erect, there are laser beacons to disable or avoid, and fast thinking is essential if you are to survive their attacks.

The 3D graphics are excellent and the screen update rate is good too. The sound effects are fine, but sadly there doesn't seem to be any musical soundtrack - pity.

Driller is an excellent blend of good graphics and fiendish gameplay - I highly recommend it.

Roland Waddilove

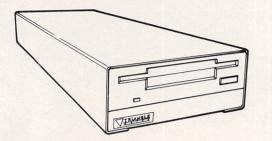






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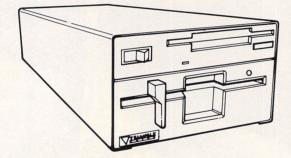
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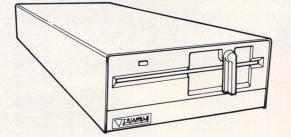


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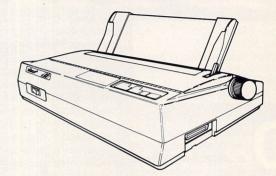


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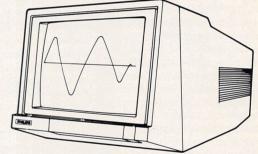
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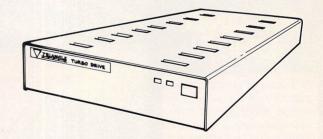
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Dynamic duo achieve the impossible

THERE is no doubt who's top of Brillig's chart of admired adventurers this month. For sterling work in completing both Corruption and Legend of the Sword, honours go to Alan Millar and James Pearson of Giffnock in Glasgow. They have sent in detailed solutions to these adventures and, much to Rainbird's surprise, finished Legend of the Sword with a score of 95 percent.

Until the dynamic duo achieved this result, Rainbird did not believe the adventure was capable of being completed with less than 100 percent scored. So doubly well done, lads readers of this column will be able to benefit from the fruits of your labours via the Hints and Tips section in future issues.

I am able to bring you the promised hints for Phantasie III this issue thanks to the kind assistance of James Bloodworth of Nottingham, Lucien Oppler of London and Leon Sanderson of Yeoville, South Africa.

I am not totally enthralled by the roleplaying style of adventures such as Alternate Reality and the Phantasie series - can't be bothered with worrying about



all those coordinates, hit points, armour classes and the like. Still, every adventurer to his own type of favourite quest we're all after the same thing in the end (no, not gold, you mercenary orcs, escapism!).

For those that do like this brand of

adventure, you may be interested to hear of The Black Orchid, the first release from a new and strangely denigratingly named software house, Mundane Software. In this fantasy game, opposing forces of good and evil are fighting a war across an island continent in order to gain possession of the ultimate magical artefact, the Black Orchid staff. This was split in two on the death of its creator and each half was given to twin children.

The twins are now battling it out to grab the whole staff. You can choose to be on the good or evil team and can elect to be a male or female leader. The war takes place over 21 lands, the objective being to conquer each territory, and culminates inside the citadel of either side. The game is controlled by menus and sub-menus, among which are such items as map, status, build, spells, troops and character.

When a land is conquered you can build on it - temples, taverns, keeps and the like - and you may acquire your army choosing from 64 types.

What do you think of the Crash Garrett adventure, reviewed in the May 1988

HINTS AND TIPS

KNIGHT ORC

Part 1 of the solution

• Wear the cloak. Get the halyard from the flagpole. Take the tether from the goat. Kill the Green Knight's horse and take his reins. Get the washing line from the oak tree. Get the noose from the gibbet. Take everything from the well but the treasure.

Put the welcome mat on the thorn hedge and climb over. Cut Rapunzel's hair and take it. Go to the castle. Take the note and throw it at the drawbridge. Get

it again, then go in and drop it. Go in again, unlock the chest, open it and take the cord. Go to the hermit and give him the key, then when his back is turned, despatch him and take his belt.

Go to the well and tie all eight pieces of rope together. Tie the rope to the roller, then climb down and get the hawser. Climb up and take the rope. Tie it to the hawser. Tie the rope to the signposts at the crossroads and wait for the hunter. Take his lasso and tie it to the rope. Get the spear from the bar and tie it to the rope. Go to the gap and throw the spear at the ring. (More next month).

JINXTER

Bull a problem?

 Try acting like a matador with something red.

Batty gardener keeps running off when you approach?

The squeaky doors alert him. Get the plastic bottle and put the contents in a bigger container then freeze it to get the oil

Put the oil on the runners of the boathouse door.

issue of *Atari ST User*? I must own up to having abandoned the thing quite early on – just couldn't get on with the fussy parser and odd style of language.

I've now got my hands on a copy of the complete solution, thanks to Wayne Piper of Northolt in Middlesex. How he managed to persist right through to the end beats me. Having now played it with the benefit of Wayne's solution, I'm as pleased as a bat in a brand-new belfry that I did put to one side early on – the whole thing is really difficult, has more than its share of bizarre logic, and is rather dull.

Just shows you can't always go by initial appearances. Anyway, well done, Wayne – I'll probably be printing some of your hard earned solution in a future issue.

Like Crash Garret, Mortville Manor is another adventure from France, but there is simply no comparison. Mortville Manor is enjoyable to play and has plenty of atmosphere, as well as the added interest of being able to interrogate the characters on a wide range of pertinent topics and hear them answer.

Kirk Ruebotham from Runcorn has some useful advice on this adventure. He reckons that the key to success is not to ask too many questions too soon and that you should keep checking people's rooms because they leave them unoccupied for short periods. Always knock and listen before entering.

You'll need the dagger from Bob's room to open the secret passage in the cellar, and the small cross from Julia's room to see what's beyond the secret passage. Julia's room can be entered by using the key from under the pillow in Leo's room.

In return for this help, Kirk would like to know what to do in the well and the significance of the wall of silence. As to the latter, I think that's just a device to tell you that they're all trying to hide something. What do you think?

See you next month, but in the meantime, keep your gold safe and your brass lamps polished.

Program: Lancelot Price: £19.95 Supplier: Mandarin Software, Europa - House, Adlington Park, Adlington,

Level 9

 House, Adlington Park, Adlington Macclesfield SK10 4NP.
 Tel: 0625 878888

"IN days of olde, when knights were bolde...". There surely can't be many people to whom that snatch of verse doesn't conjure up images of knights in shining armour and damsels in distress.

And who among us has never heard at least a fragment of the famous Arthurian legends? Such names as King Arthur, the Knights of the Round Table, Excalibur, Merlin, the Holy Grail, Camelot, and Queen Guinevere, must strike a chord with the vast majority of people. These names must surely be as familiar to you as those of Robin Hood and his merry men of Sherwood Forest.

However it is a surprising fact that the retelling of the tales of King Arthur and his Knights, whether it be by book, film or television, bear little, if any, resemblance to the original stories. Mandarin Software, in conjunction with Level 9, is about to put that right with Lancelot, the latest text and graphics adventure.

Joust a

romp

edieval

Lancelot is said to be a faithful interpretation of the Arthurian saga, being based on perhaps the finest book on the subject, Sir Thomas Mallory's Le Morte D'Arthur, published by the no less famous William Caxton in 1485 and being one of the very first books to use modern printing.

As with Knight Orc, another of Level 9's earlier adventures, Lancelot is divided up into three parts. The first two sections follow Lancelot's arrival at Camelot, his subsequent rise to become the best knight in the world, and the completion of the Round Table.

Part three concerns itself with the

Turn to Page 38 ▶

Canoe got a hole in it?

• Wrap your sock round the bung and bung it in!

Baking a decent loaf proving difficult?
Sieve the flour to get the charm. Shove it in the baking tin with the dough them

it in the baking tin with the dough then overbake it in the oven.

Mound of dirt in the way?

• A pair of gloves and a can of worms is all you need.

Want to see in the dark?

• Stand under the hollybush near the herb garden and listen to the magpie – he'll give you something spectacular!

PHANTASIE III

Quest I

• Go South to the Hall of Giants. Let yourself fall through the trapdoor. The switches open doors. Get scroll one from Kilmor. Leave via the cell above. Get the weapons from the armoury in the corridor.

Quest II

• Go to the dwarven burial grounds east of the archives. Watch out for Nikademus. *Quest III*

Go to the island east of the archives.

Find the coordinates, key them into the keypad and pull the lever. Enter the fortress and follow the map until you meet the Light Fairy. Talk with her, leave, enter the Town of Light and cast the transportation spell.

Quest IV

• Go to the Plane of Darkness which is situated in the Chamber of Chronos, type C2- and fetch the key of darkness from the Hall of Giants. Alternatively you can smash all the statues at the Fortress of Light which will allow you to enter the Fortress of Darkness and get the Wand of Nikademus.

ADVENTURES

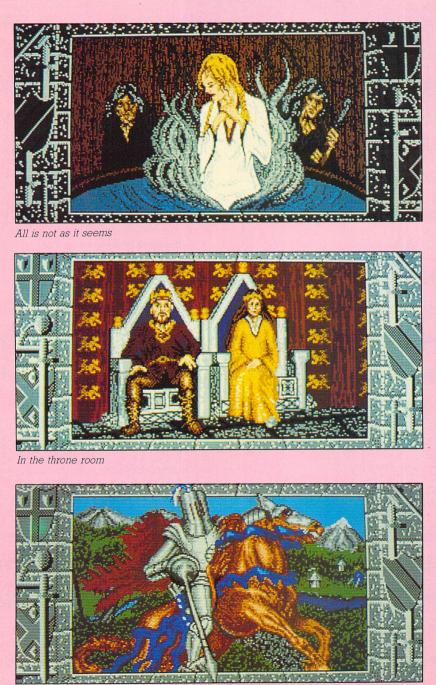
◄ From Page 37

quest for the Holy Grail, chivalry's highest point and in which the finest knights came close to God. It was this same holy quest that ultimately led to the destruction of the Round Table.

Lancelot allows the player to begin at the beginning or jump directly to part three and thus get straight on with the quest for the Holy Grail. As with other Level 9 adventures, optional graphical representations of many of the locations supplement the detailed and literary text.

The game uses Level 9's latest version of their command analyser (parser) which can also be copied across and used with Knight Orc and Gnome Ranger. Lancelot allows you to use such features as ram save and load, undo (takes back the last command), alter the text-size (ideal for those using a TV instead of a monitor), slide the graphics up and down the screen (or switch them on and off).

You can also recall and edit previous commands, go straight to certain locations for instance, RUN TO or GO TO CASTLE, and communicate with the characters in the game. There's even a demonstration mode to give you a taste of the game's capabilities and story development. Apart from being split into three



When knights were bold

parts, Lancelot has quite a bit in common with Knight Orc. Although the structure is far less sprawling, there are many locations to explore and a host of characters that come and go during your travels.

Combat features quite heavily – well, it is about knights – and there's a goodly bit of smiting to be done. Make sure that you don't act unchivalrously towards your opponents or you could find that you've overstepped the mark with Arthur himself.

And that's one of the interesting things about this game. You must endeavour always to be virtuous and chivalrous – gratuitous hacking, pillaging and being generally nasty will earn you your just desserts.

In point of fact, the adventure often pauses to ask you if you wish to carry out a certain action at a specific point. Failure to make the right decision could, for instance, cause you to be described as Lancelot the Unchivalrous or Lancelot the Thief for much of the game.

The atmosphere is excellent, the prose and dialogue capturing what you imagine to be just the right manner, style and tone for a tale of Arthur and his knights. In fact, Lancelot is an adventure that relies more on its atmosphere and incidents to entertain than its puzzles.

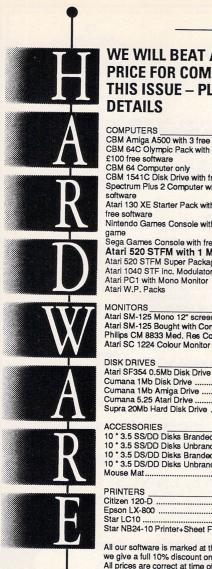
I wasn't quite so enamoured with some of the combat sequences – although they are fairly short-lived, they are very much of the type "Lancelot has smote the Black Knight. He is slightly wounded. The Black Knight has smote Lancelot. He is unharmed". Similarly, there can be quite a bit of to-ing and fro-ing of characters at times, although this is by no means as prevalent or random as was experienced in Knight Orc.

The parser and other features are first rate and the graphics, each attractively surrounded by a decorated frame, are some of the best that Level 9 have produced. The adventure comes on a single disc, handsomely boxed, and complete with a glossy play-guide and background to the legends, together with a parchment-style map.

Lancelot is a thoughtful and highly literate adventure. It may not have your adrenalin coursing with excitement, and the faithful treatment of its subject necessarily prohibits the humour of say, Gnome Ranger, but nevertheless it offers a great deal of quiet, intelligent pleasure.

The telling of the Arthurian legends in the form of a computer adventure is a splendid accomplishment which is unlikely to be bettered for a long while to come.

Presentation	
Presentation Atmosphere	
Puzzlement	8
Value for money	
Overall	8



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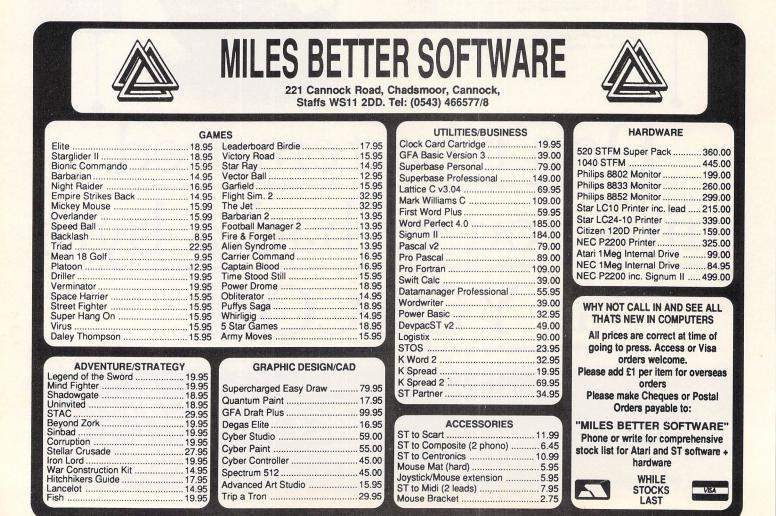
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DIGITA's new DIY accounting system packaging makes the bold claim: "You'll wonder how you ever managed without it". So without further ado – and after careful perusal of the latest letter from my bank – I thought this might just do the trick. If it can't make me money, I'd at least be able to keep track of it.

The package includes a single unprotected disc complete with demonstration and a 37 page indexed manual. I mention this because the increasing trend seems to be towards the lack of indexes in small manuals, but they are useful for quick referencing.

The manual is well laid out with a liberal smattering of screen dumps, and a some handy computer nomenclature intended for novices. It also includes useful tips on backing up your files – using the well known genealogical system – which isn't half as daft or complex as it sounds.

The program boots up in the usual manner, and presents you with a form requesting the current time and date. Date stamping on files is something few people ever use so this usually isn't important. However, Home Accounts uses the date to keep records up to date, and in the right order, so this is essential.

The form is rather set in its ways about how the date and time must be formatted. Using the more conventional numerical month -10 for October for instance rather than Oct results in a error message. It's not a problem, but it is something to watch out for.

On entering the main program you'll discover Home Accounts can't do anything for you until it knows about your banking setup. Each individual account – up to 13 can be stored – has to be entered separately on an attractive form, but one which contains a few potholes to catch the unwary.

When entering the warning limits – Home Accounts has a system to warn of overdrafts and overfunding in a normal current account – the plus/minus sign is actually in a separate field, yet it looks

Cost-cutting accounting

Mark Smiddy examines a new budget-priced home accounts package from Digita International

like part of the adjacent numeric field. The first few times I used the program I found myself typing in figures where a plus or minus sign was required.

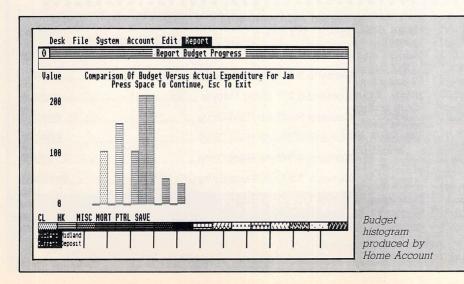
In addition to this, the form closes when the Return key is pressed; the Tab and cursor keys are the ways to manoeuvre around for editing, but this is a built-in feature of Gem and not a fault of the program.

Setting up

The next job when setting up the system is to enter details of all transactions to and from the account. This involves coding mnemonics – shorthand phrases – for each one, followed by a note of what each means. For example, you might use CL for clothes or MORT for mortgage.

Next it is necessary to set up a monthly budget for each item. This is a tedious job if you have a lot of separate items, but it can make it easier by filling in the parts it already knows, like the account and item mnemonics.

Finally, the regular transactions to and from the account are set up. This takes the form of the date of the transaction, what it is for and how much, which account it's from and the frequency. This can be set from daily to annually. For





instance, a loan repayment would be made monthly or a payment plan for say, a telephone bill, would be debited quarterly. This set and forget system is where the real power of the program lies.

Similarly, the program caters for irregular or manual transactions with a separate form. Here you enter anything you spend that isn't debited automatically by an external source. For instance, every time you write a cheque, the details are entered here under debits. Likewise if you win £100 at Bingo this would be entered under credits.

Further options

The last column on this screen shows the most important item – the balance of the account – the only time it is ever displayed as a clear running total. Although this feature is found on the Edit menu, it is something I found confusing.

You have to explicity tell the program to include manual transactions in the final balance, and this is a facility to enable you to check your bank statement. The reason is that when a credit or debit is made it is initially unreconciled, that is, the transaction does not take place until, say, a cheque you have written has been cashed. This facility is switched on automatically for direct transfers between accounts.

One other facility listed under the Edit menu is the Memo Pad. This is a simple

From Page 41

form where you can store short and simple text documents for later retrieval, such as telephone numbers, addresses and so on. The list is endless, but beware of storing personal information like your PIN number where other people can get at it.

Last, but not least, are the reporting options. I like to save the best for last, because this is where Home Accounts really does a nice job of preparing statements and graphical analysis. The main feature here is another rather daunting form.

With a few simple clicks it is possible to display all of the information you want. For instance, the program caters for no less than 55 different transaction categories in 13 different accounts, which should almost be enough to cater for a small business. Reports can be prepared either as lists on screen or printer, or in graphical form as pie or bar charts. There's even an option to include unreconciled amounts too.

If the selected categories contain a large amount of information, the program can perform a search for a string in the details section of the entry For instance, to search for all occurrences of money spent by cheque, all you have to enter is "cheque" at the appropriate prompt and the selected categories are searched for that word.

As an option, the string to be searched for can include three different wildcards, ?, * or +. The simplest ? searches for any character, while * and + search for the preceding character.

Reports

Of the various reports available, perhaps the most useful is the one for budget progress. This compares your actual spending for the month concerned, with the amount you have set aside.

The results look best as a bar chart, where you can compare the budget versus the actual expenditure – the object being to stay comfortably within your projected budget. The home or small business user may find this useful because in essence it works just like a cashflow analysis, and it's a lot simpler to set up than a spreadsheet.

One feature worthy of note is to be found nestling in the the system menu – Format. This allows you to format a disc without having to leave the program and lose all your work. This unusual facility is a nice touch, and although there are desk accessories to do it for you, this is included for free, so you'll always be able to save your work.

At the end of the day, Home Accounts is a reasonably good package. It performs its functions more easily than a spreadsheet, and is easier to program. As a beginner's package, it's first rate stuff once you've got everything set up. Could I manage without it? Well, yes. Until, that is, Atari brings out a pocket ST that I can carry around with me so I can enter my expenditures on the spot – by the time I get home I have forgotten what I've spent!

FACT FILE

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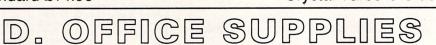
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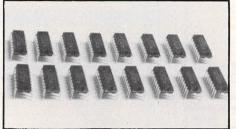




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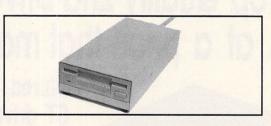




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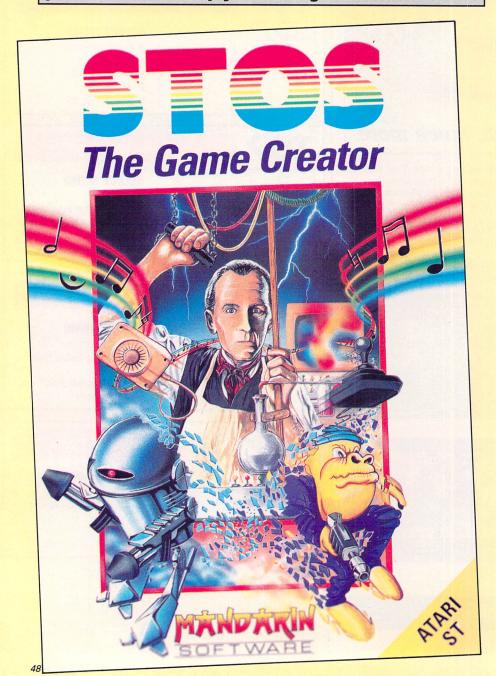
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It's all go for games

Mick Randle examines a new do-it-yourself game creator designed to provide you with all the tools you need to develop your own games software



THE number of programming languages available for a particular computer provides a useful measure of its popularity, and happily, the Atari ST owner has a proliferation of languages from which to choose.

Whereas professional programmers usually prefer compiled languages such as C, consumer programmers tend to opt for Basic. So any new version is always welcome, particularly when it is as revolutionary as Stos.

The ST is an extremely complex piece of hardware and most programming languages reflect this by requiring complicated routines to perform relatively simple tasks, particularly when calling Tos functions. Even a Basic programmer usually has to buy several books covering Gem and Tos in order to program effectively.

STOS, from Mandarin Software, adopts a radically different approach to programming. Instead of forcing you to conform to the machine, those complex Tos calls are replaced by sensible Basic commands which eliminate the usual monotony and allow unprecedented control over the computer. For the first time, you can concentrate more on your program and less on the inner workings of the machine.

Stos is primarily intended to be a game creation system, and I would certainly not argue with that, but it is also a competent – if at times, rather slow – general purpose Basic with more than 300 commands.

It possesses the usual structures such as REPEAT and WHILE as well as particularly impressive string handling facilities. It is possible to program the Midi/ RS232 ports, and sequential/random access disc files are supported, along with user-defined functions with local variables. I can't help feeling that Mandarin is underestimating its product by concentrating solely on the games aspect.

It is difficult finding any other packages

The Stos package

THE wire bound 283-page manual supplied with this package is a lesson to other software houses. Written in plain English with many programming examples, it also contains a useable index. A second index, devoted solely to Basic commands, helps you to find your way around the book quickly and makes the additional quick-reference card almost redundant.

Also in the packaging is a registration card which entitles you to hotline tele-

sprites using a whole host of com-

mands like plot, draw, box, circle,

ellipse, fill, zoom, reduce, reverse,

invert, rotate, cut, paste and so on. You

can also grab sprites from Degas and

Neochrome pictures, or even

commercial games programs - of

ranging from 16 by 2 pixels to 64 by 64,

and the default is 32 by 32. Stos stores

its sprites in special reserved memory

banks which are automatically saved

Any size sprites can be created

course, these will be copyright.

with the Basic program.

with which to compare Stos, as it contains so many unique features. It dispenses with Gem, but this is not as ominous as it sounds, as Gem may be pleasant to use but is infamously slow at times. Stos duplicates and extends many Gem functions and greatly simplifies the code required to control them. Within five minutes of booting the language for the first time I had programmed a fully functional drop-down menu bar featuring multicoloured text and icons.

This Gem substitute is a delight to use, with simple commands to read the mouse and joystick, and a particularly powerful function which returns a filename from a selector box. Strangely, dialogue boxes are ignored, but they are easy to simulate by utilising one of the 13 available windows, each capable of using its own individual character set.

Stos has been cleverly designed as a core module which can be expanded by the inclusion of extension routines. On power-up several standard modules are loaded into memory and then the Stos folder is examined for language extension files which, if present, are incorporated into Basic as ordinary commands. This ensures that Stos will never become obsolete, and enables you to customise your Basic by only using the extensions required by your current program.

At the moment, only one such extension is available – it is provided on the system disc, but additional ones are being developed by the French authors.

Mandarin confirmed that a 3D object animation extension is currently under development, but they were not able to divulge any information concerning other extensions.

Built-in commands

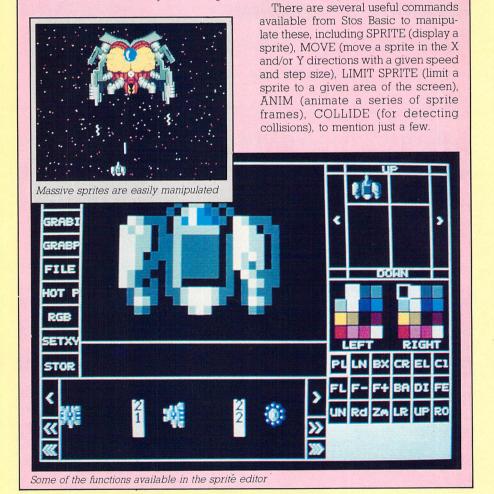
Stos also provides a wide range of graphics commands similar to some of the functions provided by Gem, in addition to the ability to freely switch between low and medium resolution. The screen

Turn to Page 50 ►

Designing and manipulating sprites

SPRITES – a nightmare to program in other languages – are particularly well supported, and are similarly controlled with the silky smooth movement and animation only possible through the use of interrupts. Again, straightforward commands permit the movement of up to 15 animated sprites. Full collision and boundary checking is provided and any sprite may be assigned to the mouse pointer.

Provided on the accessory disc is a powerful sprite editor – written in Stos of course. This enables you to design



phone or mail advice and priority information on any future Stos-related products. Mandarin has launched a Stos club, and details are provided.

The software comes on three singlesided unprotected discs which allows you to transfer it to double-sided or hard discs and maintain backup copies. I wish other software houses would follow this example.

The first disc contains Stos itself, while the second is packed with accessories and example programs. All files on the accessory disc are compacted to squeeze them into the limited space, so make sure you have some spare discs handy before you begin to expand them.

The third disc contains example games written in Stos, and although the gameplay is not particularly inspiring, they certainly give a good indication of what can be achieved.

Bullet Train is a fast horizontally scrolling game in which you have to steer a train along a maze-like track avoiding various obstacles. Fortunately, it's fitted with a cannon for taking pot shots at anything in the way.

Orbit is an advanced breakout type game complete with exploding bricks, falling cannisters, lasers and so on. Last, but not least, is a space shoot-'em-up called Zoltar. Your laser is based at the bottom of the screen and aliens swirl round in various patterns dropping bombs.

◄ From Page 49

may be segregated into zones, and each zone, or even the entire screen, may be vertically or horizontally scrolled.

There are so many commands that a short review like this cannot hope to include them all. I'm sure Tom Hudson would have found it far easier to write Degas if Stos Basic had been available.

Comprehensive sound commands range from preset noises like BELL, through music, tempo and sound envelope controls, to actually programming the Yamaha sound chip itself. Stos has another feature which sets it apart from any other language: Music is automatically played during the vertical blank interrupt. This leaves your program free to perform its usual tasks while the music continues.

Other functions, such as menu scanning, screen scrolling and picture fading are also executed during interrupts, which gives some indication of this language's speed. In fact, additional commands are provided to actually slow down program execution and there are times when they are definitely needed.

Improvements

Although more than 300 commands are available, some potentially useful ones are conspicuous by their absence.

I would have liked to have seen a disc format command to eliminate the necessity to return to Gem for such a mundane

The program editor

OF course, the program editor environment can make or break an otherwise excellent programming language. There are no problems here – it is superb. It is capable of operating in any screen resolution although medium is preferred, due mainly to the size limitations of the low resolution screen, which looks cluttered in comparison with other modes.

Up to four programs may be edited with word processor-like facilities, each in its own window. In operation, it has an intuitive feel and is reminiscent of the Atari 8 bit Basic editor. It is free from the delays associated with Gem-based ones and many of the default parameters may be customised by running a utility program which alters the editor to suit your requirements.

The Help key calls a menu which

operation. To be fair, Stos is not the only culprit here, as most Basics ignore this facility, but this would add yet another useful feature to this incredible language.

Finally, although Stos is perfectly capable of producing almost professional quality arcade games, I would like to see multiple colour palettes included. You are restricted to the usual range of colours applicable to the screen resolution used, but as Stos makes such lists accessory programs similar to Gem desktop accessories which can be run from the editor without disturbing the file being edited. The editor itself may be configured to load these accessories on power-up, or you may elect to load them as required to save memory.

Although a selection of accessories are provided, it is possible to write your own as they are all written using Stos. Some of the supplied ones are of higher quality than many commercially available stand-alone programs, and you can load, list, edit and extend them too. The sprite editor in particular is extremely pleasant to use.

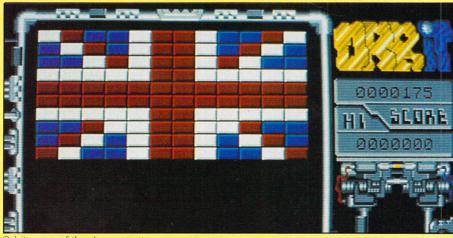
Others worthy of special commendation are the music, icon and character set editors. These programs are all written in Stos Basic by the authors of the language.

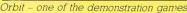
excellent use of the vertical blank interrupt, perhaps this could be used to offer a different colour palette part way down the screen.

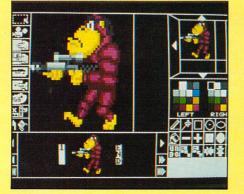
Admittedly, this is far beyond the reach of other Basics, but such an extension would raise Stos to an even higher level of excellence.

Conclusion

I forsee a rosy future for Stos as a game creator. It certainly provides the tools to do the job, and rekindles that sparkle and excitement many of us experienced when we bought our first 16k Atári 400s. It is an excellent package supported by a company that is genuinely enthusiastic about its product. It's an absolute steal at less than £30.







Designing a sprite

50 Atari ST User December 1988



Testing the sprite animation

	FA	СТ	FILE	
Hous Macc		ngton	Park,	
sprites, you i	FOR: han 300 music an need to -grown a.	nd gra write	aphics your	– everyt own sup

AGAINST:

Not a fast number cruncher – don't use it to write a statistical analysis package.

COMPETITORS REVIEWED: Power Basic, June 1988. True Basic, April 1988. HiSoft Basic, September 1987.



TROPATION IN A



converts the ATARI ST into an instrument on which you (and your mouse) can produce flowing patterns of light and indescent colour and match the display to any music THE RESULT is fascinating - pleasure enhanced by knowing that your sequences can be saved and enjoyed again or used as performance art at a

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OVER the past few months there has been a great deal of publicity about an insidious type of program known as a virus. Rumours have rapidly spread of these horrendous programs which are supposed to be able to corrupt whole libraries of your discs in a single act of mindless destruction.

A computer virus is really just a specialised form of computer program, designed to lurk invisibly in the ST's memory and then copy itself on to every disc which is subsequently inserted into your drive. This allows it to mimic the effect of a biological virus and "infect" a series of discs.

Clearly, if that was all a virus actually did, then it would be fairly innocuous. Unfortunately, most viruses are also programmed with a rather more sinister secondary function. Its nature varies depending on the whim of the original programmer, and ranges from a harmless but irritating jokey message to the total corruption of all the infected discs.

How can you protect yourself from these horrible programs? The first thing to realise is that you are very unlikely indeed to find a virus on any commercially available disc. The only significant source of infection is from free programs obtained from the public domain. Therefore, providing you take a little care when dealing with these PD discs, the risk of infection will be practically negligible.

It's also worth emphasising that the only way a disc can be infected is by placing it into the drive after the virus has been inadvertantly loaded into the ST's memory. This means that you can't contaminate your programs just by putting them in the same box as an infected disc!

When dealing with viruses it is useful if you have a general idea of how they work. Anyone writing a virus is confronted with two major problems. The first requirement is to find an easy and reliable method of concealing it on the disc. They then need to find a way of automatically calling it to infect each disc as it is inserted into the ST's drive.

As we are only interested in protecting our discs from viruses rather than creating one ourselves, I'll limit my discussion to the problem of concealment.

Catch them if you can

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most effective method of hiding a virus on the ST involves the use of a special boot sector which is held at the beginning of each disc. This can be found at sector 1, track 0, side 0, and contains all the information the ST needs to determine the type and size of the disc.

It can however, also hold a small assembly language program which will be loaded automatically whenever the ST is booted up. Every time the ST is switched on, or the reset key is pressed, this boot program will be executed invisibly by the system. Many games use this technique to great effect as part of their automatic loading routines.

Unfortunately, the same process can be readily subverted by an unscruplulous programmer to provide an ideal hiding place for a virus. You can detect them by inspecting the boot sector using a standard disc editor. As a general rule, if the first couple of bytes are not equal to zero, and the bytes from 32-512 appear to hold random garbage, the disc undoubtedly contains a boot program of some sort.

Remember that this doesn't necessarily mean that it is infected by a virus, as many PD demonstration programs also use this loading system. But if you have found a boot program on a disc which is not supposed to be able to autoboot, you have almost certainly discovered a genuine virus.

You can now remove it by erasing the data in bytes 32 to 512 from the boot sector. In practice, it's quicker and safer to automate the above procedure using a special virus killer routine. I've provided you with a program called Antidote for just this purpose.

There are two versions, one in Fast Basic and the other in ST Basic. Enter either program and run it to create a file on disc called ANTIDOTE.PRG. As a quick check to make sure that you have not made any errors entering the ST Basic version look at this file's length – it should be 1,033 bytes long. Fast Basic users should not enter the line numbers.

After you've created ANTIDOTE.PRG switch the ST off and remove all discs from your drives. Wait for approximately 15 seconds, then turn your ST on. The computer will vainly attempt to access the non-existent disc in drive A for about a minute. While it does this, the drive will emit a peculiar clucking noise. If this worries you a little, don't worry. It won't damage your drive in the slightest.

When the desktop appears you can put your disc in the drive and run ANTI-DOTE.PRG in the normal way, secure in the knowledge that the ST's memory is currently virus-free. Follow the instructions included in the program and place each disc you wish to test in drive A.

Do not use it on any commericial games program – you'll corrupt the disc. If a virus (boot program) is detected,

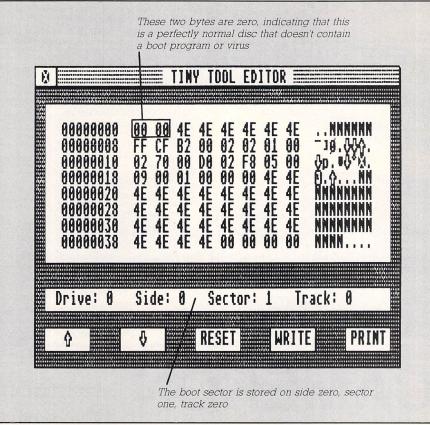


Figure I: Using a disc editor to examine a disc.

Protection pointers

• Always make a backup of any piece of software which does not specifically prohibit it. Many software houses go out of their way to encourage you to back up their software, and supply you with detailed instructions in their documentation. There is therefore no excuse whatsoever for omitting this vital procedure.

• Whenever possible you should only run a program from the backup copy. Keep the original discs in a safe place, preferably another room. This may seem a bit over-protective, but remember that a single cup of coffee spilled over your discs could potententially do more damage than 100 viruses.

• Protect the original discs using the write protect tabs. This can be done by sliding up the tab at the right of the disc to reveal a small hole. These discs will now be completely immunised against infection.

• Back up any important data and all your own programs at regular intervals, preferably on a separate disc.

• Whenever a disc is corrupted always switch the computer off and reboot with an empty drive before you make another copy of your originals. This will prevent any virus currently in memory destroying all your backup copies in one fell swoop.

• Check any new PD disc you obtain with a virus killer like Antidote. Only do business with recognised PD libraries.

• Never run a virus killer on a commercial game. As I mentioned earlier, these discs generally use the boot sector for their own purposes and this makes them indistinguishable from a virus. One important side effect is that a virus can never infect such a disc without first destroying it completely. So it's a good idea to take extra care of these programs.

• Always load an autobooting program such as a game by restarting the machine using the on/off switch. This is because many viruses will steadfastly remain in the ST's memory even after you have pressed the reset button on your computer.

• If you are suspicious about a PD program and use a hard disc, it's a good idea to check it first with your hard disc disconnected.

• Immediately report any disc you suspect to be the source of a virus to its suppliers. This will enable them to stem any possible infection before it spreads, saving many users like yourself a great deal of time and trouble.



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you will be offered the option of removing it from the disc. Note that if you do get a positive result I would strongly advise you to check the rest of your discs as well to see if the virus has already spread.

Although Antidote should prove deadly to the majority of computer viruses, I cannot guarantee that it will catch everything the perpetrators of these programs dream up. It is important to realise that virus killers really only supply you with part of the answer.

The only total safeguard is to make frequent backups of all valuable programs and data, which will allow you to recover from any infection relatively unscathed.

If you follow the recommendations in this article you stand an excellent chance of surviving any successful infection from a virus without incurring any permanent damage to your discs.

To put the problem into perspective, you should remember that these viruses are quite rare. Compared to the risk of a disc dying by more natural causes, the danger they pose is frankly insignificant, so once you have been forewarned, you have practically nothing to fear.

It would therefore be a real shame if a small number of mindless idiots were to detract anyone from enjoying the vast range of useful and well written programs available from the public domain.

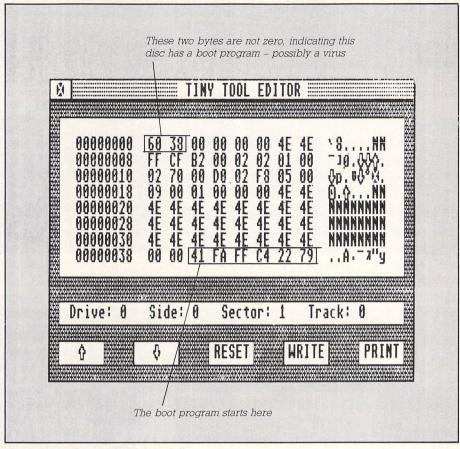


Figure II: The format of an infected disc

Program I		Program II
Trogram	320 DATA GBgRGEBPKABDMGBgBAOEBPKABFMG	1 regium n
	330 DATA BGBAWBGBAOGBwaEKEAGLwJICAHMg	
		10 \ Virus Killer V1.1
	340 DATA CMEJODADMQfSDMwwNCFIFBMIVMAM	20 \ By Stephen Hill
4.7	350 DATA ERCDEWWEIEBPKABEAGBWNCEBPKAB	30 \ (c) Atari ST User
10 REM Create Antidote.PRG file	360 DATA FAGBWMKGBWNCAMWFJGHWAKAMWHJW	4Ø \ Fast Basic assembler
20 REM By Stephen Hill	370 DATA wCMCAHMgCMEJONBPMwQCIDADMQOL	50 RESERVE CODE,10000
30 REM (c) Atari ST User	380 DATA DAPMWFBMIVKGBWHAEKEAGLWDUBPK	60 F%=OPENOUT "ANTIDOTE.PRG"
40 REM ST Basic (Old+New)	390 DATA ABFAGBWIMEBPKARKGBWIEGBWIMAM	70 PROCASSEMBLE:CLOSE#F%:STOP
50 FULLW 2:CLEARW 2	400 DATA wFJGHQfGEAMwHJGHQfFMEBPKABSG	80 HIDEMOUSE:BEGINUPDATE
60 code\$="ABCDEFGHIJKLMNOPQRSTUVWXYZa	410 DATA BWGIECGHEOEBEOHFEBPKABAWBWFK	90 CALL KILL
bcdefghijklmnopqrstuvwxyzØ123456789+-"	420 DATA GgfcDPDMgBDPDMwDPDMwDPDMgBDP	100 ENDUPDATE:PROCREGISTERS
70 GOTOXY 1,1:INPUT "File to create";	430 DATA DMWECKHCPDMgCMEJODPDMgIEOEON	110 END
name\$	440 DATA fMwQBUOHFDPDMgBDPDMwDPDMwDPD	120 DEF PROCASSEMBLE
80 OPEN "R",#1,name\$,1	450 DATA MgBDPDMwECKHCPDMgCMEJODPDMgJ	130 FOR PASS=1 TO 2
90 FIELD #1,1 AS buffer\$	460 DATA EOEONfMwQBUOHFCPAIDPDMgJEOEB	140 PC=CODE
100 record%=1	470 DATA FMIPEOHFECEADPDMgHEOEBFEIPEO	150 E
110 newdata\$=""	480 DATA HFBLEVGEJFCLDCAELEJEMEMEVCAN	
120 Loop:	490 DATA AKWFALECAEBCAKJFDEDCAFUPCAEC	
130 READ data\$	500 DATA EFCAFUVDFUFUCAEJEOFUPCAUFCEJ	170 KILL LEA TITLE(PC),A0
140 IF data\$="*" THEN CLOSE #1:END	510 DATA FGEFCAEBANAKWEIEJFECAEBCAELE	180 BSR MESSAGE
150 FOR i%=1 TO LEN(data\$)	520 DATA VJCAFUPCAEDEPEOFUJEOVEFANAKQ	190 TEST LEA PROMPT(PC),A0
160 char\$=MID\$(data\$,i%,1)	530 DATA ECEPEPFECAFAFCEPEHFCEBENCAKV	200 BSR MESSAGE
170 nybble%=INSTR(code\$,char\$)-1	540 DATA UFEDFUFUANAKQFCEFENEPFGEFCAF	210 LEA HITMESS(PC),AØ
180 FOR j %=0 TO INT(nybble%/16)	550 DATA LFJCPEOFNANAKWEBEOEPFUIEVSAK	220 BSR MESSAGE
190 newdata\$=newdata\$+HEX\$(nybble% MOD	560 DATA JFDEDCAFLFJCPEOFNANAKWEBEOEFFOTEVSAK	230 BSR ENTER
16)	570 DATA CAEVCFCEPFCANAKWEHEPEPKCFJEF	240 BSR RDBOOT \Can't read boot
	580 DATA ANAKQKJFDEDCAFDEBEGEFANAKWW	250 TST DØ
200 NEXT		260 BMI FAIL
210 WHILE LEN(newdata\$)>1	590 DATA WWWWWWWWWWWWWWWWWWWWWW	270 MOVE.L #BOOT,A0
220 char\$="&H"+LEFT\$(newdata\$,2)	600 DATA WWWWWWWWWWWWWWWWWWWWWWW	280 MOVE.W #255,D0
230 byte%=VAL(char\$)	610 DATA WWWWWWWWWWWWWWWWWWWWWW	290 MOVE.L #0,D1
240 char\$=CHR\$(byte%)	620 DATA WWWWWWWWWWWWWWWWWWWWWW	300 SUM ADD.W (A0)+,D1 \Test for
250 LSET buffer\$=char\$	630 DATA WWWWWWWWWWWWWWWWWWWWWW	310 DBRA DØ,SUM \a virus
260 PUT #1, record%: record%=record%+1	640 DATA WWWWWWWWWWWWWWWWWWWWWW	320 CMP.W #\$1234,D1
270 newdata\$=MID\$(newdata\$,3)	650 DATA WWWWWWWWWWWWWWWWWWWWWW	330 BNE OK
280 WEND	660 DATA www.www.www.www.www.www.www	340 BAD LEA VIRUS(PC),A0
290 NEXT	670 DATA www.www.www.www.www.www.www	350 BSR MESSAGE
300 GOTO Loop	680 DATA WWWW	
310 DATA GABKWADOIWWWWWWWWWEBPKABDC	690 DATA *	Turn to Page 59 ►

MULTIFACE ONE, the MULTIpurpose interFACE, was a sensation when originally released for the ZX Spectrum four years ago. MULTIFACE TWO, for the Amstrad CPC range, followed 2 years later — same pattern, same success. Now the time has come for the MULTIFACE ST — the BIG brother to the MULTIFACE family. Same pattern? Yes, and with even more facilities! So, what can MULTIFACE ST do to make an ATARI ST owner's life so much easier?

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MULTIFACE is a small box that plugs into the cartridge port. It has all its tricks in a massive 64Kbyte ROM so you do NOT need to load any other software: MULTIFACE is always there and ready. It is menu-driven with one-touch commands and on-screen instructions, so easy to use. Pressing its magic button will interrupt any program and give you an overall control over it. You can save the entire program or just the screen. MULTIFACE compresses before saving and it formats disks with up to 25% gain, to make the contents of the computer fit onto a disk. The saved program will continue from where it was saved - save half-way through a game and avoid playing from the start again!

The MULTI TOOLKIT lets you inspect and change (in hex, decimal and ASCII) absolutely everything - including the protected RAM and 68000 registers! You can POKE infinite lives, customize programs, fill RAM, find/replace strings, even m/c instructions, etc.

Being a hardware device, 'a magic box' MULTIFACE can back-up whatever you wish, as many times as you wish. HOWEVER, to prevent any piracy, which is illegal, the MULTIFACE MUST be attached to run programs it saved! MULTIFACE will be available from November 1988, making it an ideal Christmas present for any Atari ST owner!



USF

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LEA KILLMESS(PC),AØ 360 370 BSR MESSAGE 38Ø YES BSR ENTER 390 CMP.B #"Y",DØ 400 BEQ DIE 410 CMP.B #"y",DØ 420 BNE LOOP MOVE.L #BOOT,AØ \Kill virus 430 DIE 440 ADD.L #40,A0 450 MOVE.W #235,DØ 460 WIPE MOVE.W #0,(A0)+ 470 DBRA DØ,WIPE 480 BSR WRBOOT 490 TST DØ 500 BMI FAIL 510 OK LEA CLEAN(PC),AØ 520 BSR MESSAGE 530 LOOP LEA AGAIN(PC),A0 540 BSR MESSAGE 550 BSR ENTER CMP.B #"Y",DØ 560 570 BEQ TEST 580 CMP.B #"y",DØ 590 BEQ TEST 600 LEA BYE(PC),AØ 610 BSR MESSAGE 620 CLR.W - (A7)TRAP #1 630 640 RTS 660 FAIL LEA ERMESS(PC), AØ \Error 670 BSR MESSAGE

680 BRA LOOP 690 700 RDBOOT 710 MOVE.W #1,-(A7) \Count MOVE.W #0,-(A7) \Side 720 730 MOVE.W #Ø,-(A7) \Track 740 MOVE.W #1,-(A7) \Sect start MOVE.W #0,-(A7) \Drive A CLR.L -(A7) 750 760 770 MOVE.L #BOOT,-(A7) MOVE.W #8,-(A7) 780 790 **TRAP** #14 800 ADD.L #20,A7 810 RTS 820 WRBOOT MOVE.W #1,-(A7) \Count 830 MOVE.W #Ø,-(A7) \Side MOVE.W #Ø,-(A7) \Track 840 850 MOVE.W #1,-(A7) \Sect start MOVE.W #0,-(A7) \Drive A 860 870 CLR.L -(A7) 880 890 MOVE.L #BOOT,-(A7) 900 MOVE.W #9,-(A7) 910 TRAP #14 920 ADD.L #20,A7 930 RTS 940 MESSAGE 950 MOVE.L AØ,-(A7) 960 MOVE.W #9,-(A7) 970 TRAP #1 980 ADDQ.L #6,SP 990 RTS 1000 ENTER 1010 CLR.W DØ

MOVE.W #7,-(A7) 1020 1030 TRAP #1 1040 ADDQ.L #2,A7 1050 RTS 1070 TITLE DC.B 27,"E","VIRUS KILLER" 1080 DC.B 13,10,0 -1090 EVEN 1100 PROMPT DC.B "PUT A DISC TO BE" DC.B " TESTED INTO DRI" 1110 DC.B "VE A",13,10,0 1120 1130 EVEN 1140 HITMESS DC.B "HIT A KEY TO CO" 1150 DC.B "NTINUE", 13, 10,0 1160 EVEN 117Ø VIRUS DC.B "BOOT PROGRAM DET" 1180 DC.B "ECTED",13,10,0 1190 EVEN 1200 KILLMESS DC.B "REMOVE [Y/N]" 1210 DC.B 13,10,0 1220 EVEN 1230 AGAIN DC.B "ANOTHER DISC [Y/ DC.B "N]",13,10,0 1240 1250 EVEN 1260 ERMESS DC.B "DISC ERROR" 1270 DC.B 13,10,0 1280 EVEN 1290 BYF DC.B "GOODBYE", 13, 10,0 1300 EVEN 1310 CLEAN DC.B "DISC SAFE", 13, 10,0 1320 EVEN 1330 BOOT DS.B 512 1340 1 1350 NEXT PASS 1360 ENDPROC



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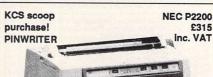
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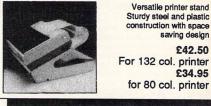


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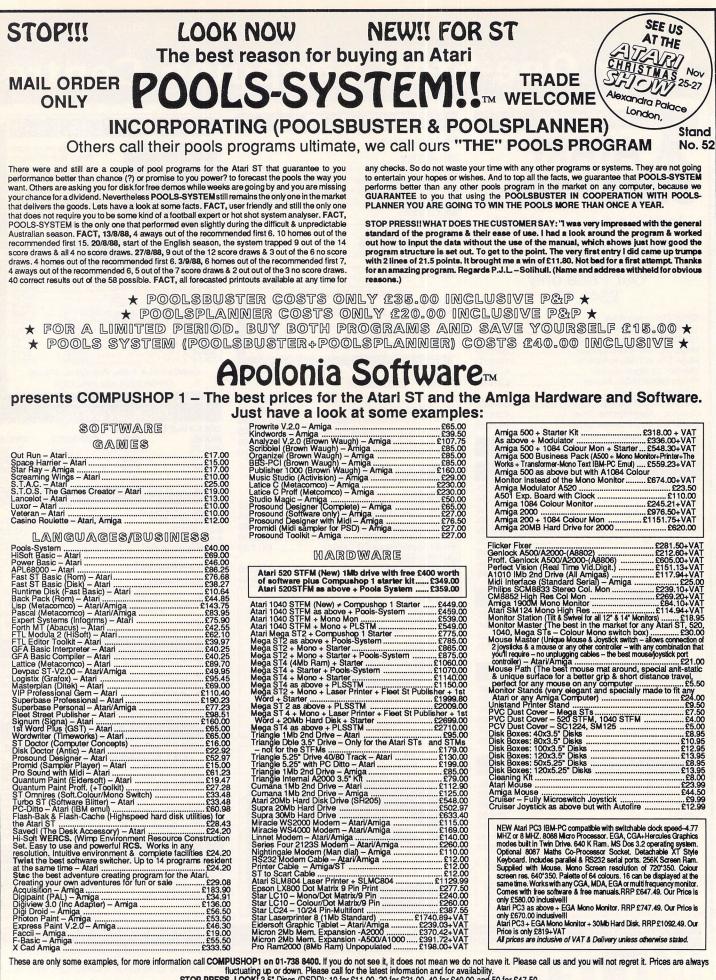
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FEATURE

HIS month's Gallery has a seasonal flavour. Perhaps most obvious with the colourful offering from P.G. Johnson of Sweden, entitled Santa's Helpers.

Back in England, Stephen Bradley's Candle captures an almost Dickensian air of festivity, though the picture was not created with Christmas particu-larly in mind. The same can be said of Dutchman Atsuko Nienhuis' Fairies, which encapsulates something which is undoubtedly childlike. After all where would the presents come from if there weren't fairies?

Caddilac Coke's excellent portrait of American rock star Madonna would make a good poster for many bedroom walls. We can all dream, fantasise and laugh at this happy time of the year and Mo Warden's Jester is not an inappropriate addition to this page.

P.N. Cole of Hitchen, Hertfordshire supplies us with the final picture this month. His Electric Dancer carries an eternal image of the Christmas rock concert or disco.

If you have a work of art you would like to see exhibited on our worldwide stage, why not send it on disc to Gallery? Remember though, anything you submit must be all your own work. You must own the sole copyright and



Santa's Helpers

provide us, in writing, with confirma-tion of this fact together with your permission to publish your work. Also tell us briefly how you went

about creating your masterpiece: Which art package did you use? What

inspired you? How long did it take? Please note, however, that if you wish your work to be returned to you once we have finished with it you must include a stamped self-addressed envelope.







Candle 64 Atari ST User December 1988

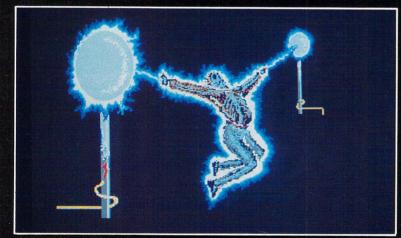
Stephen Bradley

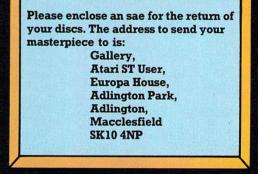
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Electric Dancer



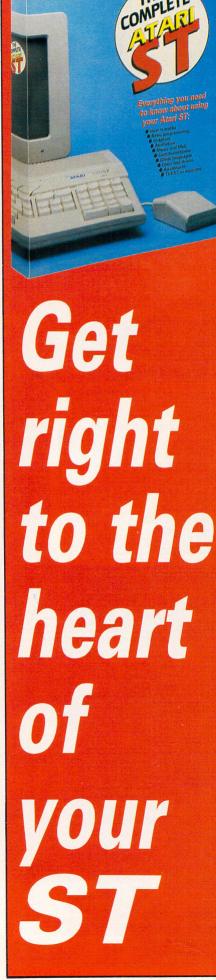


Mo Warden



Fairies

Atsuko Nienhuis December 1988 Atari ST User 65



Month by month, **The Complete Atari ST** has been building up into the most comprehensive reference work for the top-selling Atari ST range.

By bringing together some of the most talented ST enthusiasts in Britain, our aim has been to produce a clear, precise and colourful guide covering every major aspect of this exciting 16-bit computer.

And the tremendous response from ST owners around the world is real proof that **The Complete Atari ST** has become the perfect learning tool for everyone interested in finding out more about this powerful workhorse.

Bring yourself up to date

If you have missed out on any of the previous issues, now's your chance to fill the gaps in your collection. If you send for the August issue of *Atari ST User* you will also receive the specially designed sturdy, colourful binder illustrated above.

Here's what you may have missed:

August

Exploring the 520 STFM's hardware First steps in ST Basic programming Learning to draw what you see An introduction to adventure games Gem: Its history and how to get started

September

Exploring the Mega ST's hardware Your first Basic program listing Freehand drawing and painting Creating the right adventure atmosphere Exploring Gem's graphics functions An introduction to C programming

October

The ST's internal structure revealed Using variables efficiently in Basic Creating an exciting colour palette Deciphering complex adventure riddles Setting Gem's VDI fill style attributes The structure of a C program explored

November

Mixing primary and secondary colours Using repeat structures in Basic How to trace common hardware faults The variety of plots in text adventures

Please turn to the order form on Page 133

All the colour-coded sections come with punched holes for easy assembly into your binder.

This month

More pages to add to your collection on:

ST C Programming

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ST Adventures

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ST Gem

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A splash of colour

Nic Outterside looks at a paint facility for young children

FIRST Paint is the first product I have seen from educational software house, H.A.T. Software, and I am impressed. It is a very simple screen painting utility designed for use by infant school children.

H.A.T. Software is a partnership of an educational advisor and professional programmer Humphrey Dunn. They are based firmly at the cornerstone of the Shropshire ST revolution, dedicated to producing top quality educational software for the ST for use either at home or school.

First Paint is written and compiled in GFA Basic and supplied in a strong plastic wallet with a comprehensive, easy to follow user-guide.

The manual is printed in bold type to aid quick reference and even gives step by step instructions for setting up your ST system and loading the program.

Double click on the 1STPAINT.PRG icon and you are presented with the First Paint menu which consists of nine selection boxes above a pre-set palette of 16 colours which can be redefined and saved. The selection boxes consist of seven paint functions: Draw, line, fill, write, circle, box and erase, together with Load and Save picture options. It's not exactly Degas Elite standard, but then it is intentionally simple so that young children can easily understand it.

Your child selects a colour by simply clicking over it on the palette, then to create his design clicks with the left mouse button on one of the paint function boxes. Draw allows freehand drawing on the work screen, while box and circle enable the construction of various sized circles, ovals and rectangles. Each design can be frozen on screen by a single click and the menu can be returned to by clicking the right mouse button.

Straight lines may be set using the line option, and they in turn can be used to construct triangles, stars and other regular shapes. The line is drawn by moving the mouse in the required direction, set by the left button and fixed by the right button. Fill enables colour filling – again using the palette – of any bordered shape or background.

The erase option simply allows the mouse pointer to act as a rubber on any part of the picture which has been created. To erase the entire picture your child should be instructed to press the Escape key as there isn't a menu option. Script in large upper or lower case is produced by selecting the write function then typing the required letters from the keyboard and fixing them to any point on screen by clicking with the left mouse button.

All line widths are of one regular size,



A picture produced by a 12 year old child using First Paint

which could be viewed by cynics as restriction of choice, but limited selection was planned to avoid confusion in the younger child. Also any art teacher will confirm that if you limit choice of colour and tools you will give greater breadth to the child's imagination and creativity. The single size of the erase rubber is also restricted for the same reasons.

Equally the menu choice is limited to aid simplicity. Picture icons were not used on the menu as words such as write, draw, circle and box should be in any six-year-old's written vocabulary, and an incidental point of this program is to consolidate such words.

Printouts may be made of your child's masterpiece by an elementary pressing of Alternate and Help. Such printouts could, of course, be on standard printer paper or on coloured A4 frieze paper. By saving the picture and reloading it at a later date your child could upgrade, alter or improve upon an original design.

First Paint is fully Degas-compatible and all pictures must be saved with a Degas PII extension label. Consequently First Paint will load any Degas PII format image on to the work screen.

My only criticism of this program is that the Save and Load options use the standard Gem file selector which could create unnecessary difficulty for a young child. However, with a little instruction and encouragement most five and six year olds could be left alone to operate First Paint and create outstanding splashes of colour and bold designs.

This is a piece of simple programming resulting in an uncomplicated product. Paradoxically it probably succeeds where more complex programming would have failed. It is a lovely educational art package at a bargain price and should provide hours of amusement to boot. Recommended.

FACT FILE

Product: First Paint Price: £12.95 Supplier: H.A.T. Software, 21 Wyle Cop, Shrewsbury, Shropshire. Tel: 0743 231763.

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AGAINST:

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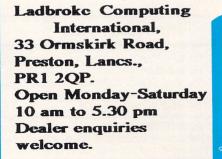
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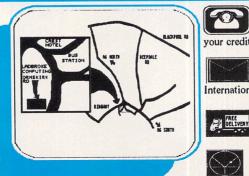
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T landed on my desk with a resounding thump – a large white package bearing the immortal words 1st Word Plus version 3.1. I quivered in anticipation. In the battle of ST word processors, 1st Word Plus has long been acknowledged as the standard by which the others are judged. Its pedigree is unquestioned and its ancestor, 1st Word, has even been packaged by Atari as an accompaniment to the standard 520STFM and 1040ST bundles.

In his review of the original 1st Word Plus in the May 1987 issue of *Atari ST User*, Paul Hendy stated: "This is the best and easiest word processor I have ever used. The clarity of the high resolution monochrome monitor and on-screen display of print controls, such as bold, italic, and underlining, make it a joy to use".

lst Word Plus is equally at home on a medium resolution colour monitor, and I was therefore interested to see the developments and additions to the latest version of this wysiwyg word processor from GST.

The strong and stylish packaging is impressive and the comprehensive manual well indexed and easy to follow. It includes an explicit section for those using a word processor for the first time and takes you on a step by step guide to all facets of the working environment.

The 16 or so additions and refinements are highlighted and explained fully within the context of the guide. Divided into five accessible sections entitled Introduction to 1st Word Plus, Getting to Know 1st Word Plus, Typing and Formatting Documents, Editing, Saving and Printing Documents and a Menu Commands Summary, the manual is one of the most uncomplicated yet most detailed I have seen.

The two discs include a full suite of the lst Word Plus, 1st Mail, Degas Snap and Disc Merge programs along with many other utility files.

Customised desktop

Load disc one and you are presented with a window for file selection centred upon the familiar 1st Word Plus screen. This incorporates eight pull down menus at the top of the screen and a font table and function key strip at the bottom.

However, one of the new improvements becomes immediately apparent as a facility exists to customise your desktop by moving all icons and boxes around using the mouse. This adds a new flexibility which I found useful when using extra documents and utilities. This can be fully appreciated in the screen layout in Figure I.

Upon loading, you can either open an existing file or create a suitable format for your new text. This format can take one of four default types – document, letter, memo or fax. These certainly help speed up the initialisation of any piece of new writing.

Alternatively you can define your own

screen format using the Layout ruler. User-definable default settings with optional headers and footers on the first page of any document and redefinable footnote start numbers are welcome additions by GST and increase the power and pliability of this word processor. The ability to simultaneously display position and ruler is a bonus when organising text in either a tabulated or non-tabulated mode.

The file menu includes a handy new disc-based movable clipboard with copy, paste and append functions, along with the familiar powerful Image option which allows graphic additions enabling an almost DTP environment. The ability to read any standard Gem image file was a boon in the earlier 1st Word Plus. Any compatible picture can be dragged to a required point on screen, overlaid or integrated with the text.

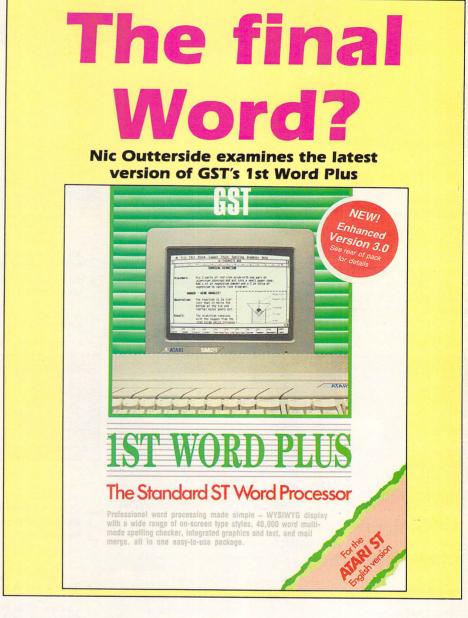
Figure II shows the Document Format with a sample graphic dump alongside.

The clipboard is particularly flexible and allows use either as an on-screen notebook or for text mixing and cutting. In addition you can create your own boards and save each to disc for future use or reference.

At first glance the edit menu appears unchanged, but hard disc users can now create a Spill File using the Set Spill File menu option. This allows you to use the available space on hard disc for memory. You can use Set Spill File only when you have no files open and it is automatically deleted when you guit the program.

Within the Style menu option the facility now exists to restyle text to upper or lower case at a single mouse click. Equally in conjunction with the Block option whole blocks of a particular font or case – be they single words, lines or paragraphs – can be automatically restyled.

Marking blocks is now improved, adds



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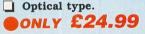
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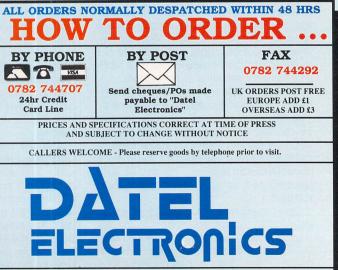
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speed and overcomes some of the clumsy handling in the earlier versions. This can be achieved using either a rubber band or menu selection technique. Hence, block movement, copying and deletion are eased, thus making general editing of text a pleasure rather than a chore.

To mark a block, you can point the mouse to where you want the block to begin, then press the left mouse button. Drag the mouse to where you want the block to end and release the button, creating the familiar desktop rubber band. The block is now shown on the screen in reverse shading and can be altered at will. An example of this can be seen clearly in Figure I.

The second method of marking blocks of text is to use the Block menu. Position the cursor at the beginning of the block you wish to mark and click on Start. Move the cursor to the end of the block and click on End.

Answering the critics

One of Paul Hendry's major criticisms of the original 1st Word Plus was the cumbersome need to toggle between menu, mouse and keyboard for many procedures.

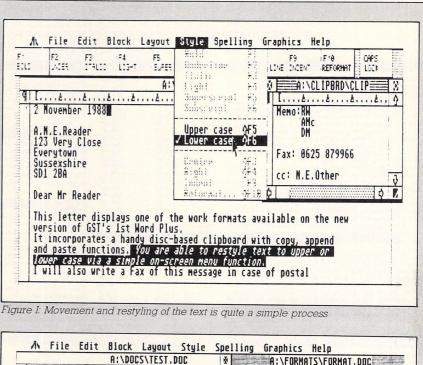
The increase in flexibility and speed evident in block manipulation adds an important new dimension to 1st Word Plus. Indeed this improvement is manifest in the whole of this update which allows you to make keyboard shortcuts for all major functions.

Paul also criticised the loading time and maleability of the memory grabbing spelling-checker dictionary. GST obviously paid attention as the loading time is now much quicker and dictionary handling is also improved. This allows individual spelling check, continuous check or simple browsing from the main dictionary. Figure III shows an example page from the main word bank.

I still feel that a 40,000 word dictionary is not adequate for most professional uses and that Arnor's Protext 66,000 word English and supplementary dictionaries come nearer to meeting the mark. However, you can add and correct words to the main dictionary and 1st Word Plus does allow user-created supplementary dictionaries to support its new customised image.

The Search and Replace facility with the Spelling Checker is fast and friendly. GST has also improved the speed and manipulation of the same facility within the general edit mode. Using the Edit menu you click on Find and are presented with a friendly Find String box.

You can quickly search for a given text string for an absolute or close match at any point or direction within the text. The root symbol – called up by pressing Con-



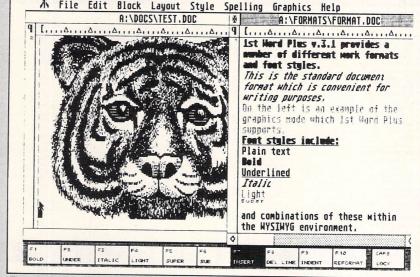
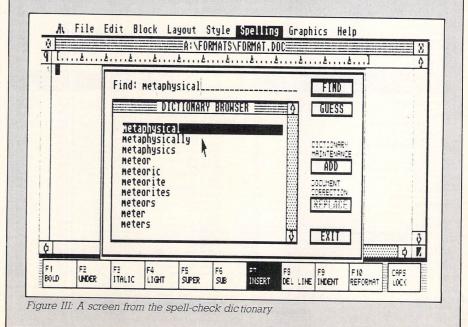


Figure II: Graphic and text formats alongside



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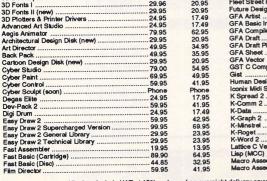
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◄ From Page 85

aids a comprehensive search routine.

Replacing text works in much the same manner via a Find and Replace box and can be used to make multiple replacements, insertions or deletions. Both options can be powerfully carried out in a selective or global fashion.

Printing and merging

All the usual printer options exist, including numerous readily installed printer drivers and the ability to customise your own – which is explained in detail in the manual. There is also the facility for multi-column newsprint output and the dynamic option of background printing of one file while editing another. However, additions include a proportional spacing option, one and a half line spacing and the facility to print a current document without Save.

If you select the graphics mode from the Graphics menu option, the text will suddenly change shape. This is to achieve a better size ratio between text and pictures. 1st Word Plus prints graphics images pixel for pixel as shown on the screen, without any scaling or raster transformation. The screen image in relation to the text is an approximation to the printed output which can be in colour or grey scale on a dot matrix or laser printer.

The 1st Mail program on disc two gives 1st Word Plus the power to handle all your correspondence. This allows for not only normal mail merging and production of macros, but document nesting and chaining, reformatting while merging, extra commands for indenting and line spacing, justification after insertion of data and plenty more besides.

lst Mail can write form letters consisting entirely of commands for powerful merging work. Equally it will accept data from a variety of databases, including Mirage's H&D Base and Atari's dBman.

Indeed it contains most of the merging facilities anyone running a small business will ever need. It is this extra muscle that gives 1st Word the edge over its rivals.

This version of 1st Word Plus is in essence more of a revision than a new product. It answers many of the criticisms of the original product and document handling is certainly easier and quicker. However, I have reservations over the size of the supplied dictionary/spellchecker and movement through large sections of text is still rather clumsy.

Whether this is the last word in word

processing from GST, we will have to wait and see. Meanwhile 1st Word Plus still has quite some way to go to challenge the power and speed of a word processor such as Arnor's Protext. Yet it remains a solid tried and trusted addition to the stable and would be my personal first choice on many occasions.

FACT FILE

Product: 1st Word Plus V3.1 Price: £79.95

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AGAINST:

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The tender years

DESPITE often minimal budgets, many primary schools are also importing STs to either complement current BBC Micros or to replace them.

This junior revolution is supported by some excellent bargain priced software packages, produced and marketed by small specialist educational developers.

Much is also being imported directly from the continent by companies such as SDL and then translated into English.

The ST's particular strengths in primary education are in the fields of art, music and English and it is to these areas that most software is now being targetted.

Teaching English

Teaching literacy to young children involves the basics of spelling, word building, reading, sentence structure and comprehension. There has long been a vast supply of software for the BBC Micro catering for this need, which has been used with varying degrees of success in primary schools throughout this country.

Despite its speed and obvious pedigree, the BBC Micro lacked reasonable ram and had poor graphic and sound capability compared to its 16 bit successors. Now more highly developed software of the same ilk is emerging for the ST. Spell with Oscar, B Spell, Spellbook and Things to do with Words spring to mind as prime examples.

Along with tying shoelaces and escorting worried five-year-olds to the toilet, the first task of any reception class teacher is to teach her charges the basic phonics and shape of the letters of the alphabet.

B Ware's B Spell uses speech synthesis to tackle the structure of each letter according to its short regular sound, as in Nic Outterside examines the strengths of the ST in primary education



the a in cat and the e in egg. This is consolidated by presenting the letters in their word context on screen and supplementing each word with an appropriate picture.

Such an approach will almost guarantee success with children with adequate aural perception and memory but may well fail if a child suffers any impairment of this sense.

Spellbook by Softstuff – now a core teaching aid in some Leicestershire primary schools – also adopts a phonic approach, but sticks rigidly to orthodox sounds and puts much more emphasis on selecting the correct letter shapes at the expense of sythesised speech. Both programs utilise an on-screen lower case letter grid which is accessed by mouse to avoid the confusion that the keyboard upper case characters may possibly bring.

Meanwhile, Ladbrokes' Spell with Oscar attacks the problem from an unashamedly visual angle, cornering the ST's strength in graphics to aid letter shape recognition. Such an approach can be consolidated with Microdeal's Kid Blocks, which uses block puzzles to train visual recognition and retention. This program would also help to highlight early signs of cross-laterality and even dyslexic type confusion in young children.

Each of these programs contains pictorial and musical rewards for correct answers, thereby fully utilising the ST's graphic and sound capabilities to make the exercises colourful, tuneful and stimulating.

As the child progresses through infant and junior school, word building, extended spelling and visual training can be consolidated in an entertaining way with Anagrams and Word Hunt in Softstuff's Things to do with Words. Sentence structure and grammatical syntax are also tested in the Sentences unit of the same package. Figure I overleaf displays the presentation of part of this program.

Software in this department of literacy is still a bit thin on the ground, but H.A.T., Softstuff, Unicorn and SDL have all promised additions during the coming months.

H.A.T. Software has also catered for an introduction to word processing for primary school children. This takes the form of a user-friendly advanced electronic typewriter emulator called, appropriately enough, First Type. Featuring a fully comprehensive printer installation utility, it allows direct typing via the ST in plain, bold, italic, condensed, extended, feint,

Turn to Page 90 ▶

Music and its accessibility on the ST

Ian Waugh's excellent series of Music on the ST has in its time covered much of the plethora of Midi packages available for the ST. Midi sequencers and Casio keyboards are becoming the cornerstone of music in an increasing number of junior schools.

However, the price of most Midi software is still beyond the budget of the majority of primary schools. The cost of a real time sequencer such as Midi Track would wipe out an entire year's music budget for many junior schools. Equally, Pro-24 and Masterscore's £300 price tags are out of reach of the financial scope of most schools.

Hopefully, Evenlode's new educationally directed Pro-24E will be priced at a more affordable level and will soon be taken up by many educational authorities. It will give much needed support to bargain utilities such as Software's Midi Drummer and Electronic Arts' Music Construction Set which are already being established within this country's primary schools.

I recently attended a primary school concert in which two thirds of the con-

tent was managed through the Midi ports of an ST. The sound was outstanding and received a loud standing ovation from the parents and visitors in the audience. The young budding Jean-Michel Jarres were justly proud of their performance.

It was obvious that the ST had made music accessible and enjoyable to children who otherwise would have shied away from the subject.

It is apparent that the ST is succeeding in taking children into the education process in the same manner in many other subject areas.

FEATURE

◀ From Page 89

NLQ or underlined mode to any dot matrix printer. The full range of easily accessible font types are shown in Figure II

This ameliorates the need for very young children to tackle the intricacies of the command and edit modes of most word processors, yet enables beautiful presentation of written English.

It also presents the ideal medium for story writing, especially if used in conjunction with an art package, whereby children can illustrate their text. They also have the satisfaction of knowing that the end result is all their own work. At a later stage children can progress to a simple word processor facility such as the public domain Word 400.

Comprehension and story construction can in many cases be extended and developed by playing text adventures. Suitable games for the younger child must include the text-only Infocom adventures Wishbringer and Zork 1, and the graphically enhanced King's Quest and Space Quest games from the Sierra stable. Infocom's interactive and picturesque Nord and Bert also provides a novel and enjoyable twist to the same theme of learning.

Networking a series of STs does not involve the expense and confusion of a BBC Econet system. It can be achieved by connecting a chain of STs with leads to and from the Midi in and out ports. Hence children can either work on individual work programmes or compete and work together on a core reading or spelling

FIRST TYPE FONTS: Bold Bold italic Condensed Italic condensed Bold underlined Bold italic underlined Condensed underlined Italic condensed underlined Bold extended Bold italic extended underlined extended Bold extended Bold underlined italic and more variations

Figure II: First Type fonts

program. This type of learning is ideally suited to the freedom of the primary school classroom.

The ST really does excel in the art field. Adult art packages such as Degas Elite, Quantum Paint, Art Director and Cyber Paint are proof enough of the machine's outstanding capabilities in art and design.

H.A.T. Software's First Paint is the first dedicated art software aimed purely at the primary school child. It allows homespun or complex pictures to be painted from a vast user-adjustable palette in the most simplistic way. It is fully Degas Elite compatible and as such is the ideal stepping stone to a more advanced art program.

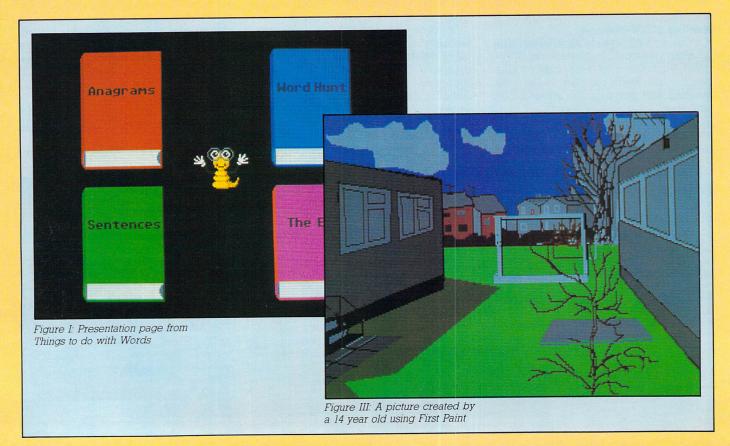
Coupled to a laser or ordinary colour

printer the end results can be outstanding.

Figure III shows a picture created by a primary school child during her first outing with First Paint and emphasises the ease with which a quality picture can be produced.

Early attempts at screen printing design can be facilitated by H.A.T.'s superb Sprinter program. This allows all manner of regular and irregular design to be created, pasted, cut, exported, shrunk, enlarged and multiplied in a most user-friendly fashion.

In a future article I will be looking in detail at the expanse of educationally biased art software and hope to bring you inside reports of these packages in action.



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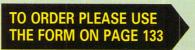
Digicalc is both menu and command driven. It is fast, with all calculations being performed instantly, and the spreadsheet is constantly updated.

The manual has been carefully designed to cater for all types of user, from the novice to the expert. It includes a tutorial with step-by-step instructions, a glossary of computer terms, a quick reference card, a full reference section and a comprehensive index.

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REVIEWED IN THE AUGUST ISSUE OF ATARI ST USER

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Technist is given a road test at the hands of our CAD expert Ron Massey

COMPUTER aided design programs provide a cost effective means of developing commodities as widely diversified as optical systems, electronic products, aircraft components, drugs and virtually any mechanical device imaginable.

Integrated throughout the manufacturing processes from concept to delivery, the computer, and increasingly the home micro, is often directly involved in producing the more abstract concepts of promotions and other visual representations.

The processes of developing design

of grid, snap on/off, user definable pitch and offset, measurement units and number of coordinate's decimal places.

There are six types of line with one user defined in 16 widths, with or without arrow ends, text sizes from 3 to 64 point with or without underline, standard or bold, solid or outline and block or italic in any combination. The resting and drawing mouse may be individually defined as one of eight styles or as a pattern block.

Start up

Moving the screen cursor to any area outside the viewing port switches the program to Gem-select mode and enables the command bar. From left to right, sub-menu options include Desk,

Designer software

concepts are as highly individual to specialised areas of industry as are the requirements of a CAD system. Fortunately, software houses appear to realise this need and are producing CAD orientated products which offer different ranges of features to satisfy a very real demand.

Talent's Technist has been developed for virtually all types of 2D CAD drawing requirements. Typical applications include schematics, flow charts, electronic component design, development of mechanical engineering concepts or virtually any drawing suitable for single plane projection.

Technist overview

The main program consists of two modules – the drawing program and an attribute editor. Technist makes a few departures from conventional draughting techniques, in that you are able to define parts of drawings as individual cells. You can then build libraries of these as separate files for inclusion in other drawings at a later date, or once placed within a master drawing, edit them individually.

Attributes of elements controlling how a drawing is produced are user definable and can be edited at any stage of the drawing. There are 36 pre-defined and six user defined fill patterns, seven styles File, Functions, Attributes, Misc, View, Options, Geometry and Vertices.

Navigation within the drawing area may be accomplished by any of several means. The sliders on the right and lower margins, in conventional ST manner, allow you to move the viewing port over the drawing area. Although no screen prompt has been provided for indicating screen area or magnification range, the pan and scroll sliders increase in width as you zoom in.

Alternatively, you can select the Save Current option from the View menu to store the current screen in one of eight specified buffers. Returning to a stored screen is done by selecting in sequence, View, Jump to new, selecting the frame number and clicking on OK.

While in either of the two drawing modes, the menu bar window provides system prompts which in object creation mode, from left to right, includes x/y positions of the cursor, length along the x/y axes, distance from point of origin, absolute angle (from the horizontal position to the right of the point of origin and increase anticlockwise) or, for options such as the polygon, relative to the last cursor position.

The second drawing mode, object editing, may occur in the drawing area or in the separate attribute editor window. Choosing the latter, you first tag the element you wish to edit and select manual edit from the view menu bar.

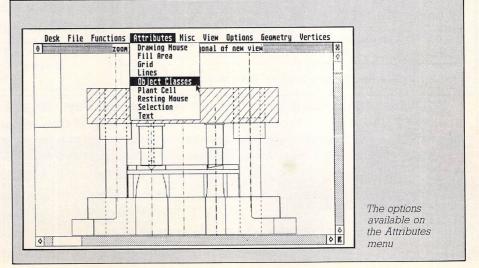
The attributes of the screen cursor are independently selectable in each of its two states: Drawing mouse – the active cursor state – and resting mouse – the pointing cursor state. Attributes of each cursor may be selected from eight predefined patterns, and you can also select the pattern block to represent either or both cursors.

Drawing tools are accessed through the functions menu. The range of tools consists of ellipse/circle, polygon – which can be closed automatically by double left-clicking – rectangle, rubber band lines, text and triangle.

Defining a triangle is done by successively setting three points. As with all of the drawing options, if fill is enabled, the triangle will be filled with the selected pattern.

Filling areas is done by pre-selecting a fill pattern from the attributes/fill area sub-menu. You are offered 36 Gem fill patterns and six user definable ones, the last of which can be modified in either of two ways. You can click on set pattern block from the misc menu and define a 16 pixel area from your drawing screen.

Turn to Page 95 ▶



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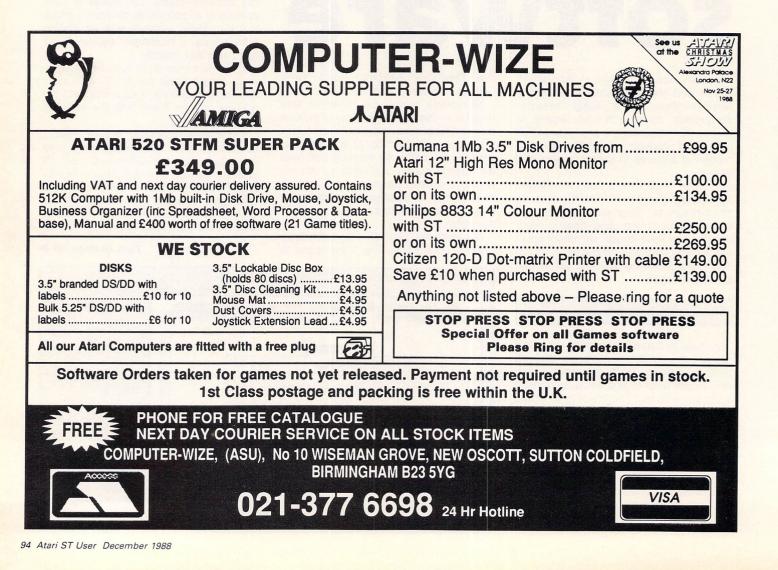
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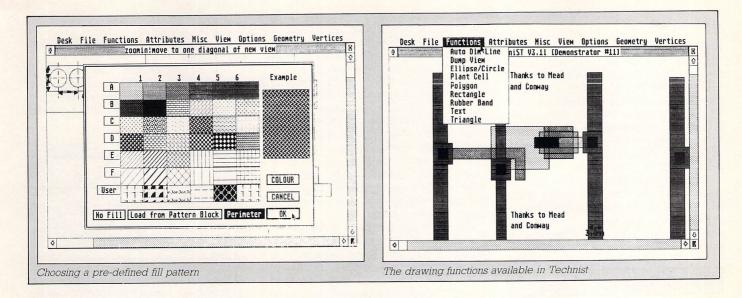
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Once you have defined a pattern, you can click on attributes and fill area.

The pattern you have defined can be used to displace one of the default fill patterns by clicking on one of the six user patterns followed by Load from pattern block.

Technist's zoom option may be used in either of two ways. Departing from the conventional Gem implementation of window close and full buttons in the upper left and right corners of the drawing port, it uses these as selectors for zooming out and in respectively, by a power of two.

Selecting the view menu, you can zoom out reducing the size of the image in fixed steps. To zoom in from this menu, you set the upper left corner of a rectangle and draw a box around the area you wish to magnify. When defining the area to zoom in on, you define the area from left to right, top to bottom.

Two points are worth remembering about Technist's zoom option: If the lower right corner is set as the first point and you define the area moving to the upper left, zoom in will not function. Also the size of the pattern within filled shapes remains constant throughout the zoom range.

Having selected any of the majority of options, it will remain active until you click on another one. For the majority of operations, this is quite acceptable, but care must be taken to be aware of the current option selected. Clicking on Geometry, you can tag a shape to move it from its current position, clone the tagged object, drag it to a new position, delete it or select manual edit.

The main option available with Vertices allows you to move one or more vertices. By tagging vertices along the same side of a rectangle, this function enables you to rotate the rectangle in relation to the other objects in the drawing. If you are working with the grid snap set to on, cloning an element will move in grid increments. Set to off, the cloned element will move in pixel increments.

There are two important ramifications regarding text. First, line-based fonts are recommended, especially if drawing output is to be plotted. Second, as each character appearing on screen is associated with a key as defined in a Keydef file, you can edit this to incorporate different key codes, associated arbitary cells with character keys or attach special symbols to the function keys.

Special features

One of the more interesting and, at the same time, curious features is that you can dimension individual elements of your drawing automatically by setting one end of a line to be dimensioned with a left mouse click. Dimensioning occurs beneath or to the right of the line.

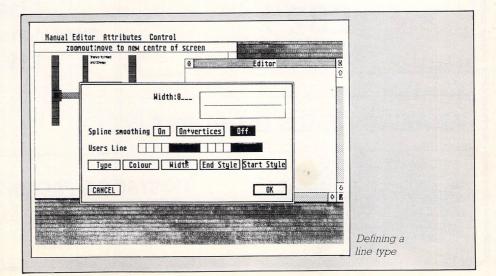
The autodimensioning feature is curious in that, if, after setting your starting point, you move the mouse to the left or beneath the starting point, in any combination, the dimension figures are mirrored and/or overlap.

Experienced CAD program users may find that having to continually access menus slows down their drawing considerably. For this reason Technist includes a feature enabling you to build one or more command files in which you can teach your ST groups of user defined keys for inputting commands.

Technist's two most powerful features are that a drawing can be produced largely from a library of cells. This appeals to me in that it is a time-efficient way to work in a drawing office which often deals with the same class of product. And you can automatically write a cost analysis file for one or more selected objects. Clearly, this option should be selected before the Object option is called.

Selecting misc I/O from the File menu enables you to edit the comprehensive printer and plotter drivers supplied. From the dialogue box provided with this menu you can also load or save key and

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Ascii files.

Output may be sent to a file or the user-configurable line printer, laser printer or plotter. You can define driver parameters for initialise, terminate, line prefix and suffix. The alt suffix is an additional parameter to correct the problem less expensive printers have with maintaining correct aspect ratios, reproducing a circle as an ellipse.

As it is possible that the reproduction scale may require that a drawing spans several sheets of paper you can define a separator – a line output to the printer indicating join positions of successive sheets.

Conclusion

One of the most useful facilities built into Technist is that you have the option of running almost the entire system from the supplied ram disc. This is benificial in that it both saves wear-and-tear on your hardware and speeds up I/O handling considerably.

As far as I am concerned, Technist offers very few shortcomings. The features that I felt could have been improved could easily be regarded as personal working preferences. Selecting Wipe from the Misc menu deletes a drawing from memory. Oddly, this option does not reset the program to its default parameters. As individual users are likely to be utilising the program for similar types of drawing operations, this may or may not be of any consequence.

It is as well to be aware of the implications of the requirement for setting up new parameters and drawing options for different drawings you may be working on in a single session.

Although you have the option of defining virtually every key on the keyboard for your own requirements, Technist does not recognise Enter for all of its default responses in all of the dialogue boxes. Further, Escape does not cancel all of the dialogue boxes either.

The implementation of some of the facilities provided may take some getting used to, and although users with CAD experience should feel quite at home with the package, the majority of Technist's main features are right up front, making the program fairly easy to use for beginners.

Familiarity with the system, far from

breeding contempt, is more likely to uncover many of the package's less obvious features.

The current version 3.00 provides a number of enhancements over previous versions and is continuing an on-going development into a particularly powerful CAD package.

FACT FILE

Product: Technist

Price: £130

Supplier: Talent, Curran Building, 101 St. James Road, Glasgow G4 0NS. Tel: 041-552 2128

POINTS FOR:

A very powerful CAD package. Subtle features make using it a little like a treasure hunt. Being able to work with cell libraries is cost and time-efficient.

AGAINST:

The manual would benefit from a detailed index. Dimensioning should be organised to read correctly however it is placed. Does not include a Clear function for resetting all parameters for a new drawing.





THE personal robot has existed for decades in fiction and cinema. Now it is becoming reality, with as many implications for industry as for the home. Robokit is an interface package designed to link the ST via its cartridge port to all manner of robotic devices.

Home made models or well-known construction kits such as Lego or Fischertechnik can be directed from the micro's keyboard to perform all kinds of exciting tasks. Targetted at anyone aged between 7 and 70, the complete pack consists of an interface board, large user-friendly manual and a disc full of driving and supportive software.

When I was asked to review this package supported by a large Technic Lego kit, a mixed feeling of excitement and fear swept over me. Excitement because as a geriatric child I love playing with things like train sets, racing car games and Lego. Fear, because though I had experimented with robotics on my trusty old BBC Micro in days past, I didn't really know where to begin trying to do the same thing with the ST.

Determined to start with the presumably more enjoyable part of the exercise, I set about discovering more about the Technic Lego Construction Kit 9700 – the elements it contains and how they can be fitted to produce different types of movement. I was amazed at the complexity of items which could be created, juxtaposed to the ease of construction.

The gear combinations needed to change speed and direction were made

The machine takes over

Peripheral gimmick or hi-tec learning tool? Personal Robot's Robokit is given a thorough test by Nic Outterside

clear by a wealth of informative pictures, diagrams and simple statements in the accompanying booklets. The mysteries of my own car's construction were unveiled as I built a simple gearbox using cogs, axles, bushes and assorted delights from the kit.

After a few hours I had built a motorised steerable buggy which would respond to obstructions thanks to the addition of two sensitive touch pads. I wired it up to a four volt transformer – and hey presto it worked! But could I control it from my ST keyboard?

The interface in action

The interface board is a simple 10cm by 20cm PCB which slots neatly into the cartridge socket on the ST. It is firmly supported by four rubber feet and contains two strips of in and out connectors. The enormous tome of reference supplied with the kit was obviously my first port of call.

The first section of the manual gives

five separate Lego building projects complete with detailed diagrams and explanations of how each should be wired to the interface board.

The projects include a mini arm, a plotter and an ingenious punch card reader. Careful examination of the simple wiring diagrams for each allowed me confidently to connect the eight wires from my buggy to the correct ports. This was achieved despite the fact that the Lego connectors differ in type to the Robokit terminals.

The manual next instructs you to boot up the supporting disc. You are presented with an attractive work screen with eight menu headings, a box containing send, time and sequencer/ log icons, and a mouse hole in which to hide your mouse.

Pulling down the Backdrop menu and clicking on the Add image option allows you to select, from a choice of pictures, an appropriate graphic image to represent your construction on screen.

I found a suitable buggy-like image which I could use as my working model. Now by double clicking on the image a pop-up menu is revealed in mid-screen.

You are asked to add icons to show various movements and functions which you would like your invention to perform. These can be seen clearly in Figure I.

I chose forward and reverse arrows, start and stop hands and an illuminate icon for my buggy's lights. These icons can be labelled for clarity and dragged to any convenient point on screen to be manipulated as required.

It is now essential to start the real time system clock by clicking over it and initiating any motors, using the Send selector envelope.

You can give each motor its own identifying icon and initialise it according to its output port number – displayed clearly on the PCB. The next stage is to program each icon to perform a desired function.

This is achieved by double clicking on a chosen icon and setting the required speed, direction, time and reply numbers in an Edit/Send message box. Then send the message by clicking on the accept box and single click on the icon for your creation to perform the given function.

No previous knowledge is assumed as the manual offers a step by step approach to this particular set of actions, and I found the programming was simplicity itself.

Using the forward arrow and motor one as trial base, I set the maximum speed value of four, a direction of one and a time factor of three seconds. Clicking on the arrow icon brought a positive response from the buggy. I then spent some hours entering different trial values and gained the exact movement response I wanted from motor one.

Once you have got one icon doing the right thing, it is easy to attach appropriate messages to the others to drive the buggy in a preprogrammed or real time free form manner. The next important step is save your set-up for use as and when required.

Certainly you do not need any computer programming experience in order to manipulate your construction using Robokit. The manual devotes a further 60 pages to helpful programming sophistication including appendicise with commands and slot references.

Such experimenting and programming is very time-consuming but is rewarded when you see your creation perform exactly as you want it to. Like many other things in life, the more you practise and play the easier it all becomes.

Educational value

Technically and creatively Robokit is superb, but the next Q.E.D. was how useful is it in an educational environment?

The natural home for this peripheral is surely in the primary/middle sector of education.

The format encourages you to move away from the familiar pupil workcard and towards a cross-curricular thematic approach – a refreshing step

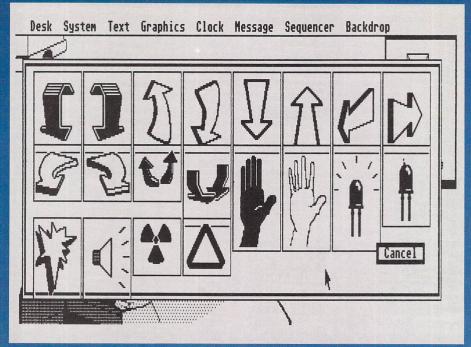


Figure I: The Add-icon box from Robokit

forward for any primary school teacher.

Robokit takes on board current educational thinking as well as providing the support materials to enable you to become competent and confident with control technology. It presents a justifiable use of technology in the primary school by reference to both recent education reports and the reality of the increasingly technological world of microelectronics in which we live. The manual when used as a teaching tool will enable most technically minded teachers to

Turn to Page 100 ►

REVIEW

From Page 99

explain control technology in an exciting and stimulating fashion.

Flushed with success and with justified feelings of confidence, I loaned the Robokit interface, manual, disc and Technic Lego to my son's primary school teacher, who is progressive enough to use STs on a regular basis in his lessons.

For two weeks he and his charges played with the Lego and the Robokit interface. After a few days of random model building they built a simple car with a motor attached. Unlike my steerable buggy this was done by following one of the Lego cards provided. Though it is easy to build the part of the picture you can see, the hidden side can cause problems.

The teacher was able to wire up the car to the interface and using the software he and his pupils experimented with simple commands to turn the power on and off, making the car go backwards and forwards in different sequences. Soon they were solving little problems like: Make the car go forwards for four seconds, backwards for three and introduce a light brick to act as a headlight – which in turn introduced them to another dimension. The teacher pleaded with me to

allow him to keep the package for a

further fortnight. He then began to incorporate it into other class projects, such as a topic on wheels. After the whole class had visited a working water wheel they constructed replicas from wood and card and from Lego. The latter soon became an entire water mill – wheel house, office, machinery, lighting and workers.

Class discussion on the working day at the mill led to their ST being used to control lights, machinery and the motor driven water wheel. These came on to simulate morning and afternoon working.

During the lunchbreak a Lego cart arrived to unload and then reversed away. They even learned to slow the wheel to a realistic simulated speed using the time settings available in the edit mode of Robokit.

Eventually the well worn Lego and interface were returned to me with rave feedback from my son and his friends. A couple of days later I received a phone call from my son's headmistress with a request for the name of the supplier of Robokit and the price of the kit and the Lego.

She was suitably impressed to spend more than $\pounds160$ on this hi-tec learning aid.

My question had been answered; Robokit has definite teaching potential. It has also entered the number one position in my son's letter to Santa this year.

After weeks of play and experimentation back at home the excitement still exists, but the preconceived fear definitely was not justified. Robokit provides a richly rewarding timeconsuming hobby which will keep my entire family entranced through many wet winter evenings.

FACT FILE

Product: Robokit

Price: £79 for Interface and software Supplier: Personal Robots Ltd., 3 Reading Road, Henley on Thames, Oxfordshire RC9 1AB Tel: 0491 578001 Product: Technic Lego Set 9700

Price: £90

Supplier: Lego UK, Ruthin Road, Wrexham, Clwyd LL13 7YQ.

Tel: 0978 290900 **POINTS FOR:** Addictive and stimulating introduction to

Addictive and stimulating introduction to the world of control technology. Easy to use. Competitively priced.

AGAINST:

Nothing substantial except that the terminal connectors are not matched to Technic Lego.



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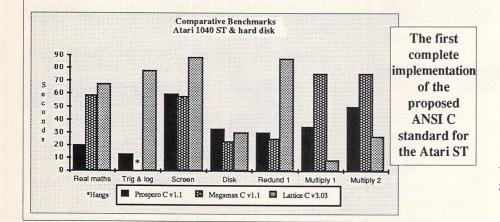
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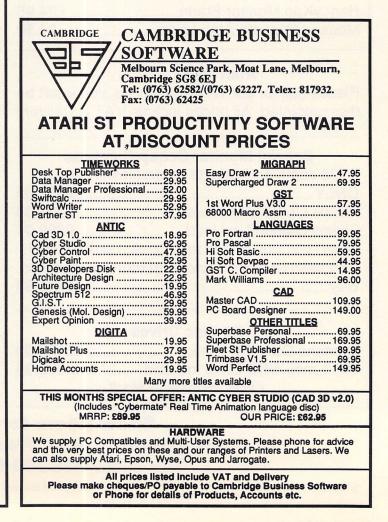
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Integrated flexibility

The ultimate Yuppie status symbol – a computerised personal organiser is tested by Roland Waddilove

ST ORGANISER is a Gem-based integrated package consisting of a word processor, database, diary and spreadsheet – everything you require to organise your business and personal information effectively, the manual claims. Does it live up to expectations? In many ways it does, but I did find areas which needed some improvement..

Your first task before booting up the software is to set the time and date using the Control Panel desk accessory, as this information is required by the diary. Mega ST owners can skip this task as the built in battery-backed clock maintains the correct time when the micro is switched off. The software should prompt for the time if it isn't correct.

The package boots up to a plain screen with a menu bar for Desk, File, Edit and Layout. Desk accessories are available on the Desk menu as usual, and the four organiser modules are selected from the File menu.

The diary

Clicking on Diary on the File menu brings up a calendar showing the current month with the current day highlighted. Double



clicking on a day brings up a dialogue box in which you can enter notes, things to do and appointments.

The appointments automatically ring an alarm when the date and time have been reached or passed – it's quite likely that your ST is switched off at the exact time of your appointment (otherwise you'll miss it), so it will ring next time you switch on until the alarm is disabled.

Notes are simply short memos that you may wish to jot down, whereas things to do are carried forward to the next day if their status is not changed to a note to indicate they have been done.

Unfortunately, entries into the diary are restricted to a length of 29 characters. However, the easy way round this problem is to make two entries, one below the other. As the entries fill the window it can be scrolled up and down using the scroll bar.

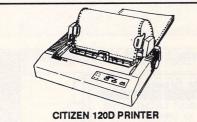
The one other niggling fault of this otherwise well-written diary module is that you can't tell what type of entry an item is simply by looking at it. So if an

Turn to Page 107 ▶

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◄ From Page 105

alarm is ringing you have to point and click on each one and read the Alarm/To do/Note buttons along with the From and To times, which can be tedious if there are quite a few entries.

The database

This program module isn't a true database – it is a simple computerised card index file holding up to 250 or so cards. Here you can enter names, addresses, telephone numbers, brief notes and so on. Ten lines are available and they can be used for up to 10 fields making up the card. If you don't like the card file provided you can design your own using the word processor, which gives it a bit more flexibility.

The menu options enable you to browse, edit, insert, delete and cut and paste information on the cards. You can use the mouse to highlight an area by dragging the cursor, then cut or copy it to a scratchpad. It can then be pasted on to another card, or even in the word processor's text.

There are two drawbacks to this card index: There doesn't seem to be any way of printing out the data, or sorting the cards into order, say alphabetic. You can move to a particular card with the Locate menu option, though I would have liked to go to a particular card number as well.

The word processor

This, in many respects, is quite like a cut down version of 1st Word. It's a wysiwyg type display, Gem-based of course, and very easy to use. After opening a new document you set the width, height and margin of the page by selecting Layout. Then you simply type away, toggling bold, italic and underline from the Layout menu as required. These effects are all shown on screen.

You can mark a block of text by dragging the cursor with the mouse, and then cut or copy it on to a scratchpad, and later paste it in the text elsewhere. Two text files can be merged by opening both files, cutting the text from one and pasting it in the other – crude, but effective.

Again several features are missing that might otherwise be expected: Like a Replace function – though you can search OK, a reformat command for reformatting the text after altering the width, and righthand justification to mention just three. And it needs speeding up a fair bit too – it's very sluggish.

The small range of features means that the word processor is best used for minor tasks like short letters, memos, notes and so on, where advanced features aren't necessary, perhaps even a hindrance.

The spreadsheet

This part of the package is, like the rest, limited, but easy to use. The maximum sheet size of 26 columns by 30 rows is quite small, so there's little chance of running a small business here, though it is adequate for calculating personal expenses and bank balances.

Text, numeric data or formulae can be entered into the cells. The list of formulae is restricted to the usual plus, minus, multiply and divide symbols, and SUM, SIN, COS and TAN. You can sum rows, columns or tables of rows and columns. The sheet is updated with every entry, and as you would expect with a sheet this small, the time taken is very short.

There doesn't seem to be any way of altering the format of each cell, say by putting a pound sign before monetary values, altering the number of decimal places displayed, or adding left and right justification and so on.

Conclusion

ST Organiser is a novel and flexible system that combines four common everyday workhorses into one integrated package. The idea is excellent, and on the whole the software works well, though it could be improved. The way all the modules can be open and active at the same time, and information cut from one and pasted into another is a great boon.

Extra features I would like to see are a Replace function in the word processor, right justification and reformat too. A Sort function for the database, and a Print option, formatting facilities in the spreadsheet, an option to display formulae instead of contents, more columns and rows and so on.

Triangle Publishing has produced a pretty ordinary package – it's a nice idea and no doubt it will sell fairly well, but unfortunately the limitations and lack of features prevent it from becoming a world-beater. However, if they were to include some of the suggestions made here...

FACT FILE

Product: ST Organiser

Price: £49.95

Supplier: Triangle Publishing, First Floor, 51-55 Mortimer Street, London W1N 7TD.

Tel: 01-436 5536

POINTS FOR:

Fully integrated modules. Easy to use. Four packages in one.

AGAINST:

Limited number of features. Can't print or sort database. Spreadsheet too small.

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Name: Dell Address Address IEM Address	2: Railway Terrace 3: Slough, Berkshire	ar, The word processor is capable of creating and editing documents of up to 15 pages in length (<i>approximately 32k in size</i>). To access the word processor controls from the menu bar, point the mouse indicator at either the Edit or Layout headings, and select the option for the function (such as Bold, Italic, Copy or Paste) you want to use. These controls are always available to you from anywhere in the ST Organiser. Note that you must have some sort of document open
Postcod Country ♦ Phone: Notes:		to be available to use the word processor facilities.

REVIEW



WE looked at Sonus' budget-priced sequencer SST in the November 1988 issue of *Atari ST User* and, by proxy, the company's top-range sequencer, MasterPiece. SuperScore is its contribution to the scorewriter market. It requires a one megabyte ST with a monochrome monitor and it uses a dongle for software protection.

It is unusual in that, as well as having scorewriting facilities, it also has built into it yet another variation of the MasterPiece sequencer. SuperScore has 32 tracks which can be chained into 24 sequences, the same as MasterPiece. However, it bears a closer resemblance to SST than MasterPiece in the facilities department.

For instance, there are no set-ups (a program change and Midi volume setting for each channel normally sent at the start of playback) and the controller mapping only allows you to convert mod wheel data to Midi volume data.

You can't append or ditto (copy to itself) a track although you can still append a sequence. MasterPiece's scale velocity, which lets you program diminuendos and crescendos, has been reduced to level velocity, which lets you set all volume data to the same value, as with SST.

One major feature missing however, is an event editor, which both MasterPiece and SST have. That apart, it would really

Latest developments on the ST music scene

TF you're interested in music and made it to the PC Show at Earls Court you probably paid a visit to the Music and Micro Village. The PC Show is noted for its bargains, but in the Music Village however, knock-down prices were rather thin on the ground, and many visitors simply took the opportunity to talk to the software developers and suppliers.

It must have paid off, as a lot of buying and selling was going on anyway. Dealer reaction was very good and many have already booked for next year. The ST is still leading the way in the music stakes, so let's just whiz through a few goodies.

MCM is back in our column with Dr.T's Keys (£69.95) which has just become available. It's an introductory program featuring traditional notation on screen which will work through the ST's sound chip and via Midi. It also has an auto composer feature which creates themes and harmonies from your music. Sounds fascinating.

Dr.T's Midi Recording Studio (£49.95) was also announced. Again aimed at an introductory level, it's an eight track sequencer and operation is tape recorder-based.

Sharing MCM's stand was Pandora Technology showing its almost-complete Korg M1 Voice Editor. A Roland D110 and a Yamaha DX 6-operator editor should also be available by the time you read this. All Pandora's voice editors operate as desk accessories and should be compatible with most Gem-based sequencers. They cost £79.95 each.

Soundbits has acquired the distribution rights to Big Band and Studio 24 (\pounds 199 each or \pounds 349.95 together) from French company Comus and its stand was attrac-



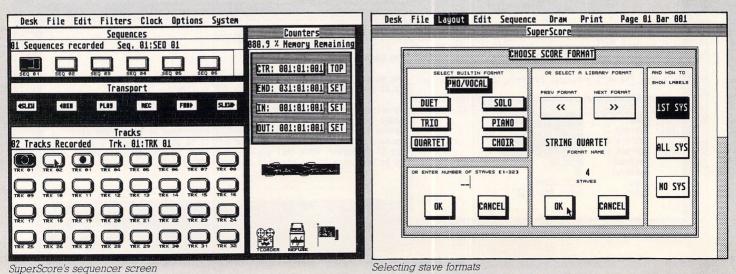
A budget-priced score writing utility given a thorough workout

be rather trivial to wade through all the differences. Suffice it to say that Super-Score's sequencer is not quite as powerful as MasterPiece's, and while its facilities are more in line with SST's, it does have those extra tracks and sequences.

So we'll move on to the scorewriting part of the program. Of course, Supper-Score is compatible with MasterPiece and SST files – by the way, Reading University has been using MasterPiece and SuperScore for quite a while – although I suspect if you were primarily interested in scorewriting you'd settle for just SuperScore.

The program converts a real-time file into traditional notation and allows you to edit it in many ways. The editing only affects the physical display, not the Midi data, which means you can't hear the result of your edits.

At all stages there are many options. The first step is to go to the layout menu and select a stave – piano, piano/vocal, solo, duet, trio, quartet, choir or any number of individual staves up to 32. These come in small medium and large



Superseere b bequencer bereen

108 Atari ST User December 1988

ting a great deal of attention. Big Band can compose automatic accompaniments to your tunes or develop melodies, solos and riffs to your chord sequence. A full report soon.

On the Audio Visual Research stand you could pick up new software for the ST Replay (AVR was formally 2-Bit Systems which developed Replay) called Replay 4. It now has a Gem interface, lots more bells and whistles and includes Digidrum and an effects program. Well worth the £10 upgrade cost. The complete Replay system is still £79.95.

Evenlode Soundworks, the Steinberg people, have revealed several new goodies including a new editor for the Roland D110, D10 and D20. There's also news of X-Syn Universal, an editor for virtually all makes of synthesisers.

Sampler owners have Digidesign's Uni-

versal Sound Designer (£315) which is compatible with almost any 8 or 16 bit sampler. New from Steinberg is the Sync-Pac. It's a combination of the Pro-24 sequencer and the SMPTE synchroniser for £499, a saving of £185.

More news about Sonus' SST Super Sequencer - developments have taken it to version V2.0 and the event editor is now accessible from the main program so you don't have to save, load, save, load. Brilliant! And it's still £99.

As an ST user you're probably well aware of PD programs. But did you know that there are lots of music programs in the public domain?

Next month sees the start of a new mini-series within our music pages in which we'll take a look at music PD and shareware programs. Watch out - there are a few gems about.



MCMXCIX, 9 Hatton Street, London NW8. Tel: 01-258 3454.

Soundbits Software, 48 Galton Tower, Civic Close, Birmingham B1 2NW. Tel: 021-233 3440.

Audio Visual Research, 2a Russell Street, Luton, Bedfordshire LUI 5EA. Tel: 0582 457348.

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



sizes. Also under the layout menu are clefs, labels (instrument names), key and time signatures, barline style - for such things as first and second time bars - and horizontal spacing.

You can select straight or slanted beams too, which is useful. Slanted beams are nice, but often have a staggered look due to screen and printer resolution.

You can go to the sequencer and play some music or you can load in a prerecorded file. Two things you'll want to do to the score: Correct inaccurate note representations and make cosmetic ad-

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6):

Choosing a key signature

Music

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SampleGuit

Dx7pad



SuperScore

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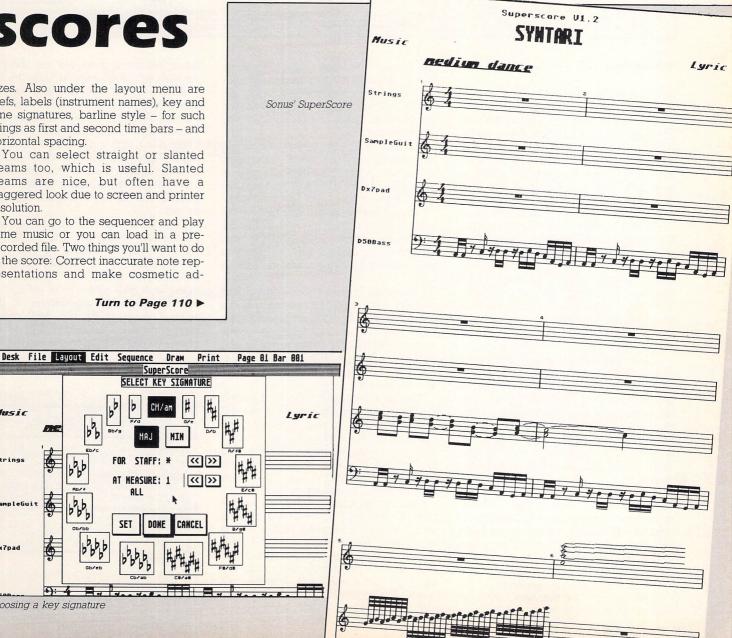
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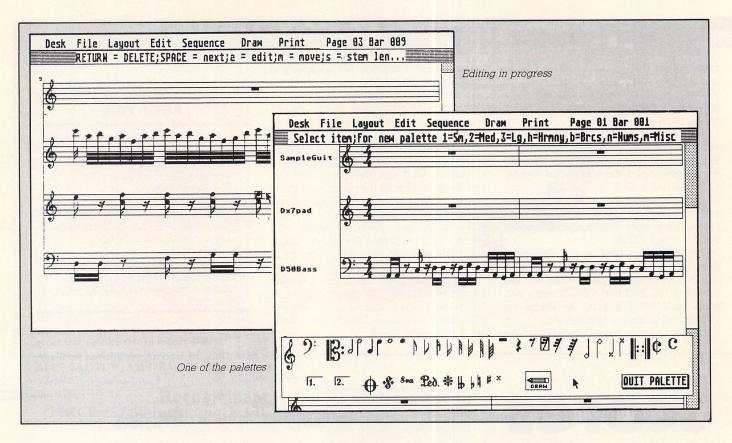
ALL

SET

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CANCEL





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ditions and alterations.

If you've just recorded a sequence, the chances are it won't look exactly the way you want it to. For instance, if you play a quarter note a touch too staccato, it may appear as a dotted eighth note followed by a rest. There is a quantise option to help with such problems, but you may find several things still need tidying up.

If you click on a note you can erase it, move it or edit it. Operations such as beaming, de-beaming and transposition can be performed on groups of notes. Editing is not too difficult, but often you have to select the Redraw Page command to see the result of your latest edit. You also have to be accurate with your clicking. Occasionally I called up a group edit function when I was trying to click on an unwanted rest.

Editing facilities include cut and paste, and you can insert, delete and copy bars. Of prime interest to songwriters will be the ability to add words to a score. You can select different text fonts under the draw menu and their size is fully adjustable. In word entry mode you can step on automatically to the next note. In text entry mode you can position text anywhere.

The palette option is also selected from the draw menu. Here you can choose notes, music instructions, signs and chord symbols. There are three sizes of notes and signs. The chord symbols, score format and instrument names are held in files on disc and can be edited with a word processor such as 1st Word.

Drawing mode lets you select different types of lines such as horizontal, vertical,

and hairpins for crescendos and slurs. There are also ellipses and rectangle routines. You can define blocks on the screen with the mouse and load and save them to disc. These are compatible with Degas format.

The editing facilities are quite comprehensive and you can produce impressive results with a little time and effort. It's a good idea to save a copy of your original score. If you make a real mess of things, it's often easier to reload than attempt to correct matters. Even the Re-build Score command, which goes back to the sequencer for its data, may not give you back exactly the same score you started with.

There are options to define titles, headers and footers and you can print out individual parts from the score, adjust the page size and load an external printer driver – the internal driver is configured for Epsons. The results, as you can see from the accompanying screen dumps, are marvellous.

The manual is well written, if a little repetitive, but an explanation of several options seems to be missing. For example, to edit a note you click on it, a fairly basic and essential procedure. This lets you call up a note edit menu which is fairly self-explanatory, but I can't see reference to it anywhere in the manual.

The 1.2 version of SuperScore under review also had some menu options which weren't described. Some looked as though they were concerned with step-time input from a Midi keyboard.

SuperScore feels more like a graphics program than a music one in scorewrier mode. After converting your music to notation, it's up to you to edit and enhance the score, and it gives you just about all the tools you could wish for to do the job. It is because of the detailed graphic options that you can't play back your edits via Midi. A shame, but an understandable consequence of the program's design.

My other miff is the lack of an event editor, this omission seems strange as one is included with MasterPiece and SST. It may not bother you but it means music making will be quite heavily real-time biased.

If you're a real-time musician – as a great many people seem to be judging by the preponderance of real-time biased sequencers – SuperScore will convert your music into traditional notation and give you lots of options for making cosmetic alterations. If that sounds interesting it's well worth checking out – and it is one of the cheaper scorewriters on the market.

FACT FILE
Product: SuperScore Price: £220 Supplier: Sonus International Ltd, P.O. Box 18, Wokingham, Berkshire, RG11 4BP. Tel: 0734 792699.
POINTS FOR: Very flexible package which produces great results.

AGAINST:

No event editor. You can't use the stave for step-time note entry.

The land of Shades by someone who has been there and survived

I AM Whirlwind: I have been sent to tell you of Shades, a wide land wherin lies great treasure - and great danger too, if you wander around with your eyes closed and no thought of any worth in your head.

To start you must know how to enter the land, When you first play, you will have neither rank, honour nor any points. You will be a Novice and utterly useless. Therefore speak sweetly to others, and do not puff up with boasting, and maybe they will help you. But if they will not, you had better know how to get around and get treasure. You can move in many ways by typing GO NORTH, GO UP, GO SOUTHWEST and all other directions. But you can also enter N, U and SW, which is quicker. OUT works from nearly everywhere and is good for retracing your steps if you get lost.

At first you will wish to stop and gawp at the wondrous things, and truly the descriptions of locations in Shades are lengthy and full of interesting information and clues.

But if you type BRIEF you will see only the name of your current location - you can see a full description by typing LOOK instead. This is useful, for you will move around quicker, and not have to cope with lots of words on your screen when you have to run fast from evil fighters such as Minotaur, whose name is a byword for cutting people into small bits.

When you find an object you must pick it up: So type GET (object). Not all objects are valuable: If you type GET T (for treasure) that is a quick way to tell if the object is worth anything. Then when you have it, type VALUE (object) to find its worth. Take it to the Mad King's Room, where if you drop it you will be given points for your deed, and may presently advance in rank and power.

The Mad King's Room is to the east of the courtyard in the castle, so you will not miss it. But if the drawbridge is raised you may not enter. Therefore go south from the drawbridge and you will find a way of low-

That is all I can tell you for now, but I will return in the cycle of a moon and speak on matters of glory and honour: How to make a name for yourself in battle, unlike the fool Murrough, who sitteth in a safe place always and never dares risk his unlovely skin. Until then, may the goddess protect you.

How to access Shades using your micro, a modem and a telephone line: MicroLink/Telecom Gold key >Shades Micronet/Prestelkey * Shades #

JANTUM PAIN









Quanti









The amazing 4096 colour ST paint program complete with animation!



Odds-on favourite

Mike Cowley takes a look at a program that seems to answer every punter's prayers

THE quest for a system to beat the bookmaker is the gambler's equivalent of the wealthy middle-aged matron's search for the elixir of youth.

A variety of self-styled experts over the years have insisted that they – and they alone – have the answer. And all have eventually disappeared leaving those that believed in them with considerably lighter wallets.

Yet racing columnists still regularly risk their reputations in this area, television commentators spew out endless selections and in every pub in the country there's at least one cloth-capped pundit who'll gladly tell you about a good thing running that day.

But, overall, the end result is that turf accountants drive even more ostentatious

limousines and chomp away on ever more expensive Havana cigars.

However, all that may be about to change thanks to the ST and DGA Software. It has developed a program which appears to have the potential to turn bookie-bashing into an art form.

Known as Pro-Punter, it has already had some truly amazing results. Over a six month period a level stake of £10 produced a clear profit of £511.99. Pro-Punter selected 36 winners out of a total of 73 races, which is a strike-rate of 49 per cent.

All these were "proofed" by the Raceform Handicap Book and The Sporting Life, the bibles of the industry.

Pro-Punter's performance to date then is to gambling what Nijinksy was to thoroughbred racing itself – seemingly unbeatable.

There is not one professional tipster who can legitimately claim this success rate – including household names like Peter O'Sullivan.

But how effective is Pro-Punter? Only your average gambler would know for



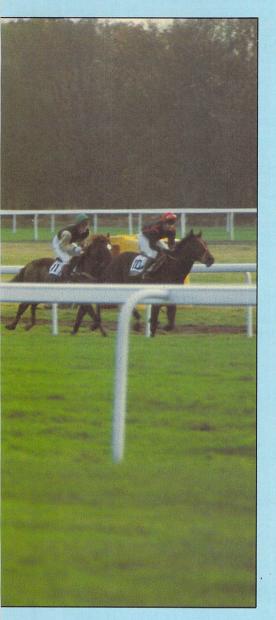
sure. Well that's where I came in .

Ever since I placed half a crown (12.5p) on a grey horse in a point to point at Cartmel, I have sought the key to caning the bookie.

It might have been different if it hadn't romped home at 8 to 1, which provided me with a princely profit of \pounds 1.

Being only seven years old at the time, to have actually lost a week's pocket money might have put me off the sport of kings for life.

However, the moment that Honest Harry Hinds (how could you forget a



name with alliteration like that) handed over my winnings to my father – even in those days bookies were loath to have kids in short trousers as customers – I was hooked.

Since then the quest for easy money has taken me as far afield as the Garrison Racetrack in Barbados. The only reason I recall this – apart from a natural desire to name drop – is that was the first time I was absolutely convinced I had the bookies on the run.

By virtue of my press card, I found myself in the paddock as the horses paraded around. I could hardly contain myself when I recognised one of them – the jockey that is, not the horse – from a party the previous evening.

Joy turned to positive rapture when he leaned towards me, winked and whispered: "Get your money on this". Well, in racing they say forget about getting it from the horse's mouth, just hear it from the jockey.

Literally everything I had went on the nose of Sweet Delight.

It never even passed the winning post.

Can you beat the bookie?

Pro-Punter, like all expert systems, is a package which deals with a particular problem – in this case how to invest wisely in horse racing.

It uses its knowledge base to answer two specific questions: Is there an outstanding horse in a race, and if so, is it worth a bet?

ST owners who fancy a flutter with Pro-Punter will need the ability to find their way around the racing press.

The Sporting Life, the best known of the papers that serves the gambling fraternity, will provide a more than adequate source of data to input.

And part of the well written instruction manual which accompanies Pro-Punter covers the complexities of racing jargon for the novice gambler.

It takes you step by step through what regular readers of the racing papers take for granted. You are also led through the menus answering questions about the race under analysis and entering relevant data.

What Pro-Punter needs to be fed is statistical information – better known in the racing world as form. This can range from details of a horse's last run, through weight and speed ratings to breeding. One of the problems is that keying in such information for each race can take up to half an hour.

The first skill to acquire then lies in

selecting races. Aim for ones with only a few runners where there's lots of information available.

After the input stage, the program makes its calculations. It assesses, among other factors, weight carried, whether the horse likes the particular course and prevailing weather conditions, class, speed, and even which stall the horse will come out of at the start.

Pro-Punter finally forecasts a finishing order for the race – up to 12 in large fields – producing a rating for each horse and a computer-generated starting price which reflects its own view of the horse's chances.

It also assesses the odds (the price) being offered by bookmakers before coming up with investment advice.

In many cases, it will recommend that people do not bet on a race, even where a horse is shown to have a good chance.

That "No Bet" decision is often based on the program considering that the potential return on outlay being offered by the bookie is too low.

Just how Pro-Punter processes the information is a closely guarded secret. However, judging by the results to date, it is considerably more sophisticated than sticking a pin in the racecard.



The poor unfortunate animal stuck its foot in a hole, broke its leg and had to be shot. If I could have found the jockey, a similar fate would have been in store for him.

Unfortunately – like most gamblers – these salutary lessons are rarely enough to deter me from the next "investment". That's why I welcomed Pro-Punter with all the enthusiasm of a castaway glimpsing a ship on the distant horizon.

The verdict: After comparing Pro-Punter with my own selections for one month, the package had seven out of ten winners to my two.

Bookies beware. Pro-Punter is under starter's orders and DGA Software is on to a winner . . .

FACT FILE

Product: Pro-Punter

Price: £57.50 (mail order only)

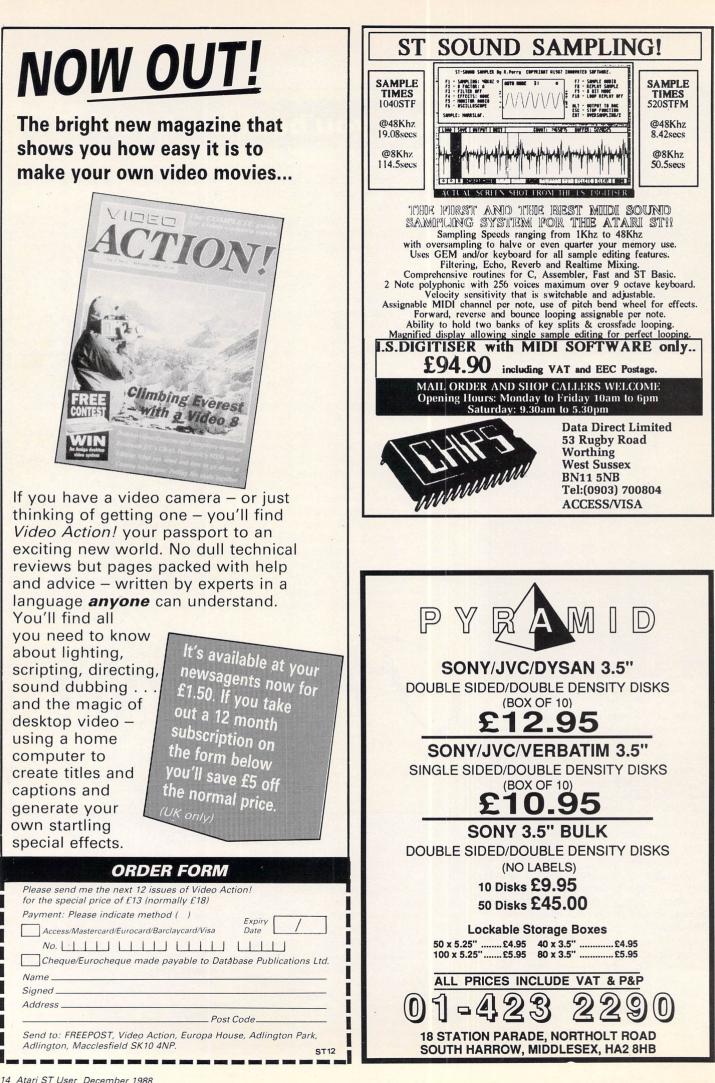
Supplier: DGA Software, PO Box 36, Ashton-Under-Lyne, Lancashire OL7 9AI.

POINTS FOR:

Very simple menu system. Uses a large amount of data to predict form.

AGAINST:

No graphics or use of Gem. Primitive user interface. Unattractive display.



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*These formats and all tape versions are text only.



Screen shots from Atari ST version





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f. - Hum

Panasonic problems

WHEN I first got my 520ST I decided I would also buy a printer. My local stockist advised in favour of a Panasonic KX-P1081. I duly bought one, took it home, connected it up and started writing letters and essays using 1st Word. All went well until I tried using the special text modes and found that they just came out as normal letters on my printer.

Confused, I checked my printer manual, where it said the printer could produce text in all the special modes. Also the printer fails to print pound signs as it should, instead printing spaces, and stars come out as pound signs.

I now realise that this is something to do with the printer driver. How do I go about writing a printer driver that can print in bold, underlined, italic or light, and print stars and pound signs?

As well as this problem, when I try to get a screen copy by pressing Alternate and Help, I only get about two thirds of the screen. What's going wrong? – James Eggleston, Penrith, Cumbria.

• We use a Panasonic KX-P1081 printer in conjunction with our STs on many occasions in the office. We also regularly use 1st Word for word processing and have not experienced the problems you describe.

Ist Word is menu driven and the function keys should provide you with the text style you require. Ensure that your printer DIP switches are set to the following positions: One, five, six, seven to off and two, three, four, eight to on. Also make sure that you have installed your printer via the desktop to 960 pixels per line.

If the problem persists, you should be able to replace your copy of 1st Word through the public domain network.

Flying the Jolly Roger

I THOUGHT I would write to put the definitive argument for software piracy. First of all, the mistake that many program swappers make is giving ground to the anti-piracy whingers. We all know the argument about destroying the software industry (yawn) and there is only one word for that – Flannel.

Whether a company is large or small, the incentive is the same – profit My incentive is as justifiable as I also want to profit by my activities. When things are looked at from my point of view, it can be shown that I have the more valid and ethical argument. I recognise right and

Violence breeds violence

I HAVE read with interest the letters you have recently published on the topic of sexism and violence. They have moved me for the first time in my life to write in to a magazine.

Regrettably we live in a society which is becoming increasingly violent with each passing year. The law of the jungle has now proliferated from our soccer grounds to our streets and homes. It is a social disease which is the responsibility of us all. We must find a cure, and ignoring it or turning a blind eye will not make it go away. Look what happened when the "ostriches of Europe" did just that to the Nazi concentration camps of the 1930s and 40s.

Software producers along with the

computer press have a responsibility to actively discourage such savagery. Let's get our act together – it is an immature observation which states that life can be divided into categories of black and white. Labelling people Rambos or wimps only helps fuel the division upon which violence breeds.

The future is ours. If we ameliorate violence we will kill off the manure from which sexism grows. – Jo Johnstone, Aymestrey, Herefordshire.

• This is clearly a topic which will not go away. We are currently receiving dozens of letters concerning sexism and violence in computer software. We will publish the best, but please keep your arguments or observations short and precise. wrong when I see it and not when I am told to see it.

My needs are more important than some faceless fat cat sitting around waiting for the royalties to come pouring in. To be honest, I don't care how much time or effort they put into their product. Do they care how little money I earn and how little I can afford their inflated prices?

You may think that this is just the selfish comment of a disagreeable so and so. If so then I refute that. While you are building up to righteous indignation, try to extend your imagination to cover more than superficial arguments created by the computer media. I believe they have a vested interest in the high price of products, for do they not also gain by the increased expenditure of glossy adverts? – Frank Doddy, Hull, Humberside.

• We're absolutely stunned by your attitude to piracy – it's like a thief stating that he has a right to steal and profit from his trade. Would any software companies/ programmers like to reply to this letter?

Journey through dark heat

CAN you help me with a problem that is sending me mad? My copy of Dungeon Master refuses to boot up on some occasions, causing me great frustration. It will go for weeks without any problems, then suddenly refuse to load. All my other discs load without a hitch.

Sometimes, after refusing to load in the evening – when the ST is warm – it will load perfectly in the morning. Could the internal temperature of the computer be affecting the disc?

This disc seems to have a mind of its own. I am using an Atari 1040STFM with a TV/monitor for playing games. Would this have any effect? – Mark Huntingdon, St Ives, Cambridgeshire.

• It could be that your disc is faulty, but possibly also a minor dry, heavy or close joint fault inside your ST, or perhaps a loose connector. As your micro warms up, joints will expand, thereby increasing resistance at vital points in the circuitry.

If the problem occurs with any other discs it may be worth your while calling



Star treatment appreciated

I AM not usually one to write to magazines, but on this occasion I consider it appropriate to let other readers know about the high standard of service provided by Star Micronics. I was fortunate to be able to buy the Star LC10 colour printer for use with my 520ST, despite a shortage arising, I understand, from the very great demand for this excellent product.

I'd had a nasty experience with a mail order company on other computer purchases, so was somewhat apprehensive to say the least, when I had not received the printer from a different supplier after a four week wait, despite my cheque being cashed. This delay was not the fault of the second mail order company I hasten to add (it has been very helpful and has since returned my money on request so has not lost a customer for future purchases).

On contacting Star, one of its staff was extremely courteous and helpful in completing the order within 24 hours. I had to admit I did not expect the problem to be resolved quite so quickly in view of the supply and demand situation existing at the time. But it is very reassuring and gratifying to be able to experience at first hand the quality of service provided by Star Micronics.

I have not worked with the printer long enough to be in a position to provide a comprehensive assessment as to its abili-

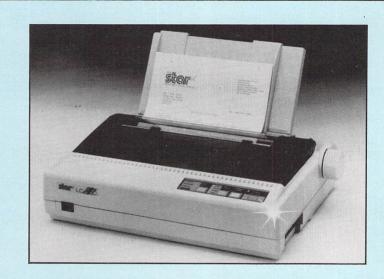
on an Atari service specialist to check your ST's circuitry.

Subscription blues

I BOUGHT an Atari 520STFM earlier this year, and after a few months have some unanswered questions.

After subscribing for one years' magazines I received my free PD discs, but only one of the ST Basic programs works. My version of Basic is marked CA02 6249-002 REV.D (c) 1987. Are your discs compatible with my version of ST Basic?

In your magazine you refer to old and new versions of Basic; which is mine? In Each month we'll select a letter of the month – and the sender will receive the program which our reviewers have rated Atari ST User Star game. This month, reader John Pilge will receive Nebulus, which is reviewed on Page 19. Letters on every subject of interest to Atari ST users are welcome. Send them to: The Editor, Atari ST User, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP.



ties, but since the function of a printer is to print, I have no doubts so far that this particular machine is perfectly capable of providing a superb quality of output in various styles and colours despite the very low price. I have no hesitation in recommending to others not only the LC10 colour printer as a product, but also Star Micronics as a company.

One problem I have encountered so far (and I suspect this is with the software, rather than the printer itself, but have written to Star for advice), is that I have not been able to use the printer to its full capabilities when using desktop publishing software, despite embedding the appropriate commands in the text as descibed in the printer operating manual.

I've no doubt this is due to my inexperience and limited programming

The Complete Atari ST, the section on the internals of the 520STFM states that the only difference between the 520 and the 1040 is the missing row of ram chips. If I fit the correct chips in the vacant spaces will I effectively upgrade to a 1040ST memory, or are more changes necessary?

I would also like to know what version of Tos I have installed. I find your magazine invaluable, so continue the good work. – Daniel Swan, Plymouth, Devon.

* * *

AS a new subscriber, I would like to point out that the reason I joined is because I have just bought a new 520ST. However, the Basic games and utilities on your free PD discs are full of bugs.

The ST is not supplied with a good

knowledge, rather than a limitation with the printer. But what happens is that all the text (including embedded commands) is printed out in standard print style and pitch in black ink, instead of in the selected type style, print pitch and colour. I would therefore appreciate it if anyone else has met with this problem, to be advised how it can be overcome.

In conclusion, please let me assure you I do not have shares in Star or have any vested interest in the company to write a congratulatory letter in such a public manner. It is simply a case of credit where credit is due, and to my mind deservedly so. – Duncan McLeod, Netherlee, Glasgow.

• Can any readers help with Duncan's problem with DTP output?

Basic manual, therefore I cannot fix the software to work on my machine. I'm sure that many people are in the same predicament as me. – D. Johnston, Belfast, Northern Ireland.

• AS many readers will realise, there are two versions of Atari ST Basic. The earlier one was copyrighted in 1985 and contained a number of bugs. However, this version is still used in the majority of STs in this country. The newer version of ST Basic was launched late in 1987 and therefore has a 1987 copyright date.

Unfortunately, many programs written for one version of Basic will not work with the other and vice-versa. Most ST Basic PD software was written during the

◄ From Page 117

period 1985-87 and is not compatible with the new Basic. However, it is possible to obtain both versions of ST Basic on disc and this is a strategy to be recommended to all serious ST users.

You can determine which version is resident in your machine by pulling down the Desktop Information box from the desktop menu and reading the copyright message.

In simple terms, adding .16 extra ram chips to the top row of sockets will not upgrade your 520ST to a 1040ST. You also need to install 16 decoupling capacitors and three 33 ohm resistors. Richard Phillips' excellent article on upgrading your ST in the March 1988 issue of *Atari ST User* is essential reading before attempting any upgrade work yourself.

It is also worth noting that unless you have a new version of the 520STFM you will be lacking a 1Mb disc drive to support the 1040's greater memory.

In search of PD Loadupm

I AM trying to track down a public domain program called Loadupm which allows Gem programs to be autoloaded at boot up time. It also blanks the screen and displays the correct time and available free memory.

A couple of public domain libraries have sent me details of a similar utility called Autogem, but I would prefer to get hold of a copy of Loadupm. I would be grateful if you could tell me of any library which may stock this program. – **T.Q. Tran, London, SW19.**

COULD you please give me some information concerning discs for the Atari 1040ST available through the public domain.

* * *

How much do such discs cost? What do they do? Are they bug free? Is it all right to send these discs through the post to Australia? – M. Stevens, New South Wales, Australia.

• Public domain software is, as its name suggests, software which is free of copyright and therefore has entered the area of public ownership. As such, no fee can be charged for it. However, you will normally have to pay for the cost of a blank disc, plus a nominal charge of about 50p to cover duplication costs. Most PD discs cost between £3 and £4 each.

Public domain programs embrace the full range of ST software including utilities, demos, games and programming languages. Many excellent bargains are available through this network, but also some quite dreadful programs which can be bug-ridden. It is best to examine respective catalogues before ordering, as most libraries are quite honest about the quality of their products.

An excellent PD service is Softville of Waterlooville, which advertises regularly in *Atari ST User*. This company should also be able to assist Mr Tran in his quest for Loadupm.

It is quite safe and legal to send PD discs through the post to Australia and most other western countries. However, you must remember to attach a customs slip to the package and to print clearly that the parcel contains magnetic media.

Quest for more locations

I AM a keen text adventurer who has recently upgraded from a BBC Micro to an Atari 520STFM. On my BBC Micro I enjoyed playing all of the Level 9, Robico and Heyley text adventures. Each adventure had over 200 locations and was layered with atmospheric textual descriptions. They are, without doubt, the crème de la crème of BBC Micro text adventures.

Since changing to the Atari ST I have bought and played a few of the much vaunted Infocom and Magnetic Scrolls adventures and have been bitterly disappointed with what I have found. The Infocom games have only about 60 locations each, which isn't even compensated for by any graphics. Magnetic Scrolls' Pawn and Guild of Thieves have good graphics but the puzzles are so simple that I finished both games within a week.

Will Level 9, Robico or Heyley adventures ever be available for the ST? On the evidence I have seen I am sure they are the best available for any home micro. – Val Haigh, Hemel Hempstead, Hertfordshire.

• The early Infocom adventures were rather small, but have you tried Hitchhikers' Guide to the Galaxy or Bureaucracy yet? We don't agree with your criticisms of the Magnetic Scrolls games, as our resident wizard is still scratching his head over Guild of Thieves.

Level 9 adventures are already available for the ST in a much enhanced form from its BBC Micro versions. Its latest stunner, Lancelot has just been released and is an essential acquisition for any self respecting adventurer. Heyley is currently converting all of its games to run on the ST and they should be launched in the new year. Robico has no plans to recode its adventures.

Brillig's brilliant monthly column concentrates on the very best adventures available for the ST.

Répondez s'il vous plâit

I PICKED up your magazine the other day at the W.H.Smith bookshop in Paris and have enjoyed it very much. One of the main problems I have reading computer magazines in French or English, is understanding the jargon. However, let me say that I found your magazine quite readable and that is the main reason I have now decided to take out a regular subscription.

You seem attuned to the needs of beginners as well as the old-hats. As the mother of four children, I would love to see a childrens' page, not just for adverts for programs, but simple programming hints or ideas for using the ST as a tool for learning. My children are not really English readers yet, but if you had such a column, I am sure the older ones might make the effort to read it.

Because we live in France, we have bought all of our software here. I imagine that if I wanted an English word processing program, I might have problems because of our French ST's azerty keyboard. Could I just close my eyes and pretend I had a qwerty keyboard?

If I bought a program with a British version spelling dictionary, would it be possible to have a copy of the American dictionary without having to buy the whole program again? – Ellen Lebelle, Nogent sur Marne, France.

• It doesn't matter whether your native tongue is English, French or even

Chinese, techno-jargon is confusing at the best of times. Some magazines seem to adopt a defensive self-righteousness and saturate their pages with confusing twaddle. Hopefully *Atari ST User* is not guilty of such a crime, as we all remember with clarity the days when we were new to computing ourselves.

Your idea regarding a childrens' page has been noted with interest and we may adopt it in the future. What does everyone else think?

Your azerty keyboard shouldn't be a problem with British or American programs and the software should work on both keyboards. ST Club's Fontkit Plus will convert 1st Word (and others) screen and printer fonts to the desired language or style, including even Ancient Greek and Hebrew. ST Club can be contacted at: PO Box 20, Hertford SG13 8NN, England.

Equally a document processor package such as Signum 2 will do all this and more within its own environment, but it is priced at more than £180.

American companies such as Timeworks – which produces Word Writer – will surely sell you an American spelling dictionary if you write to them with a specific request. Alternatively, you could create your own American spelling checker using the rudiments of the English dictionary and substituting words such as marvelous for marvellous and adding words like faucet and jock.

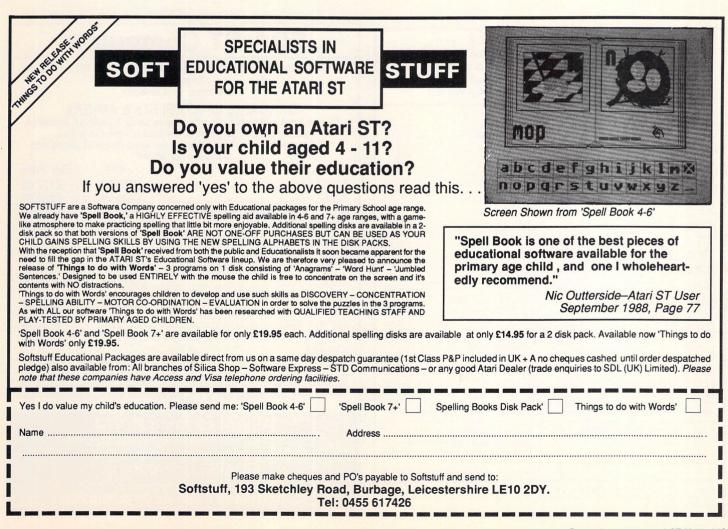


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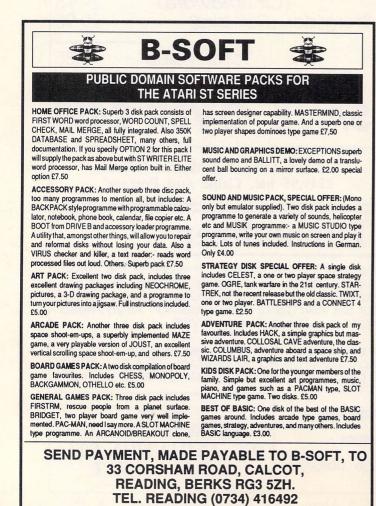
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Deleted files can be recovered easily – but they can't be accessed, thanks to Julie Boswell's fast file destroyer

THE ST is a very powerful micro and consequently is frequently used in small businesses to store confidential or sensitive information such as employee records, salaries, internal memos and the like. This data may have been created by databases, text editors or word processors, but whatever the source, keeping this information out of sight of unauthorised eyes can be a problem.

One way is to keep the data discs under lock and key, or perhaps the software has a password system. Once the data is finished with it can be deleted from the disc by dragging the file into the trash can on the desktop. However, this last option doesn't mean the data file has been erased from the disc – quite the contrary, it is still there in its entirety.

A list of all the files on a disc is stored in a special place on the same disc called the directory. The information contained in this tells Tos what each file is called and where to find it on the disc.

What Tos does when it deletes a file is to mark the entry in the directory with a special byte – a flag. It then knows that it is an erased file and is free to use the space on the disc that it used to occupy once more. Clever hackers can either



File Destroyer written in Fast Basic

reset the erased file flag byte and recover the file, or alternatively, examine the sectors of the disc with a disc editor and read the contents of the file. What this means is that even if you delete a file from your disc it still isn't safe from prying eyes.

What we need to do is totally destroy the contents of the file before deleting it, then if it is recovered or examined it can't be read. And that's what the utility presented here does.

There are three different listings, each one written in a different dialect of Basic. The First is Fast Basic, the second HiSoft and ST Basic – it works with both – and the last is GFA Basic. Ideally, the program should be compiled into an executable file which can then be doubleclicked from the Desktop. Use Fast Basic's Tagger with the first, HiSoft Basic will compile the second and the GFA Basic Compiler can be used with the third.

The method used by all three versions of File Destroyer is to first input the filename – using a Gem file selector if possible to make the program user friendly – then open the file for random access. The length is found and a FOR/ NEXT loop structure overwrites the current contents of the file with spaces – Ascii 32. The file is then closed and deleted. If it is now recovered or examined all the hacker will see is empty space.

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Destroying a file using the ST Basic version

10 REM File Destroyer 20 REM By Julie Boswell 30 REM (c) Atari ST User 35 REM HiSoft & ST Basic 40 FULLW 2:CLEARW 2 50 GOTOXY 0,1 60 DIR :' New ST Basic only! 70 PRINT 80 INPUT "File to destroy:";file\$ 90 OPEN "R",#1,file\$,1 100 FIELD #1,1 AS buffer\$ 110 PRINT "Destroying file... 120 FOR i=1 TO LOF(1) 130 LSET buffer\$="*" 140 PUT #1,i 15Ø NEXT 160 CLOSE #1 170 KILL file\$ 180 SYSTEM

Rem File Destroyer Rem By Julie Boswell Rem (c) Atari ST User Rem GFA Basic F\$= Fileselect "A:*.*","",F\$ If F\$="" End Endif Open "R",#1,F\$,1 Print "Destroying file..." L=Lof(#1)For I=Ø To L Out #1,32 Next I Close #1 Kill F\$ System

Both old and new ST Basic and HiSoft Basic compiler

The GFA Basic version



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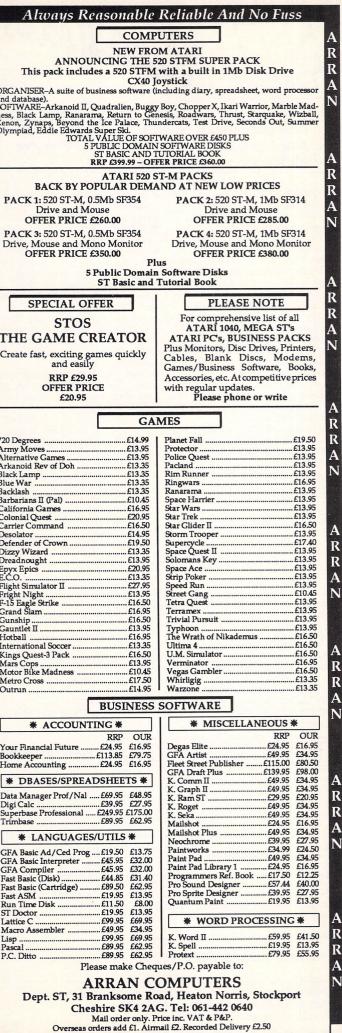
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Football management games, both Soccer and American Football, have the potential to produce excellent strategy games of some considerable sophistication. QUALSOFT produced League Division One in 1983, and Mexico 86 in 1985, but otherwise the implementation has been infantile. When Coda sent me HEADCOACH for the BBC Micro, 2 years ago, I saw an American Football computer game for the first time that measured up to the same standards. QUALSOFT is pleased to offer Atari ST users "World of Soccer" and "Head Coach v3", two games I honestly believe will fill a yawning gap for those looking for realistic simulations of the real games.

Malcolm Howard, QUALSOFT

WORLD OF SOCCER

International management is the ultimate challenge in soccer. To build a squad of players to defeat the ball playing skills of Brazil, the fluid play of Holland, the organisation of West Germany, the counter-attacking of Italy, and the many varied styles of many others, demands an insight into the game rare amongst managers let alone fans. Do you exploit a team's weaknesses, or play to your own strengths? Do you attack down the flank with wingers, or pierce the centre with powerful midfield running? Do you play a flat back four, or use a sweeper or libero?

In "World of Soccer", players are not just attackers/defenders/midfield but goal poachers, play makers, ball winners, wingers, left, right and centre backs, sweepers (19 types of player in all). The results of matches are determined by simulated soccer matches controlled by the skills of the opposing players. Strategy is determined by the skills you build into your squad, and tactics by the particular skills you use to defeat particular teams. Substitutions and tactical moves can be made during the match to change or reinforce your plans.

For four years, through the Qualifying and Final stages of the European Championship and the World Cup, you will guide the European team of your choice. You can prepare for the competitions with friendly matches of your choosing, developing your strategy to match the in-form players at your disposal. Success is there for the taking, but it will need earning.

Choose from 33 European squads. The 4 UK home countries have 16 man squads which can be increased to 36 with players of your own. A customisation program will allow squads for any of the 33 countries to be created.

HEAD COACH v3

On the field 220lb blocks of concrete-on-legs collide, while a small man in a suit paces the touchline stroking his chin. He's the Head Coach. He has more tactical skill in his little finger than the MCC can muster in the entire club. Third down and 9, he signals to his quarterback. The quarterback takes the snap back into the pocket, dummies to his star running back, wheels to the right skirting two defenders, motions to throw to his rightside wide receiver and then swings his pass back over the pack to his open Tight End. He catches and makes another five yards before being grounded. An eleven yard gain and another first down, thanks to 2 hours of rehearsal the previous Thursday afternoon. The crowd cheer the quarterback but the head coach knows that his Right Guard really deserves the credit. This is American Football, Chess with mobile human pieces.

It's your first season as a Head Coach in the NFL and you face two pre-season games. You must give as many of your 45 players a run out to see how they've come through the close season. Through these matches and the time spent at training camp you must devise your game plan to face your first NFL game. Over the next 16 games you will meet the likes of the Chicago Bears, the Washington Redskins, the Dallas Cowboys, the LA Raiders (hiss), Each game will need a new plan to exploit the weaknesses and nullify the strengths of such teams, and in the game you will probe their defense and try to stifle their offense. Success over these 16 matches will put you into the playoffs and in sight of the Superbowl. Failure will give you the best of the college draft, which will allow you to make up for the deficiencies you must by now have discovered in your side. Providing of course that the club keeps you on . . .

Let us be straight, Head coach v3 is NOT an arcade game. It's a sophisticated game based on American Football. For those who already understand something about the game, it's a chance to find out just how much they really know. For those to whom the game appeals but is something of a mystery, then Head Coach v3 is the ideal way to find out what the game is all about. In the match itself, you have a choice of 27 offensive plays and 21 defensive plays, and so you can bias your plays to suit the skills of your squad and negate those of the opposition. The training camp will give you an insight into the current performance of your players, even checking their speed in 40 yard sprints. There's only one thing that can prevent your team from eventually achieving a Superbowl place; YOU! But we warn you, this game is addictive!

"World of Soccer" and "Head Coach v3" are published by QUALSOFT at £17.50 and £19.95 respectively.

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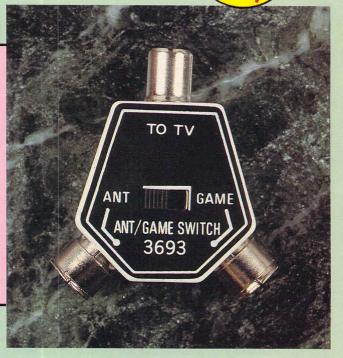


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The editorial team at Atari ST User has put together two exciting discs packed with some of the very best public domain software available. By using the Archiver program we've managed to squeeze a massive 600k of utilities software on to a single-sided 350k disc! Altogether there's 27 excellent programs - and they're all designed to help you make the most of your Atari ST.

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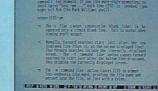
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March issue: Reviews: Tempus, PD Disc Utilities, PCB Designer, WordPerfect, Winter Olympiad, Wrestling, Tanglewood, Marble Madness, Backlash, Bubble bobble, Frost Byte, UMS, Bad Cat Leisure Suit Larry. Listings: Palette switching, accessory selector, mpg calculator. Features: Magnetic Scrolls, Tynesoft and US Gold interviews.

April issue: Reviews: Captain Blood, Eco, Super Sprint, Black Lamp, Wizball, Skyrider, Solomon's Key, Bard's Tale, MCC Assembler, Protext, True Basic, A Magic digitiser, GFA Vector and Companion. Listings: Mandelbrot upgrade, custom keyboard, disc verify. Features: Gallery, adventures, product guide.

May issue: Reviews: Gem-Forth, PD Forth, Partner, Quick-List, Certificate Maker, Creator, Timeworks DTP, MasterPlan, Grafix. Features: Transputers, Music, interviews with Pete Johnson and CRL, Adventures. Listings: Dynamic relaxation, Mouse designer, prime numbers.

June issue: Reviews: Power Basic, Campus CAD, GFA Draft Plus, IMG Scan, Ruby View, Pascal, Modula-2, Carrier Command plus a whole host of other games and adventures. Features: Atari DTP in action. Learn to draw with ST Art. Help with adventures from Brillig. Listings: Keep track of your discs with Mapper. July issue: Reviews: Superbase Professional, Lispas, Skyplot, GFA Artist, AB Animator, Quantum Paint, Juggler, Pascal, Panasonic printers, K-Expert. Games tested: Northstar, BMX Simulator, Trantor, Road Wars and many more. Features: Music on the ST, Gallery.

August issue: Reviews: Supra Drive 10Mb floppy disc, Star LC-10 printer, Digicalc, Spectrum 512, Data Manager, Share Master, Devpac II, Workbench, Word Up, Protext, Word Writer, Thundercats, Vixen plus many more games. Features: Midi, adventures, gallery, Telecomsoft interview.

September issue: Reviews: Laser C, Spellbook, Signum 2, Ten, Protext Office, GFA Advanced programming, Computer Languages, Virus, Mindfighter, Football Manager 2, Captain America, plus many other games. Features: Midi, Adventures, Gallery, Mailbag, Weatherlink, Pull-out guide part 2.

October issue: Features: Midi, The French Connection, Stos, Grandslam, Gallery, Scrapbook, Brillig, Mailbag, Computer Breakdowns, Reviews: Trip-a-tron, Publishing Partner Professional, Fontz, Star 24 pin printer and Games, including: Summer Olympiad, Starglider 2, Mickey Mouse, Hotshot and The Empire Strikes Back.

November issue: Features: Midi, PC Show report, Education on the ST, Vektor Grafix, Gallery, Piracy, Shades, Brillig, Mailbag. Reviews: B Spell, Data Manager Professional, Mark Williams C, Swiftcalc, Micro-Link modem, GFA Basic and Games, including: Elite, Fire and Forget, Platoon, Space Harrier and Beyond the Ice Palace.





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Elsoft presents Non 7.0

Now, from the author of the Gnome Services Analyser 3.3, comes dMon 7.0, a comprehensive mouse-driven disk monitor for the Atari ST range. Look at the other monitors available, and then compare them with the facilities and low price of dMon 7.0.

UISK ANALYSIS Three separate analysis modes are available from the menu bar. So YOU decide if you just want a rapid check on sector ID fields, or a more thorough and detailed track analysis. No matter what method used, you can have either a complete display or a summary high-lighting the more obvious deviations from the standard.

DISK UTILITIES

DISK UTILITIES The disk utilities include a directory option which not only show current files, but also delated and hidden files in the directory. How about checking the Boot sector information? Have YOU got any AUTOEXEC disks that shouldn't be? Watch out there's a virus about! shouldn't be' Match out there's a virus about! The disk searches are still available, and there is now a format option, the usual ex-tended formats or your own custom design – produce disks to beat the copiers! Hints on disk protection and track formats included in a separate text file. Ascii scans of disk files, FAT information, file locations etc, complete this section of the meru options this section of the menu options.

DISK EDITING

The disk editing facilities are split into sepa-rate sector and track operations on the menu

bar. Sector operations allow you to read and edit the Sector ID fields on the current track, the sector data, or simply dump the information to a printer for further investigation. If a sector looks interesting, for example an Autoexec boot sector, then you may remove the data as a binary file for examination in your conven-tional monitor. tional monitor.

Track operations include reading and dis-playing the complete track information, the sector ID fields, gaps between, etc, in fact all those funny bits that GEM overlooks. Of course thosefunny bits that GEM overlooks. Of course you may edit this data to design your own track – disk protection, etc – or dump it out to your printer. As a final option, for when that disk simply refuses to work, there is a facility to check specific tracks on two disks for the sector ID fields and track data using a split screen display. So you can easily compare your work disk with the backup – you do keep backups, don't you?

Continuing the value for money software policy, dMon 7.0 is available NOW for only £14.95, which includes handling charges within the EEC. Purchasers of the earlier versions of Analyser may upgrade to the latest version for a handling charge of £7.50. For those who are still curious, an SAE brings sample printer outputs, screen shots and a more detailed description. (No SAE, no reply!)

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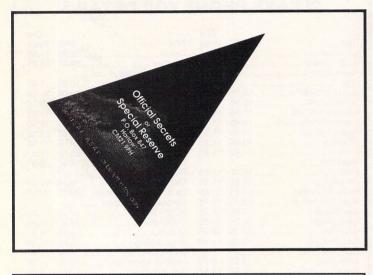
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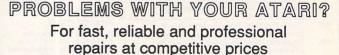
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