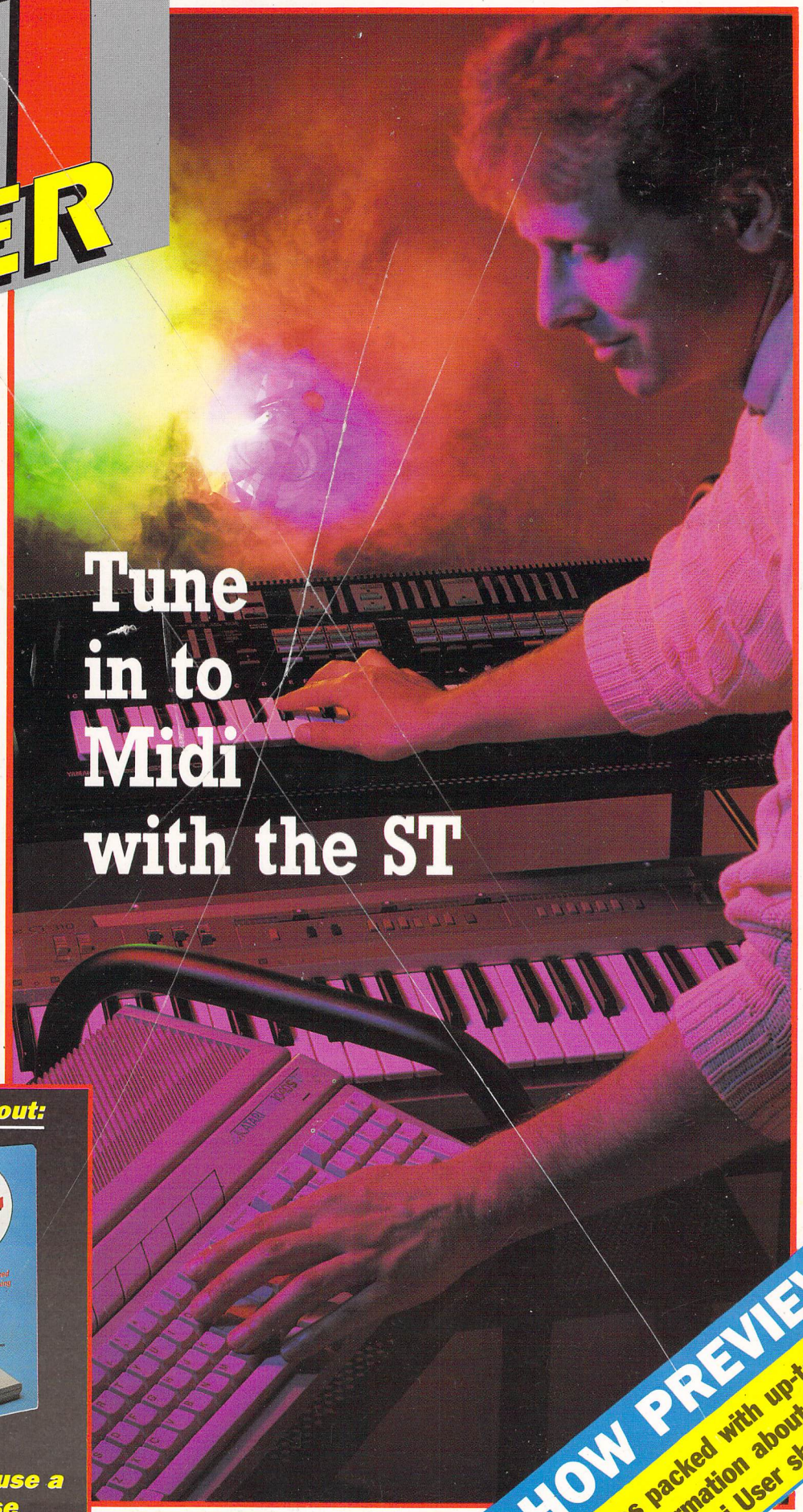
ATARI ST USER

The top-selling Atari ST magazine

Volume 4
Number 5
July 1989
£1.95

Incorporating ST UPDATE



Tune in to Midi with the ST

FEATURES

Musical interlude: The Alan Parsons Project, Al Lowe and Leisure Suite Larry reveal all

GAMES

Airborne Ranger, Kult, Grid Runner, Voyager, Liberators, Raffles, War in Middle Earth, Kick Off, Silkworm, and many more

REVIEWS

Quantum Paint Gold, Cricit, Speed Read, Play Spell, Stage II, Z80 translator

In this month's pullout:

How to create and use a disc-based database
Using Midi on the ST to compose and play music

SHOW PREVIEW

Six pages packed with up-to-date information about the Atari User show

Sleeping Gods Lie – A Real-Time fantasy that combines fast action and combat with the thrill of adventure.

An epic 3-D game fought over 64 landscapes and drawing on megabytes of high resolution graphics. A unique world of sight and sound, created over two man years, by the award winning Oxford Digital team.

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*AMIGA 2 DISKS

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High Quality Software High Quality Software High Quality Software High Quality Software High Quality Software High Quality Software High Quality Software High Quality Software

'C' Language Interpreter

C is a highly popular language nowadays, but was not really designed to be easy to use or to learn. Most C compilers have a slow development cycle: edit, compile, edit, compile, link, edit, compile, etc. Thus, many people have been put off learning the C language.

Now, the HiSoft C interpreter is available, allowing you to develop and test C programs in a fast, easy-to-use manner.

Features

- Full screen GEM editor. A superb editor with: undo, macros, merge files, on-line help, disk utilities and more.
- Full C implementation. HiSoft C is a full Kernighan & Ritchie system with a library of over 470 functions.
- Standard libraries. Both Unix and ANSI libraries are supplied, together with a full interface to GEM and the ST's BIOS. Also included is a toolbox of easy-to-use GEM functions so that even GEM becomes painless.
- Extensive Debug facilities. You can trace a program, line by line and inspect variables, set breakpoints etc.
- You can link C source programs with assembly language or even compiled C code and create your own libraries.
- Compatible with most common C compilers .
- Runs on any ST with at least one floppy drive.

Manual

HiSoft C comes with a proferssional 250-page ring-bound manual which contains a full tutorial in the C language as well as a host of example programs and a full reference section.

Price

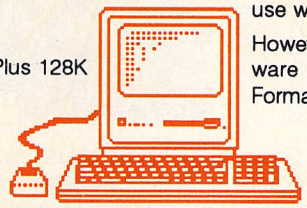
HiSoft C / Atari ST £49.95

Spectre 128 Mac Emulator

Early Mac emulators for the Atari ST were only able to support obsolete 64K ROMs, making them incompatible with modern Mac software.

Spectre 128 runs legitimate Macintosh 128K system ROMs, bringing it right up-to-date with current software and providing a reliable base for future software.

- programs run 20% faster than on a Mac Plus.
- Because Spectre 128 utilises the latest Mac Plus 128K ROMs, it is compatible with the best modern software : Hypercard™, Adobe Illustrator™, PageMaker™, MacWrite 5.0™, MacPaint 2.0™, MultiFinder™, Quark Xpress™, Aldus Freehand™, Microsoft Word™ version 4ß, Microsoft Excell™, etc. No need for patch files.
- Spectre 128 runs the very latest System & Finder (6.0.2 at the time of writing) — without patching
- ST monitor provides 30% larger area than a Mac Plus
- Compatible with all ST hard disc drives
- HFS fully supported. 800K per double-sided floppy, and 400K format is supported for single-sided floppy drives.



Mac format discs

Macintosh floppy drives are not the same as ST drives; you can't just take a Mac floppy and use it in an ST. In normal use, system software, files and applications are transferred serially from Mac to ST and converted to a special format for use with Spectre 128.

However, available shortly is an amazing low-cost hardware device which allows true Macintosh discs to be Formatted, read or written in the ST drives.

Requires

- Atari ST (only 1MB or greater will be able to run latest systems and software)
- Macintosh System Software in compatible format
- Macintosh application software in compatible format

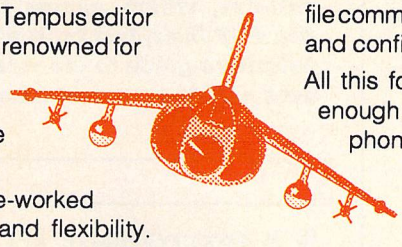
Price

Spectre128 (no ROMs) £129.00, (with ROMS) £199.00

Complete details on the above products are available upon request. Please call or write for further details.

Tempus 2

The long-awaited sequel to the popular Tempus editor is here at last! Version 1 of Tempus was renowned for its speed & versatility - now Tempus 2 takes these qualities even further offering you probably the most complete editor ever seen on the Atari ST.



Every aspect of the editor has been re-worked for extra speed and added power and flexibility. Many new block and line editing commands have been added, search & replace supports wildcards, there's undoable UNDO, a delete file command, full support for chaining other programs and configurable keyboard shortcuts for everything.

All this for only £39.95. Obviously we do not have enough space to tell you all here. Please write or phone for more details ... or to place an order!

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Vol 4 No. 5 July 1989

Managing Editor
Derek Meakin

Assistant to the Managing Editor
Alan McLachlan

Features Editor
Roland Waddilove

Production Editor
Peter Glover

Assistant Editor
Nic Outterside

Advertisement Manager
John Snowden

Advertisement Sales
Gail Blincow
Andrea Fawkes

Reviews coordinator
Pam Turnbull

Promotions Editor
Christopher Payne

Promotions Coordinator
Robin Nixon

News Editor
Don Lewis

Tel: 0625 878888 (All depts)
051-357 2961 (Subs)
Telex: 9312188888 DB
Telecom Gold: 72:MAG001
Prestel Mailbox: 614568383.

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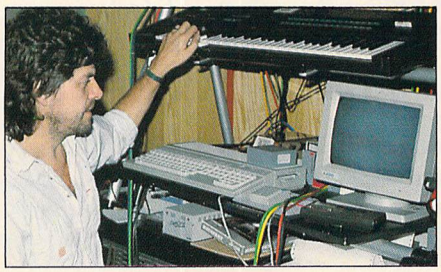

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MORE FOR YOUR BINDER ...

Part 12 of The Complete Atari ST. **Over the months this illustrated pull-out, which comes free with *Atari ST User*, has built up into the definitive guide to the working and uses of this powerful micro.**

The final pages comprise:

- **A comprehensive A-Z index to The Complete Atari ST.**
- **Four packed pages introducing music and Midi on your ST.**
- **Working a database manager for business purposes.**

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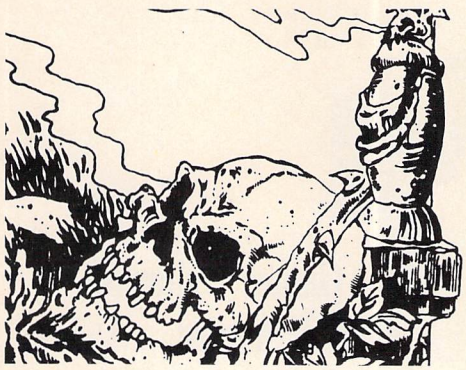

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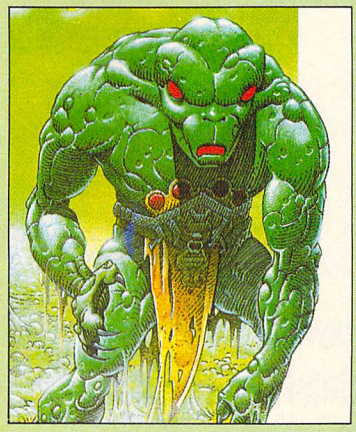

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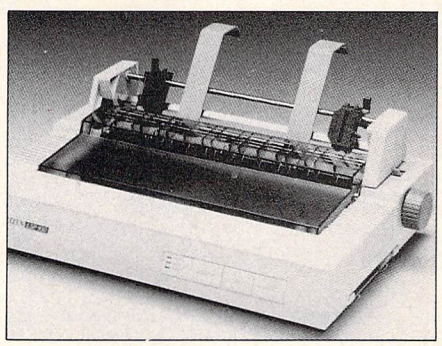

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Be part of the action

at the

ATARI COMPUTER SHOW

**Alexandra Palace, Wood Green,
London N22
Friday to Sunday,
June 23 to 25, 1989**
Fri & Sat: 10am – 6pm,
Sun: 10am – 4pm

The Atari Computer Show is back – with many new products and developments. Atari has grown to be one of the major players in the computer world, supported by an incredible wealth of top quality applications, games and utilities – all on view at this show.

And now for something completely different

The latest in the series of Atari Computer Shows has a whole new look designed to provide maximum visitor appeal. Whether your interests lie in Midi, CAD, DTP or games, here you'll find everything you are looking for.

Seminars/Workshops

For the first time, an extensive programme of seminars and workshops will be held as part of the new show package to appeal to the increasingly sophisticated Atari User.

Running to a timetable throughout the show, these will cover:

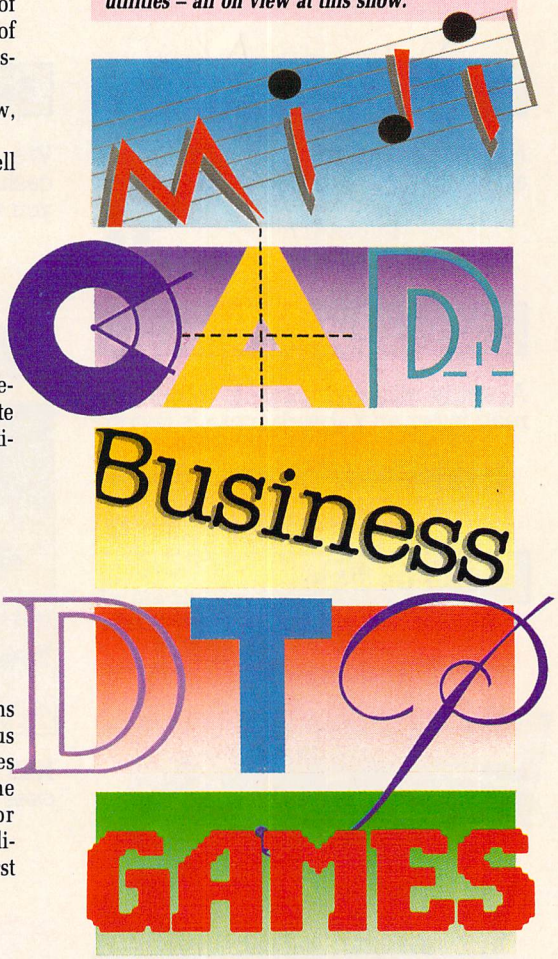
- Making Music with the ST, hosted by a well known musician.
- ST Graphics World, with a top designer.
- ST DTP Workshop.

Game-A-Thon

The free Games Arcade will feature a "Game-A-Thon" in which school teams will compete against one another in a high scoring competition for a prize to be donated to charity.

Silica Shop/Database Exhibitions Innovations Awards

Enter the fascinating world of ST Innovations where visitors will see the most ingenious applications ever devised for the machines exhibited in a major feature area. All the entries from the finalists for this major competition – with £6,000 worth of exotic holidays to be won – will be shown for the first time.



Stos Games Writer of the Year Award

View the potential blockbuster games of tomorrow when the finalists of the £5,000 STOS Games Writer of the Year Award go on display.

Beat the Experts

Even the popular technical advice stand has been transformed into a "Beat the Experts" show event. Visitors will be able to pose questions to a panel of experts, with each one they fail to answer resulting in a donation to charity.

Don't Miss It

If you enjoy using an Atari computer, you'll be thrilled by the Atari Computer Show.

So for a great day out – whether you want to see what the future holds for Atari computer users, take advantage of the bargains on offer or get advice on specific applications – this is the show to visit.

- ***Bring the voucher below and save 50p off the admission price.***

How To Get There

Alexandra Palace is so easy to get to by car, rail, underground or bus. It has its own British Rail station, just nine minutes away from King's Cross, and there's a free bus service shuttling between station and show every 10 minutes.

If you're travelling by road, the show is only 15 minutes away from Junction 25 on the M25. Car parking is free.

DATABASE EXHIBITIONS

50p OFF

ATARI COMPUTER SHOW

**10am-6pm Friday, June 23
10am-6pm Saturday, June 24
10am-4pm Sunday, June 25**

Bring this coupon to the Show to get 50p per person off the normal admission price of £5 (adults), £3.50 (children).

The West Hall, Alexandra Palace, Alexandra Park, Wood Green, London N22.

HAND THIS COUPON IN AT THE DOOR AND SAVE 50p A HEAD

ST7

Now Boots is pushing in the 16 bit market

ATARI games players will soon reap the benefits of a High Street vote of confidence in 16 bit leisure software.

Boots has stepped strongly behind the British games industry with a decision which will nearly double its commitment to the 16 bit market.

Software buyer for the chain, Rosie Graham, told *Atari ST User* that the decision will greatly increase the variety of Atari games in its main stores and will also boost the number of stores taking Atari software.

At present, 240 Boots stores stock software and the emphasis is on 8 bit. Only 70 take 16 bit but the latest decision will increase that to more than 120.

The Boots spokeswoman was unwilling to reveal just what new titles will be put into the chain and would not disclose details of the promotional campaign being planned.

"It is just a matter of timing", she said. "Boots decided that having stocked 16 bit for some time, now was the time to increase this.

"We have got to keep up with market changes".

A NATIONAL survey has named the Atari 520ST as the ultimate system costing under £500. It was said to offer the best all-round performance of all machines in that bracket. Among top companies in the UK, Atari has increased its market share from 5.6 per cent to 9.6 per cent, according to figures from Intelligent Electronics/Dataquest. This was based on total 1987/88 shipments of 552,350 spread across the main contenders.

Not so dusty

A PIG and a bunny are in for a dust-up that will combat the greenhouse effect. Now on the market is the Dust Bunny, an electrostatic wiping mitt from PIG (01-871 3088). It reduces the need for aerosols and thus cuts down the release of notorious CFCs into the atmosphere.

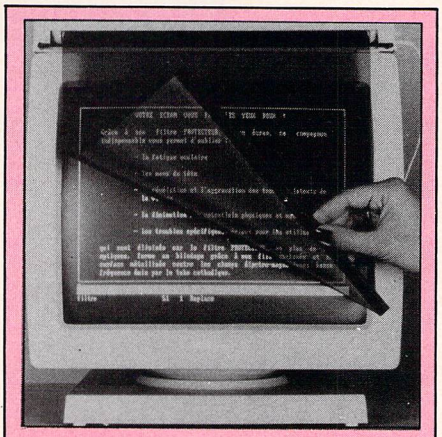
The Dust Bunny is electrostatically charged to attract dust from keyboards or monitors. It can be washed up to 300 times without deteriorating and is recharged by tumble drying. Price £2.99.

TV top shot

WHERE *Atari ST User* leads, television follows. Inspired by our story on the paradox of vicars who relax with shoot-'em-up arcade games, TSW has featured the Reverend Bob Redrup. A film crew visited his home in St Kea, Truro, to film him blasting baddies on his ST, complete with dog collar.

"Typically of TV, I had to pretend that I had been killed by three Thargoids, complete with suitable noises", said Bob, whose favourite game is Elite. "It was all a bit over the top but that's showbiz".

The film went out on the station's local news programme.



RECENT evidence suggests that low electromagnetic radiation emitted by cathode ray tubes may be just as harmful to health as the screen glare and static which affects many people who use VDUs for long periods.

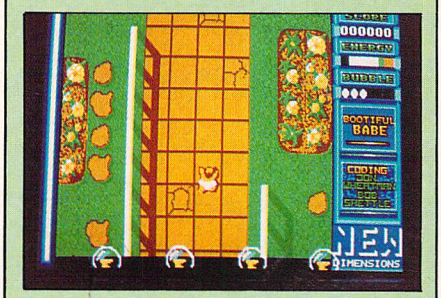
French company DMS has developed a new kind of screen filter, the Aquila Permamesh which supplements the usual carbonised mesh with an alloy coating created by vapourising nickel, iron, copper and chrome in a vacuum.

DMS claims the metallised filter is a fully effective shield against low-level radiation. It is being marketed in the UK by Accodata (0732 885555) and costs £78.

SOFTWARE HOTLINE

DEADLY bouncing bubbles, slippery soap, nasty nappy pins and revolting ashtrays are just a few of the perils which face Bootiful Babe in the new game of that name from White Panther (0252 622308). When Dad falls asleep, the babe goes on the loose and it is up to the player to guide him through all the pitfalls until Mum comes home.

Programmed by 16-year-old Jon Wheatman and Bob Shettle 26, the ST version costs £14.99.



Bootiful Babe

★ ★ ★

A DEAL with Omnitrend Software in the USA has led to Artronic (0423 525325) marketing marine arcade combat game Breach in the UK. The single-player tactical game from Omnitrend includes many scenarios and also includes a scene builder. Atari ST version costs £19.99.

"This is our first link with Omnitrend Software, a company with an excellent track record, and we are delighted with the products", said Artronic's operations director, Peter Wilkinson.

★ ★ ★

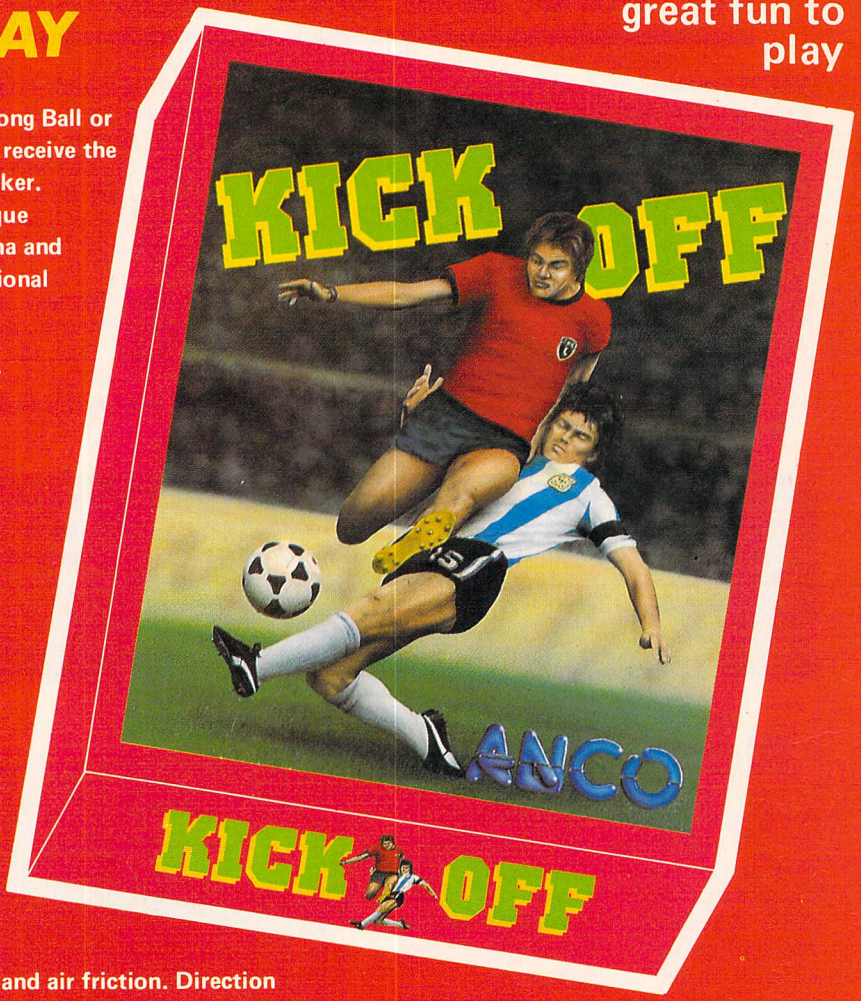
RAINBOW Arts of Dusseldorf has released its new action/strategy game Spherical in the UK. Players take the role of a wizard who has to guide his magic sphere through more than 100 increasingly difficult levels. It can be played by one or more people, has 10 different sound tracks and fantasy-style graphics.

KICK OFF

BLISTERING PACE
PIXEL PERFECT PASSING
SUPERB TACTICAL PLAY

A Soccer Simulator which is not only accurate and realistic but is also great fun to play

Whatever your style of play may be, be it playing the Long Ball or playing the Sweeper, your players will be in position to receive the passes, control the midfield and tackle an advancing striker. Each player on the field is an individual with a unique combination of four attributes - Pace, Accuracy, Stamina and Aggression. Watch out for the Brazilians at the International level, they are dynamite.



* Full size multi-directional scrolling pitch with scanner showing all the players on the field.

* Option to practice and learn ball control, take corners and practice penalties.

* 5 Skill levels, International to Sunday League. The levels of both teams set separately. The ultimate challenge is the defeat of the star studded team of Internationals by the Sunday League of no hopers. A super human test of skill and concentration.

* One or two players option. * 4 distinct tactics.

* League competition for 1 to 8 players. Load and Save League facilities.

* Simple controls to dribble, shoot, pass, chip or head the ball or do a sliding tackle.

* Amazing ball simulation takes account of the ground and air friction. Direction changing breeze at the higher skill levels

* 9 types of Corner kicks, Penalties, Yellow and Red cards and a host of other features like players getting tired by the end of the game, time wasting, injury time, etc.

PLAYING IT IS EASY
MASTERING IT WILL TAKE TIME - A LOT OF TIME

AVAILABLE ON	
AMIGA	£19.95
ATARI ST	£19.95
CBM 64 Cassette	£9.95
CBM 64 Disk	£14.95
IBM PC Comp.	£24.95

AMIGA

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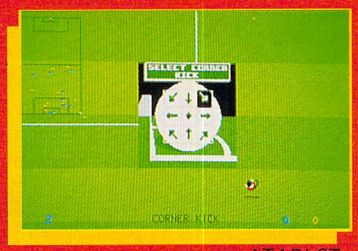

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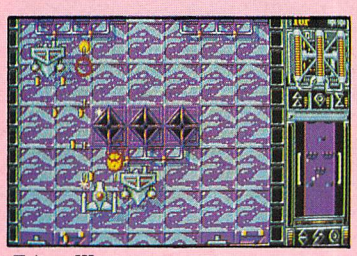
SOFTWARE HOTLINE

A NEW budget label has been launched as an offshoot of Software Horizons (01-446 9146). Rapid Software's first offerings will be five 16 bit titles, each selling for £9.99.

Twylyte is a solid 3D shoot-'em-up with five different stages while Triton III is a six stage vertical scrolling



Triton III

offering aimed at destroying a giant spaceship.

Stomp is a music creation package, Metropolis combines arcade action with problem solving through more than 100 screens and Jeopardy is a battlefield shoot-'em-up.

Latest full-price ST release from Horizons is Master Sound a sound

sampling and editing package including both software and hardware for £34.95.

The hardware cartridge was designed by 2-Bit Systems and the software has been programmed by Ferry Rawasi who was responsible for Pro Sound, Pro Sound Designer and Amas.

Along with the package comes the chance to win £1,000 in a competition. Users are invited to sample and sequence their own track, add witty messages or edit graphic displays.

★ ★ ★

WHEN Andy Craven of Leeds based development house Vektor Grafix was signed up by Activision he set about creating a flight simulation that was also fun to play. Aimed to be out in September, the result is Bomber-Tactical Air Combat.

This multi aircraft simulation features the Tornado IDS, F-4 Phantom, F-111F Aardvark and MiG-27 Flogger D. No price has yet been fixed.

German software angled on business

WHEN he quit Atari Les Player certainly did not leave behind his crusade to get the ST recognised as a serious engineering and business computer. He is continuing his fight against the "games only" tag given to the machine in this country and even more so in America.

On May 1 Atari's former technical development manager joined leading German software development house GFA Systemtechnik GmbH to set up its new UK subsidiary, GFA Data Media UK.

"My objective is to ensure that high quality German software is made available and also supported in the UK", he told *Atari ST User*. "GFA is one of the German software companies that, through its excellent technical software, made the ST strong in Germany as an engineering and business computer.

"I want to give the machine the same standing in the UK. I firmly believe that it will be accepted as a business machine, and the sort of software produced by GFA will help.

"Atari is now having some success selling the ST as a business machine with the addition of laser printer and new DTP packages now available", he added. "I was always very jealous of the German market because it seemed to appreciate the ST for the machine it really was.

He sees his long term objective as building a company capable of supporting business-orientated software. Most is written in Germany and Les' descision to join GFA and translate it for the UK was a well thought out career move.

His departure from Atari may have rocked the computer world but it was the result of much deliberation. "I had been thinking about it since the beginning of the year", he said. "It was a planned move. It has provided me with lots of new and totally different problems that I find quite absorbing".

One change for Les has been the need to move away from technical development into the business world. "This is exactly what I wanted, but once we have made GFA successful here I hope to go back to the development of new products", he said.

Many could see Les' UK crusade as an uphill struggle but a joint distribution agreement between GFA and Antic Software of San Francisco has presented Antic boss Gerry Wolosenko with even greater problems. He needs to overcome not only the games aura of the ST but also a general feeling of apathy against the machine in America.

The main distributor of GFA products, Glentop Press of Borehamwood, will continue in its role and the summer should see the launch of new Atari ST products from the German company.

Wong number

IN our May issue, the telephone number of DA Associates was given as 01-056 3787. It should have read 01-856 3787. Apologies to DA and also to the Chinese restaurant which received a number of wrong calls.

ST aid for Oxfam

ATARI ST users have been called on to help combat famine, war and illness in the developing world. Oxfam has made a special appeal for donations of spare software, peripherals or hardware with a target of £20,000 to help its work around the world.

"We are particularly interested in any games, leisure or home computing software that people no longer need", said Oxfam's appeals manager Richard English. "We can resell them and raise substantial amounts of money to help people suffering from hunger, disease, homelessness and poverty around the world".

Oxfam is the UK's leading international voluntary agency with a chain of more than 900 shops nationwide.

"I can assure anyone making a donation that it will be put to good use", said Richard English. "Poor communities will have desperately needed clean water, tools, seeds and the means to free themselves from hunger".

Anyone with software to donate can take it along to their local Oxfam shop or send it to the London headquarters at 59 St Johns Hill, Clapham Junction, SW11 1VJ.

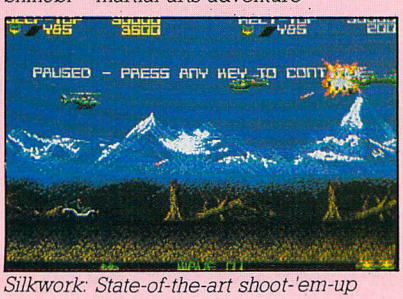
The charity is holding a special computer promotion week, mainly for its London shops, from June 26.

SOFTWARE HOTLINE

AFTER Virgin Mastertronic's recent agreement with The Sales Curve for licence to convert Shinobi, the two have announced a further agreement.

Virgin (01-727 8070) has acquired the rights to manufacture and distribute four more coin-op conversions for which The Sales Curve holds the licenses. These are The Ninja Warriors and Continental Circus from Taito and two Tecmo titles – Silkworm and Gemini Wing – both state of the art shoot-'em-ups that were huge hits in the arcades. Price £19.99.

Shinobi – martial arts adventure



Silkwork: State-of-the-art shoot-'em-up

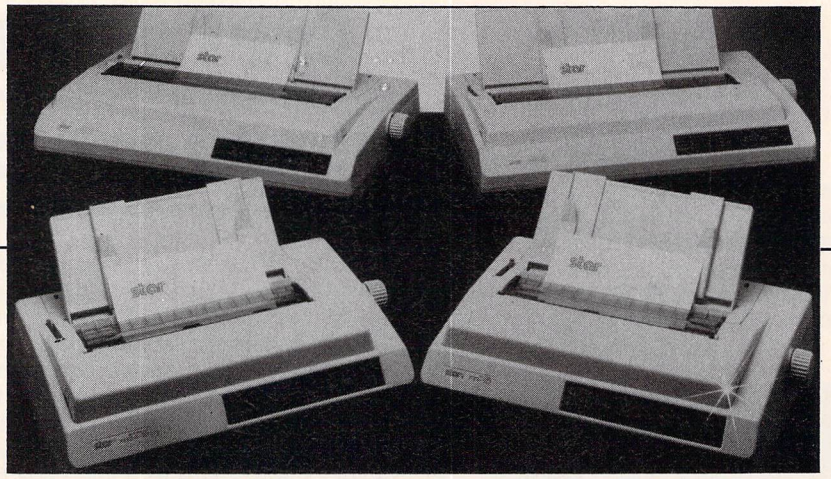
★ ★ ★

CREATOR of Robin of the Wood and Nodes of Yesod Mark Dawson has done it again. Backed up by excellent graphics from Pete Lyon, he has produced Astaroth, The Angel of Death.

This latest offering from Hewson (0235 832939) features Ozymandais' efforts to secure magical treasure buried under a lonely hill guarded by strange and ferocious monsters.

This medieval room-based adventure, costs £24.99.

Astaroth, The Angel of Death



New pro printers

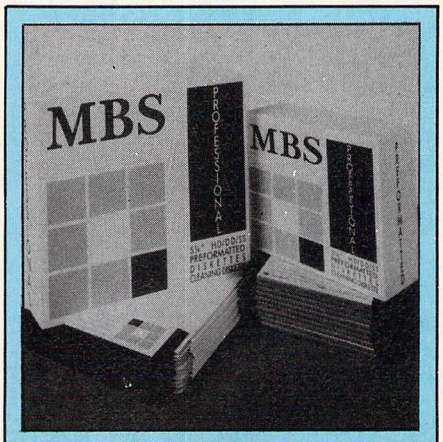
STAR Micronics (01-759 0005) claims to have set new standards in the printer market with its new Professional Series.

"Our new Professional Series represents two body blows to our competitors", said Star's national sales and marketing manager Roger Bayley. "The first is to shatter the price of 48 pin printing.

"Until now, users have had to pay over 2,000 for 48 pin quality printing. We have brought that down to under 600. The second has been to offer a free 12 months warranty which, although becoming increasingly common on laser printers, is a rarity on dot matrix machines".

The flagships of the new range are the XB24-10 and XB24-15 machines featuring a super letter quality font which delivers a character matrix of 48 x 35 dots, the equivalent resolution of 48 pin printers. They cost £599 for the 10in carriage model and £789 for the 15in version and come with 17 standard fonts. More can be accessed via IC font cards and both have a colour option.

Also in the series are the FR10 and FR15 machines, both nine pin, which cost £459 and £599 respectively.



MBS (0925 830404) claims its new range of discs far exceeds industry standard. Marketed under the MBS Professional label, they are designed to provide complete data security and each box of 10 includes a free disc head cleaning system.

Discs are supplied preformatted and the clipping level is 65 per cent – 25 per cent higher than industry standard and almost three times the signal required by the drive.

Price ranges for pack sizes: 3.25in' £19 to £44; 5.25in £9 to 13.

Bumper bundle

ORIGINALLY revealed by *Atari ST User* in April, the 520ST bundle from Atari has now gone on sale. It includes 20 games plus the ST Organiser, First Music and HiSoft's First Basic. With a nominal value of £554.61, it is selling for £399.

Games included are Super Hang-On, Space Harrier, Bomb Jack, StarGoose, Star Ray, Xenon, Nebulus, Double Dragon, Eliminator, Bombuzal, Afterburner, R-Type, Predator, Black Lamp, Super Huey, Overlander, Starglider, Pacmania, Gauntlet II and Out Run. The offer runs until February next year.

★ ★ ★

ATARI has renamed its pocket PC the Portfolio. It was originally called the Folio until Atari realised the name had already been registered by another American firm.

★ ★ ★

ELECTRONIC Arts (0753 49442) has released The Software Classsics, a new range featuring established award-winning titles like The Bard's Tale, Marble Madness and Chessmaster 2000. They retail for 9.99.

Personal Finance Manager

£29.95

–The Worlds Most Sophisticated Personal Finance Program–

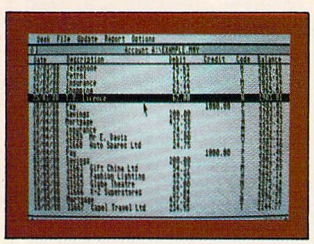
If you run a personal bank account and have an Atari ST then you need "PERSONAL FINANCE MANAGER".

AS EASY TO USE AS A CALCULATOR
PFM makes full use of the ST's Gem interface, if you need to amend or update an entry or Standing order simply click on it. Your screen looks just like a bank statement!

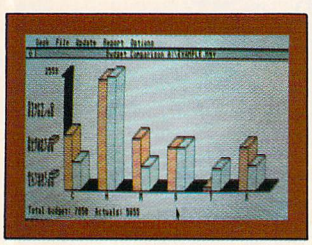
STANDING ORDERS & DIRECT DEBITS EATEN ALIVE
PFM handles Credit and Debit — Monthly, Quarterly, Yearly and even complicated regular payments like 12 payments of £52.99 followed by one of £12.50, PFM will check the date and automatically insert standing orders as they become due.

BUDGET WITH EASE, AT THE CLICK OF A MOUSE
If you're the type that likes to look ahead then PFM allows you to set budgets for both expenditure and income. Up to 10 budgets can be set over a year, a quarter or a month and then displayed either in figures or as a bar graph for a given period. Income/expenditure for these budgets can also be shown as a pie chart so you can tell at a glance where your money's gone. PFM also allows you to display or print your budget groups selectively so you can see your expenditure quickly and easily.

BALANCING WITH YOUR BANK ACCOUNT IS NO LONGER A JUGGLING ACT
When you get your bank Statement or a balance from an autobank machine you can confirm it with PFM quickly and easily. Simply select PFM's unique "Auto Balance" option and type in the balance as given by the bank and PFM will attempt to balance and highlight entries that have not yet been processed through the bank.



MAIN ACCOUNT SCREEN



BUDGET COMPARISON BAR-GRAPH SHOWING BUDGETS & ACTUAL EXPENDITURE OR INCOME

OTHER FEATURES

* The number of entries is limited only by memory size
* You define the file size
* Old entries are automatically deleted
* Automatically places entries in date order
* European or U.S.A. date formats
* Balance of account graph
* Moveable and re-sizeable windows
* Run multiple bank accounts by simply using different file names
* Facility to check off items against statements
* Locates cheques written months ago in seconds
* Selective print features for dates/statements/standing orders and budgets

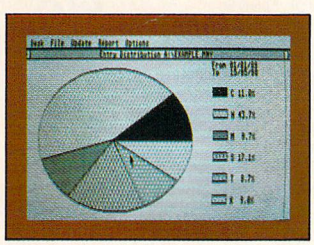
MichTron®

Home Finance Program By Peter Veale.

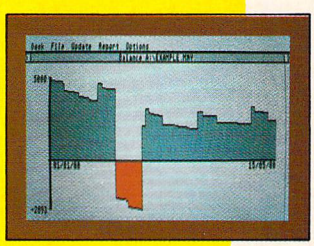
Here's what the critics say:
"PFM is one of those rare programs with which it is easy to feel comfortable from the first time you run it."
Ron Massey, ST USER

"Personal Finance Manager is a sophisticated home financial package, it will probably help you save money."
ST UPDATE.

"PFM is just the ticket if your expenditure is as disorganised as mine."
POPULAR COMPUTING WEEKLY.



PIE CHART SHOWING SELECTED ENTRIES OVER CHOSEN DATES



BALANCE DISPLAY SHOWING HIGHS & LOWS OVER SELECTED DATES

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Name _____
Address _____
_____ Signed: _____

THE Entertainment Software Publishers Association featured in last month's issue of Atari ST User was officially launched at the European Computer Trade Show.

Pictured at the launch breakfast in the Business Design Centre are freelance independent consultant Simon Treasure who originally conceived the idea of the ESPA, membership secretary of the Software Publishers Association in America, Cheryl Davis and the first chairman of the ESPA, Andrew Hewson of software house Hewson Consultants.

The ESPA has been formed to improve the environment for the games software industry by developing cooperation among competing firms and to help FAST in its fight against software piracy.

ST to fore at big Euro show

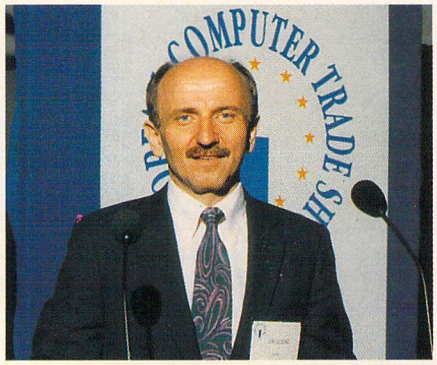
HUNDREDS of heads were put together in booths, gangways, leisure areas and stands throughout the three days of the European Computer Trade Show held at London's Business Design Centre.

Deals were struck, products launched, new contacts forged and old ones renewed by most of the 90 exhibitors including strong contingents from America and Europe.

And the spin-offs from this first trade show can only be good news for end users, particularly on the ST, for which a lot of product was in evidence.

Leisure software took over the majority of the show. Electronic Arts (0753 49442) featured Battle Chess from Interplay Productions. Previously successful on the Amiga, the ST version combines the strategy of chess with combat action and sells for £24.99. Also previewed was the company's new game, Navy Moves.

CP Software (099382 3463) also featured the chess-board with its latest version of Clock Chess, billed as "probably the world's strongest chess program". This was shown along with Bridge Player Galactica.



One of a lively round of seminars at the show was delivered by Jerry Wolosenko of Antic Software, San Francisco. He compared the positions of the ST and Amiga in America

Pandora, the new label from Interceptor (07356 77421), presented Outland, its latest parallax scrolling arcade game which costs £19.95.

The show saw the launch of new budget software label, Winner. A sister label to Alternative Software, its opening volley is the scrolling shoot-'em-up War.

Confident Winner boss Roger Hulley said: "Winner will follow in the footsteps of our other enormously successful budget labels and with the future titles we have lined up there will be no stopping us".

Accolade staff travelled from San Jose, California, with a view to making UK contacts for their ST products and setting up a London base – a wish they have since achieved.

From Germany came Profisoft with its program Wall Street Wizard, released on the Lifetimes label. It took nearly two years to develop and features stress and fun in the stock exchange.

The Colony was the most interesting offering from Mindscape Europe. A 3D animated science fiction adventure, it costs £24.99.

Also for the ST was Mavis Beacon Teaches Typing at £29.99.

ISM (0983 864674) offered Cardiac Arrest, where players take the part of the emergency room physician leading a team of medical professionals in an attempt to save lives.

CDS (0302 321134) unleashed Tank Attack. This interactive computer/board game costs £24.99.

Power Computing (0234 273000) featured four new hard disc drives for the ST and Mouse Music, the only four channel sound sampling and editing system for the ST.

Larry Foster of the world's largest software retailer Egghead Discount, found "hot products" at the show

Talespin

BY MARK HEATON

ATARI ST
AMIGA
& IBM

THE INTER-ACTIVE PROGRAM CREATOR

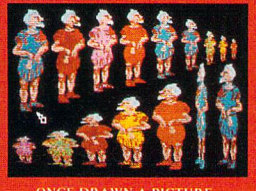
AMIGA CONVERSION BY TIMOTHY PURVES

WHAT IS IT? Talespin is a package which allows the collecting together of drawings, texts and sounds onto a series of pages together to form an interactive story, guide or textbook, which is read purely by clicking the mouse on the drawings or texts. Variables may be used to control the flow of narrative or record progress made. Talespin itself is entirely mouse-driven and very user-friendly, requiring no programming skills for its use. It includes an art package as well as importing Neochrome, Degas or IFF picture files and also imports ST-Replay or Amiga A.M.A.S. created Digitised Sound. The use of sound is optional. Its facilities include giving full details of disk space usage, location of all pages referring to any particular page, drawing, sound or variable, completely interactive development allowing changes to any part of a title at any time, the copying of drawings and sounds from other titles, the 'chaining' to other titles allowing the spreading of a story or textbook across several disks, and the provision of Demo mode, which allows a title to run on its own for demonstration purposes.

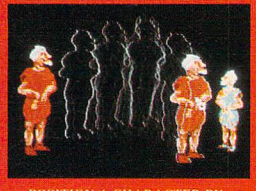
WHAT IS IT FOR? It can be used to create interactive adventure games, for profit, pleasure or instruction. Or in business to create a sales demonstration, or product servicing manual. Or in education: either using Talespin itself to teach the design and logic of computer systems in a non-technical way, or using Talespin as a vehicle for the teaching of any other subject. Or create an expert system with it. Or a school magazine. Or . . .

Talespin is ideal in most applications requiring inter-linked graphics and text and usable by persons with no programming expertise. And it's fun!

IMPORT ANY NEO/DEGAS/IFF PICTURE FILE OR USE TALESPINS OWN BUILT IN ART PACKAGE

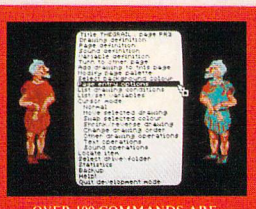


ONCE DRAWN A PICTURE CAN BE CHANGED IN HEIGHT, WIDTH & COLOUR AND CAN APPEAR MANY TIMES ON MULTIPLE PAGES



POSITION A CHARACTER BY SIMPLY CLICKING & DRAGGING WITH THE MOUSE

LINK TEXT BOXES TO CHARACTERS AND ALLOW MULTIPLE CHOICES IN THE BOXES



OVER 100 COMMANDS ARE AVAILABLE FROM THE DEVELOPMENT MENUS

SOUNDS CAN BE IMPORTED FROM REPLAY 4 AND THEN REPLAYED AT DIFFERENT SPEEDS AND LINKED »

replay 4

microdeal

·A·M·A·S·

« SOUNDS CAN BE IMPORTED FROM A.M.A.S. AND THEN REPLAYED AT DIFFERENT SPEEDS AND LINKED

CREATE YOUR OWN COMMERCIAL PROGRAMS

Once you've finished developing your program whether it's an adventure, an educational program or other you can lock your program so on one can enter the development mode.

TALESPIN comes with a public domain display program called "Telltale"; with this you can distribute your own programs or offer them to pubishers.

COMPLETE AND COMPREHENSIVE MANUAL

The manual comes as a complete Tutorial with a scaled down version of "The Grail" adventure and also a comprehensive reference guide.

ATARI ST
AMIGA
£29.95

TALESPIN COMMAND FACILITIES AVAILABLE

** choose/create title * save position * load position * select drive /folder * auto start * demo program * help * drawing define * page define * sound define * variable define * turn to another page * add drawing to page * modify palette * select backround colour * page entry options * list conditions * list/set variables * move drawing * swap colour * shrink/reverse drawing * change drawing order * add/edit/delete text * replace/remove drawing * locate item * show disk space * show drawing/sound-/page size * chain to other title * and more*

Gallup Software Chart

This month	Last month	Title (Software House)	Price	Month reviewed in Atari ST User	Comments	Marks from 10
1	•	POPULOUS *Electronic Arts*	24.95	May 1989	Straight to number one for this game of the gods. Play on your own, against another ST, or against any other micro via a modem link. Brilliant.	10
2	▽ 1	FALCON *Mirrorsoft*	24.95	March 1989	Prepare yourself for a Mach 2 flight in an F-16 and join the growing class of military simulator enthusiasts.	9
3	△ 5	F-16 COMBAT PILOT *Digital Integration*	24.95	July 1989	After years in development it's a good simulation with not much to choose between this and Falcon – against which it will inevitably be compared.	8
4	◁ 4	WAR IN MIDDLE EARTH *Melbourne House*	24.99	July 1989	Join the intrepid Hobbits in a dangerous quest. A nice Tolkeinesque feel to this graphic adventure, capturing a lot of the books.	9
5	△ 6	LOMBARD RAC RALLY *Mandarin*	24.95	Jan 1989	Can you win enough legs in this competition to customise your Cosworth, appear on TV and win a prize? Keep on playing and you'll get there.	9
6	▽ 2	BARBARIAN 2 *Palace*	19.99	May 1989	This version has more depth, better graphics and improved sound. If you like Barbarian you'll like this too. An excellent sequel.	9
7	•	KICK OFF *Anco*	19.99	July 1989	Second new entry this month and a superb implementation of a football game. Don't be put off by the simple graphics, it's immensely playable.	9
8	•	STEVE DAVIS WORLD SNOOKER *CDS*	19.99	–	Very easy to get to grips with and you really feel that practising here could well improve your skill with snooker, pool or billiards.	*
9	▽ 7	GALDREGON'S DOMAIN *Pandora*	19.99	May 1989	Colourful, detailed and eye-catching graphics. but few sounds and no animation. Attractively presented, but not a lot in it.	6
10	▽ 3	FOFT *Gremlin*	29.99	May 1989	Despite some nice additions, it owes much to its Elite mentor. Good marks for programming, but disappointing gameplay.	8
11	△ 17	PAC-LAND *Grand Slam*	19.95	June 1989	The sequel to Pacmania, with the setting in a cartoon world. Yet you are still being chased by the four ghosts from the original.	9
12	•	RUN THE GAUNTLET *Ocean*	19.99	–	Exciting TV programmes don't often appear to their best advantage as a computer game. This is one of them which gives good joystick practice.	*
13	▽ 11	CRAZY CARS 2 *Titus*	19.99	April 1989	A sequel, but not a simulator. An enjoyable race against both time and your opponents. Nice graphics and good value for money.	8
14	▽ 10	OPERATION WOLF *Ocean*	19.95	March 1989	Another success for a Taito coin-op which has made a surprisingly good transition to the ST. Fun and not too demanding.	7
15	•	VINDICATORS *Domark*	19.99	July 1989	Earth is under attack yet again. You must infiltrate the enemy with your SR-88 strategic battle tanks. What are you waiting for?	8
16	•	PRECIOUS METAL *Ocean*	24.99	–	A nice compilation here comprising – Captain Blood, Xenon, Super Hang On and Arkanoid II – Revenge of Doh. One well worth getting.	*
17	△ 19	KENNY DALGLISH SOCCER MANAGER *Cognito*	19.95	June 1989	Easy to get into and pleasant to operate, but not much depth and no sound. Concentration on the graphics detracts from the gameplay.	7
18	▽ 8	BALLISTIX *Psyclapse*	19.95	June 1989	Don't lose your marbles – if you do you will be met by some digitised cheering. Very playable. For one or two players.	7
19	▽ 15	DUNGEON MASTER *Mirrorsoft*	24.99	May 1988	Animated graphics and spot sampling effects make this quest worth dusting off your codpiece for. A superb role-playing adventure.	7
20	•	FUN SCHOOL 2 *Database Educational Software*	19.95	June 1989	Three versions are available for different age ranges. Colourful and educational; not games and ideal for school or home.	*

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- On/Off Switch • Track Counter!
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- Built in 220/240v PSU unit

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- High Speed autoboot with internal ROM • Drive utility software held in ROM
- Very Easy Installation • 2-12 partitions • Internal clock with auto set • Full Manual
- Optional 3.5" Floppy Drive • SCSI 100% compatible (PC Ditto, Aladin etc)
- U/L approved built in PSU and Wisper Fan • SCSI & DMA ports for daisy chaining

* 20MB 68ms other units 28ms or 11ms!

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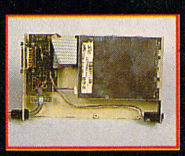

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ATARI COMPUTER SHOW PREVIEW

Music...business...games...art

Something for everyone

A VARIED menu to whet the appetites of all Atari users will be set before visitors to Alexandra Palace from June 23 to 25.

The Atari Computer Show promises a feast that will include the fun flavour of all the latest games, surprise ingredients from scores of new leisure and business launches plus added spice from many special feature areas and workshops.

It's a mouth watering event in the booming Atari marketplace, underlined by recent news that Atari has doubled its share of the UK personal computer market and that the Atari 520ST has been voted tops in a national survey.

Bargains galore will add to enjoyment for Atari fans. One of the stars will be the new Atari Power Pack and top dealer Silica Shop promises a good stock of the £399 bundle made up of the 520ST, 20 games and other software worth more than £500.

"We will also be having a special offer on the Seikosha 120CPS 80 column, 9-pin printer which has a recommended retail price of £228.85 but we will be selling for around £150", said John Arundel of Silica. "We will be having the very latest ST releases with deliveries on the last day before the show and even throughout the show to ensure the most up-to-date titles.

Frontier Software will be showing its new disc duplication device for the first time. This allows up to 32 floppy disc drives of any make to be attached to the ST's floppy disc port. Each drive can be either 3.5in or 5.25in.

Frontier, the sole UK distributor of the Supra range of hard disc drives will also show its first home produced product of 1989, the Xtra-Ram ram board for the ST range which sells for £69.95 unpopulated and £399.95 populated.

The new Forget-Me-Clock II clock card will also be featured by Frontier. It plugs into one of the ST's exterior ports and offers a pass-through port so the cartridge socket is not tied up.

Equinox Business Systems will be exhibiting SBA – its cashbook accounting system, and its latest product SBA Xtra which introduces debtors and creditors control and other features. Information will also be available on the second update of SBA called SBA Plus which will add invoicing, sales and purchase ledgers and is due out in July.

Equinox Organiser will also be on show at a price of £49.95 and for the first time its personal and expense accounting module will be available as a separate module – Personal Accounts Plus. This helps you to manage and control your day to day finances.

Kuma Software will be launching a new updated version of K-Spread 3, the professional ST spreadsheet released earlier this year.

The major new features of version 3.5 are a powerful range of keyboard and command macros

On line for best Atari Show ever

ALEXANDRA Palace is an ideal venue for the Atari Computer show with its own British Rail station taking visitors to and from Kings Cross in just nine minutes.

There is a free bus service regularly shuttling between Alexandra Palace Station and the show. By car, the journey is just as convenient. Wood Green is only 15 minutes from junction 25 on the M25 and when you get to Ally Pally, parking is free.

The spacious West Hall is a pleasantly light and airy setting even when filled with more than 100 stands and thousands of visitors.

which will be welcomed by many existing users and those waiting for a fast, full featured spreadsheet for the ST. The full range of Kuma professional software will be on display and sale, including the offer to users of VIP of an upgrade to K-Spread 3 and K-Graph 3 at a special price.

Kuma recently released new versions of K-Scope and K-Spect. They consist of hardware and software enabling the ST to be used as either an audio frequency oscilloscope or a spectrum analyser.

Database Software will be on hand to demonstrate the four modules which made up its Mini Office Professional Suite for the ST – spreadsheet, communications, presentation graphics and database.

Hi-Tec Supplies will be demonstrating its new Hi-Tec EC2400 modem. This is a full featured quad speed modem with MNP error correction up to level five which also employs data compression, allowing transfer speed of up to 4800 bps. It features full Hayes compatibility, tone/pulse dialing, autoanswer, autobaud and autoparity, built-in number directory, battery backup, monitor speaker, full speed buffering and built-in PSU.

While the modem is awaiting full BABT approval, it costs £279. Michael Spalter of Hi-Tec says that when approval is gained, this price will increase to £399.

Kempston Data will be launching a new 3.5in external drive for the ST featuring a top quality Japanese drive mechanism giving 720k formatted capacity. The new slimline design which is colour coordinated to complement the ST comes complete with its own plug-in power supply and long-length cables for easy positioning. It costs £89.95.

The new Kempston Mouse for the ST will also get its first public showing. It has a higher resolution than the standard Atari mouse and features two large buttons giving tactile feedback. The Kempston Mouse costs £29.95.

Kempston boss Ab Pandaal has also promised to unveil new DAATAscan software at the show. It has been enhanced and includes variable zoom, cut and paste, image merge, image rotate, pixel edit and rescale facilities. More details and price will be available at Alexandra Palace.

A major presence at the show will be Electric Distribution which will feature its latest products Timeworks Publisher ST, Antic's Cyber series and Migraph's Scan Art, Draw Art and Border Packs.

Timeworks ST is the firm's popular DTP program with DrawArt and ScanArt graphics packages to add impact and professionalism to documents.

Electric Distribution is the sole UK distributor for US based Antic Software and from that stable comes Cyber Studio, a compilation of CAD 3D 2 and Cybermate, a special animation package which automatically animates images created in CAD 3D 2.

Cartoon Design Disc and Microbot Design Disc are the latest in the series of add-ons for Cyber Studio. The former is a collection of 3D comic

Turn to Page 18 ▶

Hi-Tec's EC2400 modem

Cruise is star prize

A LUXURY cruise is first prize in a nationwide contest which will see its finale at the Atari Show.

It is for the most innovative use of an Atari ST and entries have been pouring in from people hoping to win the cruise and two other holiday prizes co-sponsored by Silica Shop and Database Exhibitions.

All finalists will demonstrate their innovations in a specially designed feature area at the show when the judging panel will be made up of editors of the leading Atari magazines.

First prize, worth £3,000, is two tickets for a luxury Mediterranean cruise on one of the flagships of the P&O line. Runner-up will receive a seven day vacation for two in an ultra-luxury villa or apartment in any one of more than 30 top destinations in Europe or the USA. Exclusive of travel, this is worth £2,000. Third prize is a £1,000 two week stay in Florida for two.

Silica Shop is offering its share of the prizes in the form of £3,000 in Premier Cheques now being introduced by the company as a customer incentive scheme. They can be exchanged for holidays in the Premier Cheques catalogue. Database Exhibitions is matching Silica Shop's contribution with an additional £3,000 in prizes.

◀ *From Page 17*

characters for animation and the latter, a library of robotic models and component parts for use with CAD 3D 2.

The range is completed by Cyber Sculpt – a 3D sculpting package, and animation program, Cyber Texture.

Also on show from Electric Distribution will be Border Packs, a collection of borders for use in newsletters, flyers and stationery from its Migraph range.

Having its first showing in the UK will be the new That's Write word processor from Holland. The latest in the "That's" series of products, it will be on the Cavendish Distribution stand.

The wysiwyg package adds images that can be sized to need and its text can be divided into five columns. There are 11 different fonts with the standard program but additional discs provide 1,100 fonts with each available in eight faces.

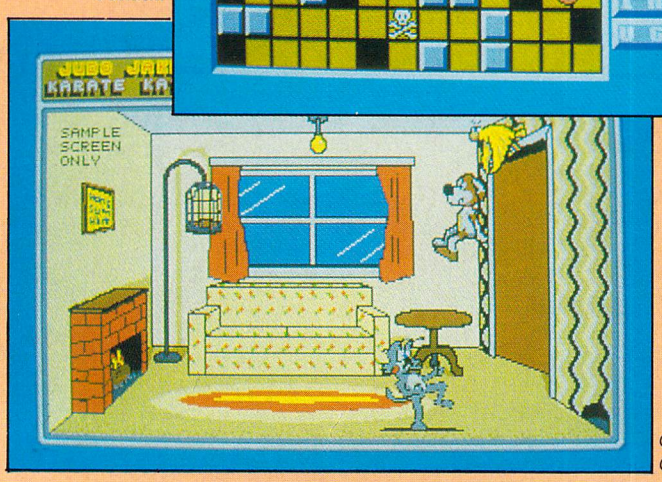
"This program has become the defacto standard in the Benelux countries in under six months", said its developer Raymond Blaker. "It has taken Germany, Denmark, France and the rest of Europe by storm and looks set to do the same in Britain".

There will also be a continental flavour to the LCL stand which will launch its first ST release, Micro French.

The 24 program course is aimed at beginners up to GCSE level, designed by French teachers and written by French nationals. It includes a graphics adventure game and animated cartoons with real and digitised speech.

Seekers of Fortune

Pukadu



Cartoon Capers

Games writers will cash in on STOS

VISITORS to the show will be able to see and vote on the finalists of the STOS Gameswriter of the Year Award. The competition has been running since Christmas and to the winner will go a first prize of £5,000 in advance royalties.

Giving ST users a chance to cash in on their games writing ability helped by STOS games creation packages, the competition has attracted some fascinating entries and first prize will go to the one which is most commercially viable.

Among the entries is Seekers of Fortune by Mike Lovell of Bristol. A role playing adventure similar to Dungeon Master, it's set in a forest with a young adventurer seeking his fortune by searching for the Old Dwarven Kings amid magical ruins. Puzzles, monsters, spiders' webs and other problems are placed in his path.

Pukadu has been written by Darren Ithell of Birkenhead. The idea is to guide your spider around the screen dissolving squares without isolating yourself to a single square.

Cartoon Capers comes from Simon Cook of Manchester. It's a beat-'em-up featuring characters Judo Jake and Karate Kat. With a cartoon feel to the graphics, this game is in true Tom and Jerry style with each character trying to get the better of the other.

"We have been looking for exciting and original ideas with the emphasis on gameplay", said Mandarin Software's marketing manager Chris Payne.

All entries have been written in STOS Basic. They will be displayed at Alexandra Palace on each of the three days of the show with seating so visitors can cast their votes in comfort.

HiSoft Software will be heading for Alexandra Palace with a host of new products. ProFlight is built around the Tornado jet fighter and is being heralded as "the most accurate flight simulator available for micros".

Also from HiSoft comes Tempus 2, the successor to the Tempus editor for the ST. Tempus 2 extends its predecessor's features adding many new commands together with a full range of keyboard shortcuts and installation options. Spectre 128 is "the ultimate Macintosh emulator for the Atari ST computers" and KnifeST is described as the ultimate disc editor for recoving lost files, editing sectors of hard and floppy discs or just enjoying "a good hack".

Another new release from the Bedford based company is HiSoft C Interpreter for the ST aimed at making it easier to learn C programming. Completing the line-up is the HiSoft Forth interpreter.

Take Control will be releasing a new range of high quality DTP software specifically designed for music.

Unlike existing Midi based music software, this is a page layout orientated product intended for producing high quality printed work. It does not suffer any limitations of note and symbol placement, note beaming and phrasing, stem orientation or staves containing multiple parts. The program makes full use of Gem and provides a highly intuitive user interface, using the mouse effectively to provide fast note and symbol placement, editing, cut and paste, transposition and other features.

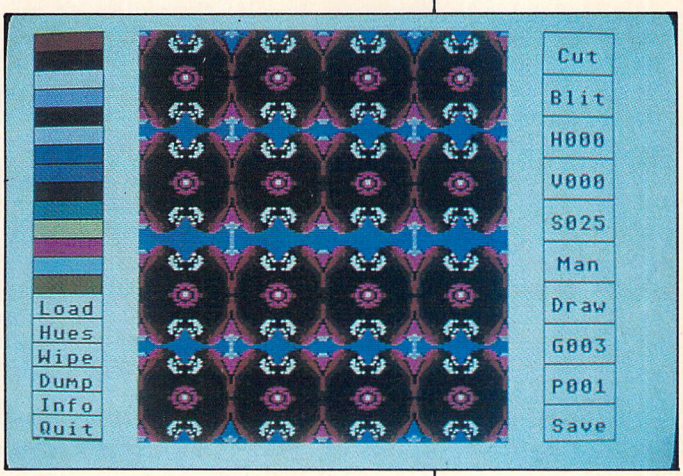
Another show launch is promised by Powys-based Manor Court Supplies with Exlink which includes spooler, protocol convertor and PBX all in one, combining six parallel ports and eight serial ports in one unit.

HAT Software of Shrewsbury will be offering a number of special show prices on its educational software and a new compilation package bringing graphics and spelling training together. Products to be demonstrated on the HAT stand will be First Paint, First Type, Colours, Sprinter, Colour Strip, Blow Up, Stage II and Recipe I.

Public domain software for the ST will be profuse on the South West Software Library stand. There will be a free catalogue of over 400 discs, packed with every type of software. Demonstrations and advice will also be given free and each disc costs £2.50.

Arnor will be launching the latest upgrade for Protext. Version 4.2 contains a number of improvements, particularly to documentation and is one step closer to the major upgrade Protext v4.3 expected in the near future. The new Protext manual has been completely revised and reorganised to make it much easier to use.

Staff at Care Electronics has been putting in long hours to make sure the new full-colour 22 pin version of Flexidump is ready for demonstration at the Show. Care's high quality printer dumps can be used in conjunction with Degas and Neochrome. It will also be featuring PC-Ditto, the program that turns your ST into a PC compatible.



The main work screen from Sprinter

Bowthorpe will be exhibiting its Clean Power Concept range of products designed to protect computer and other micro-processor based equipment from the danger of voltage surges, RFI and power cuts.

Rombo Productions will be featuring its Vidi-ST frame grabber which at a price of £99.95 is claimed to be "cheapest and best".

Multiface ST version 2 is now out. This multi-purpose interface combining back-up facilities and multi-toolkit with optional disc organiser will be on the Romantic Robot stand.

Great interest is expected for Digita International's Multigen, described as "the ultimate professional picture quality genlock" for the ST. Costing £228.85, it will be on demonstration only but there will be a special discount of 10 per cent on all orders placed at the show.

Also launched will be Personal Tax Planner, an easy-to-use program for planning personal income tax. Digita will also be showing Home Accounts, DGCalc, Mailshot, Mailshot Plus, Day-By-Day and E-Type.

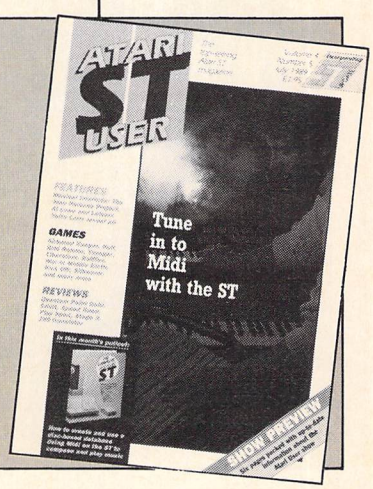
Bath Computer Shack will be exhibiting its latest product the Tweety Board which provides clear, full-range sound on all Atari STs and ST software and is particularly useful for adding realism to games.

Free copies for show visitors

FREE copies of this July issue of *Atari ST User* will be given out at the door to all show visitors.

But for those who already subscribe to or buy the magazine, there is an even better offer in store.

Take this magazine along to Alexandra Palace and you will be given a voucher at the door. This will be redeemable against a utility disc on sale at the Database/ Mandarin stand.



Latest games go on show

GAMES galore are an integral part of any Atari Show and this one will be no exception.

The popular Games Arcade feature will take on a new look with schools invited to take part in a Game-A-Thon to see which can notch up the highest score.

Stands will be groaning under the weight of the latest releases, old favourites, compilations and a host of bargains.

Main show release from Tynesoft will be Roller Coaster Rumble, a 3D shoot-'em-up based around the fairground ride.

"We have been working on this for more than 12 months and it is probably one of the best products we have ever released", said Tynesoft's Colin Courtney.

Mandarin Software will be demonstrating its new range of STOS games creation add-ons: STOS Compiler, STOS Sprites 600, STOS Maestro and STOS Maestro Plus.

Latest releases from Audiogenic will include Lone Wolf – The Mirror of Death. Lone Wolf is the hero of a series of 12 role-playing game books written by English author Joe Dever which have sold six million copies worldwide. The Mirror of Death, a combat game, is the first of a series of games to be based around this character.

Previewed at the show will be Emlyn Hughes Arcade Quiz, due for a release in July or August. The former captain of Liverpool and England squads has given his name to this game based on a typical pub quiz

The final of Llamasoft's Andes Attack Hi-Score contest will be played out at the show with a first prize of a Sony portable CD player.

Andes Attack and the other new game from Llamasoft's Jeff Minter, will both be on sale at the show for £9.95 each.

New launches from Digita International will be Classic Invaders and Pharoah III, both at the budget price of £14.99.

Chance to quiz the editors

JOURNALISTS from the leading Atari magazines will be taking part in a Meet the Editors session on the Friday of the show when visitors will be able to voice their views on the different publications. In the firing line will be Nick Clarkson of ST Action, Dave Stewart of ST World, Roland Waddilove of *Atari ST User*, Les Ellingham of Page 6 and Richard Monteira of ST Format.

Other special features will include ST Graphics World with a top designer, a DTP and a games workshop.

This year the technical advice stand has been changed. It will be open for specific sessions when a panel of experts will be on hand to answer questions and help solve problems.

Making music on the ST

INTEREST in the Atari ST as a music machine is on the increase and visitors to the show will be able to see its full capabilities in the hands of an expert.

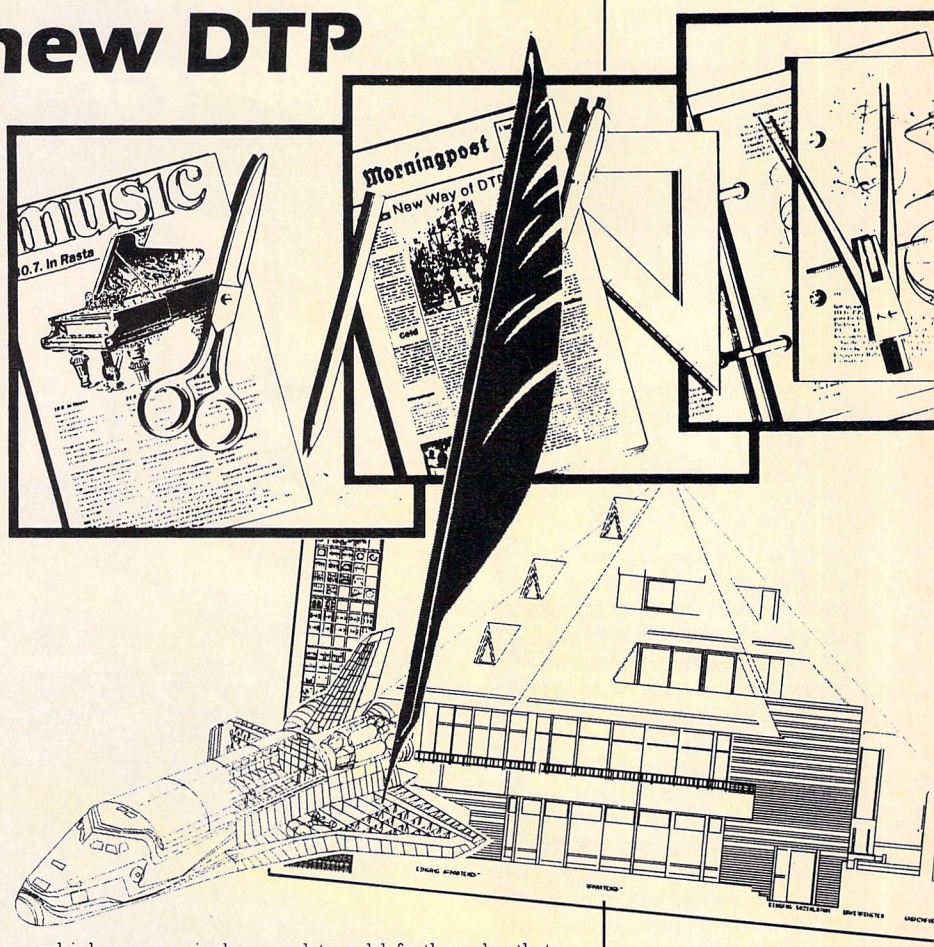
One of the country's top musicians Colin Gay will be on hand throughout the three days to demonstrate his skills and answer questions from the public.

Classically trained as a pianist, Colin took part in many piano recitals before cultivating an interest in the use of synthesisers for modern music eight years ago.

This progressed to computer backed music three years ago and he has not looked back since.

Last year, Colin played at most of the top computer shows in the country including the Atari Show. He will be demonstrating his keyboard skills with the ST acting as his backing group. A musical treat not to be missed.

Launch for new DTP package



THERE promises to be some interesting demonstrations of new products from Mike Dale's Signa Publishing at the show – in particular the long-awaited Calamus.

Not long released, this DTP package is selling well to second generation DTP users – those who have experimented with other packages and other home computers.

Originally released in Germany by DMC, the UK version is 1.09. Signa is offering a demonstration version of this program for £20. It contains all features but save, so prospective customers can experience the environment before committing themselves. The £20 is credited to buyers of the full package.

All the major word processing formats are catered for as is scanning, white and black text, borders, shadowing, shading, mirroring and inverting images. The tutorial section is easy to follow, even to those new to DTP or indeed an ST. It takes about two hours to complete, and gives a basic grounding which makes worthwhile reading even to the experienced.

Any printer can be used from a 9 pin dot matrix to lasers – and direct output to a Linotype printer is also possible. The hi-res image compares very favourably with a Postscript system. The manual, written in the UK by Signa, is produced using Calamus and an Atari laser printer. Interestingly, this manual is now being sold back to the German development house.

Calamus comes with eight fonts and three Compugraphic fonts, although the full 3,000 fonts should be available soon. Signum 2 is responsible for the creation of some unusual fonts – Mike Meir has just completed Bengali for use with Calamus.

The accuracy and adjustment is to 0.01 throughout from kerning to axes. The sub-chapter and footnote facilities are well implemented and all come in addition to the standard DTP features.

Additional features are being planned and developed in Germany at present. There will not be a Calamus Plus as such, but rather a series of upgrade modules incorporating such things as colour, automatic page numbering and the ability to rotate images.

There will be demonstrations of Calamus at the show, and a full review will appear in next month's *Atari ST User*.

Also on show will be Signum and Signum 2 with the new fonts such as Arabic, and the Hawk Scanner. Having their first showing will be Font Editor for use with Calamus and probably retailing for about £80.

An exciting development comes in O-Line which can again be used to add further depth to Calamus.

If offers the ability to rotate text, increase or decrease grey tones in one per cent steps, wrap around shapes, distort and so on – then save creations taking them into Calamus. Added to this is a ray-tracing facility. As with Calamus, demonstrations discs are available for these products.

From German-based Ditek comes DynaCadd, which should be making its debut on the Signa stand. There also may be more news of the desktop video packages IMagic and Creator, both heading for a July release.

Signa has just moved to new Aldershot offices to facilitate customer and dealer training on all its packages. Mike Dale insists that dealers are trained in the use of his packages so that full support and information can be given to potential and existing users. With one trainer to each trainee the course promises to be intense and comprehensive.

Product and customer support is all important and a dedicated support line for Calumus has been initiated for registered users in addition to these courses.

While at the show Mike and his team will be showing their quality products and giving advice where necessary.

ATARI STAR USER GAME

KULT

Product: Kult
Price: £24.95
Supplier: Infogrames, Mitre House, Abbey Road, Enfield, Middlesex EN1 2RQ.
Tel: 01-364 0123

FROM the French software company, Exxos, producer of the superb Captain Blood and Purple Saturn Day, comes the brilliant and original Kult – Temple of the Flying Saucers.

This new offering from the masters of the unusual arrived on my desk with a resounding thump, complete with off-the-wall manual, simulated parchment scroll, promotion video and a pair of trendy sunglasses! Enough said ... what about the game?

Kult comes on two single-sided discs and is a futuristic mouse/icon driven graphic adventure the like of which you will not have experienced before. However, you must read the manual before you start. It not only contains valuable prerequisite information but is also filled with some incredible humour. Just try this for size: "The Protozorqs fling you unceremoniously into a dimly-lit slammer that smells like somebody just did something" – yuk.

The scene is set many years after the catastrophic Burn which plunged the world into a chaotic nightmare. You play the role of Raven – a Psi-mutant Tuner – and belong to the dominant race that controls the world of the normals. The normals fear and detest you and cannot be trusted.

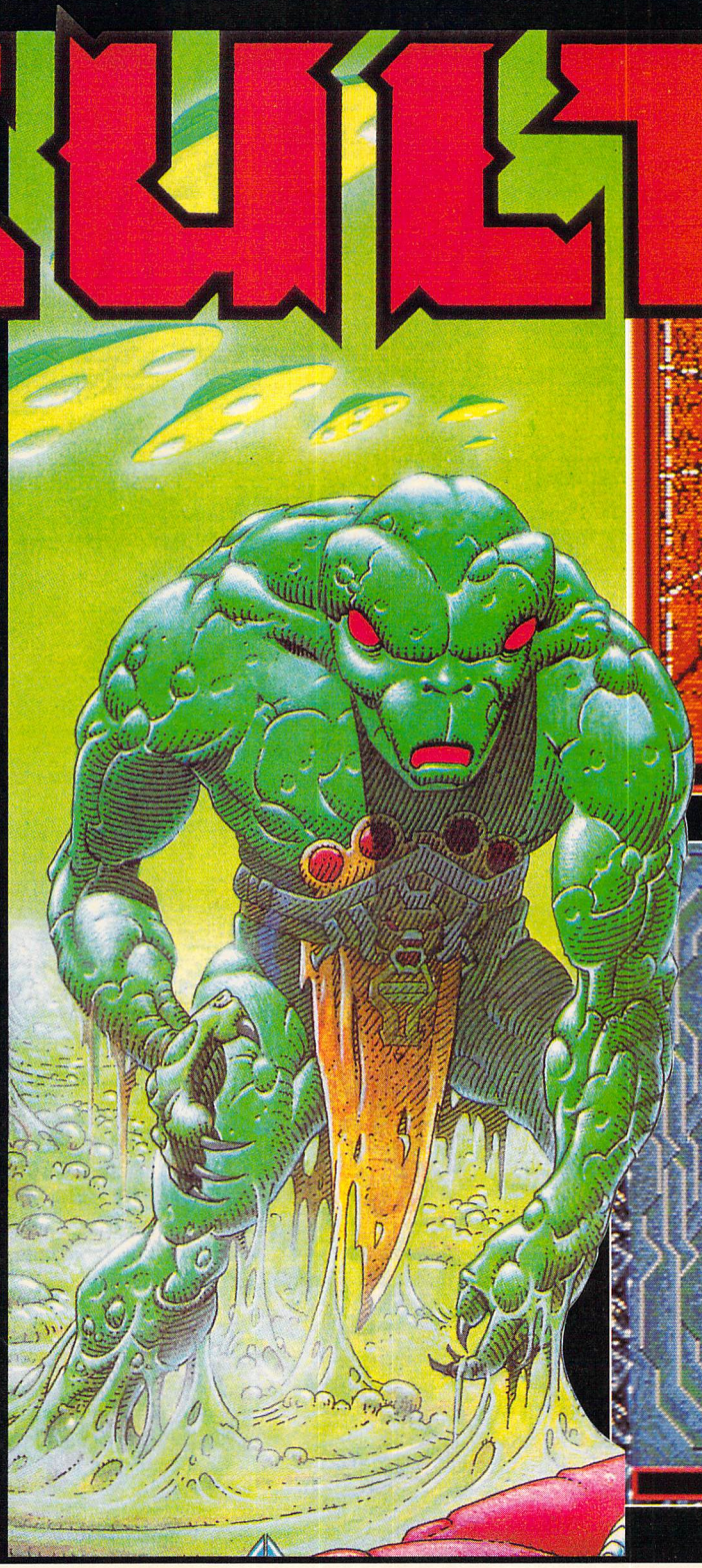
However, all is not well. "For the Protozorqs, inhabitants of the Temple, the day of Atonement is at hand. The god Zorq has returned appearing from the sky on board his flying object. In an explosion of crazed bloodlust, the horde wreaks havoc throughout the surrounding region".

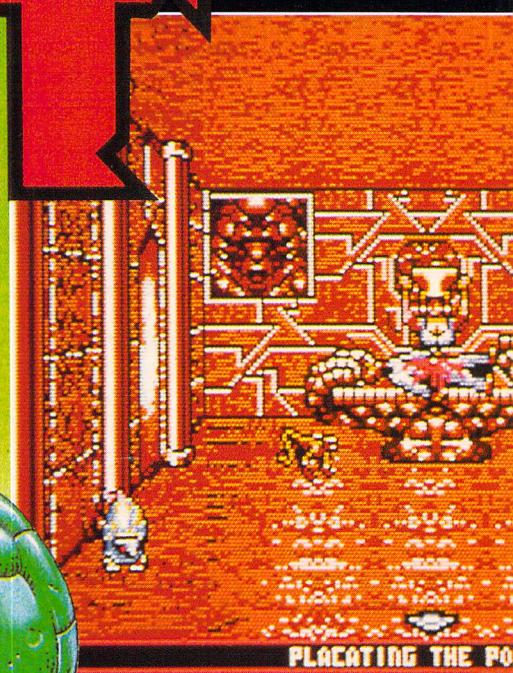
All the normal villages are razed and all inhabitants are exterminated, except for young males who are herded into the Mountain, the Temple of Zorq.

The government does not wish to interfere but as a renegade you have made your way into the mountain and are determined to free your girlfriend Sci Fi and wreck the plot of the hideous Protizim Harssk – leader of the Protozorqs.

First you must complete the five ordeals of Deilos – set by the Master of Ordeals – in less than one hour, before you are permitted entry to the next level. There you emerge as a Divo and can begin in earnest rescuing your beloved. But beware the priestess!

Meanwhile other aspirants are attempting to reach the position of Divo and will show no pity. The key to this adventure is trust no one and beware of many red herrings and





booby traps.

The ordeals themselves are something to behold and indeed quite complex. You must – in an order you may decide – retrieve five skulls and return them to the chanber where you will be allowed to swap an artifact in your possession for something of further use.

You have to overcome the riddle of the sliding wall, the puzzle of the twin serpents and the problem of the hangman's noose. In addition to this you must defeat the evil mistress of the Scorpion's Presence and the slime of De Profundis.

If at any point you need a short rest, just listen to the superb digitised voices and eerie sound effects – such as bubbling slime. The graphics too are outstanding and up to the pedigree we have come to expect from Infogrames.

Each ordeal has its own set of puzzles most of which are quite devious. Just try getting across the boiling slime without the acid devouring your very body. Or try to sort out just who will be saved, without a poisonous thingy serving your death warrant.

The program boots up with a stunning loading screen and futuristic music then introduces you to the characters and facilities of the game.

Enter the adventure and you move Raven around the Temple by clicking on selected directions with your mouse. Also at your disposal is a pad of nine icons which allow variations and facilities.

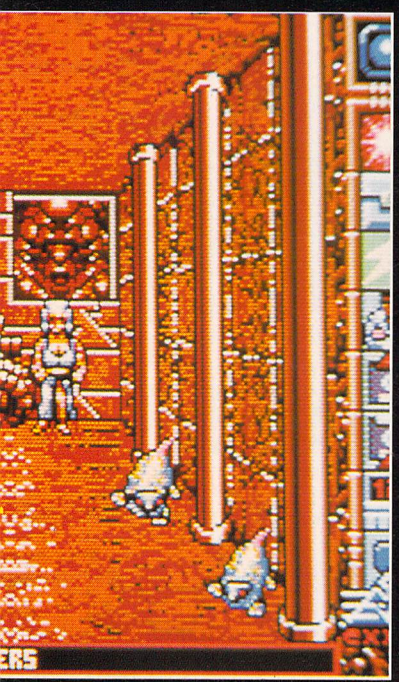
These include examine, rest, save, load, time and inventory options. However, the key to your success lies within the Psi icon. Click on this and a sub-menu is presented which allows you limited Psi powers.

You can see in the blackest darkness by using Solar eyes, crawl on ceilings like a fly using Sticky fingers and even read opponent's minds with the Know mind command. The others I will leave for you to discover.

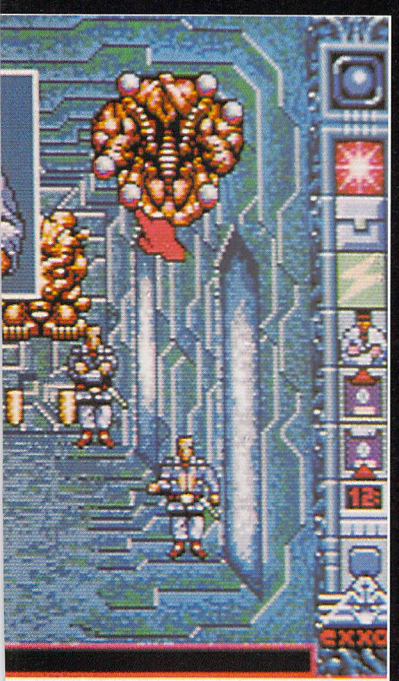
Also pay due attention to Foetus who is your telepathic link to the helpful Tuner network and will provide many hints and tips – even if he does talk phonetically!

This is a lively, colourful and challenging adventure which is full of problems to challenge even hardened wayfarers. At this point in time it is definitely the best of its genre on the ST and probably on any other micro come to that. It is full of humour and the unexpected and I guarantee you will be puzzled and amused.

Nic Outterside



Sacrifice is part and parcel of the game



Protozorg guards block your way

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

SECOND Sight

Wowee, what a game, is this what the future holds? I was splitting my sides laughing even before I loaded it – just read the manual.

This is a taxing graphic jaunt with some very unusual touches that had me glued to my ST for hours on end. It even outshines Captain Blood – and that takes some doing.

Jayne West

PREVIEW

Silkworm

Virgin Mastertronic (01-727 8070)

THESE days, sideways scrolling shoot-'em-ups are becoming almost as common as the vertical variety. Here's a new one from the Virgin Mastersteronic stable.

In this true two player game – both of you are on screen at the same time – you and a pal must pilot a helicopter and drive a jeep through enemy territory in this present day war game. (In one player mode you have the choice of either the chopper or jeep, but without your mate watching your back you tend not to last as long).

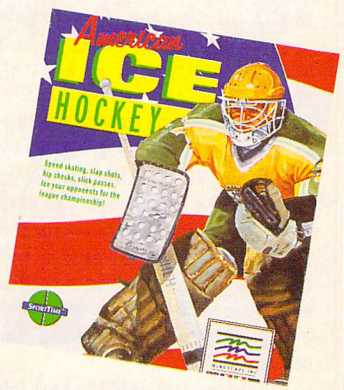
The graphic backgrounds are well drawn and scroll smoothly. Often the screen is packed with bullets and missiles flying in all directions so the action is fast and furious. The jeep can knock out the ground targets while the helicopter wipes out airborne forces. Extra weapons and shields can be picked up and there's a monster enemy chopper at the end of the first level – I've not reached the end of the second yet.

A brilliant game for all shoot-'em-up fans.

Roland Waddilove

Frozen out

Product: American Ice Hockey
Price: £19.99
Supplier: Mindscape, PO Box 1019, Lewes, East Sussex BN8 4DW.
Tel: 0444 86545



ICE Hockey is fast, exciting and violent and as such is probably a better candidate for computerisation than, say, football. Mindscape has taken up this challenge and produced American Ice Hockey, which turns out to be one of the most tedious micro sports simulations that I have ever had the misfortune to review.

The first hurdle you must negotiate is the joystick control centre, an enigmatic array of joystick and keyboard combinations used to control both players and menu.

If you follow the instructions closely you will run into problems, as they specify the wrong joystick selection and the menu pointer will flick uncontrollably through the available choices.

With the game loaded you will find yourself looking at the tables for divisions one and two of the East and West Conference leagues; beneath them is a series of game options.

The Improve Team option is one way of boosting your team's chances of success. If you send your squad away to training camp it will return fitter and healthier. The training routine is very impressive to watch – the message: "Your team is at training camp" flashes energetically on the screen for about 15 seconds.

During a game you can control any combination of either centre, goalie or coach – I suggest that you begin by concentrating your efforts on the centre, trusting the machine to handle the others.

The screen action is stunning. No seriously, I sat stunned for five minutes as the collection of two-coloured stick men ambled around the screen. And talk about joystick response – these guys have so much inertia they must be skating in diving boots.

Having played the game all evening I am left feeling frustrated, irritated, yet relieved that I didn't pay £20 for it – so don't you!

Jon Revis

Sound	4
Graphics	3
Playability	3
Value for money	3
Overall	3

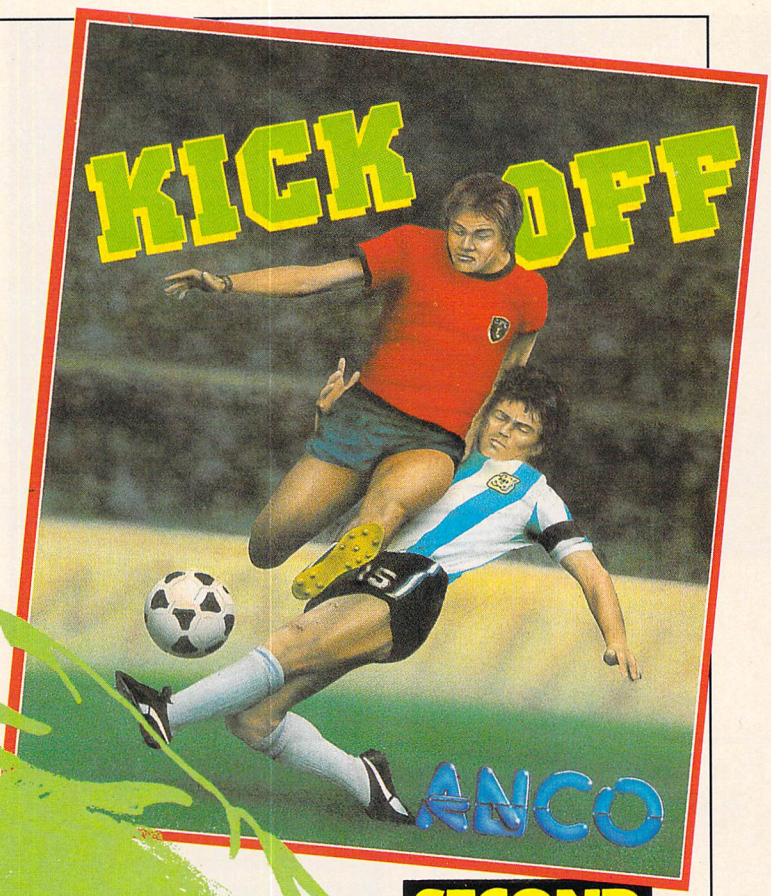
SECOND Sight

Whatever else you do when you're on the main screen, don't press the Escape key – to do so will result in your instant teleportation to the ST's desktop. Don't you just love well tested software? American Ice Hockey has one redeeming feature – it makes a terrific beer mat!

James Riddell

Program: Kick Off
Price: £19.95
Supplier: Anco, Unit 10, Burnham Trading Estate, Lawson Road, Dartford, Kent DA1 5BH.
Tel: 0322 92513

Top of the league



GET ready to trash all those football management games you've got cluttering up your room – Anco has arrived with one of the fastest and most realistic soccer action games you could ever have hoped to see gracing your ST. If this game isn't addictive, I don't know what is.

Kick Off is a full-screen soccer simulation that will have you gasping at its authenticity and pace. There's none of that ponderous dribbling from one end of a pitch to another or players performing as though they had straw for brains. All the players in Kick Off move and react in a thoroughly intelligent fashion and the speed which they carry out their manoeuvres is sensational.

Using some clever screen handling and multi-directional scrolling techniques, Kick Off lets you use all the screen for your match. The pitch markings are correctly proportioned, as are the two teams – note the full complement of 22 players. The view is from overhead with the match being played up and down the screen.

The players can dribble, shoot, lob, head, pass and execute blocking and sliding tackles. The goalkeepers have their own skills, too – they can dive, jump, stoop and catch. Goal-kicks and throws by the goalie are taken automatically, as are throw-ins. There is a choice of nine types of corner kick, and penalties are also fully under the player's control.

A match can be played between the computer and another player or between two players. Each team can be given its own skill level from a choice of five, ranging from Sunday League to International. At the higher skill levels, a gentle breeze affects ball flight.

Each team member has his own unique combination of four attributes – pace, stamina, accuracy and aggression. A higher level striker will have greater accuracy and speed than a lower level player, but may not be as aggressive.

For a real test of your skills, try pitching your Sunday side against an International eleven.

Duration of matches can be set from 10 to 90 minutes and a league option is also available. This consists of eight teams whose names can be edited and each of whom can be controlled by the computer or a player. The teams are evenly matched but have different styles.

This 14 week competition is great fun to play and because it can take some time – depending on your chosen parameters – the programmer has sensibly included a save/reload facility.

If that's not enough, there are 16 different referees (some sharper eyed than others), and players can be booked and sent off. You have a choice of four playing formations, there's a super practice facility to develop your ball skills. Sampled sound effects, speech, whistles and crowd sounds, add to the atmosphere and an optional variable-sized scanner shows the entire pitch at a glance.

Control of the players is quickly learned and play is slick and speedy. The players move realistically and intelligently and the whole game is a complete delight to play and immediately addictive.

This is one of the fastest amd most exciting action games around, and it just has to be the best football simulation ever. If it's realism, thrills and unrelenting action you want, go dazzle yourself and your friends with Kick Off – you won't regret it.

Bob Chappell

SECOND Sight

I don't particularly like football but this game really did reach out and grab me. The unbelievable speed of the animation coupled with the excitement that a two-player match generates left me in no doubt that Kick Off is a winner.

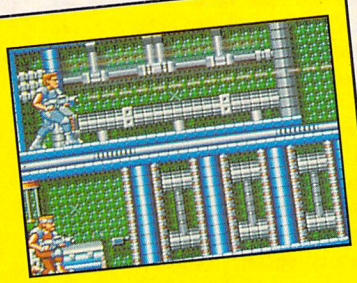
John Dee

Sound	*5*
Graphics	*8*
Playability	*10*
Value for money	*10*
Overall	*9*

PREVIEW

Liberators

Exocet (0782 811002)



LIBERATORS, a new title now nearing completion by Exocet is an original sideways scrolling shoot-'em-up. In this one or two player game you must liberate enslaved people by battling your way across the surface of a planet. First, however, you must find your ship in level one of the game.

You guide a large character left and right across the screen through a maze of corridors, using transporters to jump from one location to another. Along the way, using your laser gun you musi zap droids, automatic defence systems and guards.

When you find your ship the action really takes off. Fly it across the planet's surface destroying ground bases and alien ship formations. Extra weapons can be taken on to increase your ship's firepower. Liberators looks like a sure-fire success.

David McLachlan

PREVIEW

3D Pool

Firebird (01-234 5678)

POOL, billiards and snooker simulations have been around for quite some time now, yet have made little progress in the graphic and gameplay departments. Firebird's 3D Pool is set to dominate this market sector with a brilliant 3D game unlike anything you have seen before.

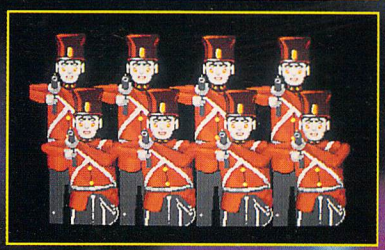
The table is drawn using solid 3D graphics and using the mouse you can walk round, crouch down and stand on tip-toes to alter the viewpoint. The animation is performed quickly and smoothly, with the table rotating in real-time. This means you can line up your shots with great accuracy – just like the real thing. The impression of actually "being there" is superbly done.

You have the choice of entering a knock competition – best of three frames – or you can practise a number of preset trick shots.

Complete with digitised sound effects, this game outshines every other game of this type on the market.

Roland Waddilove

PERSONAL NIGHTMARE



There's something very strange going on. It's as if you are living through your worst nightmare and unable to wake up. Won't anyone let you in on the terrible secret that haunts your waking moments.

Personal Nightmare is the new brain child of HORROR SOFT. A new kind of icon-driven, animated game that has been written using the new especially developed Agos language.

Personal Nightmare is highly original using all the features of the 16-bit micro. The superb, fully animated graphics, backed by incredible sound effects come together with a highly sophisticated user interface to give total involvement of a new dimension.

Personal Nightmare will introduce you to numerous characters including:

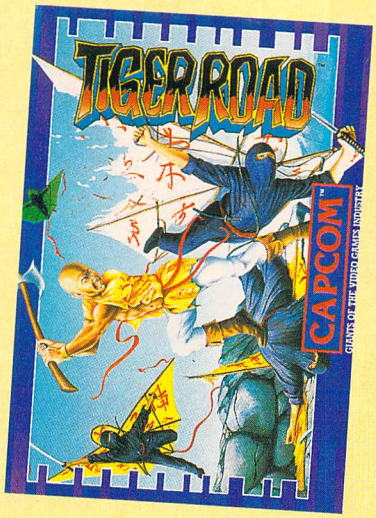
The Landlord of the Dog and Duck
Jimmy Blandford and his attractive wife Susan
Alice Greenwoood
The local village policeman
and a host of other inhabitants who will share in your *Personal Nightmare.*

Available on AMIGA, ST & PC

Unit 3, Addison Industrial Estate, Blaydon,
Tyne & Wear NE21 4TE. Tel (091) 414 4611

Lee went Wong

Product: Tiger Road
Price: £19.95
Supplier: US Gold/Capcom, Units 2/3, Holford Way, Holford, Birmingham B6 7AX.
Tel: 021-356 3388



PLUCKY Lee Wong, enraged by the dastardly activities of the villainous Ryu Ken Oh and his daughter Janice, has set out to rescue children who were kidnapped from villages near Tiger Road.

Your mission is to guide Lee Wong in his hazardous journey, fighting off samurai warriors, giants and dragons – just a few of the obstacles preventing you from freeing the captives.

The samurai are stunted creatures wielding what look like cocktail sticks. They are pure sword fodder and hardly worth bothering with. The giants' party trick is to hurl you to the ground, though they don't attempt what could have been a graphically-spectacular belly flop.

The action is seen side on with the screen scrolling sideways as you run left to right bashing the living daylights out of all and sundry. The graphics are OK, but nothing to write home about.

The packaging talks of superb gameplay. I found it rather dull – the game almost, but not quite, completely fails to entertain.

There may well be four sub-games, but I was dozing away before I reached the last one. Probably the worst game to come out of Capcom/US Gold.

Roy Stead

SECOND Sight

"Tiger Road", claims US Gold, "is a games legend in the history of software". Perhaps it meant a legend such as the Mary Celeste – a big box with nothing worthwhile inside.

James Brown

Sound	6
Graphics	3
Playability	4
Value for money	4
Overall	4

Well over the hill

Product: Butcher Hill
Price: £19.95
Supplier: Gremlin, Alpha House, 10 Carver Street, Sheffield S1 4FS.
Tel: 0742 753423

BUTCHER HILL from Gremlin is a story of guts, determination and endurance, the kind of thing that sold a million cinema tickets during last year's spate of Vietnam war films.

The opening graphics are quite mouth-watering, 3D shaded text and well drawn military vehicles scroll effortlessly around the screen. Disappointment set in when section one began and a small motorboat sped up a vertically scrolling river.

The boat's speed varies considerably depending on how many

PHOBIA

Commodore 64 screen shots

TO SLEEP, PERCHANCE TO DREAM . . . but don't sleep too deeply 'cos all your nightmares are waiting for you in this unique arcade blast from Tony Crowther.

Phobia is set in the minds of men, feeding on every human fear; spiders, fire, death – and dentists!

Grab hold of your courage and prepare to face the frightening challenge of each of the 14 planets that Phobos have set against you. Can your body take the heat, can your brain take the pressure!

Available on: Amiga £24.99, Atari ST £24.99
Commodore 64 Tape £9.99 Disk £12.99

©1989 Mirrorsoft Ltd., Imageworks, Irwin House, 118 Southwark Street, London SE1. 01-928 1454

rocks and plants are being drawn. And the outcome of a collision is more than suspect – striking a rock results in a slight loss of stamina, but skim the river bank and you burst into flames.

If you are to be allowed to enter the jungle section of the game you must collect most of the utility pods that float down the river – these contain not only ammunition, but an image intensifier and a compass.

The transition to the jungle scene requires a disc swap and a press of the fire button. Incidentally, pressing it without changing discs crashes the machine.

A clever adaptation of the standard 3D maze routine has been used to simulate walking through the jungle. Sound effects would have improved this section further – there aren't any, just an irritatingly incesscent background tune.

As you enter jungle clearings you will be ambushed by enemy troops. Swiftly swinging your gunsight cursor on target you pump several rounds into the gook. If the collision detection just happens to be listening at that point the guy bites the dust, more often than not he levels his rifle at you and you're cheated out of yet another life.

Butcher Hill is a catalogue of disasters from start to finish, you have been warned!

Steve Brook

SECOND Sight

The various sections of this game could have been written by different programmers. Butcher Hill's title sequence and the jungle maze are very classy, but the river section is pretty naff and the jungle ambushes a joke. Worst of all, how can you be expected to wreak havoc in relative silence?

Carol Barrow

Sound	4
Graphics	7
Playability	6
Value for money	5
Overall	6

PREVIEW

Apache Strike

Exocet (0782 811002)

COMING soon from Exocet is the vertically scrolling shoot-'em-up, (aren't they all?), Apache Strike. Fly your Apache helicopter through increasingly difficult levels of full-screen scrolling enemy territory. Shoot down enemy choppers and blast Panzer tanks and buildings with your air-to-ground missiles.

Keep your eye on the fuel guage – when it gets low, try to touch down on the next landing pad to refuel. Be quick though, hang around too long and the ground based gun turrets will swing round and blast you to bits. Droids can be picked up and will follow your chopper shooting when you do.

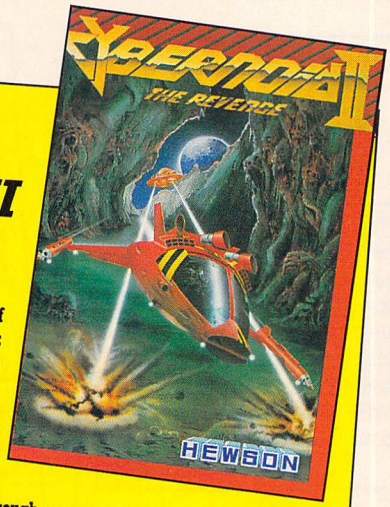
It looks like Exocet could be on to a winner with this one.

David McLachlan

PREVIEW

Cybernoid II

Hewson (0235 832939)



FOLLOWING closely in the footsteps of the original game comes Cybernoid II: The Revenge. The gameplay, graphics and sound are very similar to Cybernoid, and you could be forgiven for thinking that you are still playing the same game – this sequal is more like a set of new screens than a complete new game.

Your objective is to pilot your ship through caves and caverns filled with aliens hell-bent on your destruction. You must collect extra armour, weapons and retrieve cargo hijacked by pirates.

The graphics are superb, though the sprites are quite small. The gameplay seems much harder than the original and I had problems getting much futher than the first level.

If you liked the original then this sequal is a must.

Roland Waddilove

PREVIEW

Vindicators

Tengen (01-780 2222)

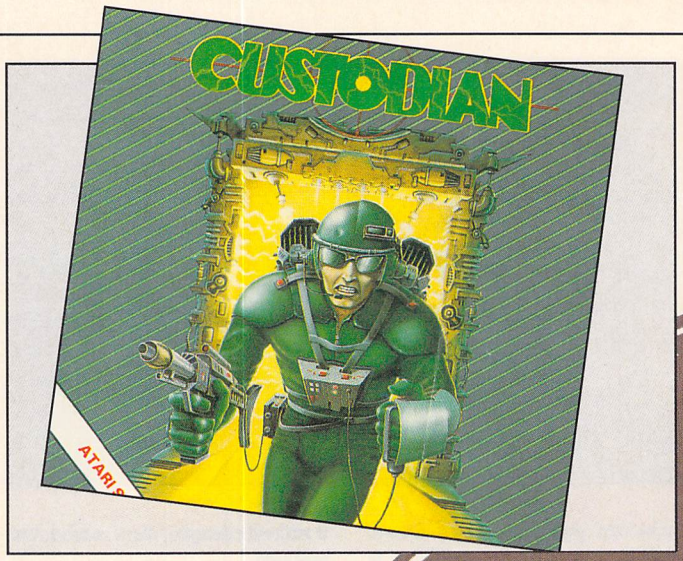
FIRST on Domark's new Tengen label is Vindicators, a futuristic tank battle arcade game. The action is seen from an almost overhead position – it's slightly offset introducing a 3D view to the graphics.

You control a tank – your mission, to battle your way through 14 alien space-stations, demolishing each control centre. Not an easy task, as enemy tanks patrol the corridors, force fields must be avoided and high powered cannons take pot shots at you.

Extra fuel and weapons can be bought by collecting battle stars, and keys must be collected en route in order to exit from each station.

The graphics are superb, the digitised music on the title screen is excellent and the gameplay is quite addictive. Definitely one to watch out for.

Roland Waddilove



Grave danger

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

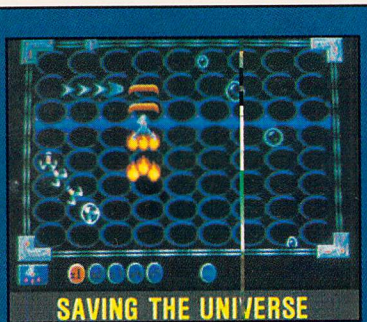
IN Hewson's Custodian you are guardian of an alien columbarium – a vault having niches for funeral urns. Your job is to protect an ancient warlord's remains from the power-sucking parasites which infest the tomb, Rentokil and Sigourney Weaver not being available.

Your onscreen persona looks like a hunchback with a rocket pack. You have to collect the pods and destroy them in the pod annihilation chamber. Of course there are aliens out to stop you and the pods have a nasty habit of draining your energy. The tomb also has energy and the critters zap this too.

When you begin, an indicator at the bottom of the screen shows the direction of the nearest pod. Once you collect one, however, the indicator switches off and you have to collect others blind unless you go to the annihilation chamber and get rid of those you are carrying. The other incentive for doing this is that it partly recharges your energy.

There are ammunition silos which allow you to buy various weapons. You start with 1,000 credits and get more as you kill baddies. There are 10 weapon types and some are more effective against certain aliens than others.

It takes a while to sort out which



Action replay

Product: Grid Runner
Price: £9.95
Supplier: Llamasoft, 49 Mount Pleasant, Tadley, Hampshire.
Tel: 07356 4478

NOT only do we get repeats on television, now we get them on our ST's monitor, too. Grid Runner, the latest game from the talented Jeff Minter of Llamasoft, is a rerelease of an ancient, but brilliant Vic 20 game.

The introductory blurb gives the background story to the game, and in typical Minter fashion it's a load of twaddle. The game is a fast action shoot-'em-up, you have to survive as long as possible and amass the biggest score.

The action takes place in a window which takes up most of the screen and you control a spaceship which has a detachable nose cone. The ship is mouse controlled and the nose cone moves towards the ship when the right mouse button is pressed. The left mouse button activates laser bolts on both the ship and nose cone.

Enemy ships stream on to the screen in formation, slowly at first, but speeding up later in the game. They follow set patterns and collision with them means the loss of a life.

When blasted with your laser bolts they turn into growing, glowing diamonds. If these are not shot they quickly turn into bombs which drop down the screen.

When the going gets too tough and you know you're about to die you can hit the Control key and commit suicide by exploding a smart bomb which kills everything on screen. However, instead of immediately dying you turn into a ghost for 10 seconds. In this state the enemy and their bombs pass right through you, but you can keep blasting them.

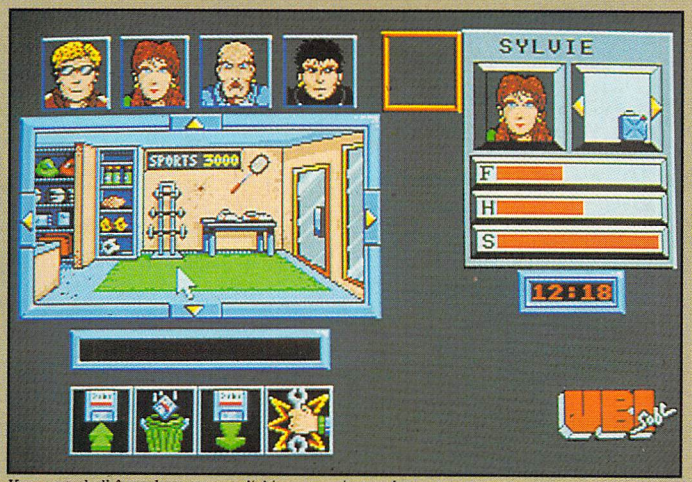
The graphics are superb – the sprites are well defined and multicoloured bands move smoothly up and down the background grids on which the action takes place. There isn't any music, just a few sound effects, though these are reasonably well done. (You are told to switch your hi-fi on if you want music).

Grid Runner is a tough game. Its fast, furious gameplay will be loved by all shoot-'em-up fans.

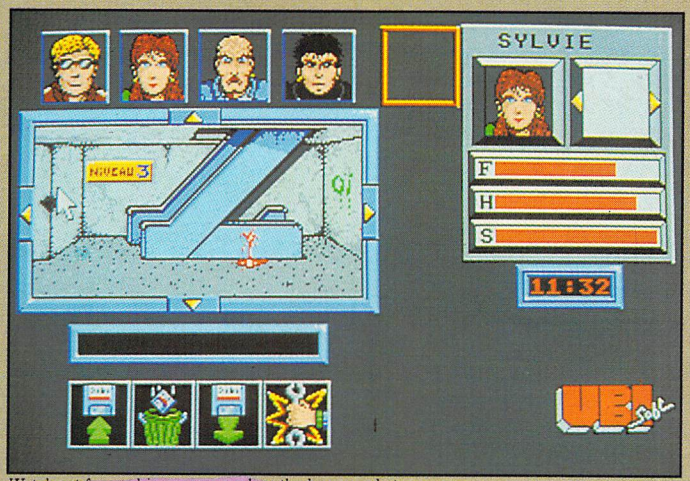
Roland Waddilove

Dead to rights

Product: Zombi
Price: £19.95
Supplier: UBI Soft, 1 Voie Felix Eloue, 94021 Creteil Cedex, Paris, France.
Tel: 010 3 3148 989900



You control all four characters – clicking on an icon selects one



Watch out for zombies as you explore the hypermarket

GEORGE A. Romero's Zombi, Dawn of the Dead was the classic film of this game. Having watched it on video on numerous occasions I will always remember it for the synapse-straining tension that enveloped me. Zombi, from UBI Soft, is an arcade/adventure game based upon that film – the setting is the same, the characters recognisable and the atmosphere unmistakable.

Having reviewed it several years ago on an 8 bit Amstrad CPC, I was eager to see what enhancements an extra eight bits could bring to an already impressive game. The most noticeable changes are the improved animation, the greater use of colour and a much simplified control system.

A mysterious disease is sweeping the United States, stiffies are getting up and walking about. They take great delight in chomping on the rest of us, thereby increasing their own numbers. The four main characters steal a helicopter and escape to the countryside, land on top of a huge hypermarket and set about exterminating its resident zombi population.

The aim is to wipe out the rancid residents, deposit their rotting remains in the hypermarket's deep freeze and finally block off the hypermarket doors with the articulated trucks parked outside.

Once loaded, the program divides the screen into a series of windows and icons. Four small icons at the top show pictures of the game's main characters and you choose the person you want to control by clicking the mouse on his or her image.

The character's vital statistics appear in a large window to the right and the view of the immediate surroundings is displayed in the main viewing window. A second group of icons allows you to save your current position or load a previous one, abort the game, or use one of the objects you are carrying.

You begin the game at 11am with all four characters standing on the hypermarket roof. Taking your courage firmly in both hands you select a character and click on one of the direction icons, the disc drive boots up momentarily and a new scene scrolls into view.

Flight by flight you creep down the staircase until you reach the third floor. All is quiet. On the floor is a pool of blood from an earlier struggle, but the victim has gone.

Clicking the Left icon you come face to face with your first zombi, an emaciated creature walking left and right across the screen, the monitor echoes with its fleshy footsteps as you wait for the beast to attack.

The zombi turns, the pointer changes to a fist, and you pummel the left mouse button as though your life depended upon it. Stepping over the rancid remnants of your sparring partner you make your way to the armoury on the second floor. Click on the weapon of your choice and you are now ready to dish out some serious aggro.

With a gun in your hand you don't have to wait for a zombi to attack, just select the Use icon when a creature lumbers into view, position the gunsight on its head and blat – one ex-zombi!

By the way, I suggest that you locate the hypermarket's power supply before the clock strikes 10, because the sound of fleshy footsteps is awfully scarey in the dark.

If you want a game that's got lots of atmosphere look no further – my wife had to leave the room because she couldn't take the pressure!

Jon Revis

Sound	*8*
Graphics	*8*
Playability	*10*
Value for money	*9*
Overall	*9*

SECOND Sight

One of the superb features of the night sequence is the way that you can point to one spot on a pitch black screen and pick up an object that you noticed earlier.

So long as you can follow your mental map of the building you can find your way back to the safety of the roof, all the time praying that your journey will not be interrupted by the pitter patter of large footsteps.

James Riddell

SECOND Sight

I can think of many ways of spending a Monday evening, and doing a bit of graveside protection work doesn't even figure in the reckoning.

There is plenty of zapping here, but both graphics and animation are poor and the game presses hard on the boredom button. There are better games on the market this month and much better ways of spending £20.

Nic Outterside

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

SECOND Sight

Another Jeff Minter classic. Amazing multicoloured graphics, hundreds of sprites and lightning gameplay. If this is your cup of tea then rush out and buy it.

However, steer well clear if you like a more sedate game in which a little intelligence is required.

Janice Murray

Sound	*6*
Graphics	*10*
Playability	*9*
Value for money	*10*
Overall	*9*

Revel in Raffles

Product: Raffles
Price: £19.99
Supplier: The Edge, 36/38 Southampton Street, Covent Garden, London WC2E 7HE.
Tel: 01-831 1801

BURGLARY can be a risky business, especially when your escape route is blocked. And that's where you find yourself in Raffles. When old man Crutcher died he hid his gems all over the mansion, so his wife decided to lure a burglar in to find them – you!

Unfortunately, she forgot to mention the mutations which resulted from her late husband's experiments, so not only are you expected to recover all the valuables, you also have to avoid ankle-eating giant mice and ear-devouring monster canaries.

This graphic arcade adventure features a 3D perspective view of your surroundings. The massive mansion is littered with furniture almost all of which is capable of being pushed and pulled about the rooms. Various other objects can also be collected and carried round with you, but only one at a time.

More often than not the object you need is way out of reach, so some wild balancing acts are required, such as stacking a book on a candle on a glass on a bottle on a plant and so on.

Most of the rooms seem to have puzzles which need to be solved. Trying to avoid or disable the mutations while frantically working out a sliding puzzle in a room full to the brim with tables covering gems and escape routes, becomes tremendously challenging.

The mice can be satiated for a while with a little bait, but wake up again when you return, so it's wise to procure a supply of goodies early on. The canaries, too, can be contained with care with the use of an obvious object. Many objects are hidden behind or under furniture so you'll have a good deal of searching to do.

Control, by either keys or joystick, is precise and manageable. The ability to pause the game and save and load positions is a welcome bonus.

Graphically I found little to fault. Everything is colourful and lifelike with simple but effective animations in many rooms. There's even a fully equipped bathroom and snooker room with balls which can be potted if you feel like a change of pace.

It's a pity the sound effects couldn't have been a little more varied.

Raffles is a good example of balance with excellent use of the micro's graphic potential combined with a simple, but believable plot, mind-blowing puzzles and the shiver of fear which adds the urgency necessary for addiction.

Make sure you set aside plenty of time to solve this one.

Pat Winstanley

SECOND Sight

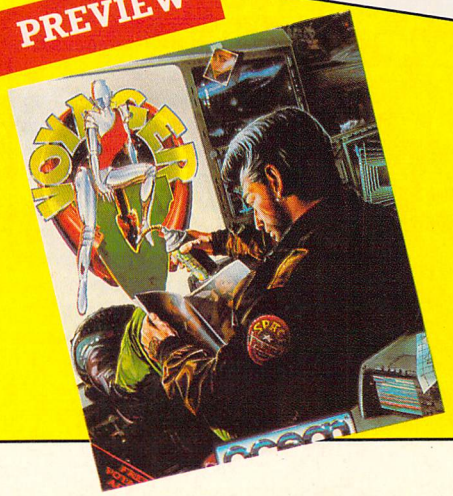
This reminded me of Crafton and Xunk, a game originally written for the Amstrad CPC and later converted to the ST. The gameplay and graphics are almost identical.

If you like graphic adventures in which you explore locations, search for objects and use them to solve various puzzles you'll enjoy this offering.

Janice Murray

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

PREVIEW



Voyager

Ocean (061-832 6633)

VOYAGER is an interesting 3D game, reminiscent of Starglider 2 and Driller. You control a tank and your view is out of the windscreen on to a flat and rather barren landscape. Dotted around are blocks, pyramids, radar towers, and, of course, enemy tanks and aircraft.

You can turn freely and move forward and back. Your gun sights can be moved independently and can be raised and lowered. The aircraft can be a nuisance and I found the best tactic to be to reverse at full-speed while raising the turret skywards to knock them out of the sky.

The tanks need to be disposed of quickly as they inflict a great deal of damage. Fortunately, they can be spotted on the long range scanner. A good, competent game, but not in the same league as Starglider 2.

Roland Waddilove

ARCHIPELAGOS

Atari ST screen shots

Imagine a game without violence, yet as chilling as abandoned places where people have died and never returned.
Imagine a 3D world, yet the only forces are those that come from the ground.
Imagine the danger of a tormented soul, carried aloft by nothing greater than the wind.

Archipelagos is a completely new sort of game. It offers 9,999 living landscapes, in 3D, with continuous smooth movement and scanning. It is so extraordinary it defies classification. It is the experience of the metaphysical.

Archipelagos is conceived and coded by Astral Software.

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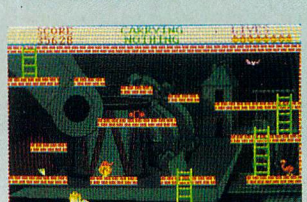
This eggcellent game is guaranteed to be salmonella free on your Amiga, ST or PC machines. It will give hours of entertainment and no matter how many times you unwrap the disc and sample the goodies it will neither make you fat nor rot your teeth!

CHUCKIE EGG II

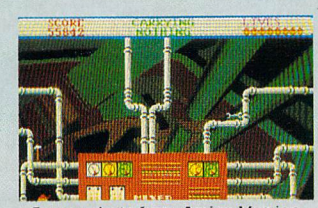
Available on Atari ST/Amiga/Spectrum/Commodore/Amstrad soon on PC

CHUCKIE EGG

Available on Atari ST/Amiga/Spectrum/Commodore/Amstrad /Atari/MSX/Dragon/BBC/Electron soon on PC.



Screen shots from Amiga Version



Screen shots from Amiga Version

Review of Chuckie Egg by Computer Games Week

Gameplay 90%, Grafix 85%, Overall 89%

P'n'C Pick & Choose

Cheques & P.O. to: Pick & Choose (F.G.) Ltd, 45 Bury New Road, Manchester M8 8EG, Tel. 061 831 7922

P'n'C Pick & Choose

Gung ho Ranger

Product: Airborne Ranger
Price: £24.95
Supplier: Microprose, 2 Market Place, Tetbury, Gloucestershire GL8 8DA.
Tel: 0666 54326

MICROPROSE has a happy habit of delivering fine simulations of all kinds for the ST. This is the company which brought us Gunship, F-15 Strike Eagle and *Atari ST User* Star game The President is Missing.

Now comes an excellent opportunity to get into modern commando warfare. In Airborne Ranger you are a member of that crack American elite commando unit tackling a variety of missions behind enemy lines.

Its sturdy and stylish box houses a 40-page manual, keyboard template and two discs. Boot up the first disc and you must negotiate a protection password before getting into the program proper and the first menu screen.

A mission is selected from a menu offering destroying a munitions dump and liberating a POW camp, plus many more besides. Perhaps the munitions dump task is the easiest to get into.

So pack a few supply pods with equipment you might use – such as grenades, time bombs and first aid kits – and prepare for the air-drop.

You fly a V-22 Osprey aircraft over enemy territory and drop up to three supply pods behind their lines, then parachute in, taking care to avoid minefields and barbed wire.

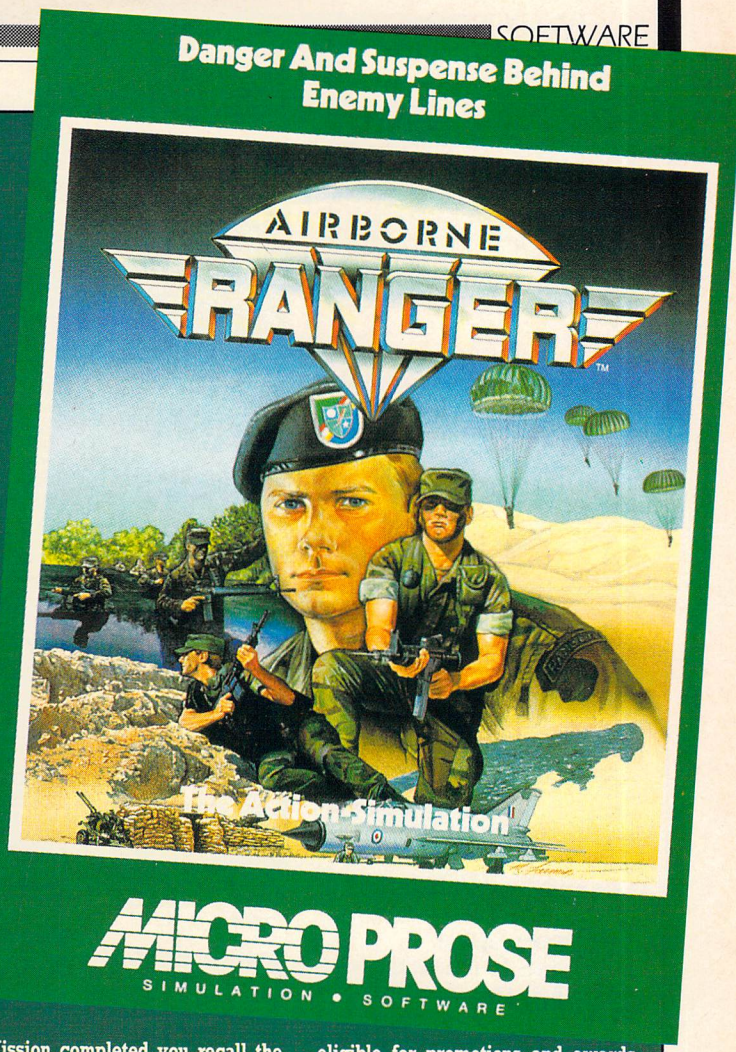
Once on the ground your mission begins and a stop watch counts the seconds before you have to rendezvous with your pickup aircraft.

You move across a vertically scrolling landscape which varies between desert, temperate and tundra type between each mission and view your movements from above.

There are many pitfalls to avoid and decisions to make – sometimes a quiet cautious crawling approach is better than an outright run and blast through the lines. Tactical decisions will be important in determining your success.

You must also consider at which points you should use your automatic rifle, a hand grenade, LAW rocket launcher or a combat knife.

It is a wise ploy to toggle frequently to the map sector of the game to mark your progress and pinpoint targets. Also keep an eye on the countdown clock. It pays to be stealthy, but if you spend too much time sneaking around you'll miss your pickup.



Mission completed you recall the Osprey to pick you up at a predetermined rendezvous point. If you miss it and run out of ammunition you may be shot or risk the chance of capture and transportation to a POW camp.

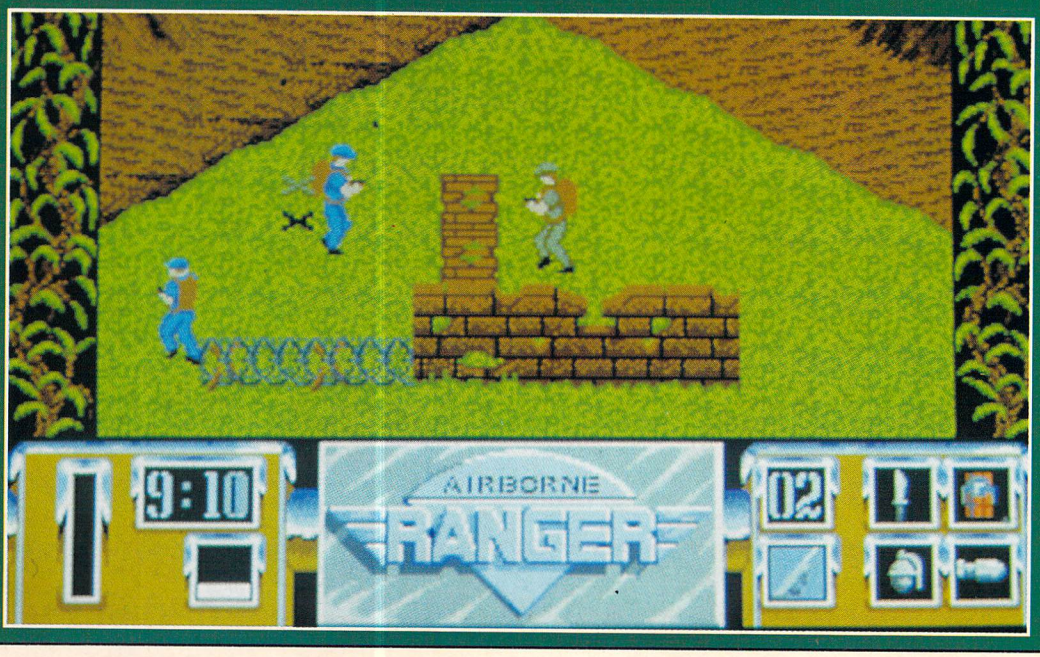
Successful, you will be promoted through the ranks to eventually reach Lieutenant Colonel, and perhaps a medal.

If you choose the Campaign option you are included in all missions in an order determined by your superiors. This shows your commitment to a career in the Rangers and you will be eligible for promotions and awards not available to ordinary Rangers. These include the lofty rank of Colonel and the award of the Congressional Medal of Honour.

The graphics are good, if not outstanding, the sound effects realistic and the gameplay truly addictive.

My only criticisms concern the small size of the sprites and the initially difficult play – it took me 10 minutes to get to the first trench! That aside, this is one I can wholeheartedly recommend.

Nic Outterside



Sound	*8*
Graphics	*8*
Playability	*9*
Value for money	*8*
Overall	*9*

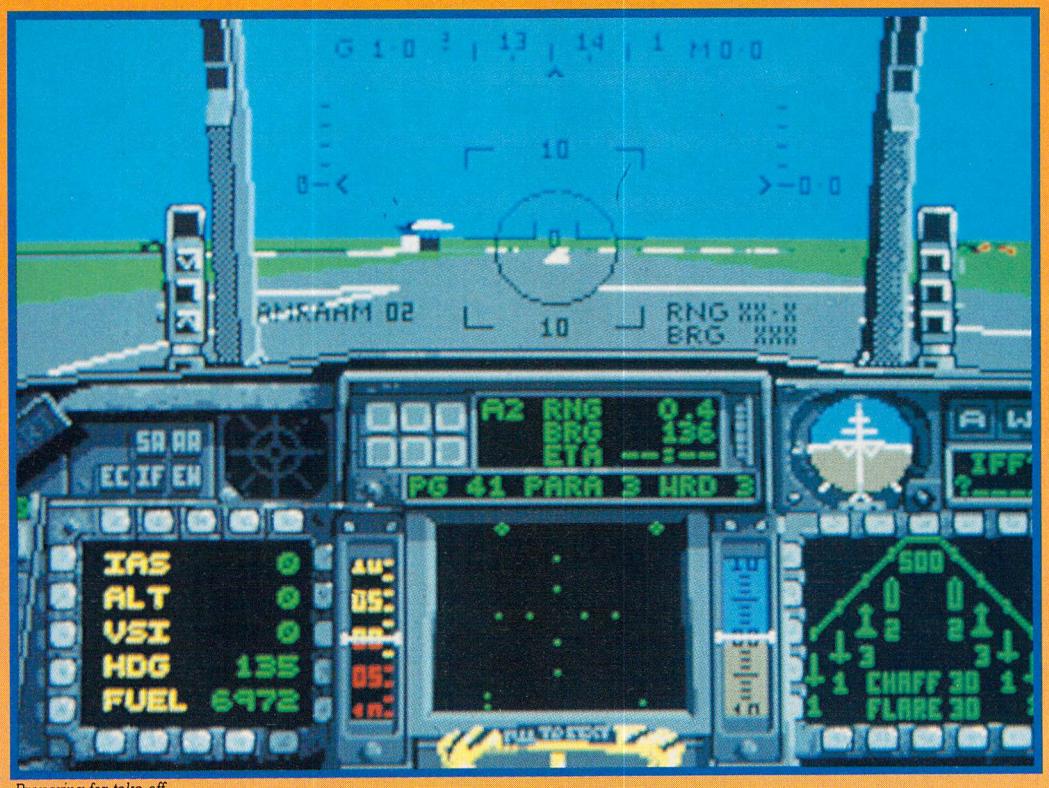
SECOND Sight

Action stuff this, full of suspense and fraught with danger – definitely my idea of an addictive game.

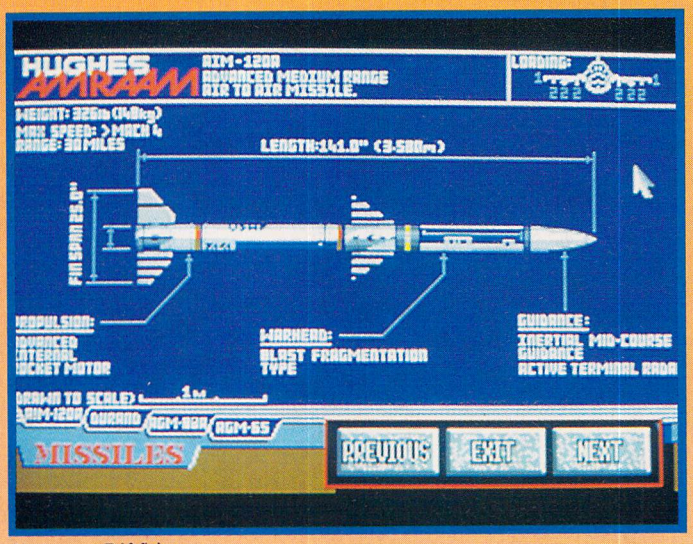
You will need to plan well and will probably come unstuck more often than not, but that's all part of the fun. There is plenty to explore and many options to investigate. Sprites could have been a little larger, but other than that, highly recommended.

Jayne West

Product: F-16 Combat Pilot
Price: £24.99
Supplier: Digital Integration, Watchmoor Trade Centre, Watchmoor Road, Camberley, Surrey GU15 3AJ.
Tel: 0276 684959



Preparing for take off



Arming your F-16 fighter

Fly on Falcon

COMBAT flight simulators for the ST are very much the flavour of the month and most to come this way have been superb adaptations of the real thing.

Now comes Digital Integration's version of the same fighter plane simulation. How does it shape up to the sharp competition?

F-16 comes on two discs with impressive documentation, including a 100-page flight manual – essential reading – and a helpful "kneepad" help card.

Load the program and the screen changes from a stunning picture of an F-16 Falcon pilot to show the squadron crewroom.

You point the mouse cursor at various parts of this screen to bring up a variety of menu options.

Clicking on the filing cabinet displays F-16 pilot details, drafts on the wall enter aircraft and weapon information, while the crewroom window gives you access to a flight demonstration. The pilot himself triggers a quickstart option.

To continue you click on the crewroom door to move to the mission selection screen. Here a pentagon contains five possible mission selections, with titles such as Operation Deepstrike and Operation Hammerblow.

A further two options in the form of a training flight and a dogfight (two player) mode are in boxes at the top of the screen.

After selecting your mission the next screen shows an electronic map of your operations area; clicking over buttons beneath it reveals known enemy bases, radar units, tank battalions, fuel dumps and so on.

The display also gives details on mission objectives, intelligence reports and meteorlogical forecasts. You should spend a fair amount of time familiarising yourself with this screen and making your flight plan to avoid a hasty exit from the simulation once you are airborne.

Your next task is to arm the F-16, and the screen toggles to the aircraft hangar. Here you can select from a multitude of weaponry and fuel. The weapons are awesome in their variety and type, from the run-of-the-mill Sidewinder through to AGM Laser Mavericks and the revolutionary Lantirn night vision targets.

Choose the appropriate weapons for your mission but keep an eye on the All Up Weight balance. The greater your payload the less manoeuvrable and responsive your F-16 becomes.

When you are fully stocked the pilot will give you the thumbs up and lower his visor.

Now you are ready for take-off. Enter a protection password from the manual, grab the joystick, release your wheelbrakes, open the throttle and taxi to the runway. Watch your speed as you soar – just hear those engines rumble – down the runway to take-off ... too high a ground speed will again send you to the angels a bit early.

Adjust your speed, release the airbrakes, pull the nose up and you will soon be climbing into the wide blue yonder. Pull up the landing gear and your mission begins.

The missions themselves are delightful in their complexity and variety, providing you have been thorough in your pre-flight planning.

Though fairly smooth, the aircraft does not handle very cleanly and tends to over-respond.

It is all too easy to crash even on the less complex levels. But the sound effects are stunning, adding to the realism.

Though the cockpit controls are well presented and informative, the external graphics are disappointing compared to others I've seen. The colours are garish – a daze of cobalt blue and emerald green – and enemy aircraft and missiles fly by in a jagged and somewhat blockish manner.

Having said that, F-16 is still a fine product, but the Spectrum Holobyte Falcon simulator has the edge for my money.

Nic Outterside

SECOND Sight

A pity that this wasn't released last year, when it would have probably done very well. A nice simulator but let down by a bad choice of colours and perhaps it gets a little tedious going through the many menus before each mission.

It has arrived after Spectrum Holobyte's Falcon, which has done very well, but F-16 has little to offer which would be worth spending another £25 for.

John Butters

Sound	*9*
Graphics	*8*
Playability	*9*
Value for money	*8*
Overall	*8*

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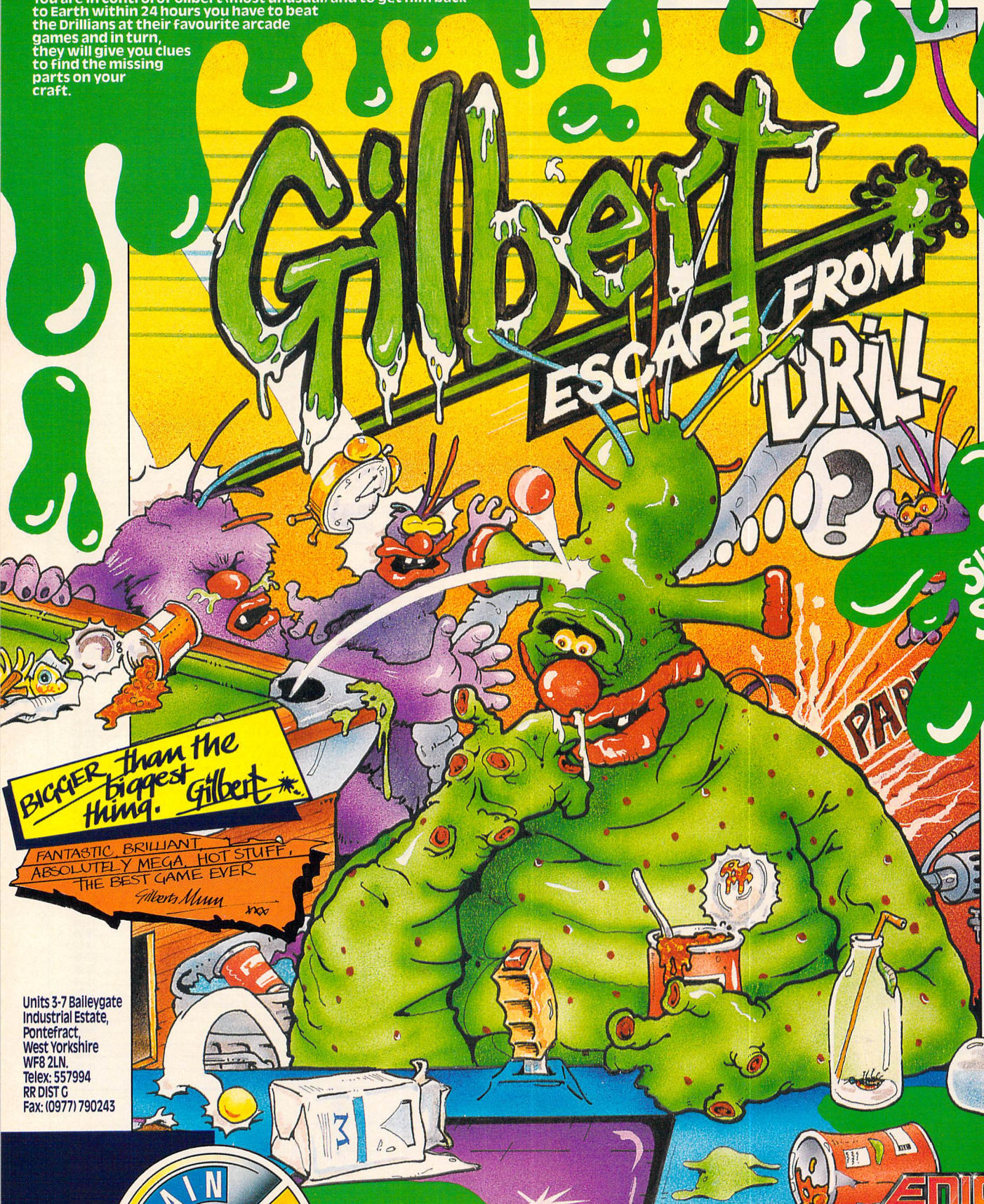

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Squeek for joy

Product: Skweek
Price: £19.95
Supplier: Loriciels/US Gold, Units 2/3 Holford Way, Holford, Birmingham B6 7AX.
Tel: 021-356 3388

TAKE one animated chrysanthemum, a handful of coloured tiles, a bunch of furry adversaries and what have you got? Skweek from Loriciels, a game that radiates fun and makes Pacmania look like kids stuff.

The world of Skweez'land, we are told, lived in peace and harmony for centuries until the day the Snarks invaded. At the end of this preamble you are advised that the once pretty world has been infected with a highly toxic blue Skweeticide. Skweek – that's you – has been despatched to perform a clean up operation.

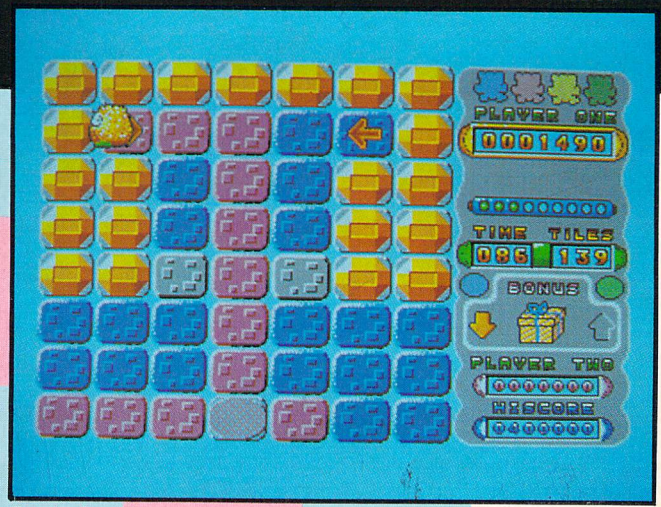
Skweez'land comprises of 99 continents, each laid out in the shape of an extended vertical rectangle. These in turn are constructed from small tiles – initially blue, although you can turn them pink by walking over them. The aim of the game is to disinfect the whole continent before the time limit expires.

With this simple principle at the heart of the game, the programmers then set about complicating matters. For starters, they gave each continent its own resident monster community, ranging from a relatively slow moving disinterested species to swift-footed and highly aggressive ghosts. Most monstrosities can be blasted with your standard issue zapper. Others are a touch more resilient.

Not content with providing an ever increasing level of enemy activity Loriciels then turned its attention to the ground beneath your feet. On the earlier levels the majority of tiles in a continent are blue, although a few are indestructible orange or green.

This situation quickly changes as you progress. Before you know it you will be sliding on ice, tip-toeing around land mines, being propelled effortlessly along lines of arrows, or falling through a disintegrating floor.

Bonus tokens are many and varied. They can boost your fire power, rack up thousands of bonus points, buy you more time or lives, or even teleport you to the next continent.



Turn the tiles pink

A couple of handy pointers on the information panel show you what bonus tokens are currently available and in which direction they are to be found.

Skweek's graphics are brilliant – every sprite literally exudes personality. Excellent examples are the cuddly teddy bear bonus tokens – collect all four tokens and you will receive your free five bonus lives and an all expenses paid trip to the next level.

As the complexity of each continent increases you must develop your tactics as the random dash about and blast everything in sight technique soon becomes ineffective. One way systems are implemented with increasing regularity, with the more devious ones disintegrating behind you as you pass.

One wrong turn in this kind of situation can drastically affect your chances of success.

In the superb demonstration routine, lasting almost 10 minutes, Skweek takes you through every aspect of the game – the continents, the opposition, the multitude of bonuses and even a blow by blow account of every feature on the on screen information panel.

An up tempo background tune that plays throughout soon becomes unbearable, but can be silenced without affecting other sound effects.

To say that Loriciels had thought of everything would be an understatement. In the unlikely event of you becoming bored with tackling the same few levels time after time you can select Random mode on the options screen – the sequence of continents that you will encounter is then in the lap of the gods.

If ever there was a game that could be described as fun for all the family it has to be Skweek. You begin your quest with a more than generous quota of lives. Following a fatal mistake you will find that any special tokens you were carrying immediately before your demise are still active – a most surprising but welcome feature.

With helpful facilities such as these even your granny could obtain a respectable score and feel that she had got her money's worth.

Carol Barrow

SECOND Sight

Skweek is one of the best games to have graced my machine so far this year. It is a game that you can sit down and enjoy when you want to relax – wrap your brain around complex mazes against the clock, while simultaneously zapping and blasting the enemy without experiencing a hint of aggression.

James Brown

Sound	*8*
Graphics	*9*
Playability	*9*
Value for money	*9*
Overall	*9*

Tough stunts

Product: Super Stuntman
Price: £19.99
Supplier: Code Masters, Lower Farm House, Stonythorpe, Southam, Warwickshire CU33 0DL.
Tel: 0926 814132

THERE is a fine line between stardom and failure for the budding stuntman. In Code Masters' Super Stuntman you aim to complete seven scenes of a major feature film – but often land up on the wrong side of the line.

The action takes place against a vertically scrolling backdrop which varies depending upon the scene in progress. Each allows for three "takes" after which you are unceremoniously sacked.

The game opens in the forest where your task is to negotiate the terrain in a car. You skilfully avoid puddles and oil slicks which spin the car and landmines which turn your vehicle into a flying machine temporarily, culminating in unceremonious annihilation.

The area is crisscrossed by rivers and canyons, some of which may be negotiated using bridges while others can be jumped via ramps. Watch out, too, for moles which burrow their way across the screen, wiping you out if they touch, and blocking your route.

As if that wasn't enough, there's a whole squadron of hangliders, helicopters and cars which do their best to shoot and shunt you into mines and canyons.

If you make it through the forest you start again with the next scene which sees you in a power boat with watery hazards similar to those of the forest stage. Other scenes include city street chases and turbo boost Grand Canyon jumping.

Graphically there is little to criticise. Hazards are clearly visible, even at high speed. Unfortunately, avoidance has been made deliberately difficult.

The game is joystick controlled. The one thing lacking is a practise mode. Your vehicle appears to have four loosely attached wheels which are covered in oil so that even driving in a straight line on clear ground you skid and slither all over the place – usually into the nearest mine.

You can have either continuous background music or spot effects only, both of which are effective and non-grating. The difficulty level is such that only the most hardened arcade addict is likely to even glimpse the later scenes.

Pat Winstanley

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

SECOND Sight

Super Stuntman is good to look at and fun to play, but poor control makes it too hard to achieve anything, and I became a bit bored after a while. Graphically and sonically OK, but it's too difficult for my liking and I found it didn't have lasting interest.

Andrew Swift

STRIKE

Product: Strike
Price: £9.99
Supplier: Virgin/Mastertronic, 2/4 Vernum Yard, Portobello Road, London W11 2DX.
Tel: 01-727 8070

Not bowled over

WHILE software prices are high it is good to see Mastertronic offering Strike, a one or two player 10-pin bowling simulation, at under £10. This is a faithful representation of the sport, complete with a built-in score pad for both players.

Controls can be operated entirely by keyboard or a combination of keyboard and joystick. Options include left and right movement of the player, pick up and bowl the ball, set the power of delivery and application of left or right-hand spin.

You pick up the ball and bowl it by pressing and releasing the joystick fire button. Let go too soon and you'll drop the ball on your foot. Too late and you'll throw it over your shoulder at the head of the scorer behind you. Pace and spin of the ball are set before delivery using sliding scale meters.

The game is hardly pacey and doesn't require any great degree of coordination or skill. The visual presentation is adequate, but you get just one unchanging view of the bowling alley.

A small inset window shows how many skittles remain standing and a few token bystanders are thrown in to relieve the monotony. However, they merely move a hand or a foot occasionally.

The level of difficulty can be set at the beginning of each game and ranges from one to nine. At level one the computer opponent dropped a few balls on its foot, though at level nine it scored a strike on each throw.

There is also a two player option which gives the game a much more competitive edge, making it altogether more enjoyable.

If you're not familiar with the rules and scoring in 10-pin bowling the inlay card gives you the necessary information. At half the price of most games on the market today it is worth a look, but don't expect too much from it – it's very much a budget game.

Niels Reynolds

Sound	*5*
Graphics	*6*
Playability	*6*
Value for money	*8*
Overall	*6*

SECOND Sight

I enjoy 10-pin bowling and this isn't a bad simulation as far as it goes. It is visually a bit dull and the sound's a bit naff, but the tension grows through the 10 frames. Even so, I'd suggest you try before you buy as it won't be to everyone's taste.

James Brown

JEFF MINTER'S Super GRID RUNNER

Some forms of combat are abstract in the extreme. One such is the 'videogame', In 'videogames', players use levers and buttons to alter the behaviour of small coloured blobs on a display screen. By causing one blob to intersect another blob in a certain fashion, a number displayed on the screen is increased, giving satisfaction to the player and affording the necessary element of competition.
One terrestrial lifeform decided to create such a form of ritualised combat, called Super GRID RUNNER

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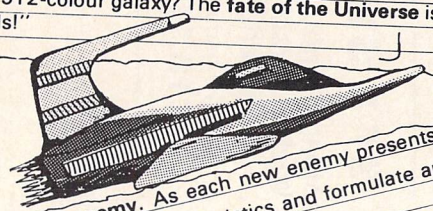

HINTS FROM THE STARFIGHTER'S MANUAL...

7.7 **Know your enemy.** As each new enemy presents itself, evaluate its characteristics and formulate an effective response
8.3 **Don't** loiter near screen edges. Something nasty may emerge.
8.8 **Be aware** of the positions of active Rail Guns.
9.1a Where possible, **destroy** a threat rather than evading it.
9.1c Where patterns exist, **learn them.**
13.0 **Never** die by the hand of the enemy. Choose Suicide and take advantage of the benefits of martyrdom.
21.1 **Don't** shoot your Extra Life goats.
21.2 **Please Don't** shoot Bonus Llamas.

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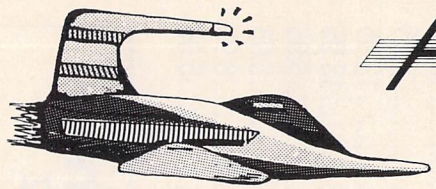

ANDES ATTACK

- AS SOON AS I PRESSED THE MOUSE BUTTON I KNEW I HAD TROUBLE - a pair of HASSLERS appeared promptly and slammed in to me. One life gone and little to show.

***To show who was in charge** I accelerated towards the descending LANDERS and wrote several of them off - then came the cry for help - a LLAMA had been nabbed by one. Of course it was far off, on the edge of the SCANNER - I accelerated towards it, ducking and weaving and luckily destroying an HACD** on the way. When I got there I carefully shot the lander, caught the llama and put it down on the surface, protecting myself with a dab of SHIELD.*

No relief - I had run into a bunch of seeded mines and an NPB was right ahead. I punched CONTROL for the SMART BOMB but too late, second ship gone.*

*My survival into the next wave was in doubt - time to **Sharpen Up!** As my third ship rezzed in, a MUTANT and a couple of HOVERDRONES appeared - this time the SMART did its stuff. I had a second to breathe, study the Scanner and decide where the most urgent threat was.*

ANDES ATTACK COMPETITION
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Then, two more cries for help, nearer this time and close together. Flying now by instinct I managed to rescue both llamas at once. Wonderful - until the MOTHER SHIP zapped me. They fell to their deaths, from a great height. Six more to die and we'd lose the planet and plunge into a fight in Deep Space.

*No time to worry - two SPORES appeared right ahead - a second Smart saw them off. The next few secs were pretty productive - suddenly the Scanner began to clear but **what was this** - something coming at me FAST! Turned out to be a KUSSTOM BLYTTER and it didn't like me. I trashed it with my shield on an a well-aimed blast, and so into the next wave six of my llamas intact.*

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New code for old

Phil Lawson discovers an easy way to convert his Z80 assembly files to 68000 machine code

THE relatively inexpensive ST is now being regarded as the logical upgrade from old 8 bit machines like the Spectrum.

As the majority of 8 bit micros were based around the Z80 cpu – the rest being 6502-based – it follows that a fair proportion of ST owners will have a good understanding of Z80 machine code, knowledge now irrelevent, as the ST has a 16 bit 68000 processor.

Recognising that many programmers will have a large assortment of machine code routines which they'll want to re-write for the ST, CP Software has developed a clever package which translates Z80 source code into 68000. In fact this utility was originally written to help convert the author's own programs.

First, it is necessary to copy the Z80 source code across to an ST disc. If the code is fairly short, less than 1k, this could easily be done by typing it in using a text editor and saving it to an ST disc. If the code is too large to be entered by hand – often the case when converting games – the file will need transferring with a comms package.

When the code has been transferred the translation process can begin. This is a simple matter of inserting the translator disc in drive A and turning on the machine. Double click on the desktop X.PRG and enter the name of the file to translate.

The program requires you to set three

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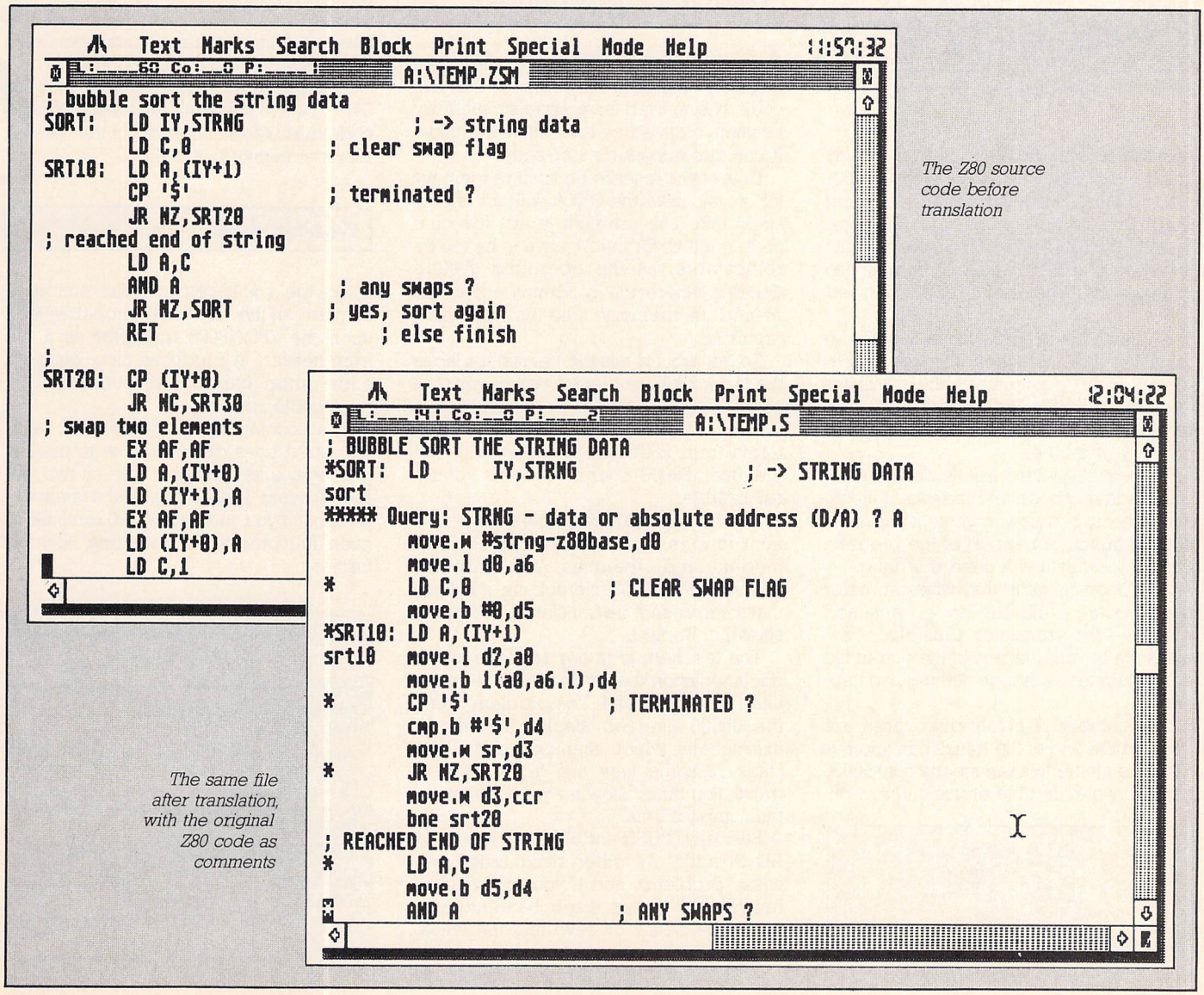

The Z80 source code before translation

The same file after translation, with the original Z80 code as comments

◀ **From Page 43**

options, the first of these being: Add 68k file header. The main part of the conversion is carried out by matching each Z80 register with a corresponding 68000 register, as shown in Table I. A small header is included with the file which initialises all the 68000 registers to zero. A few REM lines are also added to remind you how the different registers are paired.

The second option is whether to include the original Z80 source code in the output file. This may seem strange when the idea is to get rid of Z80 and replace it with 68000. However, many large programs will have machine specific routines, such as general I/O and graphic handling, which will need rewriting by hand in 68000. If the original Z80 code is added to the output file these routines can be found and changed easily.

a7 =stack pointer	**d7** =hl
a6 =iy	**d6** =de
a5 =ix	**d5** =bc
a4 =hl'	**d4** =a (d4.hi = a')
a3 =de'	**d3** =f (d3.hi = f')
a2 =bc'	**d2** =Z80base
a1 =used internally	**d1** =used internally
a0 =used internally	**d0** =used internally

Table I: The distribution of Z80 registers

Another good reason for including the original code is when the inevitable errors occur – sometimes the translator gets a little confused as to whether a particular instruction is altering part of memory or a label.

Two points where it falls down are in self-modifying code and the use of illegal instructions, both now commonly used by Z80 programmers. If part of the program includes either it will need rewriting.

The good news is that when an error does occur – and my code contained plenty – the translator puts the error message in with the rest of the output file and continues as though nothing had happened.

The number of errors discovered are given at the end of the translation and it is a simple matter to examine the final 68000 assembly file, find the errors and sort out any problems.

DAA	IN	RST
DI	RRD	HALT
RLD	OUT	EI

Certain uses of SP

Table II: Non-translatable instructions

In some cases you'll find that many errors reported are due to one or two specialised routines in the original Z80 file. I found it easier to edit the Z80 file, make the necessary changes and re-translate it. This is where the third and last option comes in.

The translator makes two passes through the Z80 file. The first calculates the labels and offsets, while the second converts the instructions. The whole operation can be speeded up by loading the labels from a previous translation. This results in skipping the first pass altogether, which on long files can result in a considerable time saving.

Speaking of time, the resulting 68000 code, once assembled, can be speeded up by manually tweeking the time-critical loops.

Absolute and relative

One of the major differences between these two machine languages is that Z80 code has to start at a specific memory location, dictated by the ORG instruction. It can also access data directly.

Unless we reserve an area of memory for storing data the 68000 will not understand this. The problem is that machine code routines for the ST have to be totally relocatable, as the operating system decides where the programs are to be placed in memory, and not the programmer.

To get around this the translator places the label Z80base at the beginning of the code. All jumps, memory accesses and labels are then calculated in relative terms from Z80base, thus ensuring that the final 68000 source code is totally relocatable.

As the Z80 contains more than 700 instructions, with many addressing modes and features not directly equivalent to 68000 instructions, it follows that some cannot be translated. These are shown in Table II.

The last item is rather vague, and the documentation that comes with the translator isn't too helpful. The problem is that the 68000 has two stacks. Therefore, instructions which manipulate the Z80 stack in some way are highlighted at translation time, allowing you to examine their implications.

Basically, PUSH and POP are fine, as is LD SP,addr. All other stack usage will cause problems, and if your code relies heavily on clever stack handling you would be better off rewriting the whole lot in 68000.

When everything has been done you assemble the 68000 assembly language file. The translator was created to produce files that can be assembled using HiSoft's Devpac, but you should be able to adapt the code to any other easily.

The only problems that may occur are through the use of odd pseudo-ops. These are normally concerned with the creation of data statements within the code itself, and the manual for your assembler will tell you the correct syntax.

Two main psuedo-ops used by the translator itself are – M68K_ON and M68K_OFF, which enable you to include 68000 code in the original Z80 file before the translation. To do this you place the two commands at the start and end of the 68000 routine and during translation this code is copied across to the new file.

The 68000 cpu expects all instructions to begin at an even memory location. The translator normally takes care of this for you, but if any data is defined within the program you'll have to include the psuedo-op EVEN. This ensures the assembler starts the next instruction at an even byte.

Do remember that as Z80 code only has 64k of ram to play with the resulting 68000 code must keep all its data in the first 64k block of memory.

Conclusion

If, like me, you have numerous routines to convert to the ST you'll probably look upon the Z80x68000 translator as a gift from heaven. It produces nice, compact code often capable of running at a reasonable speed.

The accompanying manual isn't brilliant, but it does describe how to use the package, and spotlights one or two pitfalls to avoid. I feel that at £99 it is expensive, but if you need some Z80 routines, or even full programs converting, look no further.

FACT FILE

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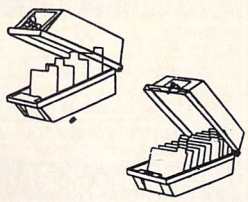

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The 2nd step

Nic Outterside assesses the latest children's art package complete with digitiser input

NEW educational and application products keep rolling in from the programming production lines of HAT Software.

Latest is Stage II, which is billed as an intermediate art package to support and follow on from First Paint, reviewed in the December 1988 issue of *Atari ST User*.

By using the same mode of operation Stage II provides a natural link between First Paint and more sophisticated graphics software such as Degas Elite and Art Director.

It comes on a single disc with accompanying manual in a sturdy plastic wallet. The program has a 16 colour redefinable palette, 24 box menu, 36 different fill patterns and that all-important digitiser input option. It is Degas-compatible and offers variable line width, text and eraser size.

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

Click on the STAGEII.PRG icon and the software boots up to the uncomplicated menu screen. This screen is separated into the fill pattern selection boxes at the top, the 24 choice menu boxes centre screen and the 16 colour palette at the bottom.

The choices represent a giant leap from the nine selections available in First Paint, but steer well clear of the jumble-like assortment on many adult art packages.

Load and Save open the procedures for the task of loading and saving drawn, or partly drawn pictures. All must have the Degas PI1 or Neochrome NEO name extension. You are able to toggle between the two formats using the accompanying Degas option.

The most commonly used Draw option allows you to draw at will on the edit/art screen, while Line permits drafting of straight lines between selected points; KLine expands a line from a start point.

Box, Square, Circle and Oval let you draw those shapes of varying sizes and Text allows single size script at any point on the screen.

Erase re-colours selected areas of your picture to white and Clear erases the whole of the current edit/art screen. Air lets you use a single density airbrush, and Rays controls a focus of circular spray of line rays.

Fill is probably the second most used option in any art package, and in Stage II it allows selection from the 16 colour palette and 36 different fill patterns to flood fill any bordered area.

On to some of the more advanced options: Cut lets you move selected blocks of picture around the screen and Solid changes block parameters, both of which add important flexibility. Small changes the brush size to allow all text, lines and shapes to be painted at the selected size.

Frame, an interesting addition, allows toggling between Filled, which fills any shape drawn with the current fill pattern and colour, and Frame itself, which gives a normal shape outline without fill.

The Colour selection is also useful, permitting alteration of the colour palette in a simple and friendly manner from a sub-menu control panel.

Perhaps the two most progressive options are Zoom and Scan. The flexible Zoom command selects a portion of a painting for minute alteration of detail, an option available on more advanced art packages.

Scan is quite revolutionary at this price point as it allows Vidi ST Digitiser to input digitised pictures for editing and alteration. In fact you can experiment with a digitised photo of a cat included in the package. This option will be a boon to many middle and secondary school art departments which do a lot of digitising in syllabus and exam course work.

My only criticism of First Paint is levelled at the unnecessarily difficult saving and loading which is bound to confuse very young children. In Stage II the Save and Load procedures are the same as in the former product. But whereas First Paint was aimed at 5 and 6-year-olds, this package is undoubtedly for older primary and middle school age children, so such difficulties should be negated.

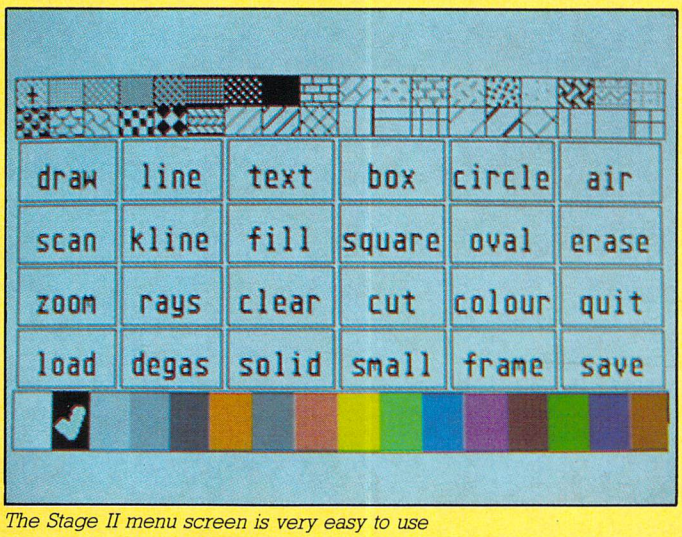
It would have been pleasing to see graphic icon supplement of the menu commands and perhaps the added flexibilty to use other ST digitisers, however, I have no hesitation in recommending this art package for all primary, middle and secondary school children.

FACT FILE

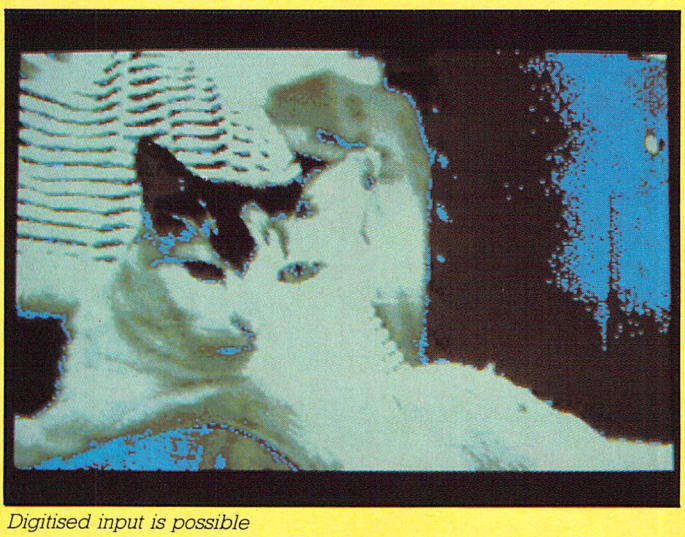
Product: Stage II
Price: £14.95
Supplier: HAT Software, 21 Wyle Cop, Shrewsbury, Shropshire.
Tel: 0743 231763

POINTS FOR:
Does a good artistic and educational job. Easy to use and ideal for any child of seven years upwards.

AGAINST:
Nothing substantial, but menu icon supplement would improve presentation.



The Stage II menu screen is very easy to use



Digitised input is possible

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Let's teach, not educate

John Ridge airs his views on using the ST as an educational tool

PERHAPS the most important consideration, especially if a teaching program is intended for small children, is that of reward. It has to do with what is often called positive reinforcement.

For adults and older children a sense of achievement or the realisation that a step has been made towards some distant goal is reward enough, but small children need the encouragement of something much more concrete and immediate.

If an adult is present to heap praise on the child, well and good, but if the child has only the ST, then the computer must provide the reward.

I once wrote a version of Hangman in which the reward was an additional point to add to the score and the penalty was a little man falling into a tank of water with a splash.

I imagined a child would want to prevent the little man from suffering such a sad fate. Fact is it was a far more rewarding experience to see the man falling from a great height than it was to see the score increase by one. It paid to guess that a word should be spelt Qzxkv. Not my intention at all.

However, thankfully more and more commercial software writers have realised this fact and provide stimulating on-screen rewards for success – for example the reward screen in Softstuff's Things to do with Numbers shown in Figure I.

In addition, try to avoid too many programs that need reasoning for very small children. They love rigmarole of any sort, whether it be a long list of animals chasing the old woman chasing the pancake, or the three-times table.

What parent has not been driven almost to distraction by having to read the same storybook dozens of times in succession? But heaven help the parent who gets a single syllable wrong on the 59th reading. Small children learn by rote, and they learn well.

Any temptation to be twee should also be resisted. Children obligingly humour adults who appear to favour little furry rabbits, but they don't go a bundle on bunnies themselves.

A furry stuffed toy is pleasant and warm. A two-dimensional representation on a monitor screen is neither, except by association in the adult mind. But a comic character is often motivating to children of all ages.

Asking children to type their own name at the start of a program is a good idea – and possibly their age too, because children are keen to advertise how "big" they are.

The complications of using the Shift key to input the upper case letter at the start of a name can be avoided by a few lines of programming. Alternatively your child can use an on-screen letter grid from which selection is made by clicking with the mouse – as shown in B.Bytes B.Spell in Figure II overleaf.

Once a child has mastered the lower-case alphabet the correct use of capital letters should be gently encouraged by example. If the child is beginning to be functionally literate, then personalised messages may help considerably.

Negative reinforcement by the use of messages reading: "Angela, my sweet, you are a nine-year-old dimwit" should be avoided.

What about the ethos of the rest of such a program? When my own children were small I found that if I put on an act of bewilderment and confusion they were eager to rush to my aid.

With me heading off in wrong directions we would eventually find ourselves coping with problems that had yet to be touched upon at school. Instead of being hopeless at arithmetic, we discovered that we were really quite good at it.

In a similar way it might be feasible to make your program appear capable of errors which a child could gleefully pounce on and correct.

The simplest way would be to get the child to say whether something is correct or not, perhaps with randomly-generated errors which presented expressions such as 6 x 12 = 99, 7 x 8 = 13, and so on.

However, children also need re-

Turn to Page 50 ▶

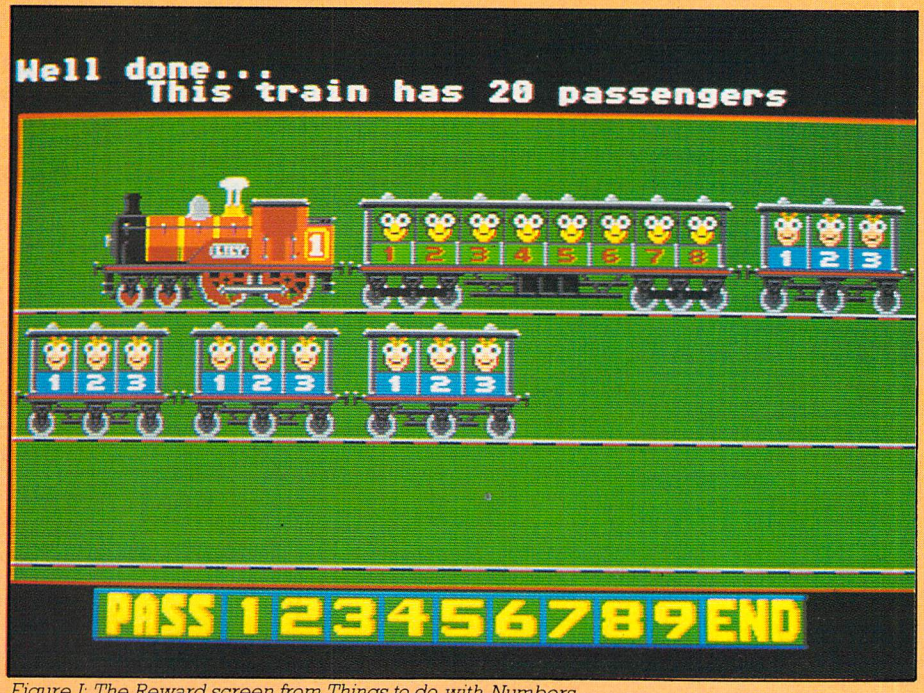

Figure I: The Reward screen from Things to do with Numbers

◀ From Page 49

inforcement of correct answers on screen as displayed in most current commercial educational software.

As soon as you begin to contemplate the possibility of writing teaching programs all manner of ideas present themselves, but it should not be forgotten that the aim is to teach, not just amuse. The ground rules were all thoroughly explored long before the advent of home computers.

It would be as well to visit a library and examine the literature on the subject of Programmed Learning, which was written when teaching machines such as the Bell-Howell Audio-synchofax and Language Master were in vogue.

There is a lot more to it than is often first apparent. For instance, have you ever considered the question of whether minimal-step linear programs ought not to have parallel sequences with different step-sizes commensurate with the degree of understanding as measured by the percentage of correct responses?

Indeed, is it practical to introduce such parallel sequences in branching programs with multiple choice questions?

If the inability to deal correctly with questions indicates the need to cover some previous ground again, how do you loop back without causing discouragement by boring repetition?

These questions and others must be thought out thoroughly before embarking on any exercise which involves trying to use your ST as a teaching or learning tool.

Figure II: The letter grid in B.Spell

The ST must be seen as an aid to imparting knowledge or skills, a means to an end, not a substitute for parents. It will only do this by losing the image of being a mathematical engine. We should teach, not educate.

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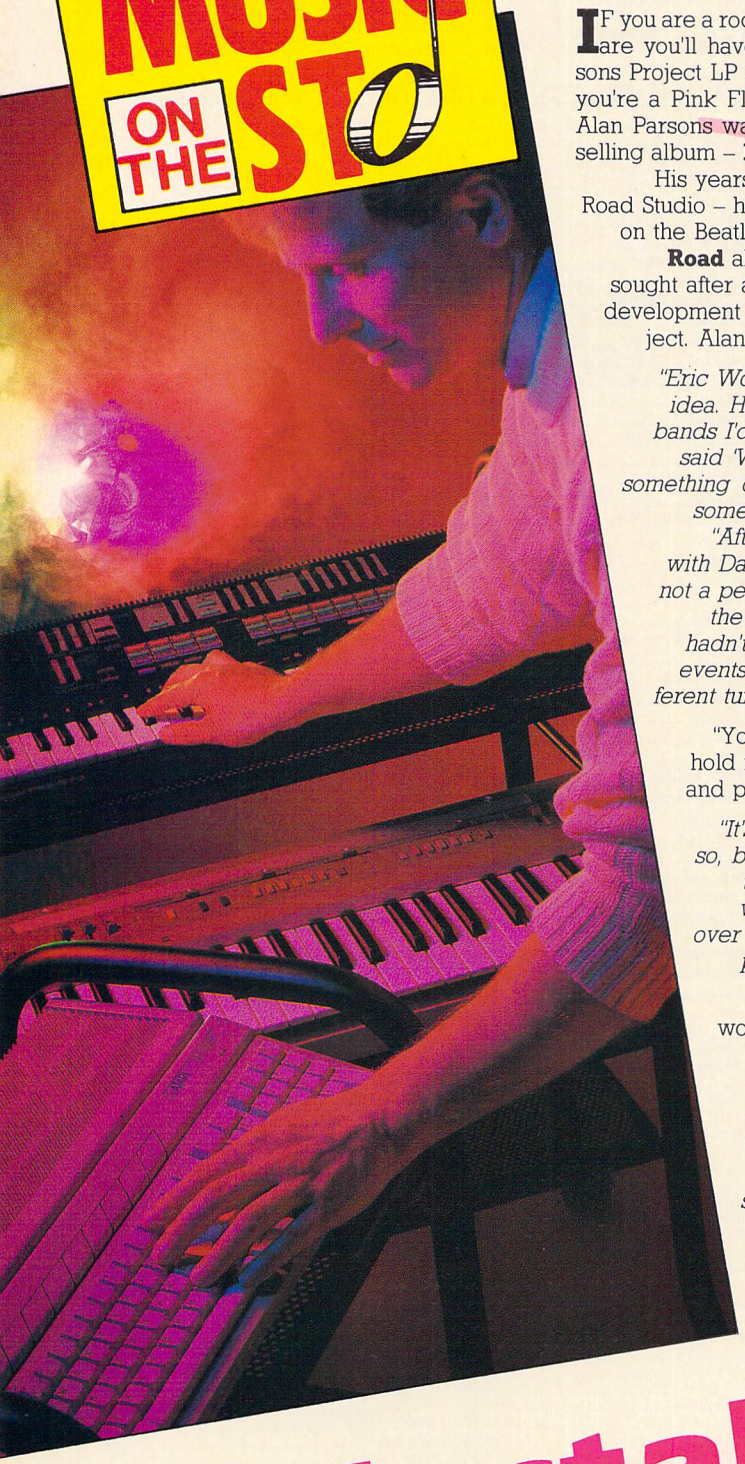

Projectable Parsons

Legendary rock musician Alan Parsons tells Ian Waugh how the ST has opened up new exciting avenues of approach in his often experimental work

IF you are a rock or pop fan the chances are you'll have at least one Alan Parsons Project LP in your collection. And if you're a Pink Floyd fan you'll know that Alan Parsons was engineer on the best-selling album – **Dark Side of the Moon**.

His years at EMI's famous Abbey Road Studio – he was assistant engineer on the Beatles' **Let it Be** and **Abbey Road** albums – made him much sought after and led eventually to the development of the Alan Parsons Project. Alan explains:

"Eric Woolfson came up with the idea. He saw the success of the bands I'd been working with and said 'Why don't you try and do something on your own and make some money out of it?'

"After 12 years in the charts with Dark Side of the Moon and not a penny to show for it, it was the turning point for me. If I hadn't have done that I'm sure events would have taken a different turn".

"You're very much a household name in the field of rock and pop".

"It's very nice of you to say so, but we're very disappointed with the success that we've had in this country over the years. We're more popular abroad".

"What is the Project working on now?"

"It's another in the conceptual series. We have chosen to stick with the concept pattern although many would say it's out of fashion".

Our conversation is taking place in Alan's "home studio" spread across several rooms in a 15-bedroom mansion called The Grange in which he used to live.

An Atari ST sits alongside a bank of keyboards and a rack full of effects units. I spot a Supra Drive hard disc to one side. The conversation immediately turns to computers.

"Why did you choose an Atari ST?"

"Largely because it seemed that it was going to become the new standard for sequencers and the like. But it was the Steinberg Pro-24 which originally turned me on to it. Everyone said the Steinberg sequencer is just the greatest and you've got to buy an Atari ST.

"Then I discovered Passport's MasterTracks. I'm totally at home with that now and find it a whole lot easier to use although it may not be as flexible. There are lots of facilities on the Steinberg, but it would take a year to find out how to use them all.

"I'm afraid I'm rather cynical about software manufacturers who develop things for themselves and not the users. There's so many useless facilities and so many of the often-needed ones which are not implemented".

"What do you consider to be the useless bits?"

"I just found it was very difficult to see where you are on the Steinberg, to take, say, four bars from one track and put it into four bars of another track 18 bars later.

"It takes a hell of a lot of brainwork – you have to do the numbers. On MasterTracks it's all there in front of you. But then I think the drum editor is quite good on Steinberg's latest release, version three".

"Did you try any other software before you went for MasterTracks?"

"Dr T's KCS. That's got its good and bad points. One of the good points is the Midi Indicator so you can see that you've got information coming in – that's another good thing about the Steinberg and a big omission on Passport's MasterTracks. My feelings about Dr T are that they just filled the screen with numbers. But Dr T has a lead in the market on editing programs.

"But one thing I do adore about MasterTracks is that you can write in cue points and give them names. The program does everything I want it to do.

"One of my few complaints is the time it takes for it to store things and update the screen. Not on disc, just the execution time. You find you're waiting about five seconds for the screen to update. I gather it runs a lot faster on an Apple Mac.

"I'm planning to build another studio next year and need to make sure there's adequate provision for several computers".

"What other software do you use?"

"We quite often run games when we're

not doing anything else".

"What's your favourite game?"

"Bureaucracy definitely, because it's not another destroy the aliens game".

"What else do you have?"

"GenPatch, D-50 Editors, Sound On Sound discs – they're not great, they tend to be demonstrations and are public domain programs".

"Have you tried M?"

"Yes. I didn't get on with it. I spent two whole days with it and said: 'This is not making music'. That's the trouble, you see, the way technology is moving now you have to devote so much time trying to learn something.

"Take the hardware system called the Zyclus. It was tremendously clever and when you saw it in the hands of an expert it looked brilliant, but there is no way any normal person from this Earth could get anything out of it unless they spent weeks, months or years with it.

"I think the biggest weakness at the moment is having to spend too much time reading manuals. I'm sure there's a way of making stuff self-explanatory and easy to operate just literally by what you see on the screen without having to consult a five-inch thick manual".

"Well, they say the perfect software will not require an instruction manual. The Gem interface helps, but unfortunately not many programs are self-explanatory".

We now move on to the instruments – I spy a DX7, Roland D-50, D-110, an emulator, a Korg M1 and a Yamaha RX drum machine.

"Is this your regular core of instruments?"

"No, it changes literally from day to day. The Korg M1 is the new star for me. I haven't even bothered with the sequencer yet, but I know because of the size of the screen that it can't be very easy to work, but the sounds are brilliant".

"Do you still use the DX7".

"Yes, it is often relegated to use as a master keyboard, but it still has its place. There are one or two favourite sounds which I use, typically bass.

"Then there's the Sequential 440, the disaster story of the year with Sequential going bankrupt – or being bought up by Yamaha. That was a machine I had great hopes for. There is room for an integrated package – drum machine, sequencer, sampler. I think Korg may do it again with the S1".

"How important a part does the emulator play in your work?"

"Again, there are serious advances from distributors to get me to buy an Akai S1000. But the sheer magnitude of the library that I've got for the emulator as a result of the CD rom system which interfaces to it makes that unlikely. I've got an unbelievable number of sounds.

"Unless Akai can come up with some mega-powerful storage system I don't think it can compete. In terms of sound quality however, yes. The emulator does leave something to be desired in terms of sound quality. I use it almost exclusively as a sample player. I do very little in the way of sampling. I've been through that. I was one of the first Fairlight owners".

"It's not here now?"

"No, I got rid of it. The technology from Japan just took over, although the Australians were absolutely on the ball back in 1976".

"What's your attitude towards sampling? We hear a lot about people pinching drum sounds, for example, from a record. There are even cases of it coming full circle – someone has sampled a sound from a record only to realise that it was a sample of a sound they themselves had created on an earlier record".

"I'm not too worried about individual drum samples. I think it's a bit of a shame that engineers and producers won't take time to discover new sounds but these things are dictated very much by fashion. If a particular kind of sound is fashionable and you can get it easily by using someone else's sample, why not?

"Our drummer, Stuart Elliot, has his own samples. I haven't even bothered to ask where they come from but I get most excited about sounds that I've created myself.

"I think most of the great snare drum sounds are produced by using the right echo. It's not actually the drum itself, it's how you treat it. You can take a really dull thuddy snare sound and then, just with the reverb and effects you use, you can transform it".

"One particular area of fascination is the relationship of your albums' songs to their titles".

"I always pass the buck in instances like these. Eric Woolfson literally comes up with every word that you hear. My contribution is largely in the arrangement, musical structure and instrumental pieces, although occasionally I write a tune to which Eric puts the words.

"I think Eric tends to sit down and write a song and then say. 'Well how can we make this song work within the concept', rather than taking the concept and writing a song to fit.

"I may be speaking out of turn here, but really what matters is that you make a good record. If you have a collection of good songs and there is some way you can package them together then great. If not, you've still got a good sequence of songs".

"I think some of the concepts are particularly intriguing, as a lot of them are similar – about freedom and personal liberty. Are people looking too deeply into this?"

"I think it's healthy if you can stimulate

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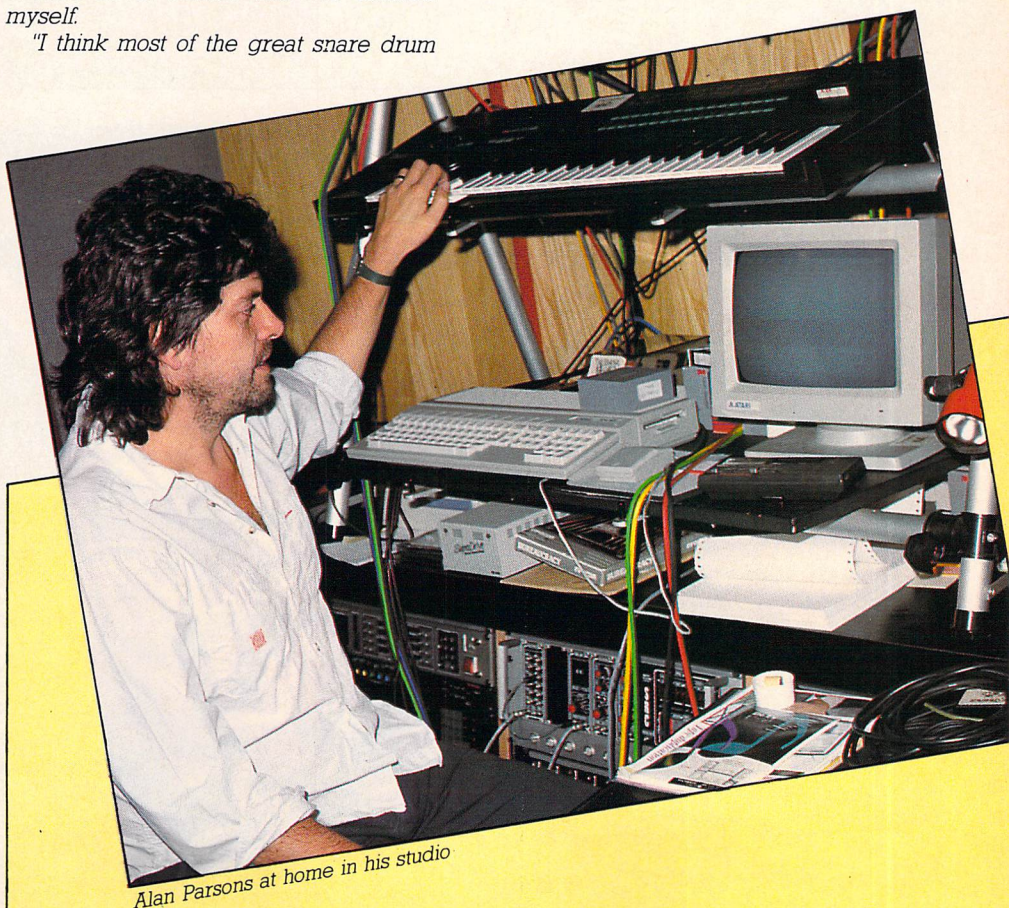

Alan Parsons at home in his studio

◀ From Page 53

people's imagination. If they can read into a lyric something we haven't then that's great! And we learn from them, too".

As if on cue, Eric Woolfson walks into the studio and contributes to the conversation:

"I need a concept to write around, but after that the songs and album take their own direction. Most are based on great people.

"Tales of Mystery and Imagination – which many people consider to be our best – was obviously based on the works of Edgar Allen Poe. I Robot was based on Issac Asimov's robot stories, but for copyright reasons we couldn't use his titles.

"Eve was inspired by great women, Gaudi by Gandi. The idea of Ammonia Avenue came from a chemical plant in Teeside where they make ammonia. There's a bare street with no trees, houses or people, but it has the name Ammonia Avenue, which I equate with scientists".

"You're mixing an album now. How far ahead do you plan one?"

"Generally the second we finish one we're starting to think about the next. This has been a long one – over a year and a half in the making, although I've been producing other things in between".

"Do you not lose interest working on one album for so long?"

"I say this took a year and a half, but we don't work silly hours. It's not as if we're in here day and night 24 hours a day. We tend to do a fortnight on and take a week off, sometimes months. But we're writing and thinking all the time".

"What's your new album called?"

"Freudiana suggested by, rather than based on the works of, Sigmund Freud. We're still looking for a record deal, having been badly let down by Arista, but we're hoping it will be released in the autumn.

"It's very exciting because we're planning to turn it into a stage production. We're avoiding the word 'musical'. We have the support of Brian Brolly who was chairman of Andrew Lloyd Webber's Really Useful group. We'll probably play abroad first, Germany or Austria, but it's all very much in the planning stage".

The hallway entrance to The Grange is covered from floor to ceiling with gold, silver and platinum discs proclaiming the talent of Alan Parsons the man and the enduring appeal of the Alan Parsons Project.

Alan and Eric have been able to put Freudiana together in their own time and they consider it to be their best album so far. Maybe 1989 will be the year the UK gives The Alan Parsons Project the recognition it deserves and receives abroad. Watch out for the stage production.

Discography

Tales of Mystery and Imagination (1974)
I Robot (1977)
Pyramid (1978)
Eve (1979)
The Turn of a Friendly Card (1980)
Eve in the Sky (1981)
Ammonia Avenue (1983)
Vulture Culture (1984)
Stereotomy (1985)
Gaudi (1987)
Freudiana (1989)

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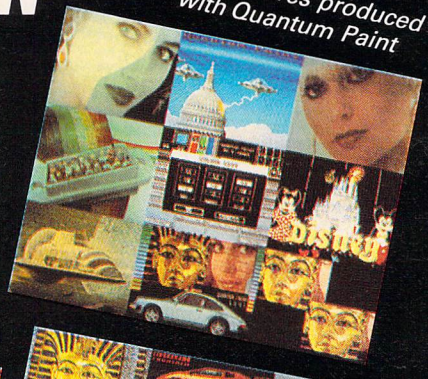

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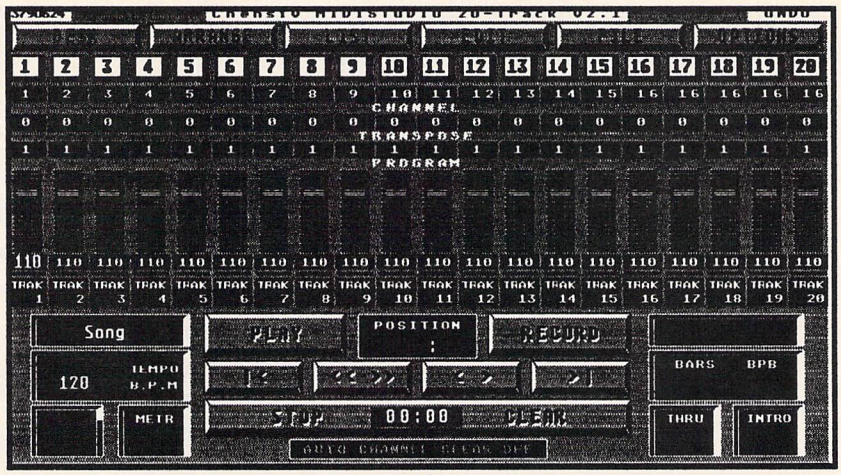

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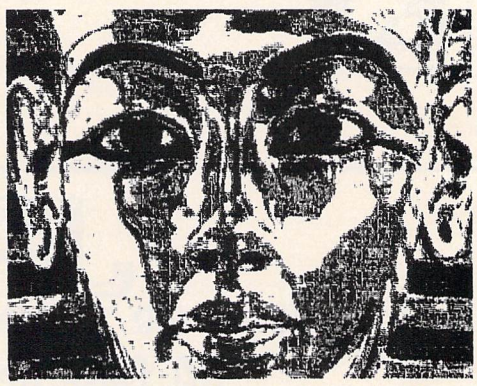

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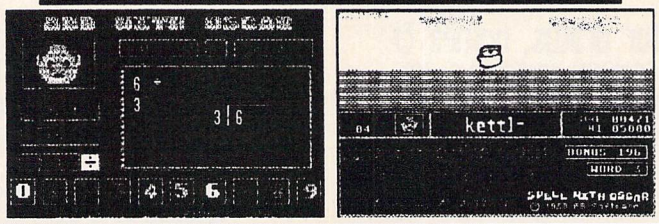

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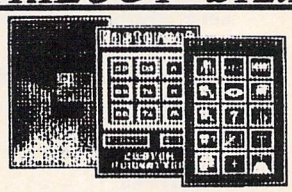

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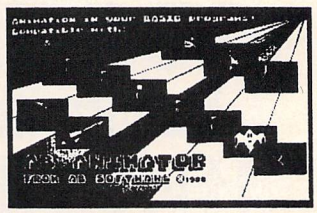

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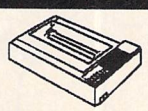

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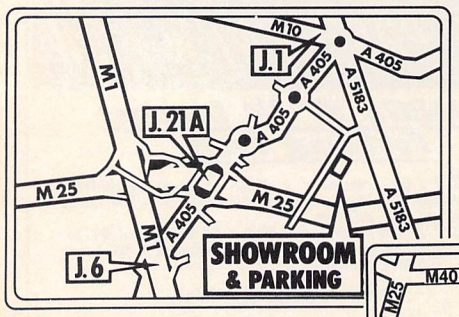

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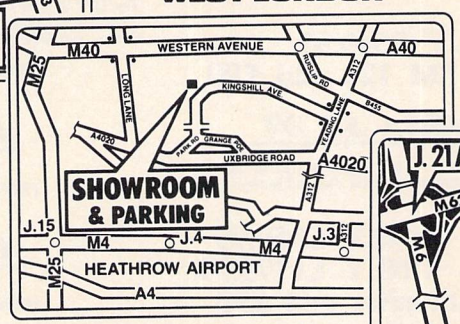

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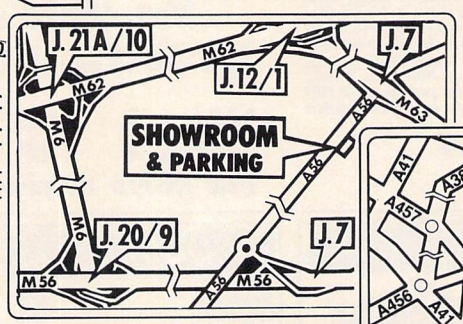

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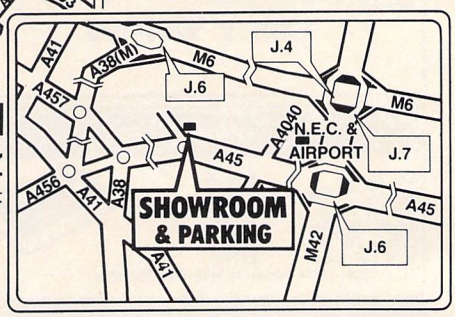

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Mike Gerrard meets Al Lowe – creator of Leisure Suit Larry

The lounge lizard's tale

IN late 1987 an adventure game came out which delighted reviewers and also proved to be very popular with Yuppies in the City of London, whose addiction to the game even made the pages of the national press.

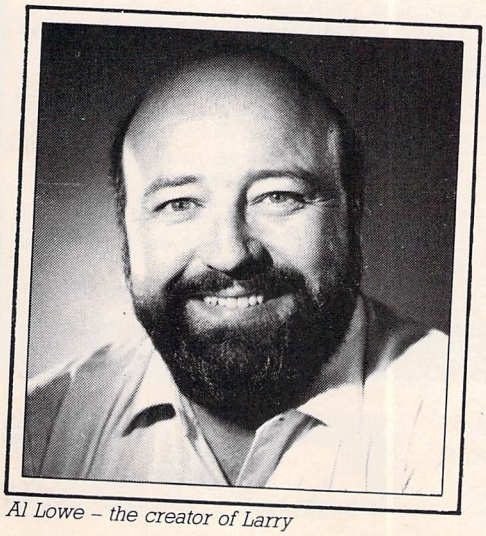
It wasn't, as you might have thought, the Magnetic Scrolls adventure Corruption, which *is* set in the City. It was, of all things, a funny, sleazy, naughty, tongue-in-cheek romp called Leisure Suit Larry in the Land of the Lounge Lizards, and the publisher, Sierra On-Line, could have cleaned up by selling clue books that were Filofax-compatible.

The creator of the Larry game, Al Lowe, was in London recently to publicise the sequel, Leisure Suit Larry II: Looking for Love (In Several Wrong Places), and he told *Atari ST User* what the response to the first game had been like in the States.

"The initial feedback was a little scary. It was very hesitant, and stores that would normally take a fairly large order for any Sierra game were making very small orders indeed. We were really sceptical as to whether it was going to succeed.

"This was in June and July 1987, soon after it came out, but by August everyone started to re-order. Orders got bigger, and from then on just steadily climbed".

Climb it did, picking up a few awards along the way, like Best Adventure Fantasy Game of 1987 from America's Computer Entertainer magazine. But what about the rather rude humour of Larry, how did that go down with America's moral majority?



Al Lowe – the creator of Larry

After all, the game does feature hookers, french letters, and a general atmosphere of wine, women and song – all done in the worst possible taste.

"We did get criticism of the risqué side of the first Larry game", Al said, sipping his Perrier and looking totally unlike a Leisure Suit Larry. *"People said that it was chauvinist, which maybe it is, and they also said it was a little too risqué. So we decided to play that down a little in the sequel, but now we're getting feedback from people saying: Hey, you went too far, it was too clean!"*

Creating Larry Laffer games isn't the only thing Al Lowe does at Sierra On-Line, as he's also one of the company's principal programmers. He does the coding for the King's Quest series of role-playing games from designs by Roberta Williams, who founded Sierra with her husband Ken in May 1980.

It began, like so many companies, as a backroom business, but slowly grew into a multi-million dollar industry.

At the time Al Lowe also had his own little backroom business which grew out of several of his many interests. He's played jazz saxophone since the age of 13, and went on to gain a master's degree in music education from the University of Missouri.

He still plays jazz sax both in a big band and in a four-piece group, and had to cancel a few engagements to enable him to come to England.

After graduating he got a job as a high school band conductor, and spent 10 years playing British band marches – music's as popular and important as sport in American high schools. Then he became music supervisor for the school in California near where he lives.

"This was more of an office job", he explains, *"and I started programming computers at work. I was the first kid on my block to use a word processor – that kind of thing. This was on a mainframe at the time, and I wrote some software that made my job easier.*

"I bought an Apple II because it was transportable and the band did a lot of travelling. We performed at the Jazz Festival in Montreux and flew 500 people across the United States to play at Reagan's inauguration ceremony.

"Anyway, I programmed the Apple for a while, then bought some educational games, but didn't think they were very good. I saw that a lot of educational software was very weak.

"I had this background in education, I

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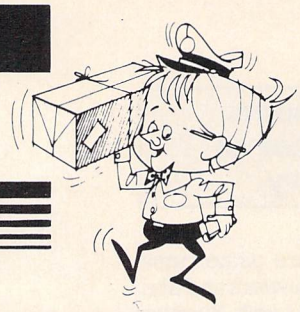

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◀ **From Page 59**

had this background in programming, I had an Apple computer at home and I had a three-year-old son. So it made sense to put all those things together and write something that he could play".

Al wrote several graphics-based adventures aimed at young children, and one of them, Dragon's Keep, is still being sold by Sierra some eight years later. He was publishing these games himself and discovering that publishing is hard work, involving such exciting aspects as putting discs in boxes, putting boxes in jiffy bags, buying stamps and dealing with bounced cheques.

Roberta Williams saw some of his games, and suggested he let Sierra do the publishing while he concentrated on what he did best, writing and designing games.

Al was already familiar with Sierra's games, because the first two products he bought for his Apple were published by the company. Fortunately he liked them more than the educational software he'd seen, and was happy to throw in his lot with Sierra in 1982.

"I did appreciate its games, liked the adventures, and I went on to buy all of them, so it was easy for me to catch on to the style and begin writing.

"I didn't get into adventures by the usual mainframe text-only route. I started out playing graphic adventures and much prefer them. I've played text games and they don't hold my interest. I'm a movie person; I like motion pictures, animation, graphics, music and all of that".

The movie influence shows in one of the best sequences in Larry I, where Larry Laffer dances with a girl in a disco, eventually throwing her up into the air where she disappears for quite a while before eventually coming down again.

"The dancing", says Al, *"is straight out of Saturday Night Fever, all that John Travolta stuff. And when I designed the game I made it so that there was this disco with the girl in it who needed to be chatted up. I set up the puzzles that needed to be there and one of them is dancing.*

"I talked with Mark Crowe, who does the graphics, and said that we needed a funny sequence, so what could he make the guy do that would look funny? We had one or two ideas and then I said: Hey, how about throwing her up in the air?

"That was in the movie Airplane, and I loved it when the guy dancing there threw his coat way up in the air and then a long time later he caught it again. So I stole that one, yeah!"

In producing the Sierra style of 3D animated graphic adventure there is often a great deal of interaction between the artist and the designer, and between the programmer and the designer. In the case of the Larry games Al Lowe is both the designer and the programmer, so he tries not to design things he can't program.

With the King's Quest games he is purely a programmer and Roberta Williams has total control over design and graphics. Al has also worked on most of the titles that Sierra has done jointly with Walt Disney Productions, such as Winnie the Pooh and Donald Duck's Playground, and he also designed and programmed the Black Cauldron game based on the film by Muppet man Jim Henson.

It's for the Larry Laffer character that he is now best known though, and the development of that is interesting, as the character didn't exist at all in the original plans for the game.

"We had a design for a game that was very old", Al says, "and we wanted to implement it in the new language that Sierra had developed with fully animated graphics and so forth. When we looked at the design it was fun. It was basically the puzzles that went to make up Larry I, but there was no main character, it was just whoever was playing the game typed in the commands.

"Another problem was that the game was about the player trying to pick up these three girls. Well I just couldn't do that, not seriously, so what I did was to make it tongue-in-cheek, make it a parody of that kind of life-style.

"To develop the game we needed a main character though, and we were discussing it round the table one day asking "What kind of a guy is this?' and someone said, 'You know, he's the kind of a guy that would wear a leisure suit', and that sounded right, that stuck".

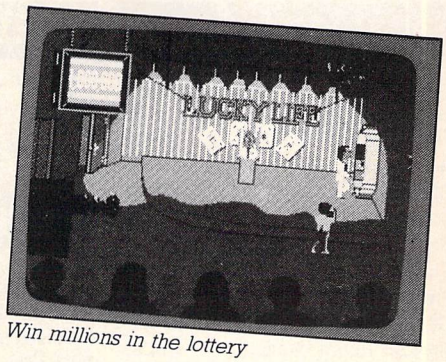
We may not have leisure suits in Britain, but for Larry Laffer read Medallion Man and you start to get the picture. Larry originally had a different name, though.

"He had another last name", Al reveals, "in honour of one of my friends at the company who was kind of this type of a guy. But he left Sierra just as the game was ready to go out and we didn't want to leave his name on it, it wouldn't have been right.

"I pulled down my Encyclopaedia Brittanica and started looking through the L section, because the title was so alliterative. I got to Laffer and I knew that was it. There is a noted Canadian economist named Arthur Laffer, so we took that poor guy's name and made him Larry Laffer.

"The Land of the Lounge Lizards came about because of the music I play. In the jazz group we get to see a lot of guys like Larry and lounge lizard is a common musician's derogatory term for someone who hangs about in bars and tries to pick up girls".

Larry Laffer, the computer character, has been more successful than Larry



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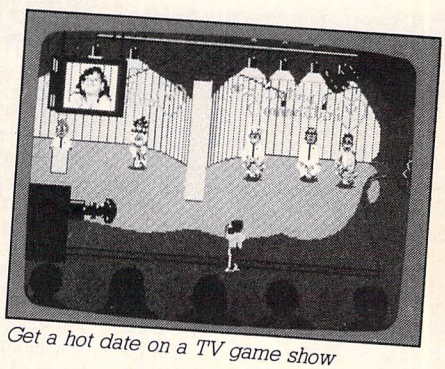
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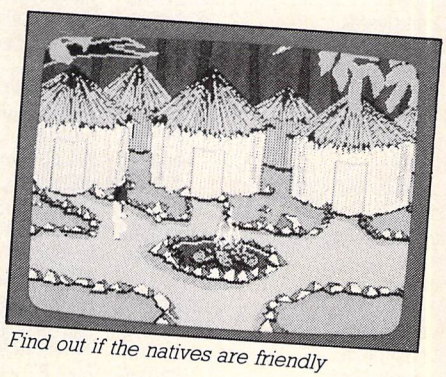
Find out if the natives are friendly

Laffer the pick-up artist ever could be, and already a third game is planned. The first part will be very much like Larry I to please those who want more sleaze, and the second part will be more of a traditional quest in the style of Larry II.

It will also be the first Sierra game where the player has a sex-change part way through. Not the full operation, but at a key point in the adventure Larry leaves. And for the last quarter of the game the player assumes the role of the new love interest, whose name is revealed in the sub-title: Passionate Patty in Pursuit of the Pulsating Pectorals.

That may not be out before the end of the year, but meanwhile Larry fans are promised something called Leisure Suit Larry's Party Games.

"That", I am told, *"is not an adventure, but it will be 3D and very animated".*

It sounds pretty adventurous to me.

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As well as being able to let us know what you think of the magazine and what you would like to see in its pages in future months you stand the chance of winning for yourself one of these 140 prizes. Five of the leading software houses for the Atari ST have come together to offer you some fantastic software and other goodies:

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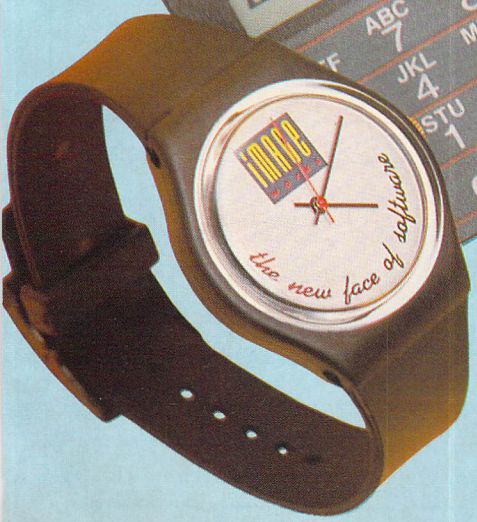
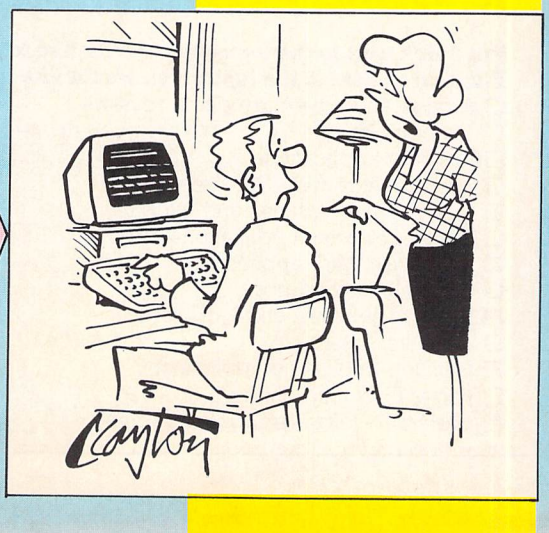


WHAT YOU MUST DO...

Simply complete the reader survey overleaf. Then add your name and address as well as a caption to this cartoon, and ensure that your entry reaches us no later than August 4. The most amusing entries in the opinion of the judges will then be put in for the prize draw.



ATARI ST USER READER SURVEY

Put a tick in each relevant box

How old are you?
☐ Under 15 ☐ 21-30 ☐ 40-50
☐ 15-20 ☐ 31-40 ☐ Over 50

Which sex are you?
☐ Male ☐ Female

Are you in full time employment?
☐ Yes ☐ No

If you are employed, which category does your job fall into?
☐ Business ☐ Skilled manual ☐ Clerical
☐ Managerial ☐ Education ☐ Unskilled manual
☐ Professional ☐ Financial

In which income bracket do you fall?
☐ Under £8,000 ☐ £12,000-£16,000 ☐ £20,000,£24,000
☐ £8000-£12,000 ☐ £16,000-£20,000 ☐ Over £24,000

How much do you intend spending on hardware over the next year?
☐ Under £100 ☐ £200-£300 ☐ £400-£500
☐ £100-£200 ☐ £300-£400 ☐ Over £500

How much do you intend spending on software over the next year?
☐ Under £25 ☐ £50-£100 ☐ £200-£300
☐ £25-£50 ☐ £100-£200 ☐ Over £300

Which ST do you have?
☐ 520ST ☐ 1040ST
☐ Mega 2 ST ☐ Mega 4 ST

Which type of VDU display have you got?
☐ Colour monitor ☐ Mono monitor
☐ TV ☐ All three

What type of printer have you got?
☐ Dot matrix ☐ Daisy wheel
☐ Laser ☐ None

How important are these topics? (Give them a mark between 1 and 10)

☐ Games reviews ☐ Education uses
☐ Type-in listings ☐ Games hints and tips
☐ Music and Midi ☐ News
☐ Business applications ☐ Readers' letters
☐ Graphics and art ☐ Desktop publishing
☐ Programming articles

Put a tick next to the topics you would like to see more of. Put a cross next to the topics you would like to see less of.
☐ Arcade and adventure game reviews
☐ Type-in listings
☐ Business applications
☐ Art, graphics and CAD uses
☐ Programming articles and tutorials
☐ Home and school educational uses
☐ Music and Midi applications
☐ Games hints and tips
☐ News of software and hardware
☐ Readers' letters
☐ Desktop publishing applications
☐ Pages for young children
☐ Hardware/software problems solved

Which piece of hardware will you buy next?
☐ Monitor ☐ Modem ☐ Hard disc
☐ Printer ☐ Disc drive ☐ Something else

Which piece of software will you buy next?
☐ Arcade or adventure game ☐ Graphic or art package
☐ Business application ☐ Programming language
☐ Music application ☐ Desktop publishing package
☐ Educational program

What do you spend most time doing?
☐ Playing games ☐ Making music with Midi
☐ Programming ☐ Desktop publishing
☐ Business work ☐ Drawing with art packages

Is Atari ST User easily found in your local newsagents?
☐ Always ☐ Sometimes
☐ Rarely ☐ Never

How many people read your copy of *Atari ST User*?
☐ 1 ☐ 3
☐ 2 ☐ More than 3

How do you rate these magazines? (Give them a mark between 1 and 10, zero if you don't read them).
☐ Atari ST User ☐ Ace ☐ ST/Amiga Format
☐ ST Action ☐ ST World ☐ The One

Do you regularly use a modem?
☐ Often ☐ Occasionally
☐ Rarely ☐ Don't have one

If you write programs on your ST, which is the language you use most?
☐ Basic ☐ Logo ☐ Modula 2
☐ Forth ☐ Pascal ☐ STOS
☐ Machine code ☐ C ☐ Don't program

Which programming language would you most like to learn?
☐ Basic ☐ Logo ☐ Modula 2
☐ Forth ☐ Pascal ☐ STOS
☐ Machine code ☐ C ☐ None

Do you use public domain software?
☐ Never ☐ Seldom
☐ Occasionally ☐ Often

In terms of Atari ST computing, how do you rate yourself?
☐ Novice ☐ Average
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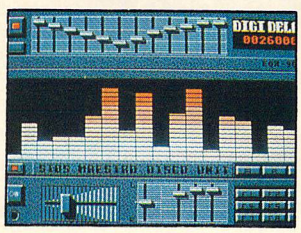

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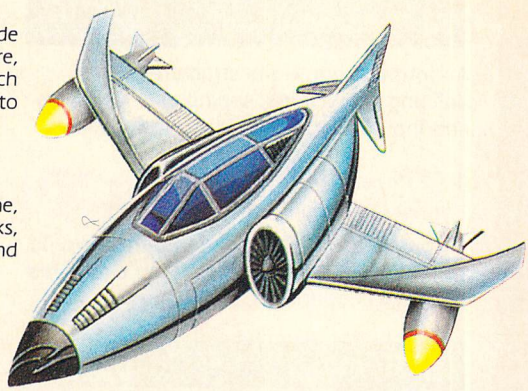

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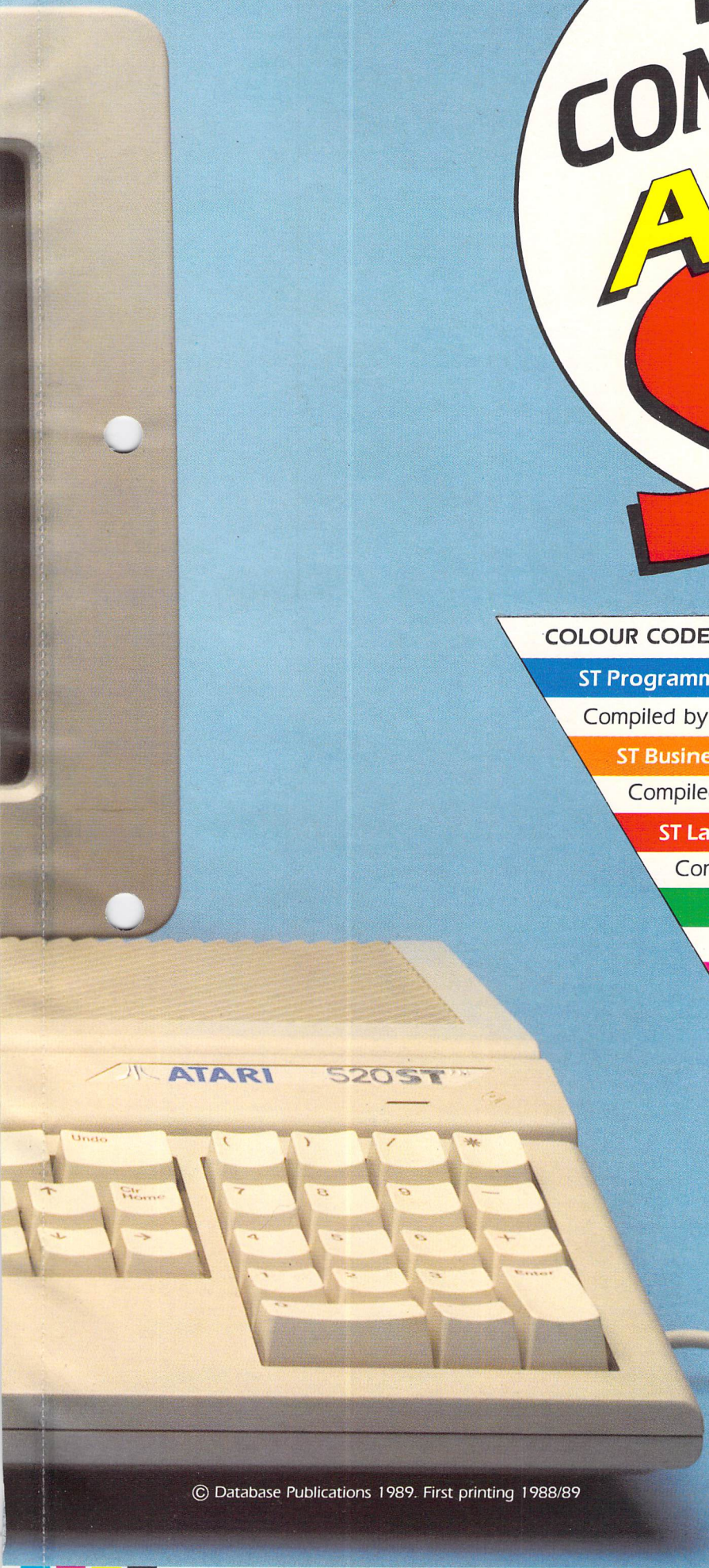

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Using Midi hardware

NOW that we have a basic understanding of Midi let's look at its role in music. Its major advantages over pre-Midi music making can be summed up in two words – power and flexibility.

The advantages of Midi

MIDI gives you the power to record and arrange an enormous number of musical parts and the flexibility to order, change and edit them. But more than that, as Midi was conceived as a standard, it enables pieces of equipment produced by different manufacturers to be connected together, thus helping stave off the ravages of obsolescence.

Before Midi, trying to connect synths, sequencers and drum machines together was a veritable nightmare – and computers just didn't have a look in. There were sometimes even problems trying to connect instruments produced by the same manufacturer. With Midi just about any piece of equipment can be connected to any other.

As Midi uses digital signals, it was just asking for a computer to be plugged into the system somewhere along the line, and it didn't take long for some clever boffins to come up with Midi software – and that's where we and our ST come in.

Midi was also responsible for the development of two new types of instrument – the keyboardless synthesiser – the expander – and the multi-timbral instrument. Let's see what's so special about them.

Expanders

MIDI makes music by sending Note On and Note Off messages. So plugging one Midi keyboard into another will allow you to control the second keyboard from the first, as shown in Figure I. The controlling keyboard is referred to as a Master or Mother keyboard, depending upon your genealogical instincts, and the other keyboard as the slave.

But haven't we got something here surplus to requirements? If you are to control the second keyboard from the first a whole set of keys is going to waste. Why buy what you aren't going to use? So was born the expander, which has all the features of a synthesiser except a keyboard. Expanders are ideal for use with your ST, especially if you aren't a keyboard player. You can program music on the ST and play it back through an expander.

Multi-timbral instruments

AS you only have one pair of hands you can only play one musical part at once. You would find it pretty difficult to play say, a piano, bass and string part at the same time. A software sequencer, however, allows you to record many parts of music, one at a time, and store them inside the ST. The process is not unlike using a multi-track tape recorder.

OK, so you've recorded three music parts in your sequencer. Now you need three synthesisers to play them back – one to produce the bass sound, one a piano and the third a string sound. This looks as if it could get pretty expensive.

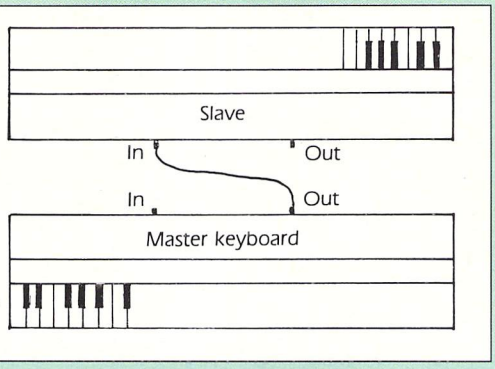

Figure I: A Master keyboard controlling a slave

But Midi comes to the rescue again with the multi-timbral synthesiser.

You know that synths can produce lots of different sounds. In the same way, a multi-timbral device can produce lots of different sounds at the same time. It's rather like having many individual synthesisers inside one unit.

It is largely the multi-timbral synthesiser which has made Midi and computer music so popular and affordable. Multi-timbral instruments capable of playing eight sounds at once are available for a few hundred pounds. Such power and versatility – and at such a price – was unheard of even a few years ago.

Midi channels

SO how can you use Midi to play several sounds at the same time? This is accomplished by transmitting different music parts on different channels. Midi supports 16 channels which means it can, theoretically, handle the same number of music lines.

Let's take our piano, bass and drums example. Having recorded them on to separate tracks in a sequencer, we would instruct it to play back the tracks on different Midi channels, say the bass on channel one, the piano on channel two and the strings on channel three. This is a simple operation on most sequencers.

Next we would assign bass, piano and string sounds on our multi-timbral synth to their respective Midi channels. The system works rather like a 16-channel TV set. Although the synth would receive information for all three parts, the sounds would ignore messages which were not on their channel (see Figure II).

You can change the sounds played by each channel by transmitting a Patch Change message. This is sent automatically when you select a new sound on a synth's front panel.

If two synths were connected on a one to one basis, changing the sound on one will change the sound on the other. Note that this will select the same patch number on the second synth as if you had pressed the button yourself – the actual sound or the parameters which make up the sound are not sent via Midi.

Usually the ability to transmit different sequencer tracks on different channels is all that is required to produce multi-

Sequencer

Track No.	Inst.	Chan.
1	Bass	1
2	Piano	2
3	Strings	3
4		
5		

Midi cable

Multi-Timbral Synth

Instrument	Receive chan.
Flute	5
Piano	2
Guitar	8
Strings	3
Bass	1
Brass	7

Figure II: Using Midi channels to play a three-part recording

Using Midi hardware

part music, but some sequencers also let you send patch change messages on individual channels.

The necessity for this will depend upon your particular set-up. For example, if you are using a synth which is not multi-timbral you would set it to receive on a single channel and select different sounds simply by sending different patch change numbers. Of course, it would still only be able to play one sound at a time.

Making an arrangement

IF all this theory seems a little complex, it's really quite simple in practise. Let's look at a couple of very simple examples using Activision's The Music Studio and Electronic Arts' Music Construction Set.

Both allow you to compose three-part music on the screen in traditional notation by clicking notes on to the stave. Both programs are basically designed to use the ST's sound chip but you can also play the music via Midi.

Figure III shows the Midi Parameters screen from The Music Studio. You can see the instrument names on the left followed by their Midi channel number, preset number and range. Music Studio uses different colours to distinguish different instruments and you can change instruments at will in the score.

Let's assume you've constructed a piece using lots of different instruments. To play the sax part via Midi, set its channel number to the number that the sax sound on your synth is set to receive on.

In Figure III the sax is shown as instrument three and it has been set to transmit on channel three. If you have a multi-timbral synth, assign the sax sound to channel three.

If you are using a synth which is not multi-timbral, set it to receive on channel three and change the Preset parameter in The Music Studio to correspond to the patch number of the sax sound. In Figure III this is set to 24. In this way you can make the instruments in the sequencer tie in to the sounds on your synth. The settings are saved with the score.

Figure IV shows the Music Construction Set's Midi Parameters screen. Here you simply assign Midi channels to the three part numbers (which it calls voices). Preset and Range values are set from another screen.

The Range values are really transpose functions. Both programs have a range of only five octaves, but Range lets you move that octave range high or lower in relation to the notes you see onscreen.

For example, to make a bass guitar play lower than the lowest note the program can display, you would simply lower its range – see how easy it is to alter pitch when the note data is a series of numbers.

You should now have enough information about Midi to know how to use a sequencer program to change channels and sounds on a Midi instrument. Every synth and sequencer package has a slightly different method of operation, so it is important to read the manuals carefully.

You can have a lot of fun simply playing back music files via Midi and making your own Midi orchestrations and there are lots of public domain music files available for The Music Studio.

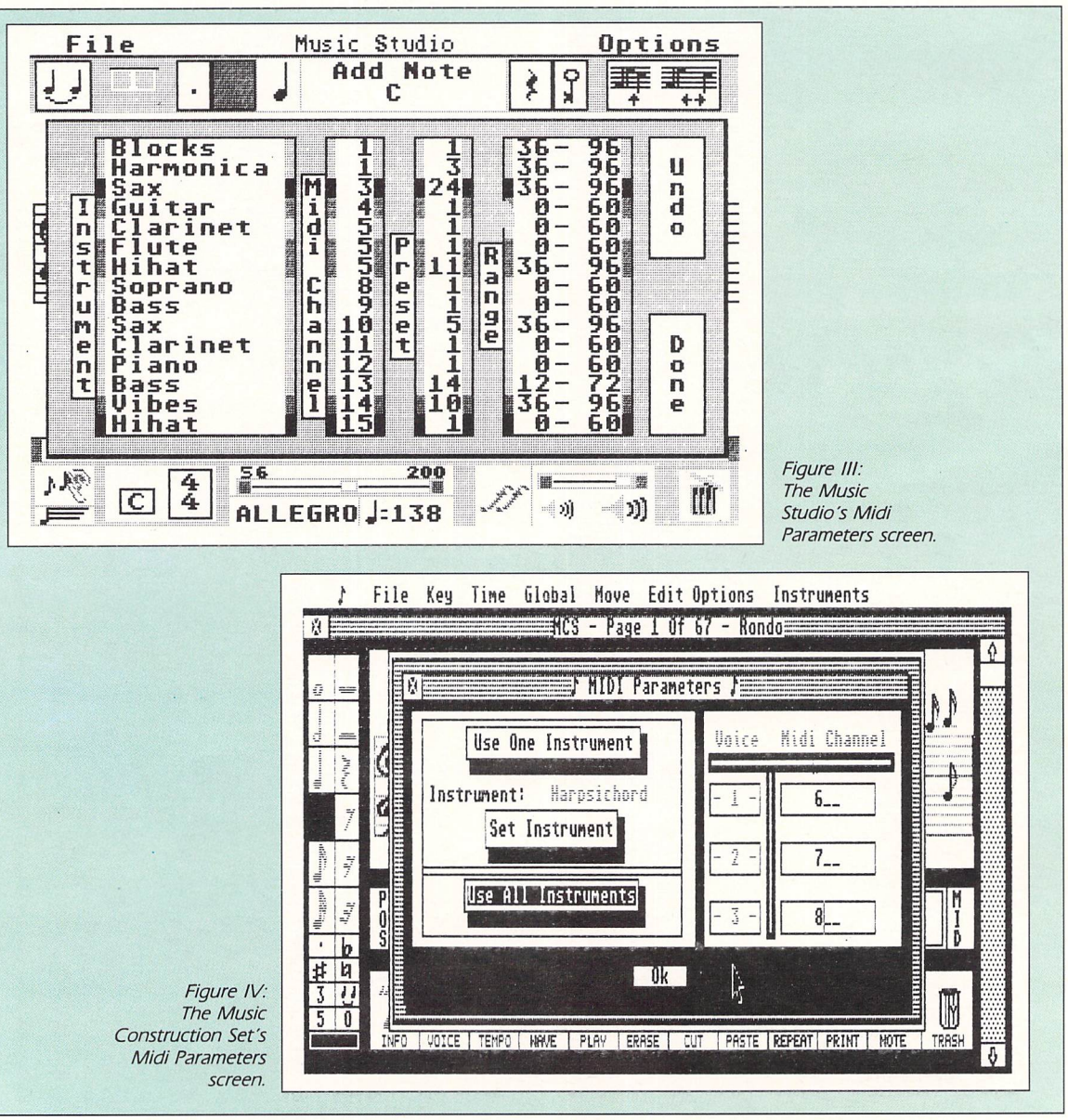

Figure III: The Music Studio's Midi Parameters screen.

Figure IV: The Music Construction Set's Midi Parameters screen.

Entering notes

NOW that we've seen how useful Midi can be in the creation of a piece of multi-part music, let's see how we get the music into the computer in the first place. There are two methods of entering notes: Real-time and step-time. With real-time input you play a Midi keyboard and the sequencer records all the notes, program changes and so on, *live* as you play. It also records all your wrong notes and sloppy timing. However, remember that the music is stored as numbers, and with a little software help you can make corrections.

Step-time input involves entering notes one at a time. It's slower, but ultimately more accurate. It's also an ideal way of creating music if you can't play a keyboard or Midi instrument.

Most sequencers, especially the professional variety, are heavily biased towards real-time recording, although many now include good step-time facilities as well.

One of the simplest methods of step-time input, and one which many ST musicians will be familiar with, involves clicking notes on to a stave with the mouse. This is used by Activision's Music Studio, Electronic Arts' Music Construction Set, Kuma's Minstrel and other similar programs.

This kind of step-time entry is useful, for example, should you want to enter tunes from sheet music. It is also quite rewarding to see music expressed in notation rather than as a list of numbers, especially if you've written it yourself.

These programs can only handle a few aspects of music notation. You need to look at pro-level programs such as C-Lab's Notator if you want more control and flexibility.

Editing

ONE of the benefits of ST-based sequencing is the amount of control it offers over your music once it has been recorded. Most sequencers have editing facilities which let you alter whole sections of the piece or just individual notes.

Many editors show the notes as a series of numbers which indicate the bar and beat at which the note begins, its velocity and duration. This method was used even before the ST became the music machine of the micro world.

It was taken up by many programs and is still a popular method of editing. However, it is very numeric and some programs – such as Steinberg's Pro-24 and Trackman – as shown in Figure I – have adopted a grid edit system which many musicians find easier to use.

At the highest level you will find programs such as C-lab's Notator and Steinberg's Pro-24 – seen in Figure II – and MasterScore which show music data in traditional notation.

Many musicians, especially if they are not fully conversant with traditional notation, prefer other methods of editing. Some sequencers also include a drum grid edit page in which you can create drum patterns.

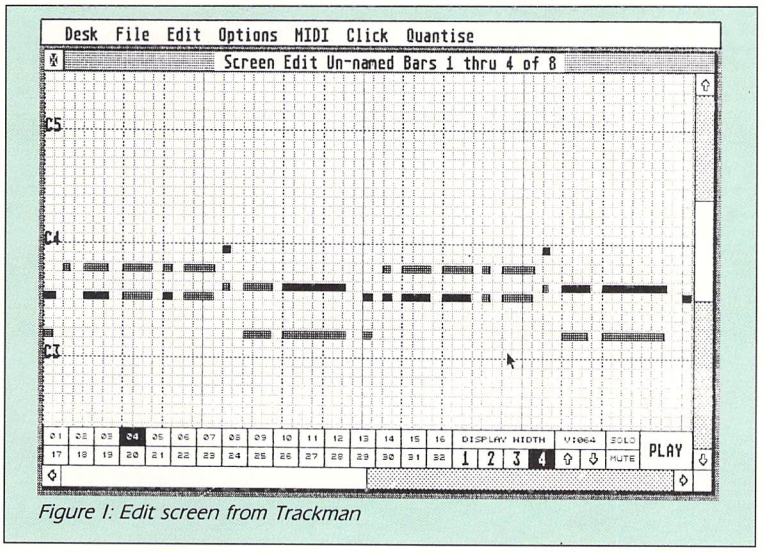

Figure I: Edit screen from Trackman

Quantisation

NOW let's see how software can tidy up real-time note entry. You will find this in your sequencer under the heading of quantisation or auto note correct.

In order to keep track of the timing of each note, sequencers use a clock which ticks away during recording and playback. The speed or resolution of the sequencer clock is generally fixed and is expressed in terms of pulses per quarter note – abbreviated to ppq or ppqn. It is typically 96 ppq, although it can be higher or lower. Note that this is an internal timer, and has nothing to do with tempo.

The clock reads each note as it is played and places it on to one of its clicks or pulses. Four semiquavers for example, would be placed on clicks 1, 7, 13 and 19. Well, that's the ideal, but if your timing is a little sloppy the notes may end up on, say, clicks 2, 6, 14 and 21.

The quantisation process looks at the resolution you wish to correct to – in this case it would be 16th notes – and then pulls or pushes the notes on to the nearest relevant click. This is done automatically – you just have to select the resolution.

Quantisation can help tidy up poor timing, but it can also result in mechanical runs of notes. Some sequencers, therefore, have a *human quantise* function which will only correct notes if they are out by a large amount. Computers do not have to produce robotic music unless you want them to.

Tracks and channels

YOU have probably heard of sequencers with 24, 32, 64 or more tracks. Before we go any further, let's make clear the difference between a track and a channel. We've already looked at Midi channels, particularly in relation to multi-timbral instruments, so let's

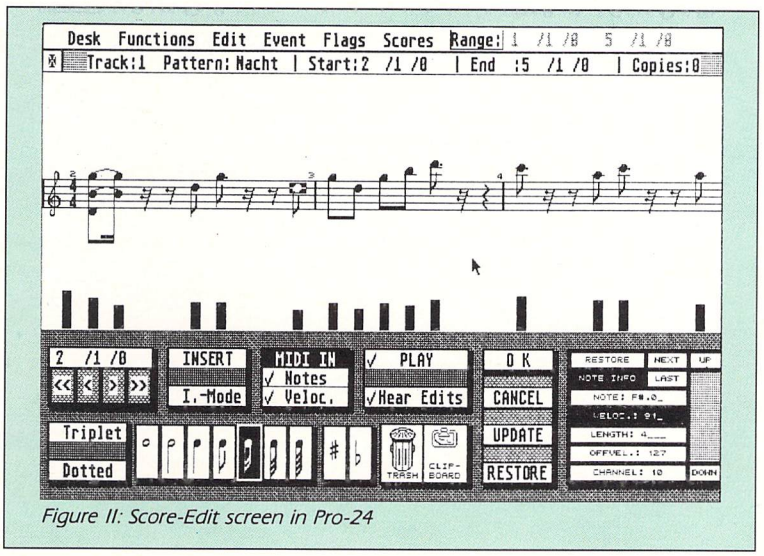

Figure II: Score-Edit screen in Pro-24

Getting into Midi

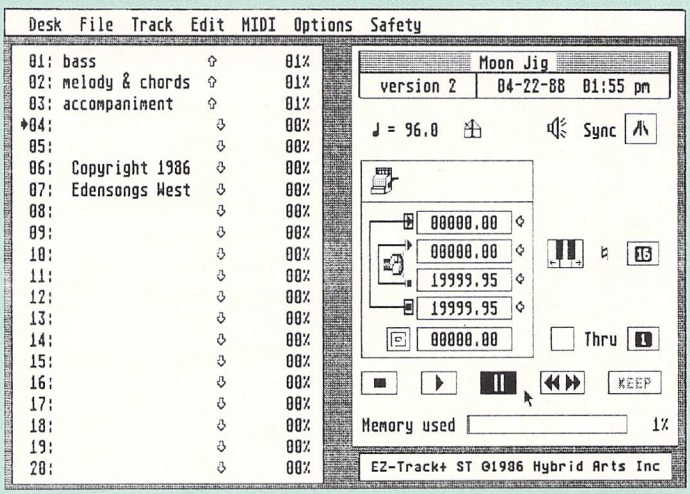

Figure III: Main screen of EZ-Track Plus showing tape recorder controls

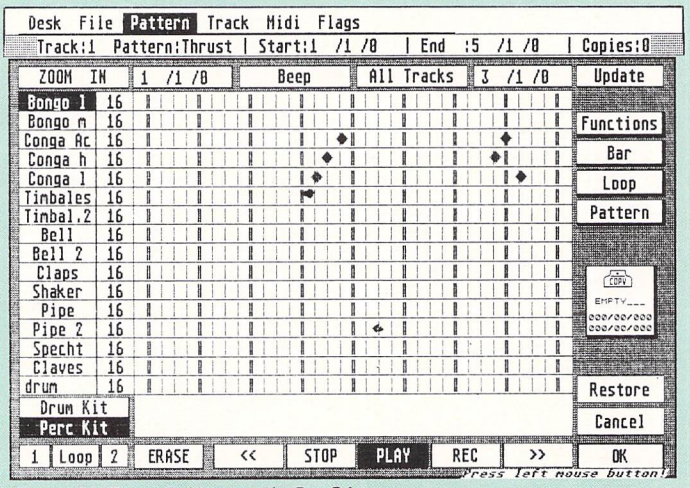

Figure IV: Drum-Edit screen in Pro-24

see what tracks are and how they are used in music composition.

Early software sequencers used the audio multi-track tape recorder as a model for their method of operation – for comparison, audio multi-track recorders have 4, 8, 16 or 24 tracks.

Musicians were used to tape recorders and by mimicking their features, software sequencers became a natural extension of the multi-track. In fact many current sequencers have Play, Record, Fast Forward and Rewind controls – as shown in Figure III.

The concept of a track was carried over from multi-track recorders, too. Typically, each instrument would be recorded on to a different track on the audio tape, although a drum kit, for example, would often be recorded across several tracks.

Early software developers found it convenient to use the track concept, and one of the simplest ways of creating music with Midi is to record a different instrument on each track and give each a separate channel number. In fact some sequencers let you allocate a specific Midi channel to each track so that anything you record on it plays back over that channel.

Other programs take a different approach and play back a track on the channel on which it was recorded. The first method is possibly more useful, especially for the beginner, as it helps you think in terms of instrument parts – which is how music is generally constructed.

It also allows you to record everything from one Master keyboard and play it back on the correct Midi channels via a multi-timbral expander.

But the multi-track recording concept is not the only one. Some software allows you to record a number of musical phrases which are not immediately associated with any track. You are free to place them anywhere in the piece, on any track and have them play back over any Midi channel.

Bouncing and mixing

MOST sequencers allow you to bounce or mix tracks together. You can also do this with audio recorders but how many audio recorders let you un-mix a track?

With software, it's simply a matter of looking for data recorded on different Midi channels and putting it on different tracks. This is in addition to other methods of digital data manipulation which allow you to speed up, slow down and transpose your music.

Note then, that tracks and channels are not the same, although in some software sequencers they can be closely linked. It is quite possible, for instance, for one track to contain information relating to all 16 Midi channels.

Making an arrangement

WITH this information under our belt we can proceed to arrange a piece of music. Don't think you have to record a piece from beginning to end. Look at your sequencer's edit facilities, such as copy and append tracks, to see how you can record the music in sections.

Some musicians like to record a complete single track – say bass or drums – and use it as a foundation on which to add chords and solo parts. Others prefer to record the complete work in sections, making sure each is correct before moving on to the next.

The method for you will depend upon the piece you want to record, your sequencer – and your temperament.

It can often be useful to record a single part across several tracks, especially if there are difficult bits which you are not guaranteed to be able to play correctly first time through. When all the tracks sound right playing together, mix them into one track.

Recording drums

MANY musicians now record drum tracks into their sequencer in the same way as they record other music parts.

If you look in your drum machine's manual you will see that each drum sound has a note associated with it. For example, on the Roland TR-505 playing the D above Middle C will trigger the High Cowbell.

You can usually alter the key number assignment allowing you to map a comfortable drum pad layout on to your keyboard. You can then create a drum track by playing the keyboard in real-time. This is likely to produce a more natural drum track, but you can always pull beats into line with the quantisation feature – Steinberg's Pro-24 drum edit screen is shown in Figure IV.

One of the benefits of this method of drum track creation is that the track is stored with your song so you don't have to worry about overwriting the patterns stored in your drum machine.

Experiment with your sequencer until you become familiar with its use of tracks and channels. Then when you know how to use your Midi equipment to put different sounds on different channels you will be able to create musical arrangements of your own.

Electronic filing

WE have seen the range of database packages available for the ST and looked at examples of their flexibility and speed. The strength of an ST run database is that you can store your own personal filing system filled with any information you like on one small 3.5in disc.

A database – database manager to use its correct terminology – can save a business important time and money in such previously laborious tasks of collating and updating mailing lists and directories of important phone numbers.

However, like any business software package, a database manager can be difficult for a beginner to come to terms with, in its manipulation and overall working.

Here we look at how to start getting your database to work for you.

A database tutorial

LET'S conduct a simple tutorial to give an insight into the direct workings of a database manager program.

For simplicity we will use the ever popular and industry standard Data Manager by Timeworks. Though other packages may differ slightly in some respects, most of the terms and methods used are universal.

You will need, not only the program disc, but also a blank formatted disc for your records (data).

- Load the program disc in the usual way.
- When the program is loaded click on the Cancel box, as we will be creating a new data file.
- Move the cursor to the Options menu and select the Create New Column menu.
- Enter the title *Customer Number* for your first field in the dialogue box – seen in Figure I.
- Now click on the Text box and this will set the type of data we wish to store. Click on OK.
- Create the second field by selecting Create New Column again. Enter *First Name* and click on the box marked Alphabetic to select the type of information – as you may wish to sort this information into alphabetical order.
- Now enter your third field in the same manner and enter *Last name* as the field title. Once again choose Alphabetic as the type of data to store.
- Enter four more fields in a similar manner and title these: *Address, Town, County, Post Code*. Select Text as the type of information in all cases – even

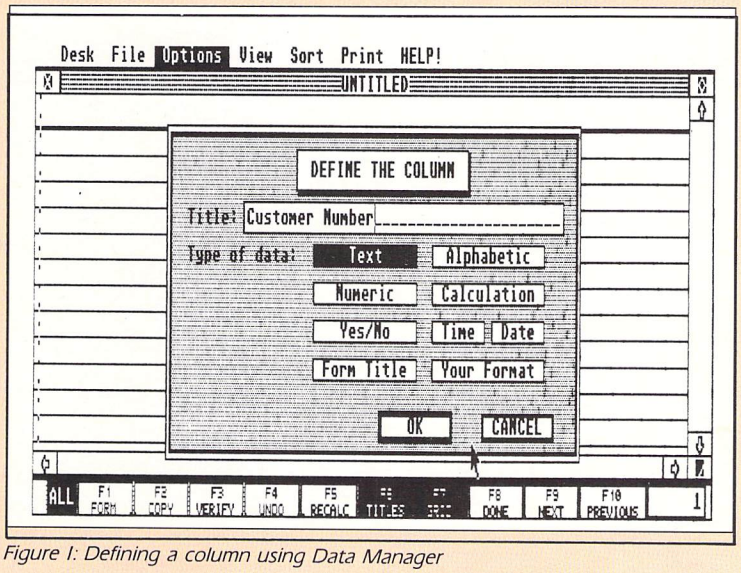

Figure I: Defining a column using Data Manager

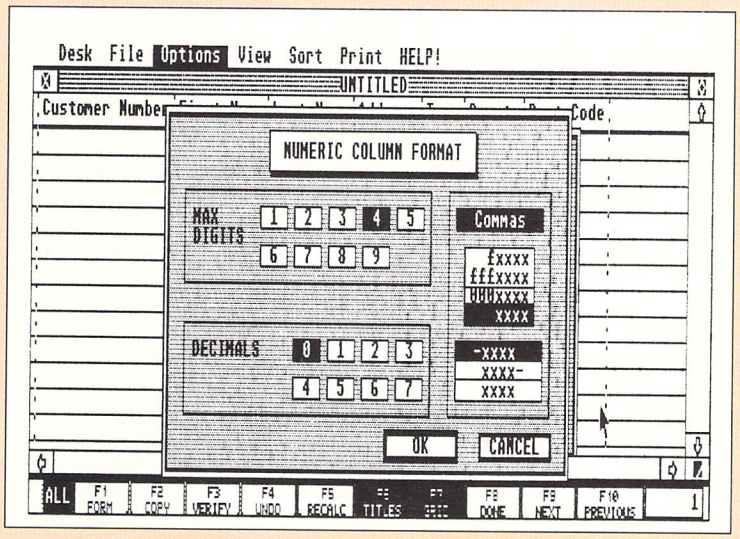

Figure II: The numeric dialogue box

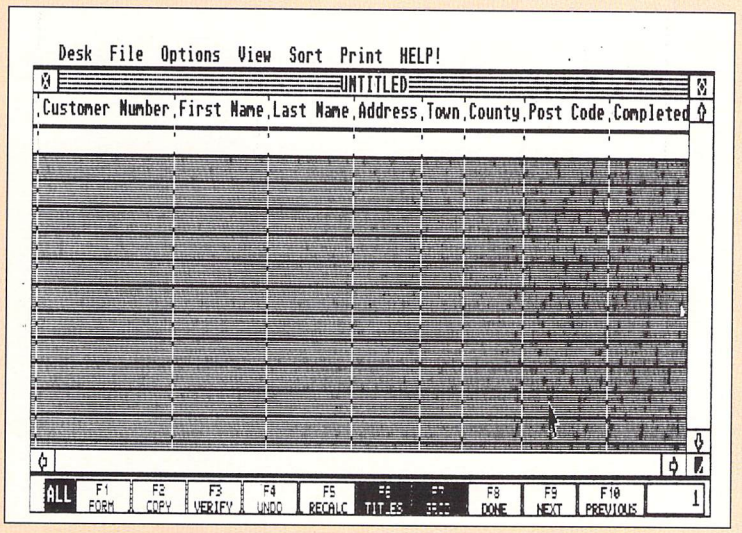

Figure III: The field titles as saved

Electronic filing

though post codes include numbers as well as text.

● We will now enter the last field name as *Completed Orders*. As this is numeric it will require one more step than the others.

A dialogue box will appear – as shown in Figure II – which will ask you to specify a number of digits – select 4 – for the field and a number of decimal places at the right of the decimal point.

We do not need any decimal places with completed orders, so click on the 0 box before clicking on OK.

● Your file should now look like the screen shown in Figure III.

● It is a good idea to save the file format on your blank data disc. Do this by placing your formatted disc in the drive and select the Save As option from the File menu.

● When the dialogue box appears, enter the name *TUTORIAL.DMF* – Tutorial Demonstration File – for your new database and press Return. Your format will be saved on disc.

● Now you can begin inputting data, thus creating records for your data file. To begin adding records move into what is called the Form Style display by selecting Form Style option on the View menu.

● You will find the cursor is placed after the title of the first field. Enter 1001 and press Return. If you make a mistake, use the cursor keys to move through the field and type over the error.

● Now enter the name Julia in the *First Name* field and press Return. Then continue entering information in this record using the example input below. Remember to press Return after each entry:

Last Name: Smith
Address: 24 West Street, Blit Village
Town: Megatown
County: Middlesex
Post Code: ME4 6AT
Completed Orders: 15

● Your completed record should now look like that displayed in Figure IV, again it is a good idea to save to disc at this stage.

● If an entry is not entirely visible in a particular field, use the mouse to drag the field to the right, thereby enlarging your information entry area.

● Enter a few more records in a similar manner, using any information you like. Then select the Save option on the File menu to store your database format and records on your data disc.

● Now experiment with your sample data and the options in the main program. Try deleting a record, modifying a record or performing a search. Don't worry, you can't harm the sample data.

Hopefully this will get you started and help you learn a little about the inbuilt processes of a database manager.

In turn it will give you confidence to use some of the more powerful facets of databases such as calculatory, merging and graphics routines.

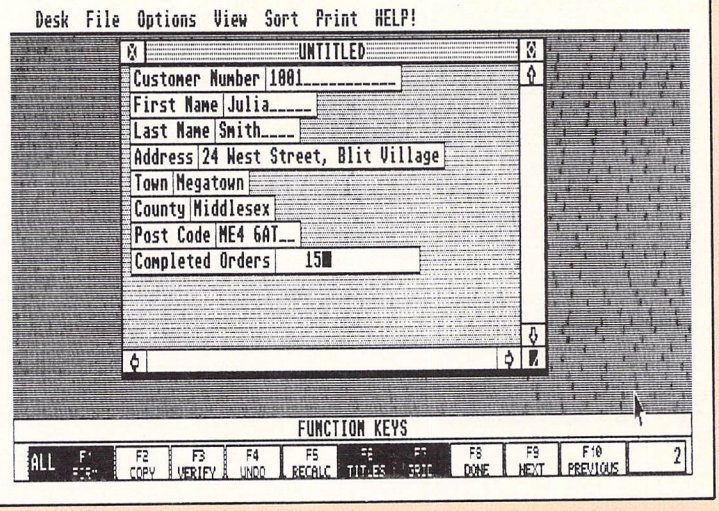

Figure IV: A completed record

GLOSSARY

Backup	A duplicate set of data to be used in case the original is lost, destroyed, or accidentally altered.
Character	A single letter, number, symbol or space.
Chronological	Information sorted by date.
Classes	Created by extracting certain information from the main datafile by applying a rule or definition. The rule acts as a filter, extracting only the information which meets the specification. Sometimes known as a sub-datafile.
Data	The information you enter to be processed.
Database format	The arrangement of data within a record. The format can be designed to hold data in labelled information entry lines (fields).
Datafile	A complete database which has been saved on disc. Sometimes simply called a file.
Dataset	A group of information designated for drawing a graph. Each data set includes the numbers and labels that will appear on the graph.
Dialogue box	An on-screen box to enter information or choose from options.
Enumerated	Pre-defined values within fields.
Field	An entry line of information.
File	A database which has been saved on a data disc.
Match	A record found by the program in a Search. The program matches the data that you have requested to the data in the record.
Merge	Allows you to enter existing data into a datafile, add records in one datafile to another, or divide records in a datafile into two by creating two classes. Also applies to entering existing data into a word processor program to create macro letters and multiple pro-formas.
Record	One or more fields linked together like a chain to form a single specific piece of information.
Report	Output of data of your choice to screen, disc or printer. Reports may be saved, loaded and edited from disc for future use.
Search	A systematic examination for specified information.
Sort	To arrange items of information in a desired sequence.
Verification	A process by which the program looks to see if information has been repeated in more than one record.

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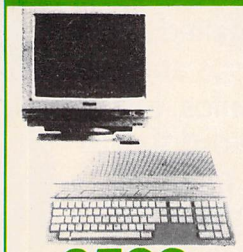

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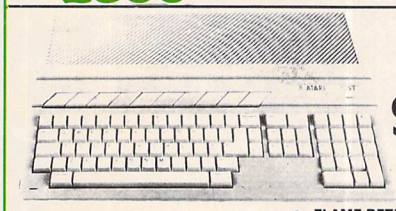

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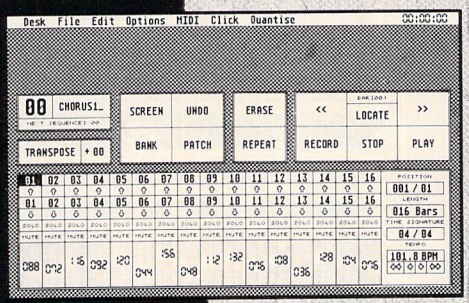

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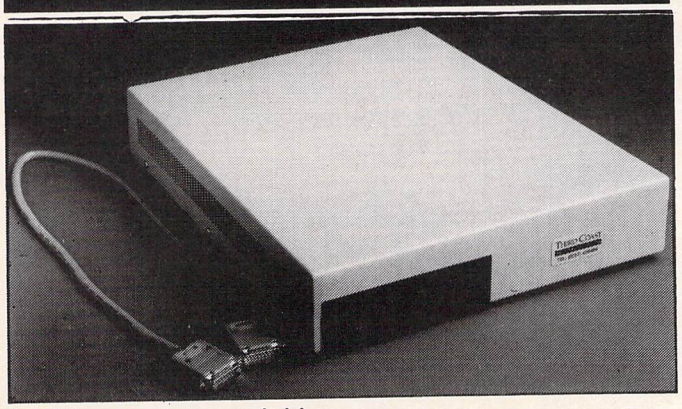

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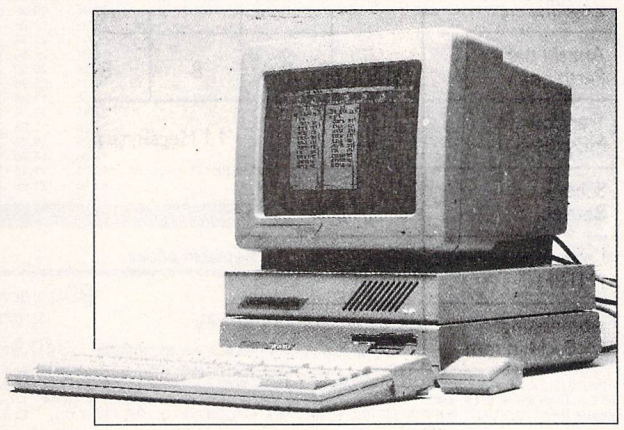

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Nic Outterside reports from the Mirrorsoft European product launch in springtime Amsterdam

The Mirrorsoft team

A Dutch treat...

DURING the past 18 months Mirrorsoft has developed from being an often criticised also-ran in the field of micro software – with the outstanding exception of Fleet Street Publisher – to the largest and most respected entertainment software house in the UK and Europe.

To herald this position and display a vast array of new games titles, the company has held a major European product launch in sunny Amsterdam.

It was attended by computer press journalists from all across Europe, together with representatives from major software distributors and games programmers.

The Mirrorsoft group, which now incorporates Imageworks, Cinemaware, FTL, PSS, Spectrum Holobyte and Logotron, provided three days of video presentations, interviews, canal trips, Bols, tulips, information and previews of more than 20 new releases timetabled for 1989.

The launch ran like clockwork and marketing manager Tom Watson and public relations manager Cathy Compos were on hand to reveal exclusive news about new releases.

Imageworks

Launched late in 1988, Imageworks has taken Europe by storm with a stream of high quality releases such as Speedball, Skychase and Fernandez Must Die. Said Tom Watson: "We now aim to occupy Ocean's 16 bit territory – Mirrorsoft is already ahead in price point and volume sales – with original and licensed established product".

Such has been the success already of Imageworks that after just five releases it was nominated for Software House of the Year in 1988 and came a creditable second.

With Telecomsoft and Electronic Arts the main rivals for this corner of the market the aim of Imageworks is to stretch the ST to its limits in games programming.

The label has eight new products scheduled for launch between now and Christmas.

The first is fantasy role playing game Bloodwych (£24.99). The setting is a rambling castle with a labyrinth of tunnels, strange inhabitants and dark secrets.

However, Bloodwych takes a step away from the usual D & D type adventure by allowing the option of a two player simulation and a positive level of interaction with the environment as you play.

July sees the release of graphically

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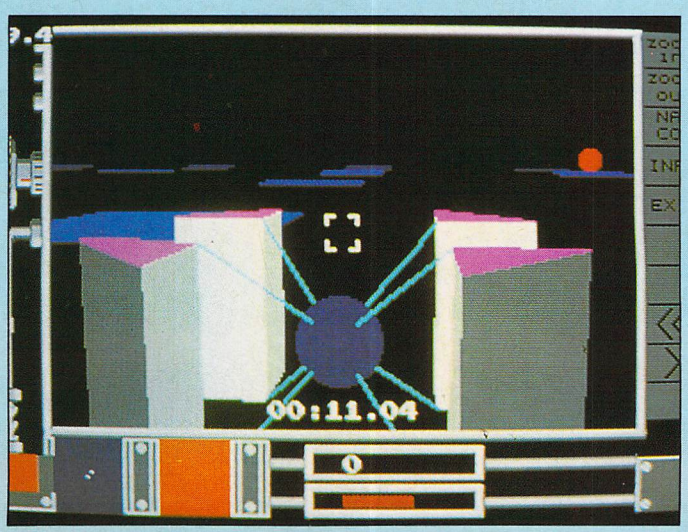


The futuristic Interphase from Imageworks features solid 3D graphics and the haunting shadowy graphics of Palladin

◀ From Page 83

stunning Interphase – Edge of Dreamtime. Set in a futuristic cyber-punk world, this game features the fastest and smoothest 3D filled vector graphics I have yet seen on the ST.

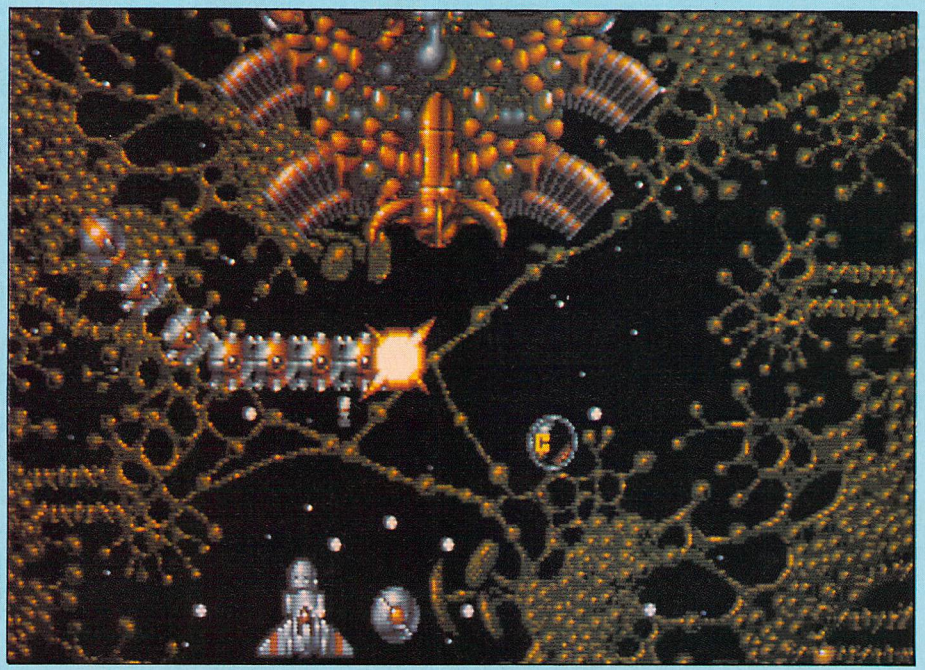
September is the launch date for a complex shoot-'em-up called Crime Town Depths (£24.99). I also saw the stunning graphics of another autumn release – arcade/adventure Terrarium (£24.99).

Other releases will include Palladin – Lord of the Dancing Blades (£24.99), with haunting shadowy graphics, and humorous arcade scroller DDT (£24.99).

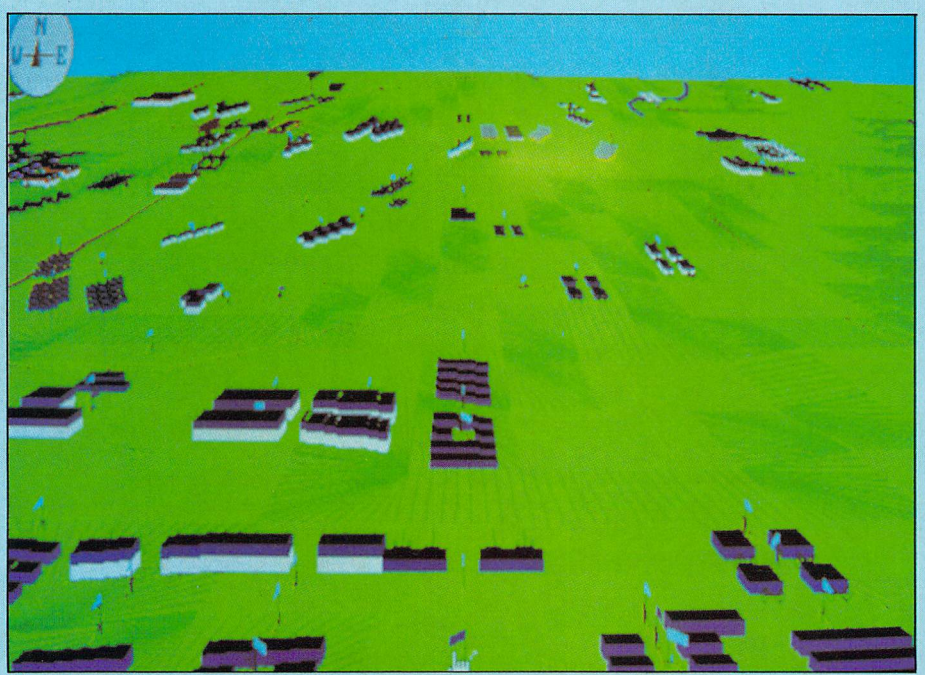
Perhaps the highlight of the year will be provided by a laterally scolling shoot-'em-up by Tony Crowther titled Phobia (£24.99) and the long awaited Xenon II – Megablast (£24.99).

Phobia is a real cracker as you battle in arcade action against birds, dentists, water, spiders in the bath and death itself.

Meanwhile with the pedigree of Xenon and Speedball behind them, the Bitmap Brothers have surely developed the ultimate vertically scrolling shoot-'em-in Xenon II – Megablast.



Imageworks' Xenon II is going to be a chart topper



PSS' Waterloo is a wargame designed by Peter Turcan who worked on Borodino

Sales executive for Mirrorsoft Sean Brennan explained further the policy of Imageworks to produce only A+ titles and to achieve this it has already scrapped two other games in the middle stages of development. Sean sees the next stage of Imageworks development as going into licensing coin-op conversions in a big way.

This included rumoured moves to gain Mirrorsoft licence to Sega Coin-op conversions including a promised tennis simulation which plays in plan view and simulates real tennis.

If such licences are obtained, a whole new avenue will be opened for Mirrorsoft to completely dominate 16 bit games software in a way not seen before.

Cinemaware

Product film licensing is the forté of Cinemaware which leads the industry in visual and sound effects. The first Cinemaware product to be launched in Europe was Defender of the Crown which took the charts by storm, winning numerous awards in the process. Success was soon followed by Rocket Ranger and now Mirrorsoft has exclusive rights to distribute the company's new range of titles.

This will include an animated wargame epic, Lords of the Rising Sun (£24.99) and the company's biggest project to date, a "big bug" cinema clone of the 1950s, It Came from the Desert (£24.99). This outrageous game is set in the prototypical isolated community of Lizard Breath, Arizona, and is full of gritty atmosphere, heart stopping surprises and tongue in cheek humour.

However, I believe most sales are likely to come from an innovative series called TV Sports. The first is American Football (£24.99) which will soon be followed by Basketball (£24.99) and other addictive sport simulations.

FTL

FTL is one of America's most innovative software houses with a reputation for slow ponderous development often repaid by high quality chart busting finished product.

Following up the success of Best Role-playing Game of 1988 – the mould-breaking Dungeon Master – FTL is now ready with a soon-to-be-released add-on package, Chaos Strikes Back.

It adds extra levels which carry on from where Dungeon Master ends, and are used in conjunction with it.It is as compulsive as the original with the sort of fiendishly complex puzzles which made Dungeon Master a classic.

In addition Chaos Strikes Back will have a character portrait editor enabling the players to change the appearance of their party before they resume the adventure.

The staff at Californian-based FTL also has several new projects in development,

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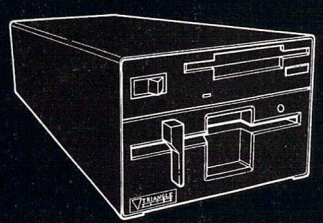

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◀ *From Page 84*

including another Dungeon Master type game set in Outer Space.

PSS

PSS is the largest UK publisher of wargames for home computers with a reputation second to none in this field. Traditionally the company has catered for both novice and purist and 1989 has seen it approach new areas of the market including the ST arena and the mainstream consumer.

Its aim for 1989/90 is to make this genre of game more available for the novice and general games player.

Set for immediate release is a 3D wargame Waterloo (£24.99), which follows the fortunes of Napoleon and Wellington in much the same manner as Atari's highly successful Borodino. In fact Mirrorsoft has done a bit of poaching here and used the same Borodino designer, Peter Turcan, to produce its 1815 epic.

Waterloo is a fascinating and complex game which in my opinion comes as close to true representation of the strategy and tactics of battle as you are ever likely to see on a micro.

Due for sequential release is Conflict Europe (£24.99). In the game you have the choice of being supreme commander of NATO or the Warsaw Pact in a global conflict. Whatever your choice, you have ground, air, nuclear and chemical weaponry at your disposal.

As a wargame it is aimed at the novice wargamer, and unlike its 8 bit prequel, Theatre Europe, features the opportunity to avoid conflict and find world peace.

This wider approach is underlined by Sean Brennan who states that "PSS must appeal to a broader range of people than it has in the past".

Spectrum Holobyte

Californian company Spectrum Holobyte aims to follow the success of Falcon, voted best simulation of the year on both sides of the Atlantic, with a 12 mission disc.

The disc add-ons will include 11 mission strikes and a complete battle scenario in Mission 12.

The success of the label is even threatening the supremacy of Microprose in this field of simulation software.

Also scheduled for winter release is a sports street racing simulation, Vette (from the American car make Corvette). Initial impressions indicate this could be one of the hottest racing simulations seen.

Spectrum Holobyte also has six other titles in development including a simulation of the M1 Abrahams tank. This game will allow network playing to allow two player warfare with interlinked STs.

Logotron

Newest addition to the Mirrorsoft stable is much respected software producer Logotron, which was set up in 1984 and won a strong reputation for producing educational software. It then made quite an impact on the 8 bit games market before this latest venture into 16 bit software and the Mirrorsoft tie-in.

At the launch Logotron product manager Herbie Wright waxed lyrical on the recent success of Starray and announced forthcoming releases including the excellent Archipelagos (£24.99) – reviewed in last month's *Atari ST User* – and a superb arcade shoot-'em-up Starblaze (£24.99).

Also set for summer release is superb arcade/adventure set in ancient Egypt titled Eye of Horus.

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Apskel.c	8.88	—	—	26.5	—	—
Sieve.c	4.59	2.45	—	23.9	2.77	—
AES	35.6	—	—	103	—	—
Savage	6.31	36.4	1.73×10^{-10}	30.82	83.0	1.18×10^{-7}

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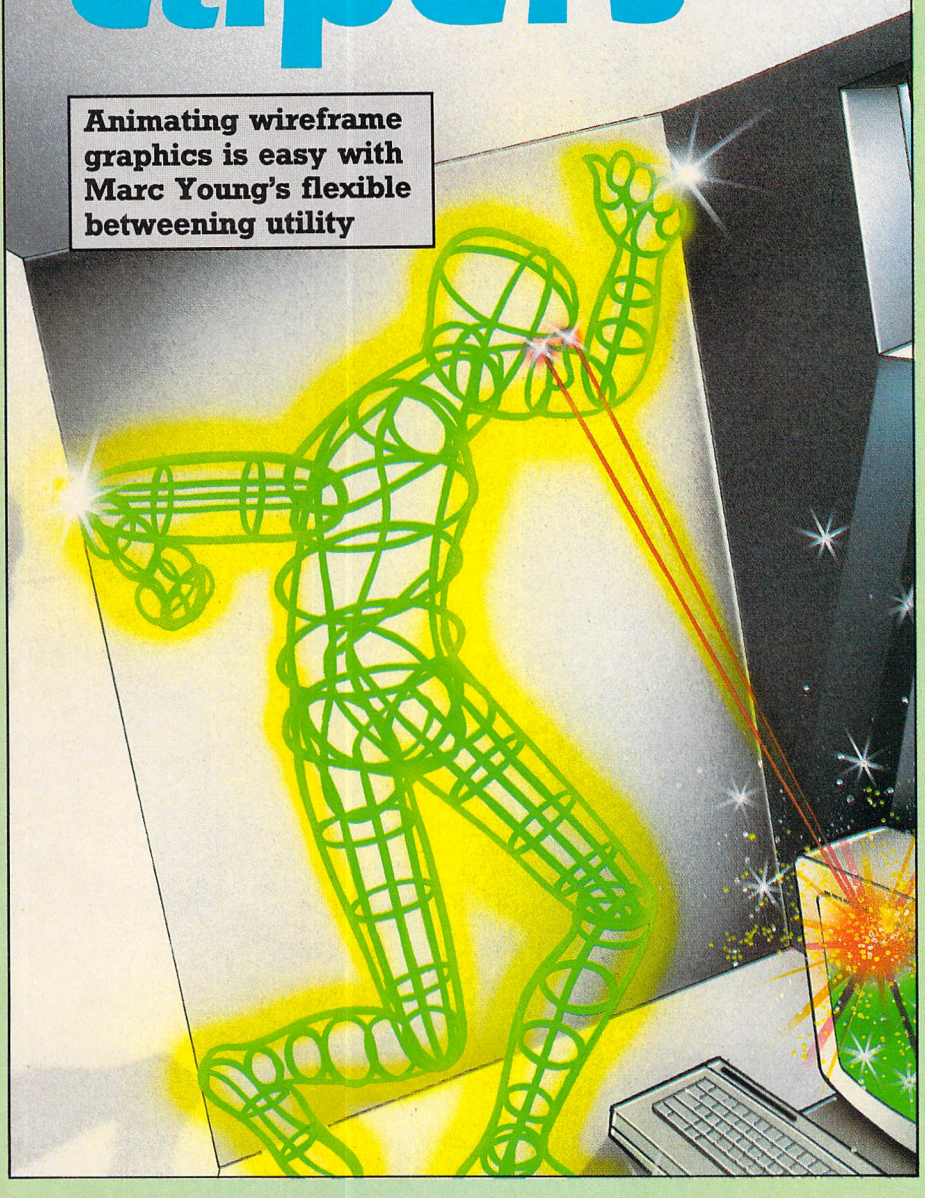
Animating wireframe graphics is easy with Marc Young's flexible betweening utility



WHEN a cartoon is produced first the artist draws several master frames or pictures. Then the individual frames of animation between each of these master frames are drawn by teams of artists. This process is known as betweening.

This Fast Basic program takes the toil out of the job. All you have to do is draw several master pictures of wireframe graphics on screen and it will then perform the betweening to produce smooth animation.

The program only allows wireframe type drawings as even Fast Basic is too slow for full colour solid animation. The program should be typed in without the line numbers. The workspace size should then be adjusted to about 100k using the Show Info option on the menu bar.

When run – in low resolution only – a Gem alert box presents three choices: Draw, Load or Display. Load will load a previously saved animated sequence and Display will show it on the screen. Using the Draw option draw each frame of the animated sequence. Press the left mouse button to start drawing the first frame and the right mouse button to finish it.

When you press and hold the left mouse button the mouse pointer drags one end of a rubber banded line around. Release the button to fix it when it is in the desired place. If you now want to draw another line in this frame, repeat the process.

The first frame completed, press and release the right mouse button. You will be prompted to start the next frame using the left button, or quit using the right button.

Each new line is joined to the last unless you press the Shift key and hold it until the mouse button has been released.

When all the frames are completed you will be shown the animation sequence and given the choice to save the data to disc. You can also load files of previously saved data and animate them.

The program allows up to 10 frames of up to 100 points and generates 20 points between each frame. The variables affecting these may be changed in PROCinit if required. The procedure PROCreserve allocates space for the tables used, plus 32k for a second screen which is updated invisibly to prevent flickering.

```
1 \ In Betweening
2 \ By Marc Young
3 \ (c) Atari St User
4 \ Fast Basic
5 \ Don't enter line numbers
6 PROCinit
7 PROCreserve
8 REPEAT
9 PROCchoose
10 SWITCH option%
11 CASE 1:PROCdesign
12 CASE 2:PROCload
13 CASE 3:PROCanimate
14 ENDSWITCH
15 UNTIL 0
16
17 DEFPROCinit
18 max_frames%=10
19 max_points%=100
20 no_of_steps%=20
21 GRAFRECT 0,0,SCREENWIDTH,SCREENH
EIGHT
22 TXTRECT 0,0,SCREENWIDTH,8
23 CLG 0
24 ENDPROC
25
26 DEFPROCreserve
27 RESERVE screen2%,32768
28 screen2%=(screen2% + 256) AND $F
FFFFF00
29 screen1%=PHYSBASE
30 DIM pos_x%(max_frames%,max_point
s%)
31 DIM pos_y%(max_frames%,max_point
s%)
32 DIM dx(max_frames%,max_points%)
33 DIM dy(max_frames%,max_points%)
```

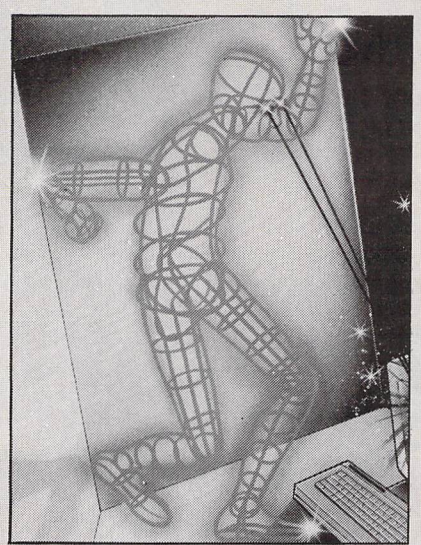
Turn to Page 90 ▶

PROCEDURES

init	Initialise variables
draw–frame	Edit frame
calculate	Calculate frame differences
animate	Animate frames
display	Draw a frame
save	Save the data to disc
load	Load data from disc

◀ *From Page 89*

```
  34 DIM ind%(max_points%)
  35 path$="A:\*.*"
  36 file$=" "
  37 ENDPROC
  38
  39 DEFPROCchoose
  40 T$="[1][Inbetweening|"
  41 T$=T$+"Select whether to draw a|
"
  42 T$=T$+"new design, load a saved|
"
  43 T$=T$+"design or animate a desig
n]"
  44 T$=T$+"[Draw|Load|Display]"
  45 option%=ALERT(T$,1)
  46 ENDPROC
  47
  48 DEFPROCdesign
  49 PROCinit
  50 frame%=0
  51 exit=FALSE
  52 REPEAT
  53 PROCdraw_frame(frame%)
  54 frame%=frame%+1
  55 UNTIL frame%>max_frames% OR exit
  56 max_frames%=frame%-1
  57 PROCcalculate
  58 PROCanimate
  59 stat%=ALERT("[1][Save This Desig
n?][Yes|No]",1)
  60 IF stat%=1 THEN PROCsave
  61 ENDPROC
  62
  63 DEFPROCdraw_frame(F%)
  64 P%=0
  65 CLS
  66 PRINT "LEFT-Start frame ";F%+1;"
 RIGHT-End Drawing";
  67 REPEAT
  68 MOUSE X%,Y%,B%,K%
  69 UNTIL B% AND 3
  70 IF B% AND 2 THEN exit=TRUE:ENDPR
OC
  71 pos_x%(F%,P%)=X%
  72 pos_y%(F%,P%)=Y%
  73 ind%(P%)=TRUE
  74 REPEAT
  75 P%=P%+1
  76 PROCpoint
  77 IF P%<max_points% THEN
  78 CLS
  79 PRINT "Frame ";F%+1;"  Point ";P
%+1;" of ";max_points%;
  80 IF F%>0 AND ind%(P%+1)=FALSE THE
N
  81 PRINT;" MOVING";:SETMOUSE 3,0
  82 ELSE
  83 SETMOUSE 0,0
  84 ENDIF
  85 REPEAT
  86 MOUSE Z%,Z%,B%,Z%
  87 UNTIL B% AND 3
  88 ENDIF
  89 UNTIL B%=2 OR P%=max_points%
  90 IF F%=0 THEN max_points%=P%
  91 REPEAT
  92 MOUSE Z%,Z%,B%,Z%
  93 UNTIL B%=0
  94 ENDPROC
  95
  96 DEFPROCpoint
  97 LOCAL mouse%
  98 mouse%=FALSE
  99 REPEAT
 100 GRAFMODE 3
 101 pos_x%(F%,P%)=X%
 102 pos_y%(F%,P%)=Y%
 103 LINE pos_x%(F%,P%-1),pos_y%(F%,P
%-1) TO pos_x%(F%,P%),pos_y%(F%,P%)
 104 MOUSE X%,Y%,B%,K%
 105 LINE pos_x%(F%,P%-1),pos_y%(F%,P
%-1) TO pos_x%(F%,P%),pos_y%(F%,P%)
 106 IF (F%=0 AND (K% AND 3)=0) OR (F
%>0 AND ind%(P%)=TRUE) THEN
 107 SETMOUSE 0,0
 108 mouse%=FALSE
 109 ENDIF
 110 IF (F%=0 AND (K% AND 3)) OR (F%>
0 AND ind%(P%)=FALSE) THEN
 111 SETMOUSE 3,0
 112 mouse%=TRUE
 113 ENDIF
 114 UNTIL B%=0
 115 IF (F%=0 AND mouse%=FALSE) OR (i
nd%(P%)=TRUE AND F%>0) THEN
 116 GRAFMODE 1
 117 LINECOL F%+1
 118 LINE pos_x%(F%,P%-1),pos_y%(F%,P
%-1) TO X%,Y%
 119 ind%(P%)=TRUE
```



```
 120 ELSE
 121 ind%(P%)=FALSE
 122 ENDIF
 123 pos_x%(F%,P%)=X%
 124 pos_y%(F%,P%)=Y%
 125 ENDPROC
 126
 127 DEFPROCcalculate
 128 LOCAL F%,P%
 129 FOR F%=0 TO max_frames%-1
 130 FOR P%=0 TO max_points%
 131 dx(F%,P%)=(pos_x%(F%+1,P%)-pos_x
%(F%,P%))/no_of_steps%
 132 dy(F%,P%)=(pos_y%(F%+1,P%)-pos_y
%(F%,P%))/no_of_steps%
 133 NEXT
 134 NEXT
 135 ENDPROC
 136
 137 DEFPROCanimate
 138 TXTRECT 0,0,SCREENWIDTH,SCREENHE
IGHT
 139 PROCswap
 140 LINECOL 2
 141 FOR frame%=0 TO max_frames%-2
 142 FOR step%=0 TO no_of_steps%-1
 143 PROCdisplay(frame%,step%)
 144 NEXT
 145 NEXT
 146 PROCdisplay(max_frames%-2,no_of_
steps%)
 147 CLS
 148 LOGBASE=PHYSBASE
 149 PRINT"PRESS ANY KEY TO CONTINUE"
;
 150 stat%=GET
 151 ENDPROC
 152
 153 DEFPROCdisplay(F%,S%)
 154 FOR P%=0 TO max_points%-1
 155 IF ind%(P%+1) THEN
 156 X1%=pos_x%(F%,P%)+S%*dx(F%,P%)
 157 X2%=pos_x%(F%,P%+1)+S%*dx(F%,P%+
1)
 158 Y1%=pos_y%(F%,P%)+S%*dy(F%,P%)
 159 Y2%=pos_y%(F%,P%+1)+S%*dy(F%,P%+
1)
 160 LINE X1%,Y1% TO X2%,Y2%
 161 ENDIF
 162 NEXT
 163 PROCswap
 164 ENDPROC
 165
 166 DEFPROCswap
 167 SWAP screen1%,screen2%
 168 LOGBASE=screen1%
 169 PHYSBASE=screen2%
 170 CLS
 171 ENDPROC
 172
 173 DEFPROCsave
 174 PROCfilename
 175 IF stat% THEN
 176 f%=OPENOUT(file$)
 177 PUTREC#f%,max_frames%,max_points
%
 178 FOR P%=0 TO max_points%
 179 FOR F%=0 TO max_frames%
 180 PUTREC#f%,pos_x%(F%,P%),pos_y%(F
%,P%),dx(F%,P%),dy(F%,P%)
 181 NEXT
 182 PUTREC#f%,ind%(P%)
 183 NEXT
 184 CLOSE#f%
 185 ENDIF
 186 ENDPROC
 187
 188 DEFPROCload
 189 PROCfilename
 190 IF stat% THEN
 191 f%=OPENIN(file$)
 192 GETREC#f%,max_frames%,max_points
%
 193 FOR P%=0 TO max_points%
 194 FOR F%=0 TO max_frames%
 195 GETREC#f%,pos_x%(F%,P%),pos_y%(F
%,P%),dx(F%,P%),dy(F%,P%)
 196 NEXT
 197 GETREC#f%,ind%(P%)
 198 NEXT
 199 CLOSE#f%
 200 ENDIF
 201 ENDPROC
 202
 203 DEFPROCfilename
 204 path$=PATH$+"*.DAT"
 205 FSELECT path$,file$,stat%
 206 IF stat% THEN
 207 WHILE RIGHT$(path$,1)<>"\"
 208 path$=LEFT$(path$,LEN(path$)-1)
 209 WEND
 210 PATH$=path$
 211 ENDIF
 212 CLG 0
 213 ENDPROC
```

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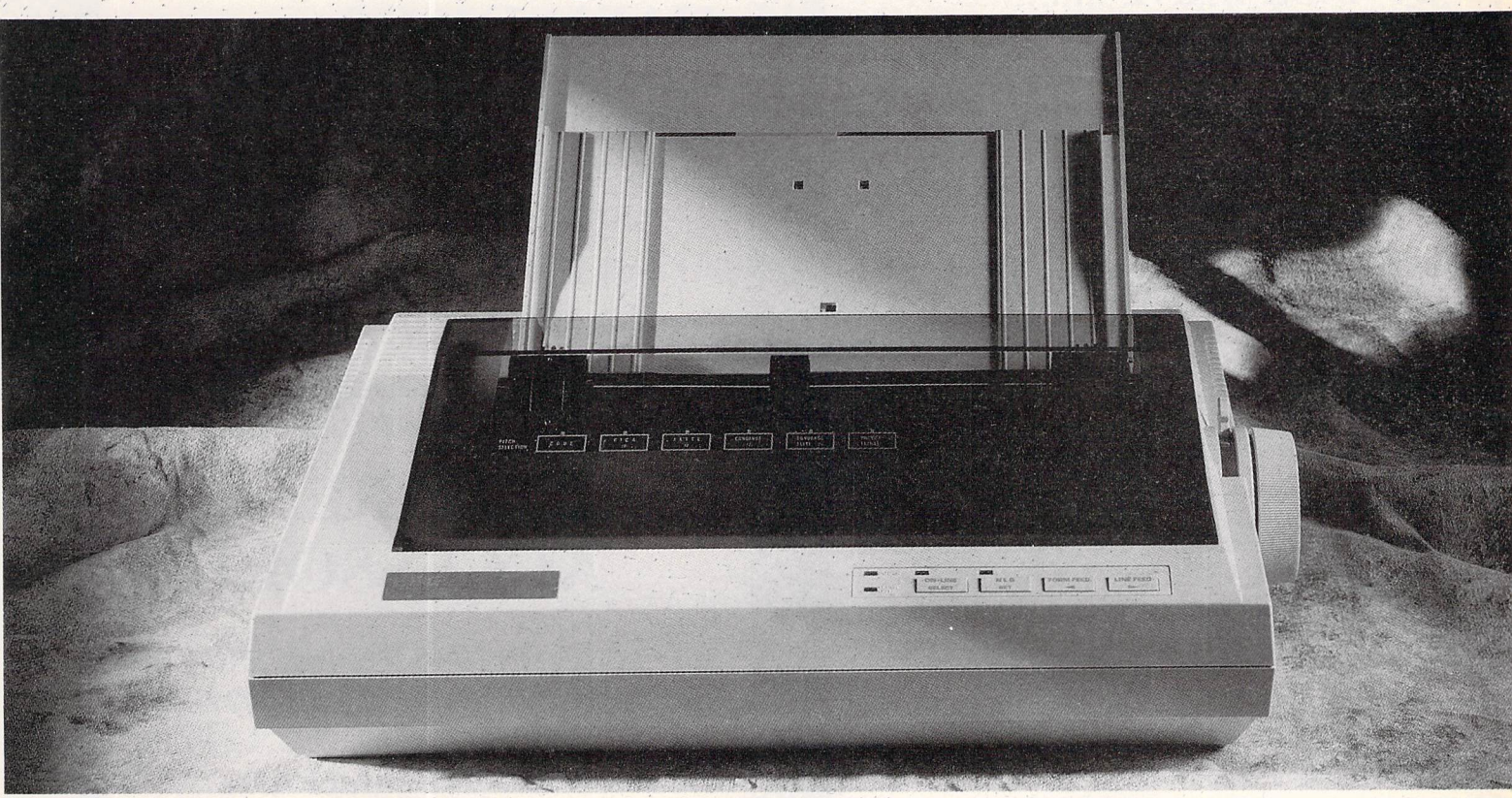

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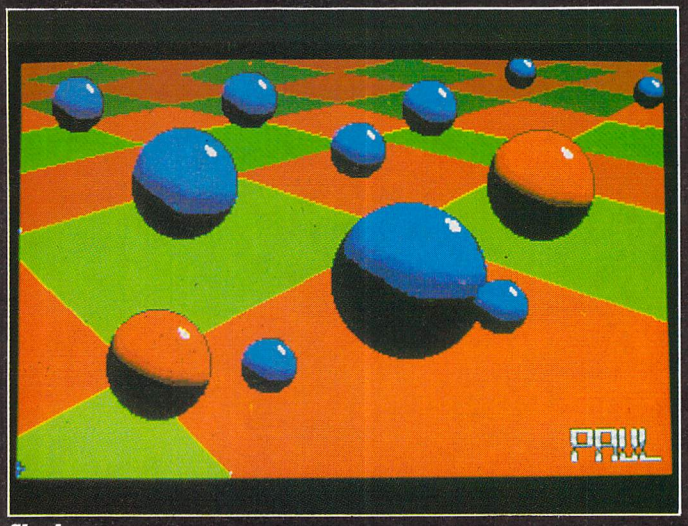

Shades

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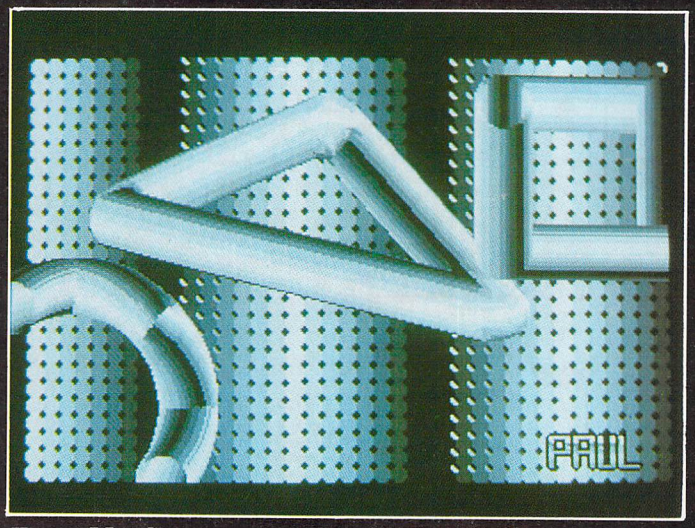


Heavy Metal

GALLERY

THIS month's Gallery exhibits the wide talents of 17-year-old computer studies student Paul Beaumont of Huddersfield who sent us a disc of 10 pictures he had created using the public domain art package Neochrome. Each picture was worthy of inclusion in Gallery in its own right, and the four we have chosen give an indication of the broad scope of his work.

Shades explores in blazing colour the shadows created by spheres suspended above a technicolour landscape and achieves both startling image and depth. Heavy Metal is a structured design in metallic texture which is somewhat reminiscent of a Bitmap Brothers backdrop.

Farewell Two Arms is a tongue-in-cheek look at Greek sculpture and succeeds remarkably in two tone against an azure blue backing.

Finally this month, Warlord, with its haunting reds and golds, would make a superb cover picture for an ST adventure game.

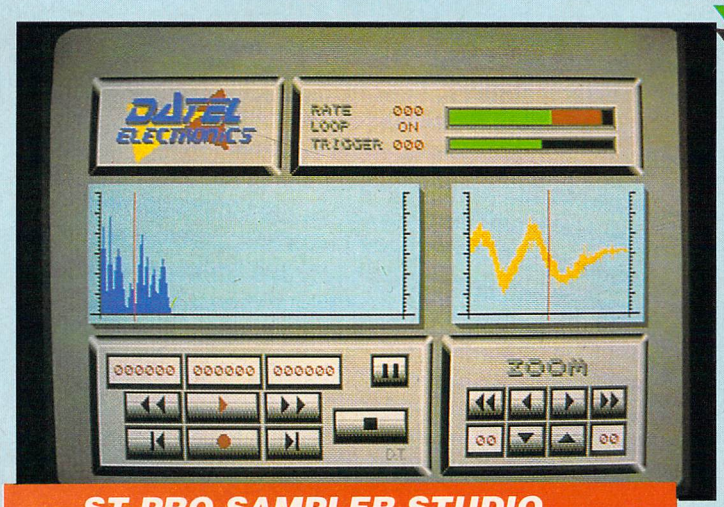
If you have a work of art you would like to see exhibited on our worldwide stage why not send it in on disc to Gallery.

Remember though, anything you submit must be all your own work. You must own the sole copyright and provide us, in writing, with confirmation of this fact, as well as your express permission to let us publish your work. Please note that if you want your submissions returned you must supply us with an sae.

Farewell Two Arms

Warlord

DATEL ELECTRONICS



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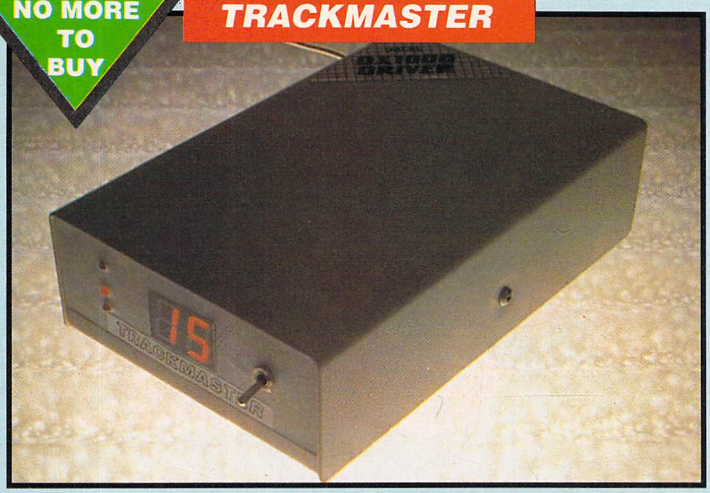

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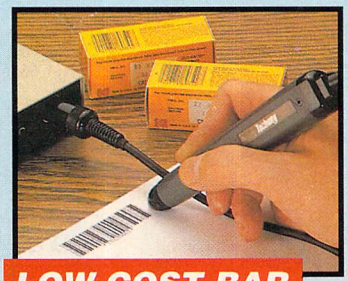

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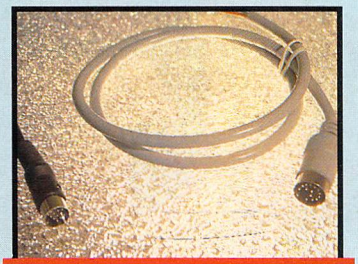

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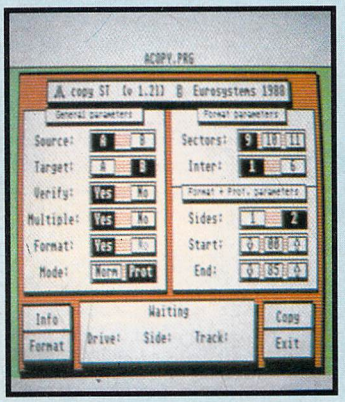

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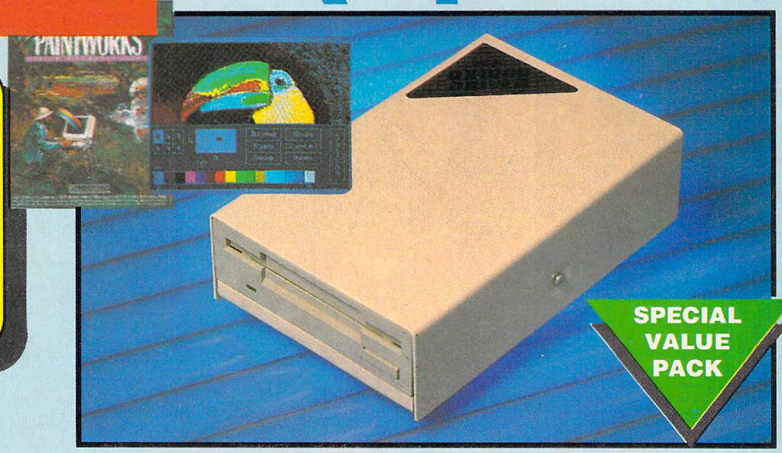

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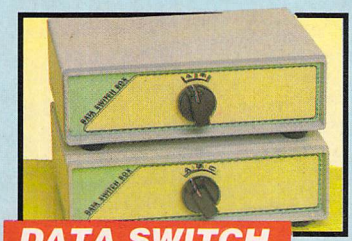

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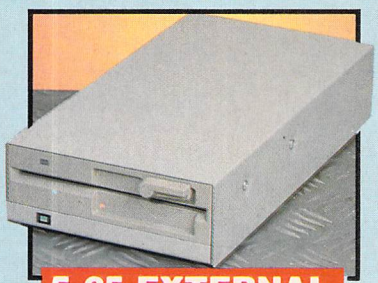

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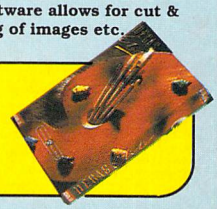

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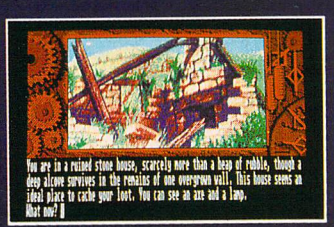

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ST7

ADVENTURES

Brillig ponders on the penalties of success

Help on line for Sierra trio

NO doubt you've all been very busy these last few weeks playing Sierra/Activision's latest text and graphics adventures, Police Quest II, King's Quest IV and Leisure Suit Larry II. However, it's quite possible that a fair number are stuck near the beginning of at least one of them or have missed something vital in the early stages, thus making successful completion an impossibility.

With that likelihood in mind and to help you on your way, this month I've compiled a goodly helping of Hints and Tips for the early stages of these games. Now you have no excuse for not being able to really crack on with them.

I do try to mention and answer as many readers' letters as possible, but inevitably some have to be left out or held over. Don't despair if you don't see your particular item referred to – keep on trying.

Many thanks to those who have sent in solutions to Shadowgate, especially Paul Ioannou from Halifax and Cameron MacKenzie of Fairlie in Ayrshire. And appreciation, too, to J. Clark of Blackpool and Marcel Langenaal of Holland – who is studying in this country – for their help with King's Quest I.

The answers to some of the miscellaneous questions I raised about this latter adventure in the April issue are as follows: Tempt the goat with the carrot and lead it to the troll guarding the bridge. The bird will catch you and carry you to the island in the river if you jump.

You need to swim and dive down in the well to get past the boulder. The cheese is needed to feed a creature on the island, while the clover will bring you luck and protection.

Bas Debbink from Arnhem in Holland has already made great strides towards completing Leisure Suit Larry II, but has not been quite so successful with the Infocom/Activision classic Hitch Hiker's Guide to the Galaxy.

Bas cannot solve the Zaphod Beeblebrox scene. When the guards have dropped their rifles, he doesn't see how he can prevent them from grabbing them again and pumping lead into him while he is trying to make off with the Heart of Gold.

The solution, Bas, is very simple. In fact, there are two, but both require the help of Trillian. You can either take the blaster from Trillian and shoot the pile of rifles, or you can ask Trillian to do it for you. Blindingly obvious, eh? Yep, it always is once you're told.

Oh, by the way, Bruce Marshall (RGB to regular readers) has cracked another adventure. This time it's US Gold's Zak MacKraken and the Alien Mindbenders, whose secrets have now been laid bare. I'll mayhap let you have the benefit of his uncoverings in a future issue.

The author of Titan Games' Shards of Time – reviewed in our April issue – has thoughtfully sent in a few hints and tips for those wrestling with his new adventure. Some are slightly cryptic – well, you can't have all the work done for you – so brain cells at the ready as here we go.

The Time Zones can be tackled in any order, but completion of any one may have some effect on the course of history. For instance, if you finish the Ice Age first Norwald will cease to exist and so the name of the village in the 14th century will not be the same.

Quite a few of the objects are well hidden, so you will have to look hard to find them. You should also remember the old adage "If at first you don't succeed...".

If you can't get past the wolves in the Ice Age you must be unbearable and if you're trying unsuccessfully to get across the crevasse perhaps you need to branch out in other directions.

A trip to the inn in the 14th century might prove illuminating, while a hike may help you to get past the inebriated soldier.

If you can't cross the fiery chasm in the 19th century perhaps you haven't yet twigged the answer. The sharks are only here for one purpose, and it isn't to kill you. Got all those? Good.

Mrs K.J. Savidge from BFPO 45 wants to know how she can stop the wizard in King's Quest III from zapping her every time she collects something. The secret is to be aware of what times the wizard is likely to pop up. Once you know those, you can always stow all your illgotten

Turn to Page 101 ▶

Leisure Suit Larry – this month's Hints and Tips provide welcome help

The word is PROTEXT...

More and more people are now recognising Protext as the word processor that the ST has been waiting for. Developed over a period of 4 years, Protext has been designed to be fast, flexible and efficient. The emphasis is very much on word processing.

Unlike its competitors, Protext does not use Gem. The scrolling speed is four times faster than that of Gem based word processors. Yet Protext is still WYSIWYG and still allows access to desktop accessories.

Protext is faster all round; for example the search and replace command is six times faster than First Word+, and the spelling checker, too, is faster.

Protext has all the features you would expect from a good word processor - many text editing commands, print commands, spelling checker and mailmerge. What you might not expect though, is the refinement and thought that has been put in to make Protext ideal for the novice or the experienced user alike.

"To sum up, Protext is probably the most powerful word processor on the Atari ST and is quite likely to become the best selling too"... ST USER 4/88

..."*At last one that seems to fit most of what I call essential in a word processor*" PAGE 6 #34

..."*Extremely good for manipulating and merging large text files*". "*Wins hands down as the all round package*". ST USER 8/88

A brief summary of some of Protext's features ...

Box manipulation	move, copy, or delete any box as well as blocks
Configuration	configure most features to your own preferences
Dictionaries	add/delete words to/from supplied dictionary. Create additional specialised dictionaries.
Disc utilities	copy files, erase, rename, type, create directory, change directory, remove directory, catalogue files
Exec files	store sequences of commands in files for easy use
File conversion	flexible file conversion utility for other WP files
Find & replace	very powerful and fast with many options.
Foreign languages	10 built in keyboard languages. Easy to use accented letters: ä æ ç ö ü è é ß à ù ô ê ñ etc.
Headers & footers	up to 9 lines of text, different even/odd headers and footers possible, automatic page numbering
Help	edit and command help available on-screen
Keyboard macros	string any sequence of letters together on a single key e.g. "Yours sincerely". Load and save macros.
Line spacing	variable in half lines, including 0, ½, 1, 1½, 2, 2½, 3
Printer support	works with any parallel or serial printer. Wide range of printer drivers supplied, incl. lasers and 24-pin printers; or create your own drivers or edit ours.
Printing styles	bold, condensed, double strike, elite, italics, enlarged, pica, NLQ, subscript, superscript, microspacing, proportional spacing, any other printer fonts
Program mode	suppresses formatting; auto-indent; set tab stops
Proportional text	will print proportionally spaced, right justified text
Quick dictionary	dictionary held in memory is very fast
Ruler lines	any number of ruler lines to define document layout, left/right margins and normal/decimal tab stops
Spelling checker	check from disc or current text. Suggests alternative spellings. Works with foreign languages
Symbol	Screen character symbols may be redefined
Time and date	set time and date, use within document
Tutorial files	help you to start using Protext
Two file editing	two documents in memory, copy text between them
Typewriter mode	direct printing for envelopes etc.
Undelete	retrieve text deleted in error
Word count	quick count at any time, whole text or just a block
Word puzzles	anagram and crossword solving features
Wysiwyg	on-screen bold, underline, italics, sub/superscript

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The background printing feature allows you to continue your word processing while waiting for your printer to finish printing.

Please send SAE for reprint of review plus feature summary.

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Protext Office	£34.95	£34.95	£34.95
Protext v4 demo	£7.00	£7.00	£7.00

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◀ From Page 99

gains under the bed in your room, as he never looks there.

To get rid of the wizard once and for all you need to make a poisoned cookie using the spell book. When he's hungry you have to crumble up the cookie in a bowl of porridge to disguise the taste before giving him the whole concoction.

Finally, thanks to Sarah Garner of Redditch for some ideas for this column and for her tips on Beyond Zork.

Her desperate pleas for help with Infocom's Bureaucracy brought the tears coursing down old Brillig's leathery cheeks and fair soaked his beard. I'm sorry you had to wait a bit for help, Sarah, but hope that the tips I sent have got you back on track again.

Perhaps I'll also provide the rest of you with some hints and tips on this mind-stretching game next month – provided my beard has dried out. Until then, why not give your knapsack a summer clear out – who knows what may be lurking in its deepest recesses?

That's just given me an idea. What's the oddest object you've ever found in an adventure? I know what my nomination would be – what's yours? Write in and tell me and I'll publish the best entries. The prize? Why, the honour of a mention in Brillig's column.

Melbourne mega game

Product: War in Middle Earth
Price: £19.99
Supplier: Melbourne House, 2-4 Vernon Yard, Portobello Road, London W11 2DX.
Tel: 01-727 8965

TIME was when Lord of the Rings was essential reading for any would-be fantasy fan or adventure buff. Now it seems the market is flooded with the trilogy this or the covenant that. Melbourne House first cashed in on the Tolkien epic five years ago with the release of the text adventures The Hobbit and later Lord of the Rings Part 1. Both were bug-filled disappointments which deserved the wide spread criticism they received from players and press alike.

Now from the same software house comes an epic graphical jaunt on the same theme – War in Middle Earth. How does it fare? I must admit that I opened the stylish packaging with a certain amount of apprehension.

War in Middle Earth is presented on three single-sided discs with accompanying manual and an A5 size black and white map of Middle Earth itself.

The game is a mouse/icon driven, full-parallax scrolling graphic adventure. No pretence is made to add textual parser but that doesn't in any way detract from the gameplay. However, it does require a certain amount of disc swapping, which can be a chore.

Your task is to manipulate Frodo, Sam, Aaragorn, Gandalf and the rest as they battle to deliver the ring to the Cracks of Doom. Ranged against you are all the fell forces of the Dark Lord Sauron and the corrupt Wizard Saruman.

The odds at first seem stacked against you, but this is an easy game to get into and even a novice can make a certain

Turn to Page 102 ▶

HINTS AND TIPS

LEISURE SUIT LARRY II

Look for a dollar bill in the garage. Buy a lottery ticket. Show it at the TV studio, note the six numbers the receptionist reads out and read them back to her as your own.

Play Dating Connection and Wheel of Fortune. Buy a swimsuit at the clothes shop. Buy Grotesque Gulp. Buy Sunscreen from the middle-left counter in store. Sit down in the barbers. Look in Eve's dustbins for your passport. Visit the music shop. Go to the harbour and show your cruise ticket.

POLICE QUEST II

Get the keys from the ignition. Look at the card in the glove compartment. Turn it over for your locker combination. Enter the station and get items from the locker.

Visit the firing range and wear ear protectors. Keep shooting, pressing the view button and adjusting the sights until you earn five extra points. Get extra ammo from the officer if needed or when finished. Get the car keys from the board in your office.

Read the board and look in your desk basket. Open your drawer. Search your wallet for a diving certificate. Examine the captain's desk and papers. Check out the cabinet and get the mug shot. Play with the computer using passwords. Get your field kit from your storage bin near the counter. Leave for the jail.

KING'S QUEST IV

Visit the home of the seven dwarfs and tidy it. Return the pouch they leave behind to the head dwarf in the mine (he'll still let you keep it but will give you something else as well).

Get Cupid's bow and arrows by jumping into the pool before he can collect his weapon. Use it on the unicorn. Pick up a worm on your travels. Give the pouch to the fisherman in his shanty. Put the worm on the rod and go fishing.

Swim a few screens to the left of the pier and find a feather. In the parlour in the Spooky House, get a book from the right-hand shelf. Look at the portait then the left wall.

Lift the latch and collect the shovel. Give the book to the minstrel. Look under the bridge for a ball. Throw it into the pond then go kiss the frog.

◀ *From Page 101*

amount of progress.

You begin your quest in the homely village of Hobbiton as the evil Nazguls are searching the countryside for the little hobbit and the precious ring. Your actions must be speedy as you muster Sam, Pippin and Merry and make your way to Tom Bombadil's House. Any hesitation at this stage will mean an early exit from the game.

You can manipulate play on three different levels: The first is full map level, which shows the whole of Middle Earth, with forces shown as coloured dots.

Campaign level shows a detailed map of part of Middle Earth which will scroll quickly and very smoothly if the cursor is moved to an edge. Characters are shown as figures and armies as badges. This is the level where most gameplay takes place and is also the level where all commands are given.

The animation level shows a detailed sideways view of characters and is used for friendly and hostile encounters.

Other aspects of the game are the combat situations where you can be pitted against orcs, wolves, Nazgul, the Balrog and other assorted nasties. The screen immediately toggles to the animation display and you must decide quickly whether to charge, engage,

withdraw or retreat each of the characters you control against the foe.

If you charge you will usually be successful – especially if your foe is weak – but be prepared for wounds and some losses. I lost Sam, Merry, Pippin and Aaragorn early on in one game, yet still managed a further two hour's play.

The game loosely follows the storyline of the book, but I emphasise the word loosely. It is best to spend some time at the outset listening to advice from fellow travellers and searching for artefacts which will aid your quest.

Such searching will bring benefits: I discovered Mithril mail at Belegost, a golden sceptre near Annuminas, a bottle of an elixer near the White Towers and the odd elven blade at assorted stopping points. And this was all before venturing east in to join the battle in earnest.

A final word of advice: Allow Aaragorn, Boromir and Gandalf to join your force early in your adventure. They are powerful allies and will get you out of many sticky situations.

The game graphics aren't outstanding and the constant disc swapping can get annoying at times. However, this really is a mega game and many more facets – like battle strategy – more than make up for the niggles. There are infinite possibilities to play and I can guarantee that no two games will be totally alike.

Though I am an adventure text-only fan, I found War in Middle Earth to be a highly playable romp which had an addictive quality about it. In my opinion it is the best adventure of any description to be released from the Melbourne House stable. May the Fellowship of the Ring be with you, and more importantly: Go out and enjoy it.

Pendragon

Sound	***8***
Graphics	***8***
Playability	***10***
Value for money	***9***
Overall	***9***

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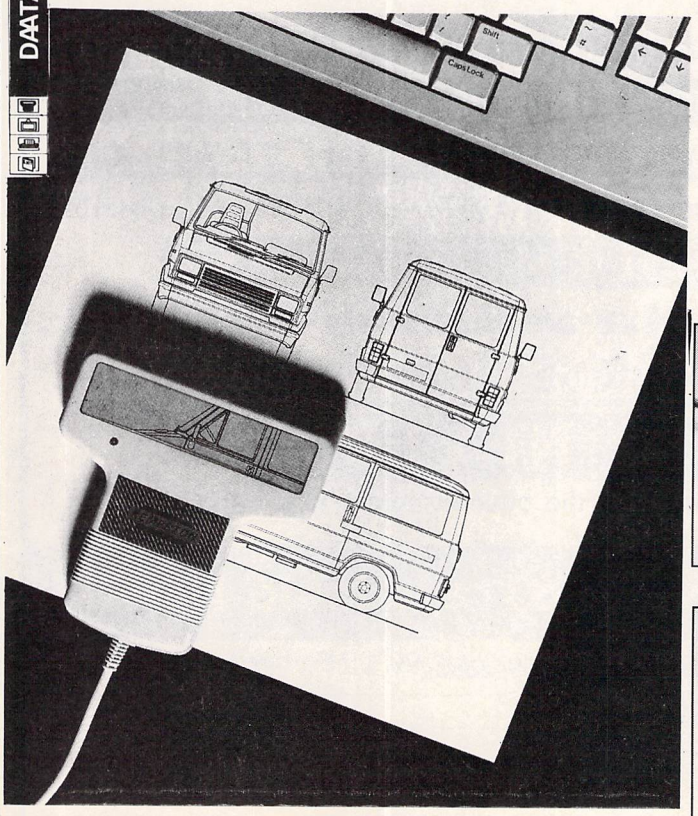

New from Kempston is DAATAscan, a hand-held scanner for the transfer of graphic images to an Atari ST.

Complete with easy to use GEM based software, DAATAscan allows images to be scanned from newspapers, photographs, books etc. then saved in the most popular and widely supported graphics file formats.

Images produced by DAATAscan can be imported into leading Desktop Publishing such as Fleet Street Editor (Mirrorsoft) and Desktop Publisher (Timeworks). They can also be incorporated into the pages of DAATAfax, a computer-based personal organiser.

The DAATAscan software, which is ICON driven, enables an image to be scanned, cropped, reduced and then saved as a bit image file in IMG format.

Conversion routines are also provided to convert to DEGAS, Neochrome, TIFF and MSP formats.

The scanner is connected to the ATARI ST through an interface module which fits into the ROM cartridge port and has two sockets to accept the scanner and PSU. The scanner controls include start-of-scan, contrast and choice of scan mode.

The scanner has a scan width of 105mm, a resolution of 200 DPI and a scan speed of 2cm/sec. It can operate in black and white and 16 Quasi-tones (half tones using dither patterns).

HYPERPAINT

Also included with DAATAscan is HYPERPAINT, the official Atari ST Graphics package, which includes features such as variable zoom (up to x 16) and rescale.

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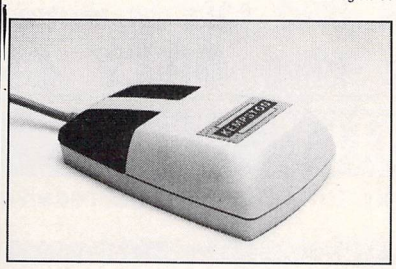

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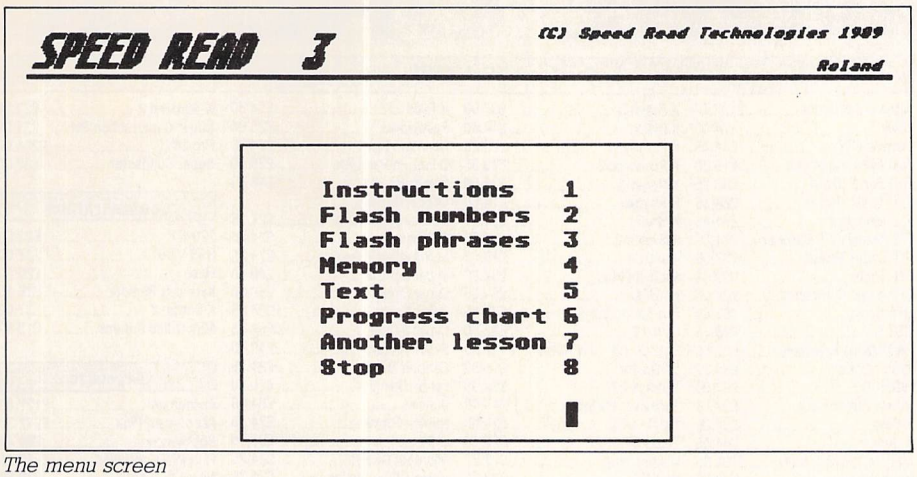
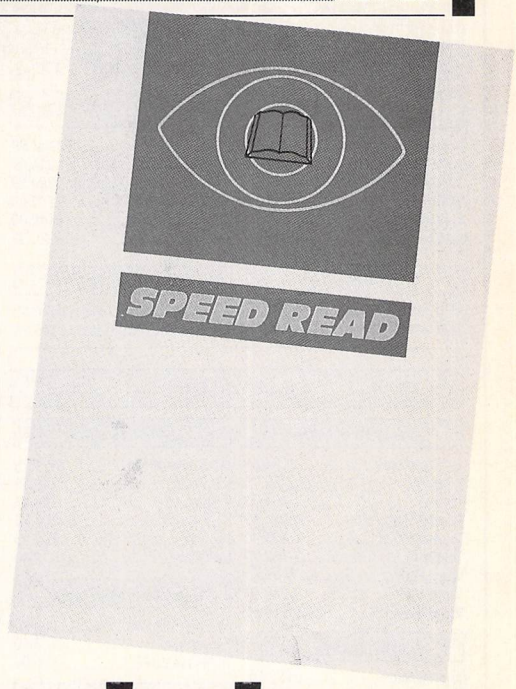


The menu screen



Reading you loud and clear

Roland Waddilove tries learning to read all over again

IF you want to really zip through that rather turgid article on the mating habits of the wombat – and still take in all the salient facts – Speed Read Technologies may have just come up with the answer.

Speed Read comes on one disc with a four-page manual – which isn't essential as the software is self explanatory.

The program attempts to improve your reading speed through a series of lessons, each split up into a number of tests. It recommends that no more than one – or at most two – lessons should be completed each day. The program is not Gem based and uses a simple menu system to select from eight options.

The first prints the instructions and background information. However, it isn't needed, as this is printed each time you boot up the software.

In option two, Flash Numbers, test numbers appear on the screen for a fraction of a second. You read them and immediately type them in.

At the highest speed the number appears for just 100th of a second before being erased. In lesson one the number consists of just two digits, but these expand as you progress. The speed is selectable and you must score at least 11 out of 20 correct.

The same procedure, but using words, is employed in Flash Phrases. I found this easier than the number test.

The fourth option is a memory test and again a number is flashed on screen. This time the random number is quite large – usually six digits or more – and you have a short time to memorise it before it disappears and you type it in. As you progress through the lessons the random number becomes longer.

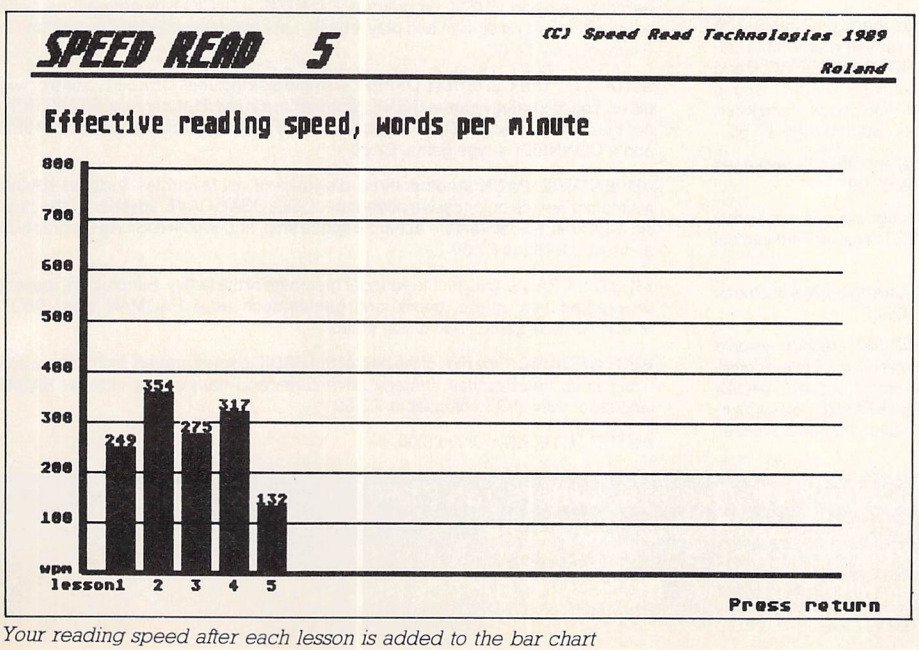
Option five is a comprehension test in which you read several screens of text and then answer questions to check your understanding and memory of facts and figures. The reading is timed, but you can spend as long as you wish over the answers.

The length of the text and difficulty of the questions didn't seem to correspond with the lesson number. Some texts were short and the questions easy, some were long and complex. Your reading speed is calculated by adjusting the timed read of the text according to your score in the following comprehension questions.

Option six displays your progress as a bar chart and my reading speed jumped about wildly, starting off at around 130 words a minute, peaking at 170 and plummeting to a mere 90 after lesson five.

That drop was because of a particularly long comprehension test followed by tough questions. The peak was after a short comprehension and easy questions.

After half a dozen lessons I'm not convinced I have improved my reading ability significantly. However, I did find the software enjoyable to use and quite addictive.



Your reading speed after each lesson is added to the bar chart

FACT FILE

Product: Speed Read
Price: £29.95
Supplier: Speed Read Technologies, 186 Thames Road, Strand on the Green, London WA3 3QR.
Tel: 01-995 9250

POINTS FOR:
Easy to use with varied exercises. Quite addictive.

AGAINST:
Comprehension exercises vary in difficulty from test to test.

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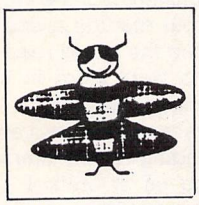

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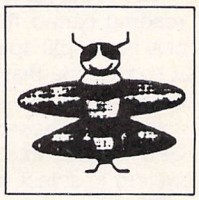

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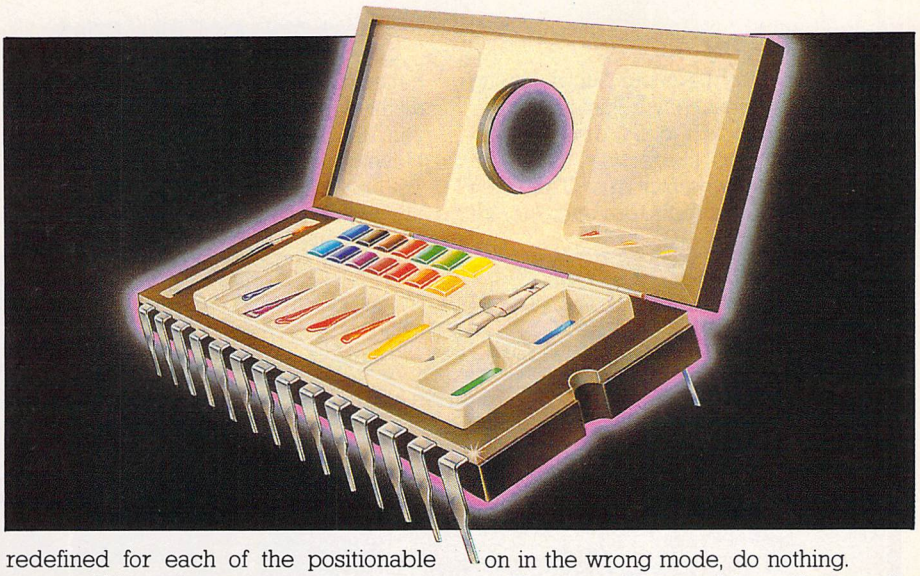
Ron Massey examines the improvements in the latest version of Quantum Paint – v2



A glossier coat of paint

QUANTUM Paint is a 2D drawing program which also includes an easy-to-use animator. In common with Eidersoft's previous version, you have options for drawing in low resolution with 128, 512 or 4,096 colours, or in medium resolution with 32 colours.

Since it was first reviewed in *Atari ST User* in July 1988, Quantum Paint Gold Professional has been upgraded, improving its features and adding a range of new ones. Also some functions have been significantly speeded up.

The first indication that you are using Quantum Paint v2 is that its menu panel colours have been changed from grey to gold. Like its predecessor, the two main control panels are entirely button orientated.

From the main menu you click on buttons to select from a conventional set of drawing tools or on audio cassette-style buttons for simple but effective control of the excellent animation system. Other buttons are used for colour and palette selection, palette mode and for controlling colour distribution in paint and fill options.

Drawings may be developed independently, but in the same palette mode, on either of two screens. If you are working with animation – available only in the Standard Palette mode – frames are stored from the current working screen.

Since band colour is what Quantum Paint is all about, ample attention has been paid to providing a comprehensive selection system. There are two types of colour palette and the one displayed will depend on whether you are in Standard or Super Palette modes.

In the standard 128-colour mode palette, colour is selected by clicking on one of 16 paint pots. Colours may be copied from one pot to another. You also have the option of spreading colours into shades in up to 16 pots or resetting the colours to their default values.

Double-clicking on a pot permits setting a particular shade with conventional RGB sliders. To increase the range of colour in this mode, a drawing may be separated into as many as eight horizontal zones or bands. Paint pot colours can be redefined for each of the positionable zones within a picture.

Colour selection in the Super Palette and Interlaced modes may be done with the RGB sliders or by direct selection from a full screen 512 colour palette. Colours may be independently selected for background or foreground by double-clicking on the appropriate buttons.

RGB sliders are 8 and 16 position for Super Palette and Interlaced Palette modes, respectively. In practice the 512 Super Palette mode is limited to about 35 to 40 colours per line.

Clicking on the Menu button switches the screen to Quantum Paint's secondary menu. This panel controls the functions for drawing, animation and font file manipulation. Drawing option parameters, such as airbrush, brush cycling and x-ray mode, are also selected here.

Some of the drawing options, such as Lasso Mode and IMG Proc, are related to the current palette mode and, if clicked on in the wrong mode, do nothing.

There are 12 powerful new features for manipulating the screen. In Super Palette mode clicking on Menu on the main panel and IMG Proc on the secondary panel allows you to modify a drawing independently on the horizontal and vertical axis by mirroring, reduction and enlargement.

You can also change the current drawing to False colour, negative colour, No Colour (grey scale) and 50 per cent or 75 per cent threshold transform. A smooth button is Quantum Paint's anti-aliasing control, and like the other options available from this sub-menu, affects the entire screen.

HAM and IFF images are supported in the basic 320 x 200 screen resolution common to both ST and the Amiga. Although the default loading mode is the 4096 colour Interlaced Palette, pictures

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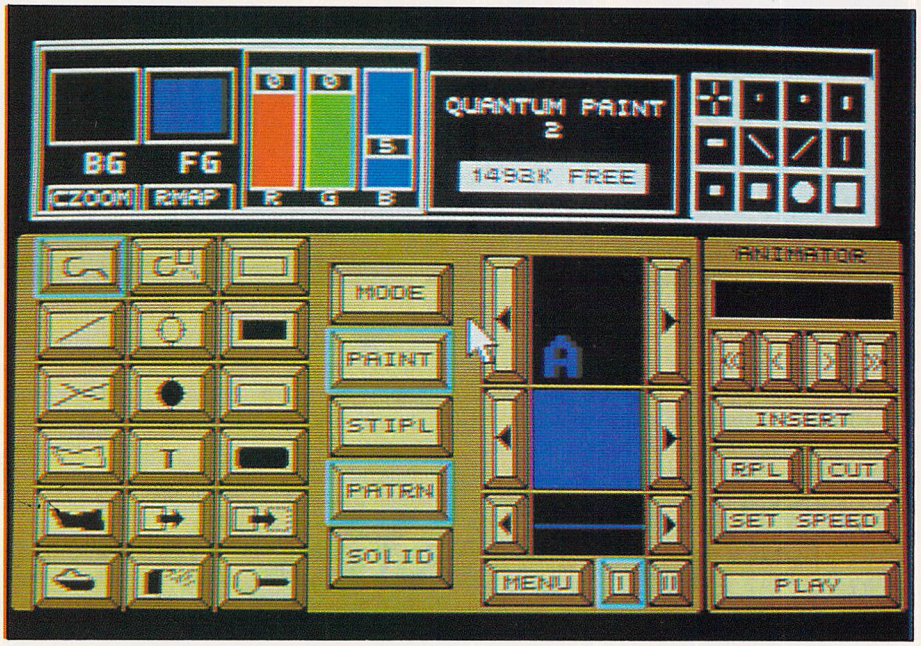
A sample of the sort of high-quality pictures Quantum Paint is capable of producing

◀ From Page 107

loaded into the 512-colour Super Palette mode are automatically adjusted.

Also supplied is a toolkit disc to incorporate drawings made with Quantum Paint into your own programs. C and Fast Basic are fully supported and the kit includes sample application listings.

One of the toolkit routines is a file called CHANGEHZ.PRG. Each time this small file is run it switches the screen refresh rate. If the current rate is for 50Hz, it switches to 60Hz and vice versa. While not likely to win prizes for the program of the year, providing you have a suitable monitor it is useful.



The menu screen is icon driven for ease of use

Conclusions

The new image processing features are powerful additions to an particularly good drawing program and speed increases are especially noticeable. In many ways, Quantum Paint is very much like Degas Elite, but with a much better menu.

Degas users will have no trouble adapting. Users new to computer art, whether static drawings or animated sequences, will find Quantum Paint a particularly easy program to use.

FACT FILE

Product: Quantum Paint Gold Professional
Price: £34.95
Supplier: Eidersoft, 44a Stanley Street, Bedford MK41 7RW.
Tel: 0234 27300

POINTS FOR:
A more powerful drawing program than its predecessor. Useful screen manipulation features.

AGAINST:
Screen updating in Super Palette Modes can be distracting.

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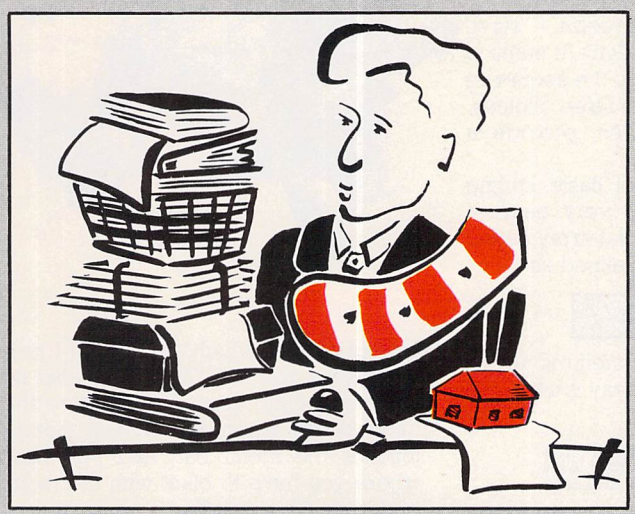

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Continuing his series on STOS programming, David McLachlan shows how to create your own menu bar like Gem

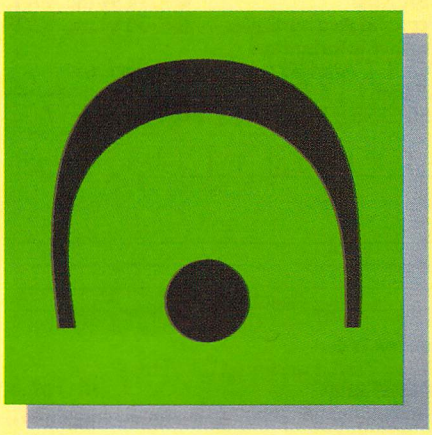
IF you want to write games, but haven't the knowledge or time to program in machine code, STOS will supply you with ready made routines to manipulate animated sprites, music and menus just like professional software.

This series complements the manual by giving more information and longer, more complex example listings. This month I shall examine the MENU command and have written a short game, Simon, to demonstrate how to use the relevant instructions.

You are quite likely to have seen Simon Says before, but for those who haven't the idea is to do as Simon does. There are four different coloured squares on the screen, each having its own musical note. Simon will light up the squares in a particular sequence, playing the notes at the same time. You have to remember which squares Simon lit up and in what order and repeat his sequence.

He starts with one note, and if you get that right adds another to the sequence and so on. You lose a life if you get the sequence wrong. Lose three lives and the game is over.

You input your sequence using the numeric keypad keys 7,9,1 and 3 which are arranged in a square corresponding to the squares on the screen.



Menu commands

The program uses the MENU commands to set up three pull-down menus, Info, Speed and Start At. On the Info menu there is About Simon and Quit. The former tells you who wrote the program while the latter quits the game.

The Speed menu allows you to choose one of three playing speeds – slow, medium and fast. Use the Start At menu to set the number of notes in the sequence that Simon starts with. The three choices, one, four and eight notes, provide a selectable difficulty level.

Unlike other versions of Basic, setting up menus with STOS is very easy. It stores the items in a special array called MENU$. The the title is defined as:

```
MENU$(1)=" Info "
```

Placing options on the menu is just as easy. Again the MENU$ array is used, but in a different way:

```
MENU$(1,1)=" Credits "
```

This would put the option Credits in the first position in the first pull-down menu. To activate it you use the MENU ON command, its syntax is:

```
MENU ON border,mode
```

With this command you can choose the

type of border, which range from 1 to 16, the menus will use. There are also two types of menus, Drop Down where they drop down when the mouse pointer touches the menu bar, and Pull Down where you have to click with the mouse button on the menu bar.

Let's take a look at how these commands have been implemented within the example game listing. Instead of individually naming each menu item with a separate menu command, time and space is saved by putting the relevant information in data statements. These are

What's on

```
  10 REM Simon  -  By D. McLachlan
  20 REM (c) Atari ST User
  30 KEY OFF:CURS OFF:CLICK OFF:MODE 0
  40 PALETTE $0,$777,$400,$40,$4,$404
  50 ERASE 5:RESERVE AS DATA 5,255:add
=START(5)
  60 DIM bx(4,4),col(4,2):speed=20:str
t=1
  70 RESTORE 820
  80 FOR x=1 TO 3
  90 READ n,heading$:MENU$ (x)=heading
$
 100 FOR y=1 TO n
 110 READ option$:MENU$ (x,y)=option$
 120 NEXT y
 130 NEXT x
 140 FOR l=1 TO 4
 150 READ bx(l,1),bx(l,2),bx(l,3),bx(l
,4)
 160 NEXT l
 170 FOR x=1 TO 4:READ col(x,0),col(x,
1),col(x,2):NEXT x
 180 MENU$ (1,2) OFF:MENU$ (2,4) OFF
 190 MENU ON 1:CURS OFF
 200 ON MENU GOTO 650,730,780
 210 ON MENU ON
 220 WHILE-1:WEND
 230 END
 240 MENU OFF:MODE 0:SCROLL OFF
 250 FOR l=1 TO 4
 260 INK l+1:BAR bx(l,1),bx(l,2) TO bx
(l,3),bx(l,4)
 270 NEXT l
 280 REM******* Main loop *********
 290 lives=3:round=strt
 300 WHILE lives>0
 310 add=START(5)
 320 LOCATE 5,1:PRINT "Round:";round:L
OCATE 27,1:PRINT "Lives:";lives
 330 FOR l=1 TO round
 340 n=RND(3)+1:nte=col(n,0)
 350 COLOUR n+1,col(n,2)
 360 VOLUME 1,15:PLAY 1,nte,speed:PLAY
 1,0,5
 370 COLOUR n+1,col(n,1)
 380 DOKE add,n:INC add:INC add
 390 NEXT
 400 add=START(5):c=0
 410 REM********* Your turn **********
 420 REPEAT
 430 WHILE INKEY$<>"":WEND
 440 LOCATE 13,24:PRINT "Note number:
";c+1
 450 k$="":WHILE INSTR("7913",k$)=0:k$
=INKEY$:WEND
 460 k=INSTR("7913",k$)
```

read into the MENU$ array with a nested FOR ... NEXT loop.

You can switch off various options within the menu using:

```
MENU$(title,option) OFF
```

This shades the relevant menu item, so you know it has been switched off. The command:

```
MENU$(title,option) ON
```

will reactivate the item. I use this command to switch off the dividing lines in the menus.

The coordinates of the squares, plus their colours and tones, are read into arrays. The menus are activated with the MENU ON command, giving them a thin border. Next the ON MENU command is used which allows you to jump to one of a list of line numbers. In Simon the command looks like this:

```
ON MENU GOTO 650,730,780
```

This acts rather like an ON *n* GOSUB command where *n* is a numeric variable. The menus are numbered from left to right, starting at one, so if Speed is selected – menu number two – the program will jump to the second line number in the list.

After the menus are set up the program hangs around line 220 in an infinite loop. ON MENU ON is used to set this command into action. The line numbers in this example are the subroutines which handle the selecting of the menu items.

MNBAR and MNSELECT are two system variables that hold the menu's status. MNBAR represents the MENU title you have chosen, so you could use ON MNBAR instead of ON MENU.

MNSELECT denotes the number of the menu item that you have selected. This is used to determine where to jump to when an option is clicked on. Line 650:

```
650 ON MNSELECT GOTO 660,0,710
```

tells the program where to go when items on the Info menu are selected. As we have immobilised the second item – the row of dashes – the program will not jump to the second line number, so it doesn't matter what it is.

On line 660 we freeze the menu so it can't be activated when the credits are being displayed. This is the command:

```
MENU FREEZE
```

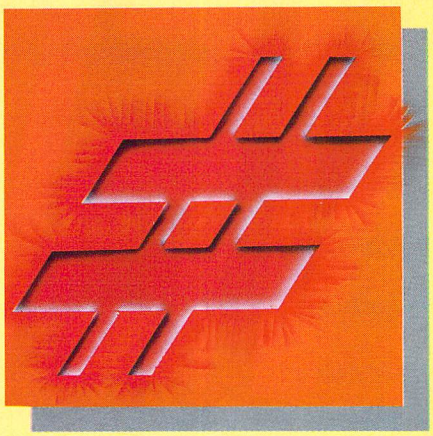
It can be reactivated using MENU ON.

Speed is controlled by the variable *speed* which is used in the PLAY command to set the length of the note. The variable *round* sets the number of notes played in Simon's sequence. The sequence is played in a FOR ... NEXT loop and the next note is selected at random. The pitch is stored in the *col* array as is the colour of the square to be lit. The square is highlighted using the command:

```
COLOUR c,$nnn
```

where *c* is the colour number and *$nnn* is the colour.

Once the note has been played the



colour is changed back and the square number is DOKED into memory bank five so we can check it against your replay of the sequence.

Once this process has been repeated *round* times the program drops through to where you input your response. The number of the correct square is retrieved by DEEKing bank five and is compared against your guess. If it is different the variable *lives* is decremented.

Icons on the menu

The menus don't necessarily have to be composed of text. You can also use icons. Try loading the STOS icon editor and defining three icons to represent the three Simon menu options, or load the icon file provided.

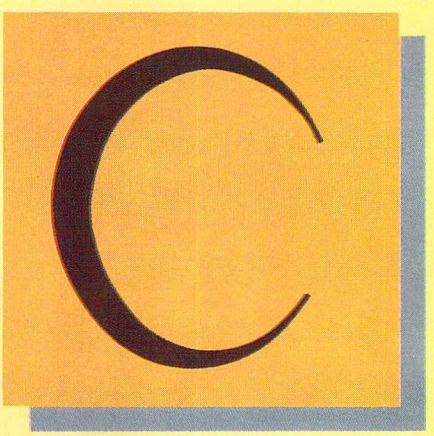
To use them in your menu change line 90 to read:

```
90 READ n,h:MENU$(x)=ICON$(h)
```

Also remove the menu titles in the data statements and replace them with the numbers 26, 43 and 25. Run the program and look at the result.

Now you know how to use the MENU command, why not try to add a few more menus to the game? For example, you could have a choice of shapes to use instead of squares. Or how about two players?

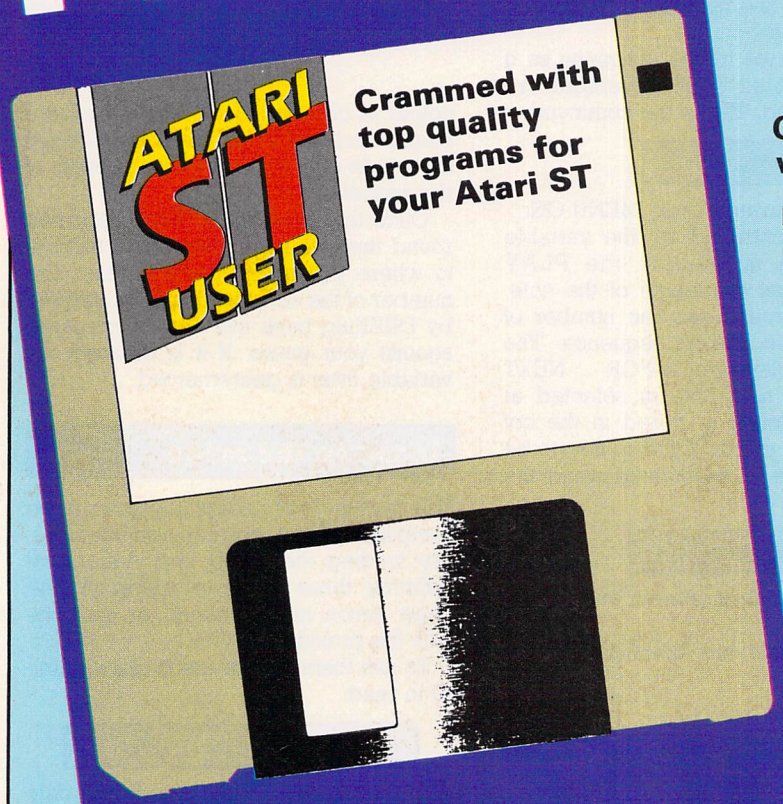
● *Next time we'll look more deeply into the screen copy command in a fruit machine simulation.*



the menu?

```
 470 n=DEEK(add):INC add:INC add
 480 COLOUR k+1,col(k,2)
 490 PLAY 1,col(k,0),speed:PLAY 1,0,0
 500 COLOUR k+1,col(k,1)
 510 IF k=n THEN INC c
 520 UNTIL c=round OR k<>n
 530 LOCATE 26,24:PRINT "   "
 540 IF k<>n THEN GOSUB 590 ELSE WAIT
50
 550 INC round
 560 WEND
 570 GOTO 70
 580 REM******* Oooops wrong *******
 590 LOCATE 14,2:PRINT "Oooops Wrong!"
:DEC round
 600 PLAY 1,11,20:PLAY 1,0,5:PLAY 1,8,
25:PLAY 1,0,0
 610 WAIT 100:LOCATE 14,2:PRINT "
     "
 620 DEC lives
 630 RETURN
 640 REM******** Info **********
 650 ON MNSELECT GOTO 660,0,710
 660 MENU FREEZE:WINDOPEN 1,8,5,24,12,
1:CURS OFF
 670 LOCATE 0,3:CENTRE "SIMON":PRINT:P
RINT:CENTRE "By David McLachan"
 680 WHILE MOUSE KEY<>0:WEND:WHILE MOU
SE KEY=0 AND INKEY$="":WEND
 690 WINDEL 1
 700 MENU ON 1:GOTO 200
 710 MENU OFF:MODE 1:END
 720 REM ******* Set speed ********
 730 ON MNSELECT GOTO 740,750,760,0,24
0
 740 speed=20:GOTO 200
 750 speed=15:GOTO 200
 760 speed=10:GOTO 200
 770 REM ******* Set number of notes *
*******
 780 ON MNSELECT GOTO 790,800,810
 790 strt=1:GOTO 200
 800 strt=4:GOTO 200
 810 strt=8:GOTO 200
 820 DATA 3," Info "," About Simon ","
------------"," Quit "
 830 DATA 5," Speed "," Slow "," Mediu
m "," Fast ","--------"," Start "
 840 DATA 3," Start at.. "," 1 Note ",
" 4 Notes "," 8 Notes "
 850 DATA 50,30,150,100,170,30,270,100
,50,110,150,180,170,110,270,180
 860 DATA 37,$400,$700,39,$40,$70,41,$
4,$7,42,$404,$707
```

NEW



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A mite too manic?

Nic Outterside reviews a new educational game which aims to teach spelling to primary school aged children

EDUCATIONAL software for the ST has been produced by B.Ware for more than a year, and has to some extent lived in the shadow of Softstuff and HAT in terms of quality of offering and volume of sales. However, that shadow now looks like lifting as B.Ware reveals its best offering to date.

Play-Spell is a joystick-controlled Manic Miner platform type game with colourful screens, exciting gameplay and the underlying intent of teaching spelling.

The program loads with a menu screen featuring a 3.5in disc. This gives you the option to load in a separate data disc – available at £9.95 each – or to carry on with the program disc.

The extra data discs, which feature topics such as birds, animals, shapes and colours and numbers, effectively give you a new game every time. Each comes with 20 more words and screens to master.

Either way, make your selection – changing discs if necessary – and wait for the main title screen to load. Now press the joystick button to continue into the game and screen one.

You control, via your joystick, an animated character carrying a sack – you begin with six of them. This little sprite can move left, right and up, and can be made to jump over obstacles by simultaneously pressing the fire button while moving the joystick in the desired direction.

The object is to collect letters in the correct order to correspond with the spelling of a character represented in a small TV screen in the bottom right-hand corner of the play area.

In doing this you must manoeuvre around a screen full of obstacles such as disappearing blocks and avoid unwanted letters which are scattered in your path. The game may be paused and later resumed by pressing the spacebar.

The screen will be completed when the word has been spelt, and another screen and picture will appear to challenge you.

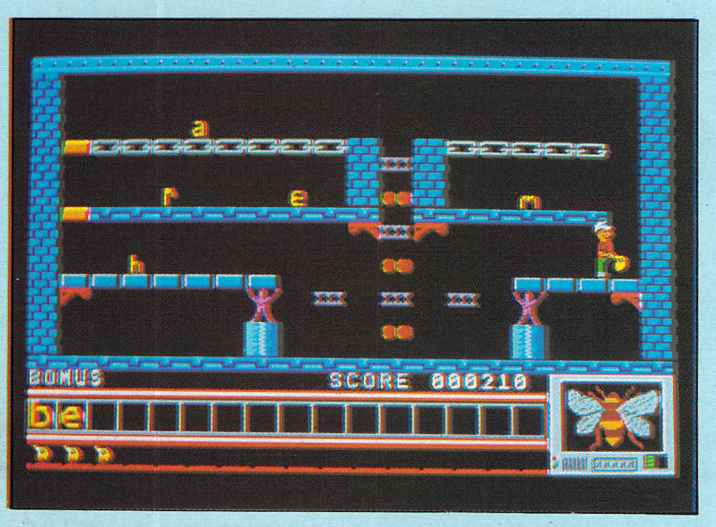
Every letter obtained in correct order adds 35 points to your score, and every 500 points collected will give you an extra sack – up to a maximum of 16 – which can be used on subsequent screens. If you complete a screen within a prescribed time you will also earn bonus points.

As a game Play-Spell is good fun and challenging, though I wonder if it may be a little too challenging for very young children. My criticisms concern the educational style and educational content of the program.

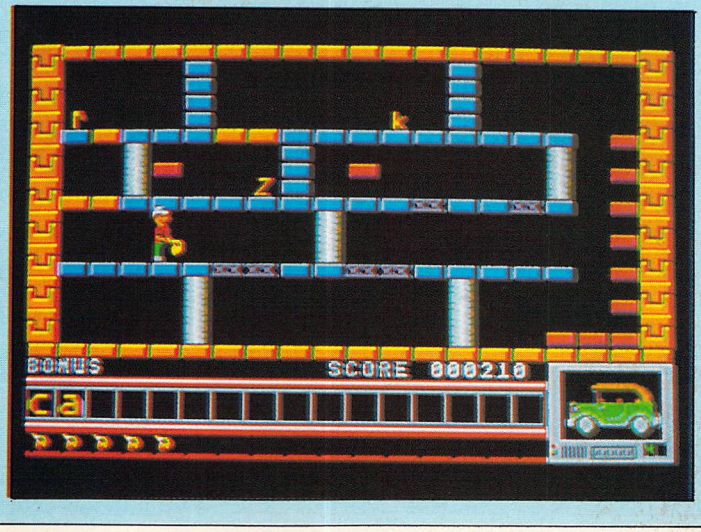
It seems to put the emphasis on gameplay rather than on teaching spelling, and I wonder whether a child may become immersed in the game without ever really taking in the spellings. However, the program could be used to support a spelling teaching program such as B.Spell or Spellbook, but will not teach the fundamentals of spelling in its own right.

I am also concerned with the selection of words for the master program. If there is to be any consistency there should not be words such as jam, car and feather in the same set of 20. These give neither phonic nor visual consistency.

However, I am most impressed with the program as a whole and feel that Play-Spell will be a valuable addition to any home education library.



Play-Spell is like Manic Miner – more arcade than educational content



The spelling is simple, but the game requires good manual dexterity

FACT FILE

Product: Play-Spell
Price: £14.95 (Extra data discs available at £9.95 each)
Supplier: B.Ware Software, B.Bytes Computer Systems, 19 Southfield Road, Hinckley, Leicestershire LE10 1UA.
Tel: 0455 613377

POINTS FOR:
Enjoyable, with bright, colourful and attractive screens and well prepared sound effects. Will grab a child's attention and maintain concentration.

AGAINST:
Little real educational content. The game is difficult and may involve dexterity problems for young children.

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Memory: DIM, OPTION BASE, ARRAYFILL, TYPE, ASC, CHR$, STR$, BIN$, OCT$, HEX$, VAL, CINT, CFLOAT, PEEK, POKE, DPEEK, DPOKE, LPEEK, LPOKE, SPOKE, SDPOKE, SLPOKE, BYTE, CARD, INT, LONG, FLOAT, SINGLE, DOUBLE, CHAR, VARPTR, ARRPTR, ABSOLUTE, CLEAR, CLR, ERASE, SWAP, SSORT, QSORT, INSERT, DELETE, FALSE, TRUE, DATE$, TIME$, SETTIME, TIMER, LET, VOID, FRE, BMOVE, BASEPAGE, HIMEM, RESERVE, INLINE, MALLOC, MFREE, MSHRINK

Window: ON MENU, MENU, ON MENU BUTTON GOSUB, ON MENU KEY GOSUB, ON MENU IBOX GOSUB, ON MENU MESSAGE GOSUB, MENU OFF, MENU KILL, MENU, OPENW, CLOSEW, WHAND, WINDEX, CLEARW, TITLEW, INFOW,TOPW, FULLW, WINTAB, RC_INTERSECT, RC_COPY, ALERT, FILESELECT

I/O: INKEY$, INPUT, LINE INPUT, FORM INPUT, FORM INPUT AS, PRINT, PRINT AT, WRITE, LOCATE, PRINT USING, PRINT AT USING, MODE, DEFNUM, CRSCOL, CRSLIN, POS, TAB, HTAB, VTAB, KEYPAD, KEYTEST, KEYGET, KEYLOOK, KEYPRESS, KEYDEF, DATA, READ, RESTORE

Disk/File: DFREE, CHDRIVE, DIR$, CHDIR, DIR, FILES, FGETDTA, FSETDTA, FSFIRST, FSNEXT, MKDIR, RMDIR, EXIST, OPEN, LOF, LOC, EOF, CLOSE, TOUCH, NAME AS, RENAME, KILL, BLOAD, BSAVE, BGET, BPUT, INP, OUT, INPUT, LINE INPUT, PRINT, PRINT USING, WRITE, STORE , RECALL, SEEK, RELSEEK, FIELD, GET, PUT, RECORD, INP,OUT, INPAUX, INPMID, MOUSEX, MOUSEY, MOUSEK, MOUSE, SETMOUSE, HIDEM, SHOWM, STICK, STRIG, LPRINT, LPOS, HARDCOPY

Numeric: ABS, SGN, ODD, EVEN, INT, TRUNC, FIX, FRAC, ROUND, MAX, MIN, SQR, EXP, LOG, LOG10,SIN, COS, TAN, ASIN, ACOS, ATN,DEG, RAD, SINQ, COSQ, RND, RANDOM, RAND, RANDOMIZE,DEC, INC, ADD, SUB, MUL, DIV, PRED(), SUCC(), MOD, BCLR, BSET, BCHG, BTST, SHL, SHR, ROL, ROR, AND, OR, XOR, IMP, EQV, SWAP, BYTE, CARD, WORD

Strings: LEFT$, RIGHT$, MID$, PRED, SUCC, LEN, TRIM$, INSTR, RINSTR, STRING$, SPACE$, SPC, UPPER$, LSET, RSET, MID$

Control: IF.THEN..ELSE, ELSE..IF, ON GOSUB, SELECT, CASE, DEFAULT, ENDSELECT, CONT, FOR, STEP, NEXT, DOWNTO, REPEAT, UNTIL, WHILE, WEND, DO, LOOP, DO WHILE, DO UNTIL, LOOP WHILE, LOOP UNTIL, EXIT IF, GOSUB, PROCEDURE, RETURN, VAR, LOCAL, FUNCTION, RETURN, ENDFUNC, DEFFN, FN, ON BREAK, ON BREAK CONT, ON BREAK GOSUB, ON ERROR, ON ERROR GOSUB, RESUME, RESUME NEXT, ERROR, ERR, FATAL, EVERY, EVERY STOP, EVERY CONT, AFTER, AFTER STOP, AFTER CONT, REM, GOTO, PAUSE, DELAY, END, EDIT, STOP, NEW, LOAD, SAVE, PSAVE, LIST, LLIST, CHAIN, RUN, SYSTEM, QUIT, TRON, TROFF, TRACE, DUMP

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Access VISA

Taking stock the Canadian way

Stephen Ibbs examines a stock control system which caters for almost all small business needs

THE domination of IBM compatibles in the business world must be very frustrating to software houses presented with such excellent micros as the ST. Should they spend months developing a program only to find that it doesn't catch the public's eye because it lacks those three magic letters in its advertising blurb?

The ST has taken off in the USA and is accepted there as a full business machine. Evidence to prove this comes with the Cricit system from Nice and Software, a company based in Ontario, Canada. This is a full-blown stock control, inventory, point of sales program with mailing lists, label printer and bar code facilities thrown in for good measure.

It has a bewildering array of features to tempt potential customers and while some may appear rather esoteric for the non-business person, they make the difference between a normal program and something out of the ordinary. This is one of the latter.

The system requirements are for a 1040ST or better with a high resolution monochrome monitor. This is to ensure that memory is available to speed up operations and it is rare that colour would be required in the business environment.

It comes on one double-sided disc, and being non copy-protected, it is a simple matter to make working copies. The manual is superbly printed on high quality gloss paper, bound in an A5 ring binder.

The six page Overview section really does give a flavour of just how comprehensive the system is. A sample file is supplied so that you can learn about it all before potentially playing havoc with real data files.

The program revolves around the stock list, a comprehensive datafile about all the stock items carried. I have been wary about systems that assume a stock record has to be kept for every line, so that blue cardigans are considered a separate line to pink ones. Very logical, but it makes stock taking of one garment, irrespective of the colour, very awkward.

One of the enhancements in the latest version of Cricit is that a stock record can be assigned as a department. Thus cardigans could be assigned as one stock item allowing all sales of cardigans to be assigned to the one department, making a running total sold easy to produce.

The stock file size is created before any records are allocated. This ensures that a contiguous block of disc space is reserved for the records, but it can be cumbersome, particularly when items are being removed or added at regular intervals.

I prefer the random access method whereby new records can be added ad infinitum, but these have the disadvantage that disc access can be slower.

Cricit provides a number of utilities for file maintenance to tidy up deleted files and squash current records together. It is possible to increase the size of the data file at a later date should this be required. Once created you then proceed to add the stock items.

As with all operations, progress is made via the mouse and drop-down menus, but a number of shortcuts have been built in using the Alternate and function keys, for those like me who prefer key combinations to the mouse.

The stock record holds all relevant information, including number in stock, which decrements with each sale. This is coupled with two other fields recording the maximum stock required, and the reorder point, when you will be warned that the items need to be reordered from the suppliers.

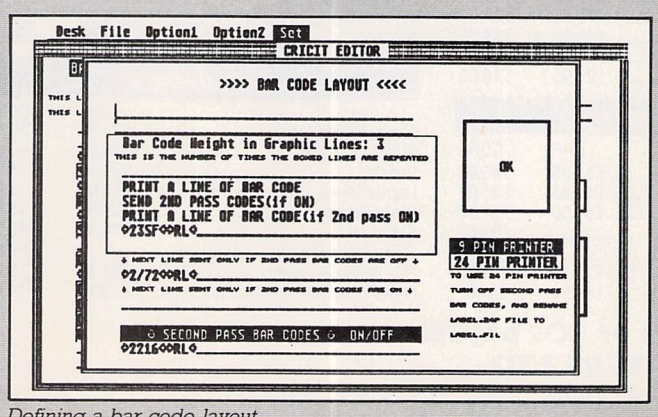
Tax and discount rates are all recorded, and discounts can be added at the point of sale. Once the stock record is complete you can generate price labels for the item.

Included on the price label can be an optional bar code. The quality of printing on a dot matrix machine is very good and bar code readers should have no trouble deciphering the thin and thick lines.

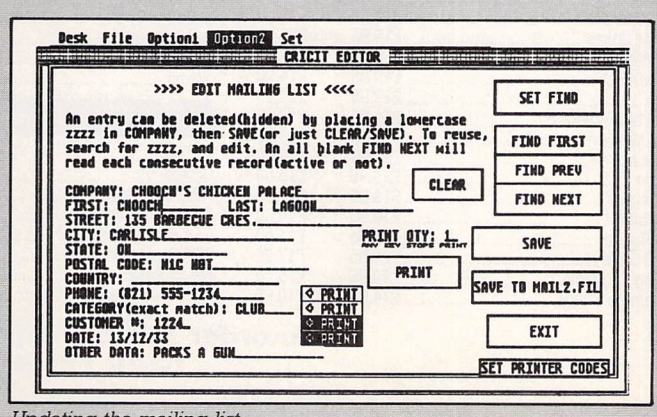
There are several standards relating to bar codes, and because they are normally connected via the serial port the dreaded RS232 and baud rates standards rear their ugly heads. Fortunately Cricit makes the installation as easy as it can be, providing for the different protocols, for instance, ACK/NAK and APC(A).

Bar codes can be generated for stock

Turn to Page 121 ▶

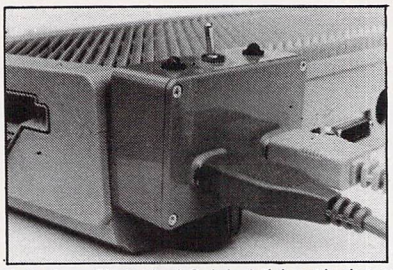


Defining a bar code layout



Updating the mailing list

UPGRADE YOUR ST



Don't wait till your ports drop off! They won't if you have a Limpit Switcher. . . **or** the new Double Limpit which plugs into both port 0 and port 1.
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(photo shows Single Limpit Switcher) *"I do not hesitate to recommend it to anyone"* – Floppyshop News

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VISA Access

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items – the manual suggests ways of avoiding potential conflict with other codes already in use – and the upgrade version now allows for 18-digit codes. In addition, products already containing bar codes can be read directly into the stock record so that you use the code already provided.

The process of adding stock, modifying records, mailing lists and so on is done from the editor. To move to the Cash Register you press Alternate+C. The current program is removed and replaced by the new one, in the process checking all parameters again. Thus if while editing you have turned the printer off you are then warned when the Cash Register is loaded.

I found this annoying because I originally set the system up on a different machine without the printer attached and got tired of the continual warnings – though accepting that it should have been connected to start with.

The term Cash Register is a misnomer because it implies that the program is only there for handling point of sale transactions. In fact it can control almost every aspect of the business, including cash flows, inventory reports, profits per period – and in this country it would seem sensible to use the usual VAT quarter periods – profits for year to date, backorder lists, mailing to customers and companies, as well as handling sale transactions.

The program offers just two formats for inventory reports, and I find this limiting. I would have expected more to be available, perhaps by saving various formats to disc with the ability to reload them into the two vacant format slots.

Having said this, as little or as much information can be included in each format, and once the design has been established there is a formidable array of sorting options and filtering controls to produce listings of just the records required, in the appropriate order.

At no time could I work out how to get a display of several matching records on the screen at the same time. It had to go to the printer.

When a sale is made you are presented with a screen with no flashing cursor to tell you what to do. In fact, you enter the stock number and the screen updates with a line of information recording the potential sale. The box which received the stock number changes, asking for the quantity, but again no cursor flashes and I failed to notice it. It would have been helpful to draw attention in some way to the question being asked.

Once the quantity is entered – maximum 999 which may be restrictive for a few companies, but more than adequate for most – the rest of the mathematical calculations are made. It is possible to specify different discount rates to take account of a customer's status, the category of goods, quantity purchased, or even the time of day – handy for those businesses that have to get rid of each day's stock of perishable goods.

You can specify the method of payment and the system will, by cheating slightly to pretend that it is an account, cope with part cheque/part cash payment. The cheque is treated as the down payment and the cash as the settlement.

This situation doesn't arise that often, but it may have been better to enable both on one transaction. The system will cope with credit cards, which can be defined using the editor, and redeemable coupons, which can themselves be generated using Cricit.

Details about the customer are then recorded and the information is stored in the customer file for use with other parts of the program. These include keeping track of debtors, sending mailshots, transaction file printouts and the Day End Report.

The customer information does not have to be printed on the optional receipt.

The customer fields reveal the transatlantic pedigree of the program, containing as it does a field for State, but it does have postcodes as well.

Cricit will allow the naming of clerks – employees who make the sale transactions so that their reference numbers can be recorded as part of the deal, to allow

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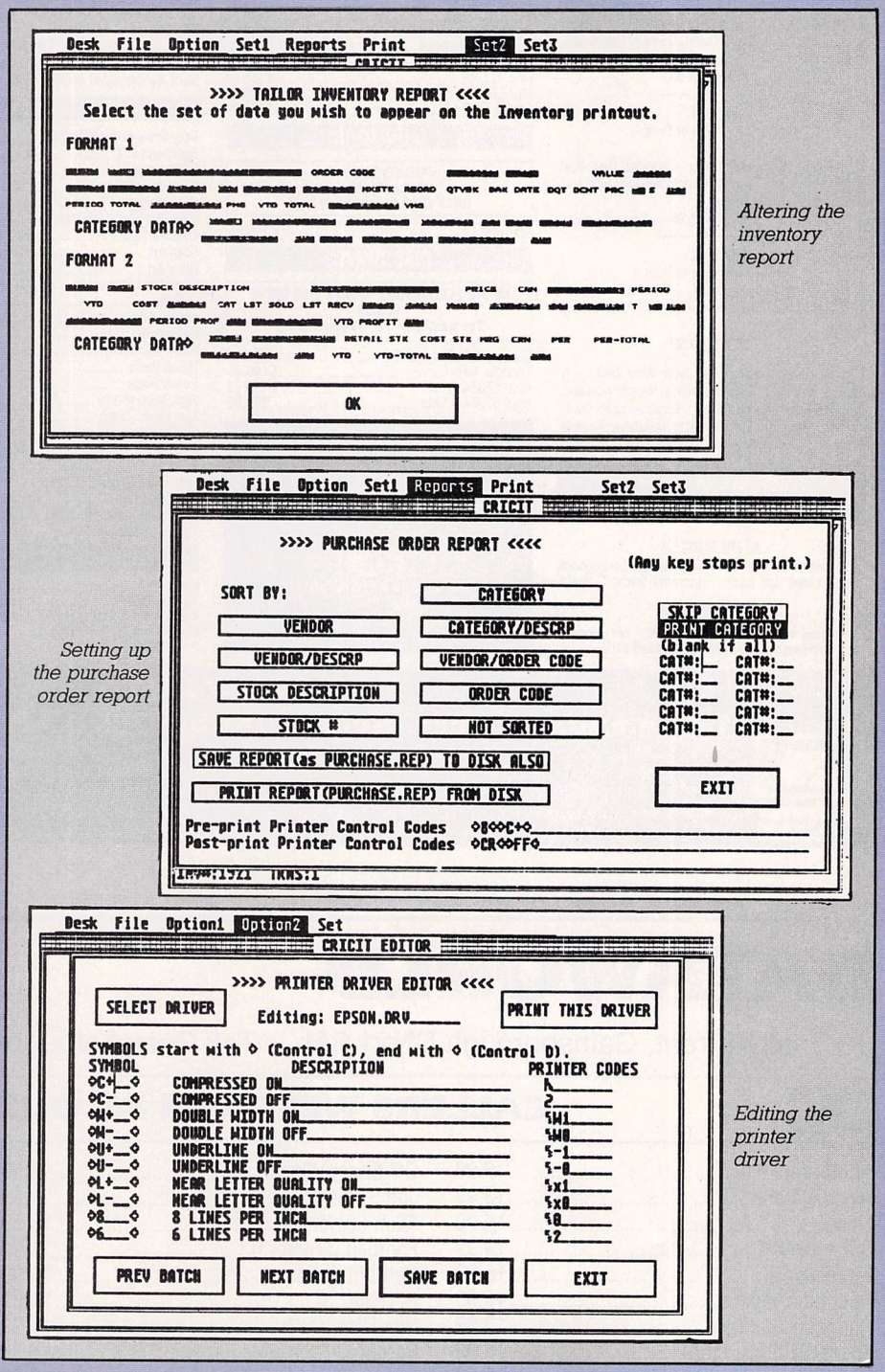

Altering the inventory report

Setting up the purchase order report

Editing the printer driver

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commissions and different percentages of commission can be specified per clerk. However, this feature can be disabled if required. Because of the information being stored, Cricit has an optional multiple password level control to prevent tampering with stock records or commission rates.

The transaction is almost complete, the screen telling you how much change to give, and my impression was that a large number of key presses has to be made to get to this point. In fact it is very easy to follow, and the manual acts more like a reference backup.

Once a sale has been made it is not easy to correct using Cricit, so it is better to have more safety traps at this stage than may at first seem necessary.

As an example of how much thought has gone into this aspect of the program, Cricit will allow for layaways – goods paid for but not yet collected. This feature gives rise to the most unusual key label I have ever seen in a program: LWYPKUP, which means layaway pickup – the customer has now collected the goods previously paid for.

The mailing file can be edited and some very powerful sorting routines are included to enable targeted mailshots. The method for deleting a record is most unusual. You alter the surname to zzzz and that's it.

New records can be added simply by overwriting a zzzz record, thus filling up the gap in the data file otherwise not being accessed. There is an option to compress the mailing file, removing all zzzz records, but the concept did seem rather bizarre. The zzzz entry is case sensitive and you can search through the file for zzzz records by specifying as such in the company name field.

Designing reports is not as easy as other aspects of the program. Lines do not print as they appear on the screen. Instead special control codes, even for the normal carriage return and line feed, have to be entered specially. I kept forgetting this, and unformatted reports issued from the printer.

Cricit has a number of printer drivers and others can be created, allowing users full use of bold, italic, NLQ and so on. The manual goes into great detail about printer codes, and I found the driver files quite easy to edit.

You can design receipts, inventory reports, purchase orders – using the backorder facility to reorder items dropping below the predefined limit in the stock control – coupons and price labels with or without bar codes. It is possible to produce a report giving a detailed breakdown of sales per stock item or department, with the ability to include or exclude certain ranges and to specify a range of dates.

The program is extremely powerful, and must surely cater for almost all possible business needs in a stock control/point of sale system. Great care has been taken to error trap as much as possible without slowing down the progress through the program to arrive at a completed transaction.

One or two minor points could be improved, particularly in the listings and printed reports areas, but overall it is a superb system and recommended.

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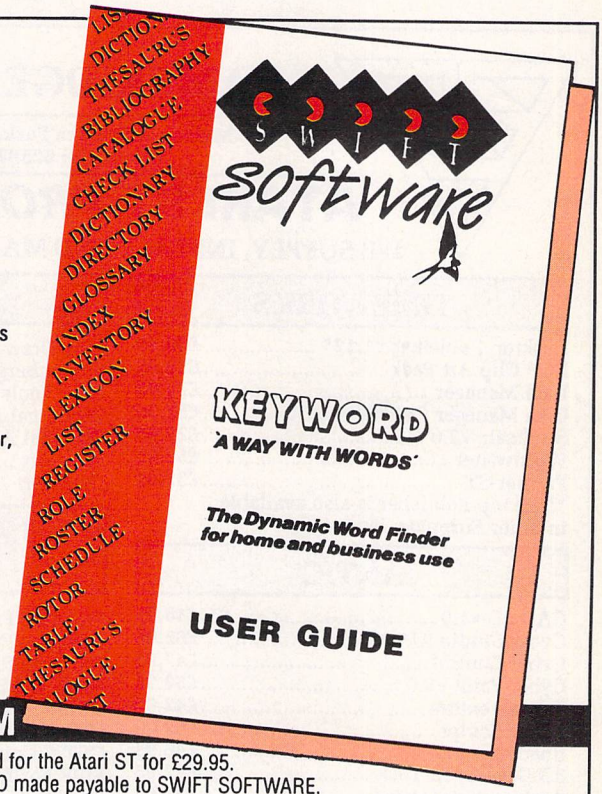

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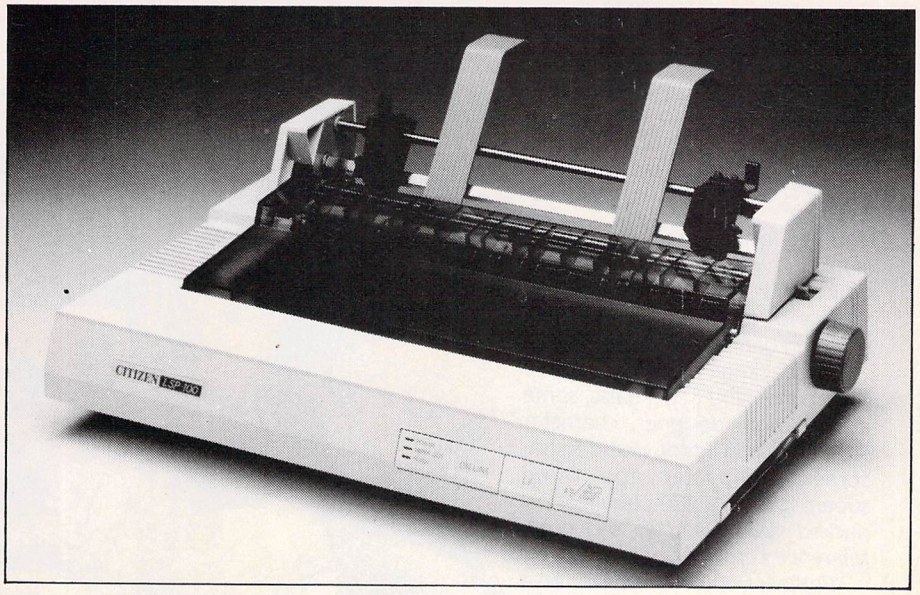

Another solid Citizen

Neil Fawcett examines the new LSP-100 Epson compatible printer

THE LSP-100 bi-directional dot matrix printer is Citizen's latest addition to an already impressive range of products. As with most printers, you have the option of friction or tractor feed and this can be selected easily by moving a lever on the top right of the casing.

You also have the option to load paper from underneath the printer using a process called bottom-feeding (as seen in Figure I). Loading paper this way can only be done when your printer is mounted on a stand.

The tractor-feed mechanism must be attached to the printer and you must use continuous stationery. Loading paper is just like setting the tractor-feed up, except the paper comes from underneath.

On the front right side of the printer are three buttons controlling the online status, form feed and line feed.

The printer must be brought offline before the feed buttons will work – rather annoying, but this is the case with several printers. Next comes a panel with three small lights – power, paper out and ready.

The DIP switches are easy to access: You simply switch the printer off and remove a cartridge-style interface located on the right of the printer as you look at it. You can then alter the switches to suit your micro. Instructions on how to do so are very well documented in the manual.

Now for the all-important question: Is it Epson-compatible? The answer is yes, and it is also switchable to IBM-compatible.

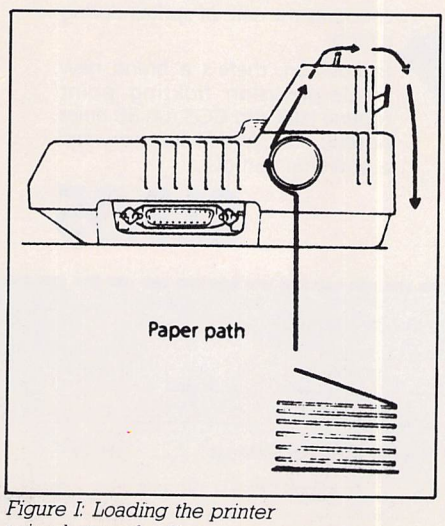

Figure I: Loading the printer using bottom-feeding

Specifications

- 150/175 cps at 10/12 cpi in draft and 40 cps in NLQ
- Epson and IBM compatibility
- Parallel interface standard
- Tractor feed and friction feed
- 4k buffer
- 8 bit graphics capabilities
- Downloadable characters
- More than 400 print styles
- Automatic sheetfeeder available
- Bottom-feed paper loading option

The LSP-100 is an 80 column printer and the print head has nine pins which are used to give you a 9x9 matrix.

When used in NLQ mode a double pass of the head allows the matrix to change to 17x17 and this gives you a wide variety of styles and typefaces.

The print speed is 150/175 characters per second (cps) at 10/12 cpi (characters per inch) in draft mode and 40 cps in NLQ mode. Now that is quite a mouthful, but it gives you an idea of the capabilities of this machine.

It is interesting to note that although this is quite a fast printer it is also very quiet. Even when doing a screen dump I could still manage to concentrate on other work while it was churning away.

There is a built-in 4k buffer – very useful indeed, as it allows you to continue working on your micro as the printer does its work.

However, there is a snag with the large buffer – there isn't a flush button. So, if you make a mistake you have to wait until that large 4k buffer empties. Alternatively you can turn the printer off.

Fitting the cartridge type ribbon poses no problems. It's claimed to last for two million characters – but I didn't have time to test this.

The LSP-100 has a sleek modern look and is surprisingly compact when you consider that it does some tasks that printers twice its price can't.

The manual is well presented and easy to read with plenty of diagrams showing things like fitting the ribbon and so on.

This is a superb printer, well priced and should satisfy the needs of most homes and small businesses.

FACT FILE

Product: Citizen LSP-100 printer
Price: £249 excluding VAT
Supplier: Citizen Europe, Wellington House, 4-10 Cowley Road, Uxbridge, Middlesex, UB8 2XW
Tel: 0895 72621

POINTS FOR:
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AGAINST:
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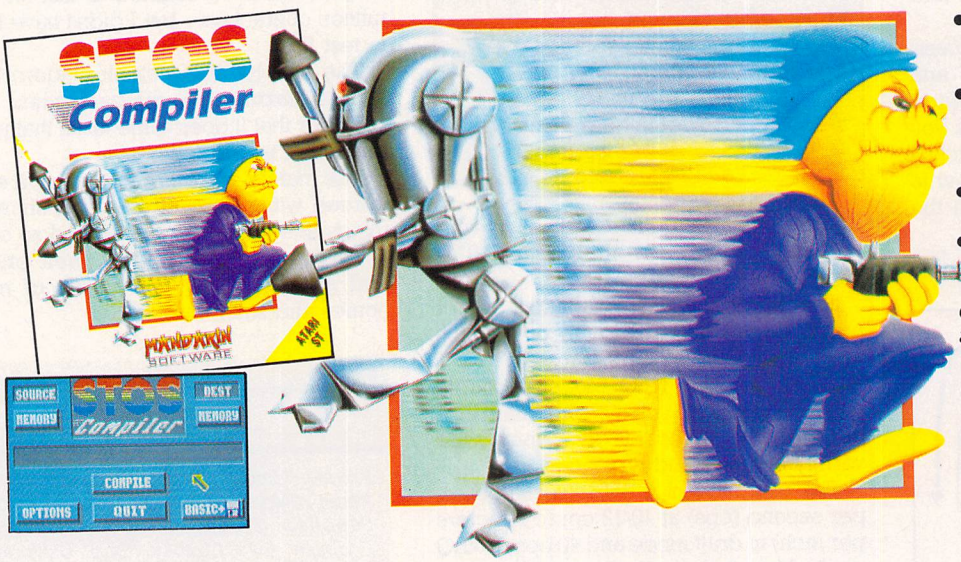

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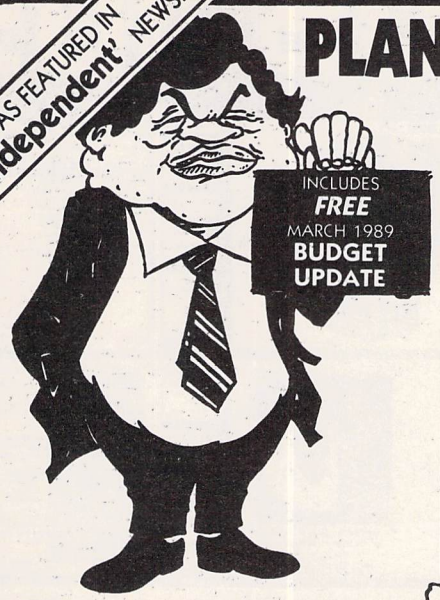

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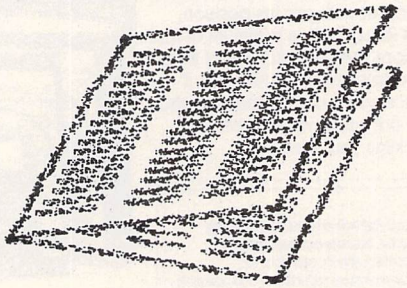

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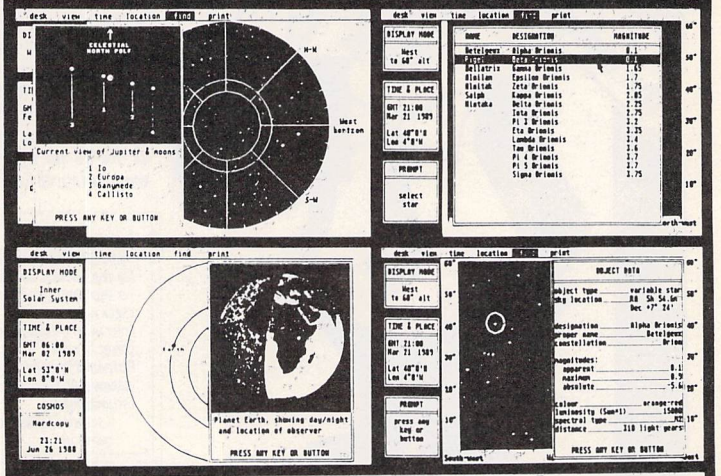

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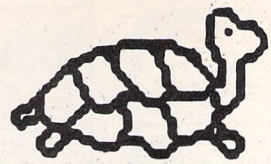

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Get STUFFED Disk Magazine Regularly!

Issue 2 of STUFFED is out now. It is many times larger than the pilot issue. We've kept the graphic based user interface and changed everything else. It contains the equivalent of over sixty A4 pages of ST info including an eight product word processor supertest. The Second Manual by Andreas Ramos is fully reviewed as is the Virus Destruction Utility by Richard Karsmakers in addition to a highly informative article on computer viruses. There are interviews with Budgie UK and The Music Matrix. Countless ST games are reviewed and all include screenshots. We feature a gallery section showing some STunning artwork with contributions from the UK and overseas along with many other features.

STUFFED runs in colour only and is compatible with all current models of the ST. It covers both games and serious software in roughly equal amounts. Our team of writers can all boast several years experience on the ST and many have also written for other publications. STUFFED is an idependent disk-mag produced quarterly and costs £3.50. Cheques/POs payable to Floppyshop ST please. Remember to get STUFFED regularly.

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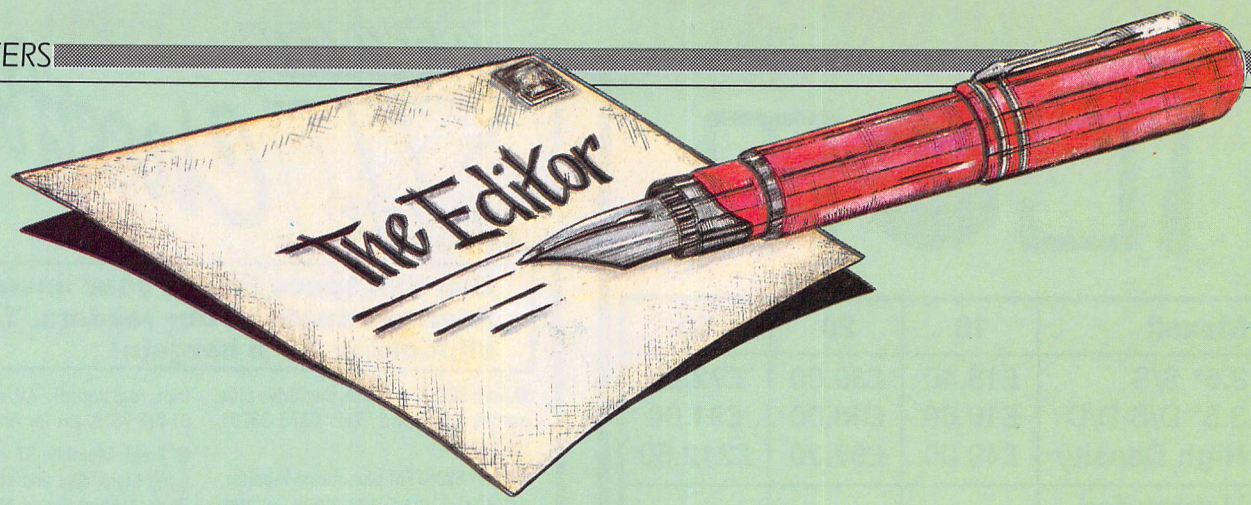

Too much games coverage?

I HAVE recently started reading Atari ST User *after changing from one of your inferior competitors. I find the style, content and quality to be impeccable and devour it with relish every month.*

I particularly like the sections on Midi, Education and C programming. However, why spoil a superb journal by overloading it with games software reviews? – **N. Mills, Worthing, Sussex.**

● Thank you for your kind comments. We believe our magazine is bright, informative and above all readable. However, we also believe you are under a slight misconception concerning the coverage we give to games' reviews. We try to maintain a balance of editorial content.

If you survey our past four issues you will find that only 22 per cent of editorial pages are given over to games reviews. With another five per cent taken by Brillig's adventure column, this leaves more than 72 per cent of each issue dedicated to more serious aspects of this great micro.

Hi-fi sound from an ST

I AM interested in the Tweety Board adaptor, mentioned in the News pages in the January 1989 issue of Atari ST User. *Could you please tell me if this item is available in the UK and from whom it can be obtained?* – **David Fraser, Tamworth, Staffordshire.**

★ ★ ★

I WON my ST in a competition in the Sunday People newspaper and now can't find anyone to help me use it to its full capacity. My main concern is how can I link my ST to my hi-fi without blowing either of the pieces of equipment to bits.

I have a number of great sampled demos from the public domain and feel I am not appreciating them to the full. – **Robert Clarke, Stadium Estate, Leicester.**

● One way of connecting your ST to a hi-fi system is by linking in a line to the Audio pin 1 on the monitor socket of your ST. However, this will obviously only give you mono output.

A far better way is to buy Practical Solutions' Tweety Board reviewed last month. At only £49.95 it is available mail order from Bath Computer Shack (0373 858031). This hardware add-on will allow you to output the ST's sound in glorious stereo through your hi-fi system.

The outrage continues

I EXPECTED my letter – in the April issue of Atari ST User *– to spark some response, but not the vociferous personal attack launched by Keith Maddocks in the June Star Letter. I hereby ask to exercise my right of reply to some of the points he raised.*

I find it impossible to correlate the fact that Mr Maddocks' job, marital status and self-righteous stance on doing good has any bearing on his position to make moral judgements. The man is just using rhetorical waffle to try to support his unsubstantiated claims.

I believe that I am not alone in thinking that strip card game software such as Teenage Queen and its cousins in the peep show arcades of Soho are nothing but sordid exploitations of the female body.

What frightens me more is the fact that children as young as seven can buy these games from software shops or through an older friend via mail order companies. Surely any caring parent would want to protect a child from such vices for as long as possible into their life.

It is in this vein that I wholeheartedly support the the views expressed by M. Garny in your March Letters page.

As for Mr Maddocks' comments regarding my views on anti-Russian propaganda in ST arcade games, he has completely missed the point. Sure, by nature mankind has always been tribal and needed enemies or scapegoats, but that is not the issue in question.

I remember vividly the Cuban missile crisis. And more recently the icy blast of the installation American cruise missile bases in this country as the prospect of nuclear war with the USSR loomed ever closer.

Now at last we have a world situation where peace is attainable but currently tenuous. So surely as guardians of our childrens' future we should be doing all in our power to avoid them viewing the Russians as our enemy. Even if this means some kind of parentally enforced censorship.

Mr Maddocks, I rest my case. – **Fiona Reynolds, Rhyl, North Wales.**

★ ★ ★

I WOULD like to comment on a subject initiated in your March edition concerning morality issues in software. I am not familiar with Platoon or Mindfighter, and I am not sure which version of SDI Ms Reynolds refers to – there are two to my knowledge. But I am definitely against using entertainment vehicles such as games software for promoting life styles that are obvious detriments to world society.

I have two children, aged five and seven, who love using our ST. I have already seen positive benefits in their development that can be attributed directly to their understanding of the computer.

I believe that a relationship can be similarly drawn – a negative one however – regarding the effect that a particular game's message would have on their beliefs and outlook on life.

It is too bad that when I take my family software shopping I almost need to complete the game before leaving the store just to be sure there's nothing in it to which I would want my children exposed.

Roots

I HAVE just read the Letters page of the May issue and think I may be able to help W.M. Bray on the subject of genealogical software. The following companies produce such software for other micros and may well provide conversions of their programs for the ST.

They are: Ancestry, by Minerva Systems (0392 437756), Family History System by MicroAid (0465 82288) and Genny by David Computer Software (061-439 4841). – **Jason Burgess, London.**

Star Game for a Star Letter

EACH month we 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, Chas Stoddard will receive Kult, which is reviewed on Page 22. 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.

Copyist to the rescue

FURTHER to Sheila Joynes' letter in your April issue concerning music scoring software, I have some information which may help. I have used most of the scoring packages she mentions and can heartedly recommend Dr T's Copyist Level III.

The advantage that this package offers over the others is that it is essentially an object-orientated graphics system. This allows the placement of any musical symbol anywhere on the score. For example, when beaming notes together most systems will not permit the beam to run across a barline. This may seem against convention, but there are many examples in modern scores of this practice.

The problem with orthochronic notation is that beyond a certain level of complexity the given musical phrase can be notated in a variety of ways. Each will be mathematically correct, but some will be clearer to the performer than others.

All the other packages mentioned assume, to a greater or lesser degree, that you know the rules of notation. The problem is that there are no hard and fast rules – even the experts disagree.

Copyist has no such restrictions and thus provides the notator with unparalleled flexibility over note placement and layout. Try writing complex counterpoint or notating irrational note groups with Master Score, and watch it curl up its toes!

Parts can be generated from the main score in any required transposition and the printout can be directed to a 9-pin dot matrix, HP Inkjet or laser printer. Copyist is also Postscript compatible and supports Adobe Sonata music fonts. Files can be saved in either TIFF or EPS formats, allowing the file's import into DTP systems for further enhancement and can then be output to publishing quality phototypesetters.

As Sheila is a music teacher, I feel that Copyist will give her the best facilities for realising her scores in print. However, I would not recommend Copyist to anyone just starting out in the nebulous field of notation. For an experienced musician it represents the state of the art in scoring software. Also at only £330, Copyist really is a bargain when you compare it to some, such as Coda's Finale at £1,000.

However, her ST will need upgrading to a 1Mb ram capacity, as Copyist will have a heart attack and sulk with anything less. Mind you, most other score writing systems also require this.

On the subject of keyboards, I would recommend Yamaha's PF2000 digital piano which has an 88 note fully weighted keyboard and can accept DX7 voice cartridges.

I hope the above helps Sheila and other Midi musicians in a similar position. – **Chas Stoddard, London.**

● Thank you we are sure your information will benefit many ST musicians.

It always amazes me that educated, intelligent people who are in positions to influence the public through entertainment seem to place priority on the negative because of the payback potential. Such action says to me that they do not really understand the workings of the human mind and its susceptibility to the stimuli it receives. – **John Davis, British Columbia, Canada.**

● It is amazing the strength of feeling that these moral issues have stirred in our readers. What do others think?

Kiddies ST Corner?

I THINK there should be a children's page in Atari ST User *to balance all the things done by and for adults. Even though I am only nine years old I still read your magazine because I think it is very interesting. I am sure other kids like reading it as well.* – **Joe Addison, Streatham, London.**

● What do other readers think?

Third view on soccer

ON reading the April issue of Atari ST User *I feel compelled to complain about Nic Outterside's Second Sight look at Tracksuit Manager. In his review he states that soccer is a declining sport in this country, and that the ST is flooded with soccer simulations.*

First of all, soccer is not in such dire straits. Crowds have started rising again during the past couple of years and playing the sport seems as popular as ever.

In contrast he seems to positively drool over the Advanced Rugby Simulator. If it is a case of Nic being a rugby fan, by all means let him review those games, but please don't let him make worthless comments about sports he is not interested in.

Secondly why complain about the ST being flooded with a certain type of game – a point he also seems to make about car simulations. So my message to Nic is "For Pete's sake stop griping and get your facts right before criticising our national sport". – **T. Jenkins, Warley, West Midlands.**

● First of all we should point out that Nic's Second Sight on Tracksuit Manager was only a 55 word alternative comment to a much lengthier full review of the game.

As we have said in the past, reviews are always just one person's informed view of a product. Hence the Second Sights give a brief and often deviating opinion. However, we thought it only fair that Nic should answer your criticisms:

"I have always been a soccer fan and have followed my childhood team – Brighton and Hove Albion – for over 25 years. However, I can also remember the golden days of soccer after the World Cup triumph of 1966 and by comparison football is today a dying sport.

Whether that death is measured in terms of falling crowds or the endemic hooliganism inherent in the sport, I leave you to judge.

Secondly, I uphold my belief that there are too many soccer and managerial simulations currently on the market for the ST: Football Manager 2, Peter Beardsley's International Football,

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◀ From Page 133

Hotball and Gary Lineker's Super Skills to name just a few released during the past six months.

Isn't it really about time software companies started producing more simulations of equally – and even more – popular games such as tennis, basketball, cricket ... and even rugby?"

A long look at printers

I AM writing to request an in-depth review of all printers available for the ST. This could include viewpoints of two or three experts on their favourite 10 printers. The reviewers could mention if the printer can handle italics, bold text and so on.

They could also choose the best printer in each price range, for instance £100 to £200 and so on. This would give all potential buyers a good idea of which is the best printer in each price range. – **Richard Ashworth, Leeds, West Yorkshire.**

● There must be hundreds of different ST compatible printers on the market, so an in-depth review of each would be impossible. Besides which, very few experts would have enough working experience of a sufficient number of different printers to produce the kind of Top 10s you envisage.

However, we like your basic idea of a guide to printers, and will be producing a cut down adaptation of it in a future issue of *Atari ST User*.

Well and truly fooled

I FEEL I must write concerning your choice of pictures for the April Gallery. When I started buying your magazine one of the first things I did was to open the Gallery section to see how amateurs like myself could perform using the various art packages available.

Among those who entertained me most were Nusarath Jahan whose work was displayed in the May 1988 issue of Atari ST User, *and the work of Susan Frudd and Wayne Grundy in the July issue.*

Sadly in more recent months you have been displaying work of somewhat more noted artists. This I could have tolerated until I bought the April 1989 issue in which you displayed work from, and I quote: "Two of the world's top rap pop artists".

Quite frankly their work disgusted me, two top rap pop artists or not. My seven-year-old nephew could do better.

Please let's see better quality work, as I am positive I am not the only reader who feels this strongly about these "works of art". – **Gary Chambers, County Tyrone, Northern Ireland.**

● It seems that Mr Chambers was not the only reader taken in by our April fool prank. The fictitious artists' names Dave Lowid and Sid Tourtee are anagrams of Waddilove and Outterside, while the Lyle gallery is a spoof on the Tate gallery – Tate and Lyle, get it? Meanwhile if you view all four pictures you will see they spell a simple message!

On a more serious note, the only professional artist whose pictures have been featured in Gallery were the stunning contributions by American Robert Fusillo in the February issue.

All other pictures have been sent in by creative amateurs. It seems that ST artists are maturing and producing work of a higher calibre than was once the case – Dave Lowid and Sid Tourtee excepted.

Searching for software

I AM considering buying a home computer and hope that one of the major functions of the machine will be educational activities for my two children, aged three years and six years. Although I have spoken to several specialist dealers in this field, I have been unable to find any such software for the ST.

In your feature, The ST in education, published in the November 1988 issue of your magazine, you mention several companies involved in writing or promoting educational software, including SDL, Silica Shop, Softstuff and Mirrorsoft.

Could you please provide me with the addresses of these companies and any others which you may consider appropriate. – **P. Aspey, Portsmouth, Hampshire.**

● The answer to your question will be found in our complete guide to educational software featured in the March issue of *Atari ST User*.

Application installation

AS a newcomer to both the Atari ST and your excellent magazine I would be grateful for any help you can give on the following problem. I am using a 520STFM with the word processor program that came with my package, ST Organiser, and cannot make the Install Application procedure work properly.

I have carried out the instructions as per the owner's manual and page two of your pull-out section on ST Business, using DOC as the extension and selecting the Gem box.

When I double-click on any file with a DOC extension the Wordpro (org.prg) loads but the actual file containing the information I wish to access does not and I have to load it via the directory.

I would be very pleased if you could solve this problem for me, as there isn't a local Atari user group in my area that I can go to for help. – **J. Dewis, Lavernock, South Glamorgan.**

● The installation procedure will not work with this particular piece of software as it is made up of different modules – word processor, spreadsheet, diary and so on and there is more than one file type.

Can't C that text editor

YOUR The Complete Atari ST *pull-out is very good, but I have been completely perplexed by Roland Waddilove's How to program in C, page one. He mentions using a text editor but does not elaborate on what it is, nor where it can be obtained.*

There is a screen shot of a text editor but no indication of what software it has been taken from. No adverts seem to mention a text editor. Can you direct me please? – **W.M. Coombs, Chertsey, Surrey.**

● A text editor is similar in some ways to a very simple word processor and is used for editing your C programs. Such an editor will be included in any C programming package you buy. The one used in the screen dump was Tempus and is widely available.

Software snail mail

I HAVE owned an Atari 520STFM for just over two months and as I bought the special pack which includes free software I didn't have to contact software houses immediately. Now the games are tiring a bit so I have started dealing with software suppliers. From first impressions I am disappointed by their service.

I used to own an Acorn Electron and the average delivery time for a piece of software was about a week. I was expecting similar sort of service from ST software houses, but how wrong I was.

I sent for a game and waited patiently. After the fourth week I phoned the number given in the advert to find that the number was wrong. After a bit of research and inquiry I eventually found the correct one.

When I phoned I was told: "It ain't arrived yit, 'ang on it just come in". After another two weeks wait the game arrived. I can now see the reason for buying direct and paying more. – **Richard Hollis, Chelmsley Wood, Birmingham.**

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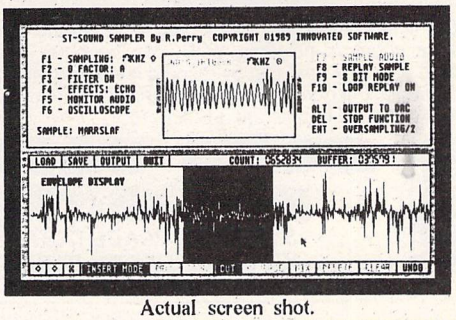

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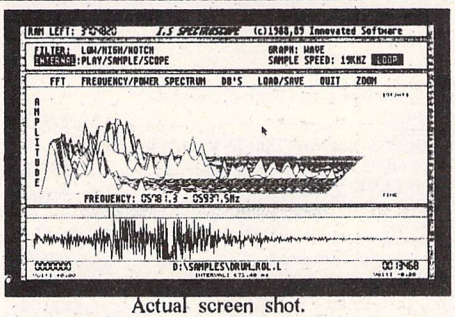

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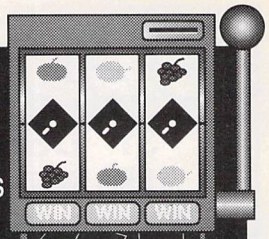

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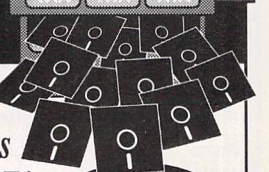

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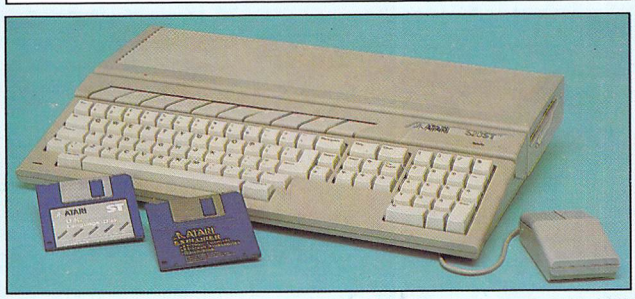

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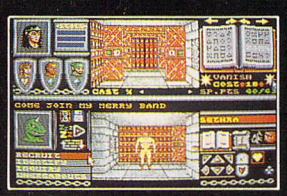
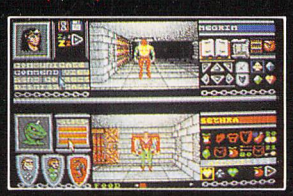
ARGUE! BARTER! LIE THROUGH YOUR TEETH!!!





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As the people of the Bloodwych awake to a new dawn, they find a stranger in their midst – from one of many races he has come. His task; to halt the demon that lies dormant within the Castle of the Bloodwych.

Unification of the Crystals of Sanguis will secure the Behemoth in his lair for all eternity. Should they remain separate, then he shall rise to bring darkness into the world.

This unique role-playing fantasy game allows greater interaction with the environment than has ever been seen before. Argue, barter, negotiate – even lie through your teeth! The fully implemented personalities of all the characters in Bloodwych allows a rich style of role-playing that has only been dreamt of.

With one or two player simultaneous mode, this is the game that you've been waiting for. Bloodwych for those that dare!

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