

ST FORMAT



**ROCK 'N'
ROLL CLAMS**

Exclusive review!

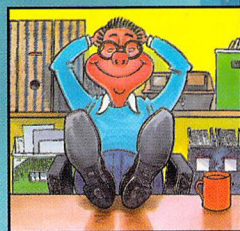
**TURN YOUR ST
INTO A UNIX!**

We show you how!

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**Discover how to
sort out your ST
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future
PUBLISHING



L.A.P.D.

QUALITY P.D. FOR ATARI COMPUTERS (ST/STE/FALCON)



★★★★SOFTWARE AT REALISTIC PRICES★★★★

★ PD Disks: £1.50 each★

★ HD Falcon disks: £1.75 each★

★ BUDGET RANGE PD DISKS ONLY £1.00★

★ Licenceware disks from £2.50 to £5.00★

★ Commercial Games Software from only £2.99★

★ Same day service, quality virus free disks★

★ PLEASE ADD 50p P&P ON ORDERS UNDER £5.00★

★ Overseas customers (outside Europe) please add 50p per disk★

FALCON SOFTWARE

A full range of software for the Atari Falcon computer is now available on HD disks, including:

- HD. 32 NETHACK: Huge fantasy role playing game. 2Mb+ (£1.75)
- HD. 1 POV RAYTRACE: The best Raytrace program around. Unzips to 3xHD disks (£1.75).
- HD. 9 JPEG COLOUR PICTURES: True colour picture (£1.75)
- HD. 21 JAPAN: Photo-quality slideshow of XGA pictures (2 disks/£3.50)
- HD. 19 HUMANS: Demo of the commercial game (2 disks £3.50)
- HD. 2 UTILITIES: Includes programs to run ST/STFM Programs (£1.75)
- HD. 12 MAINLY MUSIC: Includes Desktraker, Pro-Tracker, Star Player etc (£1.75)
- HD. 13 MORE MUSIC: Includes Winrec, a direct to disk recording system (£1.75)

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

(ask for our FREE Falcon catalogue)

★★★ All disks below are £1.50 unless otherwise stated ★★★

LICENCEWARE GAMES

- L. 64 STORM: Aliens meet Gauntlet for superb blasting action. A must have for all arcade fans. (£3.00)
- L. 79 DARKLYTE II: (1 Mb) Sequel to the highly-rated 'Space Crusade' type game (£2.50)
- L. 84 WORD WIZARD: Word puzzle game with a gamble feature from Nice Bytes (£2.75)
- L. 85 ZUFFERS: (1 mb, STE) Puzzle game of guiding the 'Zuffers' to shelter (£3.00)
- L. 80 MUNCHKIN: Classic pacman action (£2.50)
- L. 83 ZIGGY: A memory and strategy game from Nice Bytes. (£2.75)
- L. 69 BIO-HAZARD: Full version of the sci-fi 'Dungeonmaster' clone (1Mb £3.00)
- L. 72 STORM: As above - now available for 1Mb STFM's too!!! (£3.00)
- L. 66 HEARTBREAK: Highly addictive shape placing game. (£3.00)
- L. 67 LOGIC PROBLEMS III: Ben Weston's back with more challenging puzzles (£3.00)
- L. 22 GRAND PRIX MANAGER: Grand Prix management sim/ employ drivers, mechanics, etc., test cars, then race in a full Grand Prix season! (2 disks £4.00)
- L. 31 THE CURSE OF AZRIEL: Fantasy trading/adventure game (2 disks/£4.00).
- L. 60 CONQUEST: A 'God' game in the style of 'Populous' (£3.00).
- L. 19 THEY SOLD A FEW: Three games from Ben Weston: Logic Problems, Wild West Shoot Out and Clan, a kingdom game. (£2.50)
- L. 58 NICE BYTES #1: Gridword, a word game & Rega, a tile flipping game (£2.50)
- L. 50 DEMON: Fantasy game with 3D view, monsters, magic, teleports, traps, secret walls, etc. (£3.00)
- L. 52 ENERGETIX: Puzzle game from Nice Bytes. Save the nuclear reactor (£2.50)
- L. 48 DELUXE NOSTRAM (1Mb): Arcade platform action through 70 rooms. (£3.00)
- L. 45 HUNCHY 1066: Arcade action with the Hunchback, multi-levels, traps, puzzles, etc. (£3.00)
- L. 41 MURDER ON THE ORION EXPRESS: Murder solver game set on an interstellar cruiser. (£3.00)
- L. 21 DEAD OR ALIVE...?: Large, complex and challenging text adventure. (£3.00)
- L. 11 PI SQUARED: Challenging puzzle game with increasing difficulty levels (£3.00)
- L. 33 QUEST KNIGHT: Fantasy quest for the Rose of Questoria (£2.50)
- L. 42 OUTWORLD: Take control of a space colony arcade/strategy game (£2.50)
- L. 53 HOT DOG: Greyhound racing and betting game for 1-9 players (£2.50)
- L. 38 MARIO'S QUEST: Cute platform game to rescue the princess (£2.50)

MUSIC

- S.147 OMEGA II: Collection of files for DR. T's music software.
 - S. 4 YAMAHA PSS: Patch editor and facility to print tablature music.
 - S.144 EKSEQ 1: A rack, 240ppn sequencer with many features.
 - S.145 OPTRONIX MUZAK: Rip and play music from other programs.
 - S. 8 NOISETRACKER: Soundtracker .MOD player with eight starter tunes.
 - S.141 REAL TIME MIDI ANALYSER: Indicates MIDI event occurrence
 - S. 73 BAD STARS SAMPLES: #1: Over 80 .SPL samples for use with NoiseTracker
 - S. 95 HIGH FIDELITY DREAMS: 8 super pieces of music from Auro.
 - S. 87 IMAGE FACTORY DIGI-SYNTH 1: Ripped Amiga mods with 'Lemmings' menu.
 - S. 85 LONE WOLF SAMPLES: Voice and instrument samples for the TCB Tracker.
 - S. 70 MAD MAX CHIP MUSIC: 35 pieces of sound chip music from Mad Max.
 - S. 7 ACCOMPANIST: 16 voice Henry Cosh sequencer (full instructions on disk)
 - S. 19 ALCHIMIE JR: Impressive Swiss multi-window, multi-task sequencer. (1Mb)
 - S. 13 TCB TRACKER PLAYER: Display your own picture whilst playing Tracker Mods.
 - S.117 RIPPED MUSIC: Over 50 pieces of interrupt driven music.
 - S. 54 ESION SOUNDTRACKER: Player for .MOD files with ST & STE versions.
- MOD FILES**
- S. 41 AUDIO WIZARDRY #1: Apology, Imagination Flight, Outrun, Megamix, Titan.
 - S. 56 MOD FILES: Axlold, Follow, Dreaming, Jackson, Radio & The Edge.
 - S. 90 HAYNES MODS #1: Legend, So Hard, Madmix, Pandora, Suburban C & C (1Mb)
 - S.104 PRITCHETT MODS: Airwolf, Barock, Gaslight, Jackknife, Legacy, Pyrax, Retro.
 - S.132 SL MOD COMP#7: Benny Hill, Bruce, Humanoid, IMF, Technotronic Insp, etc.
- Many, many more available, see our catalogue for details

GAMES

ARCADE

- G.355 WING LORD: Aerial duelling ame in the style of the classic 'Joust' S/W.
- G.352 JEWEL BUGGY: Arcade diamond mining game. S/W.
- G.342 UTOPOS: A two player rotate and thrust 'Grav' type arcade game.
- G.333 SUPER PSYCHO KART: High speed platform game to rescue piglets (1Mb S/W)
- G.316 H-MEC 2: Sequel to the tremendously popular H-MEC. (1 Mb STE or Falcon)
- G.314 IT'S A MUG'S GAME: Fun one or two player boxing game.
- G.302 REBOUND: A bat & ball game requiring determination, stamina and patience!
- G.293 H-MEC: The ultimate Pac-Man? (1 Mb, STE only).
- G.292 CASTLE CAPERS: Superb platform arcade action across 10 screens. (1 Mb).
- G.285 KUBES: Falling block game with a novel twist.
- G.286 ROCKFALL-SPECIAL EDITION. Tunnelling/diamond collecting puzzle game.
- G.281 PSYCHO PIG: Platform shoot 'em up with Rambo-esque pig. (2 disks £3) (S/W).
- G.279 OPERATION GARFIELD: Frantic 'Operation Wolf' type shoot 'em up game. (STE)
- G.268 MEGALINE: 1 Mb 'Tron' light cycles game for 1-4 players. (STE only).
- G.250 CYBERNETICS: Good, challenging 'Defender' type arcade game. S/W.
- G. 80 TETRIS & PILE UP: Two very good versions of the 'Tetris' arcade game.
- G.171 HACMAN II: 1 megabyte version of Pacman. 100 new levels!
- G.221 GRAV 2: Follow up to highly praised 'Oids' type rotate and thrust arcade game.
- G.110 LLAMATRON: 100 levels of fast arcade action with wicked sound FX. (S/W)
- G.144 REVENGE OF THE MUTANT CAMELS: More fast arcade action Jeff Minter mayhem (S/W).
- G.150 COLUMNS: An impressive relative of the Tetris tumbling block game (1Mb).
- G.201 BLATI! Tetris style three in a row, falling blocks with many added features.

FANTASY/ROLE PLAY

- G.351 TOWERS: First-person view role playing fantasy adventure game (2 disks/£3.00)
- G.308 WALLS OF ILLUSION: the ultimate dungeonmaster clone ... but it's in German. A knowledge of the language is a distinct advantage but not compulsory.
- G.343 BLUDGEON: Solo fantasy adventure using the Blugeon combat system (S/W)
- G.288 DARKLYTE: 'Space Crusade' type droids wargame.
- G.284 BIO-HAZARD: Two levels of brilliant Sci-fi 'Dungeonmaster/Captive' game S/W
- G.197 DUNGEON LORD: 3 levels of Dungeonmaster type adventure from the States. 1Mb
- G.262 ALIENS! Space Marines v Aliens strategy combat game.
- G.198 OMEGA: A large and complex wilderness and dungeon exploration game. 1Mb
- G.115 MYSTIC WELL: Complete 'Dungeonmaster' Style adventure game.

PUZZLE

- G.357 QUEST FOR KNOWLEDGE: Maze exploration game from Dunces Cap Software (S/W)
- G.341 FISTFUL OF PROGRAMS: Half a dozen assorted games from Dunces Cap Software.
- G.323 SPOT IT: An electronic version of the Spot the Difference puzzle.
- G.318 BRAIN DAMAGE (S/W): Trivia/puzzle game. 15 stages in 8 games.
- G.315 SKULLS: Addictive up to date reworking of Landmines/Minefield. (1Mb STE)
- G.306 LOGIC PROBLEMS II: Three more logic problems from Ben Weston.
- G.310 DOMINOES: Playable demo version of domino playing program.
- G.311 JIGSAW: A computerised jigsaw puzzle. (1Mb)
- G.280 COLOUR CLASH: Adventure/Maze game with puzzles by Animalsoft. S/W
- G.269 QUIZMASTER: Multi-choice answer general knowledge quiz. (STE only)
- G.258 GALACTIC FRUIT BOWL: Trivia Quiz meets the fruit machine (1Mb)

ADVENTURES

- G.356 ENDURANCE: A futuristic 'virtual reality' adventure.
- G.321 INVESTIGATION (2 disks/£3.00) Graphic adventure in the style of Sierra On-Line
- G.200 ANARCHY ACADEMY: 3D graphic adventure to blow up school!
- G.140 A NIGHT ON THE TOWN: An adventure with the opportunity to meet the girl of your dreams and ... well, the rest is up to you..
- G.222 GRANDAD AND THE QUEST ... 3D graphic adventure by Ian Scott. S/W 1Mb.
- G.303 GRANDAD AND THE SEARCH FOR THE SANDWICHES: sequel to 'Quest for the Vest' (1Mb 2 disks/3.00)
- G.215 BLACK DAWN: The Earth is under threat (again) and it's up to you to save it.
- G. 99 DRAGON SLAYER: Can you, a lowly beggar, gain riches by slaying the dragon.
- G. 91 QUEST FOR THE HOLY GRAIL: Pythonesque madcap humour
- G.202 UNKNULIAN UNDERWORLD: Highly rated large scale text fantasy adventure.

STRATEGY & OTHERS

- G.344 CHESS-MATE: Chess and draughts game analysis tool. (S/W)
- G.332 CAESAR: Strategy game set around the Mediterranean in 200BC (S/W)
- G.330 GNU CHESS: French chess playing program for all levels.
- G.329 PEGASUS: A massive space strategy game. Seek out and colonise planets. (1Mb 2 disks/£3.00)
- G.131 STAR TREK - THE GAME: Defeat the Klingon threat to the galaxy. (1Mb)
- G.299 TERRAMOON: Shareware demo version of a detailed 'STAR TREK' type game.
- G.287 THE COARSE ANGLER: Angling simulation game. (1Mb)
- G.237 CHAOS: Madcap game of battling wizards by Martin Brownlow (1Mb or 5Mb)
- G.324 IMPERIAL CONQUEST: Complex ancient Mediterranean game of conquest (S/W)
- G.325 SOCCER MANAGEMENT: A complex simulation of soccer management (S/W)
- G.290 SOFTWARE PROJECTS: Manage a software house in this business sim.
- G.217 THE MAZE: 3D adventure game loosely based on 'THE CRYSTAL MAZE'
- G.173 PENGUINS: Move your penguins around the screen 'Lemming' fashion.
- G. 10 VEGAS: Roulette, poker, blackjack and slots ... without the Nevada sand!!
- G.118 COMPANY: Business simulation that puts you at the head of a corporation.
- G.124 SPECTRAL SORCERY: An excellent spellcasting game of battling wizards.
- G.147 THE MANAGER: Manage a top football team through a tough season (S/W)
- G.152 TAIPAN: A trading game set around the Orient. (1Mb)

SOURCE CODE

- P. 36 UNT SOURCE#1: Code from the Wild Boys. UNT. Pixel Twins, etc.
- L. 23 GRAV 2 SOURCE: All the code for the top rated ST game (5.00)
- L. 24 CHAOS SOURCE CODE: All the code for the top rated ST game (£5.00)
- L. 47 HUNCHY: Full source for the 'Hunchback' game on disk L.45 (£3.00)

UTILITIES

- U. 66 BEFORE DAWN: Animated screen saver that will use your own animations.
- U. 65 HARD DISK UTILS: A collection of useful programs for hard disk owners.
- U. 62 MENU-HACKER: Replace a picture in almost any menu/demo/game/intro.
- U. 60 MINT: Multi-tasking for the ST in the style of the Menus.
- U. 67 ST TOOLS: An exhaustive collection of Atari ST utilities.
- U. 20 FASTCOPY 3: Excellent disk copier for cover disks.
- U. 53 TERADESK (1Mb): Replacement Desktop for the ST/STE (1Mb).
- U. 48 PREMIER PACKERS: 13 of the best program packers, plus a de-packer. D/S.
- U. 42 PICTURE HUNTER: Rips picture screens from other programs.
- U. 44 THE DUPLICATOR: High speed copier program.
- U. 47 PROBE ST: Handy utility. Grabs music/graphics, disk/memory editor, etc.
- U. 35 PICTURE CONVERTERS: Convert many formats to other formats.
- U. 34 SAGROTAN: Super virus killer to protect your disk collection
- U. 52 VAULT & TURTLE: Fast hard disk back-up utilities.
- U. 30 GEMINI: Good alternative desktop from Germany (1Mb)
- U. 57 ALICE: A GEM based text editor.

PROGRAMMING

- P. 44 GFA BASIC V.2: Full version of popular language with extensive tutorial. (NB This disk is not PD - LAPD have permission to distribute it.)
- L. 68 SPRITE WORKS: Three commands for games writers using GFA V3+ (2 disks/£7.00)
- M.107 RAMWORLD 2: Three dimensional object creator and viewer program.
- P. 37 HEAT'N'SERVE SOZOBON: A friendlier sort of Sozobon.
- DSP.1 SOZOBON C: A complete C compiler with documentation.
- P.24 MENU-MAKER: A French program that allows you to make your own menus with music, sprite and scrolling message. Excellent.
- P. 35 JC MEGA MENU: Menu maker with smart fonts, music, program selector, etc.
- P. 33 ZX SPECTRUM EMULATOR: Emulate the old Speccy on your ST/STE. (1Mb)
- P. 17 68000 PROGRAMMING COURSE: 10 'How to do it' document files.
- P. 19 GFA EXPERT: Massive text file and help routines for GFA-Basic 3.0. D/S
- P. 18 STOS TUTORIAL: Helps make clear some of the STOS commands. Needs STOS.
- S. 65 XBIO'S MUSIC KIT: Include superb music in your own programs.
- P. 16 C ADVENTURE TOOL KIT: Write professional quality adventures in C.
- P. 41 STOS ADVENTURE CREATOR: Create your own text adventures with ease.
- L. 46 STOS GRAPHIC ADVENTURE CREATOR: make your own point & click adventures with ease. (£3.00).

BUSINESS

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- M.148 INVOICE MASTER: Excellent invoicing system for small businesses.
- M. 13 OPUS 2000: A superb spreadsheet program (1Mb)
- M. 83 INVENTORY PRO: A stock control system.
- M.116 COMPACT OFFICE MANAGER: demo of accounting program for the small business.
- U. 23 DOUBLE SENTRY: Impressive accounts package for the small company (no VAT)
- U. 33 FAST BASE: A powerful and flexible data-base.
- M.139 BANK ACCOUNT MANAGER: Maintain up to 5 accounts for instant access.
- M. 74 BUSINESS LETTERS: 84 pre-written letters to ease the clerical burden.
- U. 6 DBASE ONE: Excellent GEM driven database. Simple to set up and use.
- W. 3 FIRST WORD: Word processor that set the standard for others to follow.

MISCELLANEOUS

- M.155 ROUTE FINDER: Route finding program for England, Wales and Scotland
- M. 167 DIABETES DATABASE: A useful program for anyone who is diabetic.
- M. 19 AIR WARRIOR: Flight Sim with World War II aircraft.
- M.161 THE GARDENER: A special database for gardening enthusiasts.
- L. 17 ADDRESS BOOK: Neat & easy database for names & addresses (£2.50).
- L. 18 CIRCUIT: Easy to use electrical circuit diagram producing program (£2.50)
- M.154 RUNES: Mystical interpretation of the stones.
- M.143 PONDS & WATERGARDENS: A "how-to-do-it" instruction disk.
- M.150 TIP TOP HORSE: A working demo of a horse race prediction program.
- M. 82 ROLE PLAY CREATOR: Create characters for 'Traveller' and 'AD & D'
- M.136 DUNGEON DESIGNER: Design dungeon floor plans for AD & D and similar games.
- M.142 ZONKI: Psychedelic pattern creator program from Dave Henniker (1Mb)
- M. 93 STITCH MATRIX: Pattern making program for knitting machines.
- M.135 CROSSWORD CREATOR: Design your own word puzzles.
- M.111 NORTHERN & EQUATORIAL STAR ATLAS: Superb serious astronomy program S/W.
- M. 77 THE BIBLE: King James authorised version. 4 D/S disks/£6.00.
- M. 76 FORM-FINDER: Proven horse race analysis and prediction program.
- M. 81 NEWSDISK: Construct your own newsletters and magazine disks.
- M.103 ULTIMATE CHEAT GUIDE: 320+ game cheats, plus hidden screens on 20 demos!
- M.100 GERMAN TRANSLATORS: Three programs to translate German text to English.
- M. 98 FILOFACT: Electronic filofax - diary, calendar, alarms, addresses etc.
- M. 26 GENEALOGY: 2 programs for the family historians to trace their forebears.
- M.108 CALENDAR: A calendar program that allows you to attach events to days.
- L. 17 ADDRESS BOOK: Neat database for storing, sorting, etc. (£2.50)
- M. 5 YOUR SECOND ATARI ST MANUAL: Text files about your ST.
- M. 17 WORD PUZZLE: Stuck with word games? Then this disk may help.
- M. 30 EXTRA WORD LIST: 70,000 extra words to use with disk M17.
- M. 40 STICKER III: An excellent label making program.
- M. 62 LEAGUE TABLE: Maintains league tables for soccer and similar sports.
- M. 72 ASSISTANT CHEF #1: 42 month watering recipes. (1Mb)
- M. 73 ASSISTANT CHEF #2: Another 125 tasty recipes. (1Mb)
- M.117 TRIP-A-TRON: A light synthesiser by Jeff Minter.
- M. 14 PICTURES FROM SPACE: Photographs of the earth as seen from satellites.
- M. 84 ASTRO 22: Calculate position of planets, cusps and zodiac.
- W. 5 TO W. 8 CALAMUS FONTS: 20 fonts approx on each disk.



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DEMOS

- D.375 BRUTAL TECHNO: Techno rap and dancing lemmings from Adrenalin.
- D.371 TRAQU'N INT KET BET ... Stunning demo by Adrenalin (2 disks/ £3.00 1Mb)
- D.373 DREAMS: Dento by Animal Mine of Holland
- D.372 REALITY IS A LIE: Good first demo from Psychomix (1Mb)
- D.374 BURNING ILLUSION: Sequentially running demo by DNT.
- D.367 EXTREME RAGE: Sinecurves, Shadowbos, etc, from Anatomica of Sweden (1Mb STE)
- D.363 GROTESQUE: Psychedelic techno music demo (1Mb, STE).
- D.366 BIRDS OF PREY: Intro to the commercial game that never made it to the ST (1Mb STE).
- D.360 DREAMZONE: Mega-demo from the Wild Boys (2 disks £3.00)
- D.347 COSMIC JAM: Good multi-vector demo from Imagina of Finland D/S.
- D.324 CROSSBONES: STE demo (also known as RED SECTOR DEMO)
- D.287 HARDCORE DANCEFLOOR: Sampled house music by the Wild Boys, D/S
- D.323 SLAM- HARDCORE DANCEFLOOR II - More house music from the Wild Boys.
- D.364 DIGITAL EXTASY: Mega -demo by TTK
- D.322 MENTAL HANGOVER: Scoopex demo converted from Amiga (STE).
- D.306 TOM & JERRY: Animated cat and mouse cartoon sequence.
- D.291 LIGHTNING: Mega-demo from the Pendragons.
- D.236 ELECTRA: Biggest re-set demo ever.

EDUCATIONAL

- M. 20 GCSE STUDY AIDS: help with Algebra, Trigonometry and Geometry.
- M. 1 PLANETARIUM: Excellent, easy to use, astronomy program.
- M.153 WORLD WAR II: Home front study pack for Sec. school work. (3 disks/£4.50)
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- M. 41 GEOGRAPHY TUTOR - EUROPE: Facts and figures on European countries, S/W
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- M. 86 DEATH OF A PRESIDENT: Investigate the Kennedy assassination (3 disks/£4.50)
- M. 96 FRANGLAIS 1 & 2: French language tutor programs.
- M.114 FRANGLAIS 3 & 4: French language tutor programs.
- M.101 ROMAN MYSTERY: Teaching programs on Roman times. (3 disks/£4.50)
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- M.123 C.I.A. WORLD FACTBOOK: Facts and figures on countries. (4 disks/£6.00)
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- M151 U.S.A. HISTORY: 20th century American history. (2 disks/£3.00)

KIDS EDUCATIONAL

- L. 20 SUPER SPELL: Teaching program for 4 to 9 year olds (£2.50).
- L. 37 SUPER FUN: More teaching games for the 4 to 9 year old. (£2.50)
- G.266 WITCHES, MICE & FAIRY TALES: Games for younger users.
- G. 83 NOAH'S ARK: Collect the animals, two by two - addictive for adults too!
- M. 95 ABOUT THE HOUSE: Excellent collection of programs for young children.
- M. 28 KIDZ EDUCATIONAL: Alphabet, Math Test, Numerical-Go-Round & Number Maze.
- M. 37 KIDZ DISK #1: Colouring Book, Spell Pic, Word Pic and Flash Card.
- M. 42 KIDZ DISK #2: Dot to Dot, Keyboard Capers & Matching.
- M. 67 BODY SHOP: Graphic quiz-type human anatomy tutor.
- M. 94 PROFESSOR CLEVER: Maths tutor program for children aged 5 to 11. S/W
- M.104 SOLAR SYSTEM GEOGRAPHY: Effects of the sun & moon, on tides, seasons etc.
- M.105 MAGIC SPELLER: Computer speaks the word and challenges child to spell it.
- M. 16 KIDZ COMPILATION: Kid Graph, Grid, Music, Notes, Piano, Publisher, Sketch and story ... all on one disk!
- M. 31 SHIPWRECK: Save the stricken mariner by answering maths questions.
- M. 97 COUNTING: count the objects on the screen correctly to move the cyclist.
- M. 71 WOLF & 7 KIDS: a point and click first adventure for youngsters.
- L. 37 SUPER FUN: Excellent teaching educational program for youngsters. (£2.50)
- L. 20 SUPER SPELL: Teaching program for 4 to 9 year olds by Lexisoft. (£2.50)
- PRO.27 EARLY LEARNING MATHS 2: by Philip Rankin for 9-12 years (£2.75)

ART & GRAPHICS

- L.77 AUTO-STEREOGRAM: Create computer versions of '3D' pics (1Mb) (£3.00)
- A.84 GEMVIEW: Load, view, convert just about any picture format (1Mb)
- A.79 FRACTAL ENGINE 2-1: Multi-functional fractal image generator.
- L.16 ARTIST FREEHAND: Excellent art package, multiple screens, (£2.50)
- A.52 ROYAL PAINT: Finnish art package with all the usual features.
- A.46 ELECTRIC IMAGE ART PACK: Drawing/painting program with full manual on disk.
- A.78 MINI-PICS: Reduce images up to 64 to a screen! Ideal for cataloging.
- A.45 CRACK ART: Demo version of the excellent German art program.
- A.36 KOZMIC 4: Latest version of the stunning psychedelic pattern creator.
- A.37 PAD V2.4: Comprehensive mono art program with English documents.
- A.75 POLYFILM by Martin Brownlow. Make films from multiple 3D polygon objects.
- A.70 COMIC BOOK HEROES: 22 Neo pictures of your favourite superheroes.
- A.62 ART OF DUNGEONS AND DRAGONS: Superb collection of pics from Dragonlance. D/S
- A. 1 ANI ST: Commercial quality animation program (once cost £60.00 to buy!)
- A.40 FULL SCREEN: Display your pictures in stunning full screen format! 1Mb D/S.
- A.34 FANTASY SLIDESHOW: Spectrum 512 pictures on fantasy theme (over 16's only)
- A.47 PICTURE CONCEPT: Do weird and wonderful things with your pictures
- A.64 ATARI IMAGE MAKER: Experiment with digital image processing.
- L.26, L.27, L.28 TYPE WRITE CLIP ART: 4 disk sets of quality clip art in IMG format, £10.00 per set with a free printed catalogue of the art work on the disks included.

COMMUNICATIONS

- C. 22 TEDDYTERM: A superb multi-function communications program
- C. 7 VANTERM V.4: Excellent multi-function comms program.
- C. 13 FREEZE DRIED TERMINAL: Excellent comms prog. Includes ZMODEM facility.
- C. 14 ST KEEP: Room based BBS system.. Requires hard drive.
- C. 15 KM-TERM: Comms prog that can act as a mini BBS. Includes JEKYL prog.
- C. 17 QSO-BASE: Database for radio hams to store QSO information.
- M.138 MORSE CODE TUTOR: Practice and perfect your skills.

BUDGIE U.K.

- Full range of BUDGIE U.K. software available including the following:
- BU.122 WORLD CUP: Mouse driven football management game (£2.75)
 - BU.121 SUPER SCRAMBLE: Fast action arcade shoot 'em up. (£2.75)
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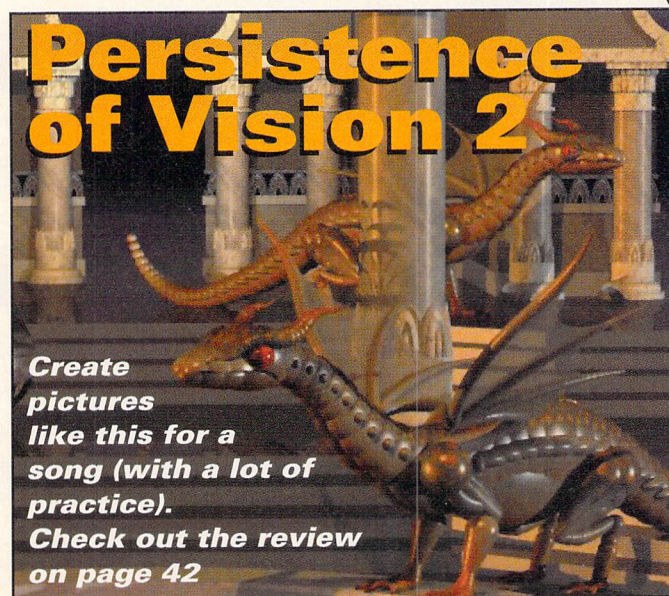
COM

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Persistence of Vision 2



Create pictures like this for a song (with a lot of practice). Check out the review on page 42

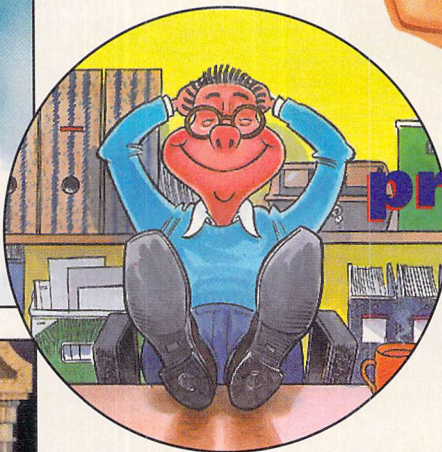
Sparkling pages!

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Be more productive!

Organise your ST to get the most out of it. See page 90



COVER DISK 59

8 GREAT PROGRAMS ON DISK



TURN TO PAGE 6 FOR

**ST
FORMAT**

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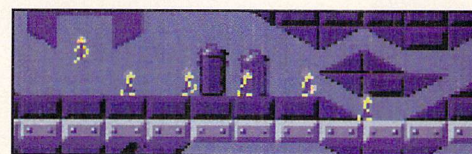
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■ Hours of fun are yours with Mouse-Ka-Mania 2 (left) and Pothole 2 (above).

YOUR COVER DISK GUIDES

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COVER DISK

MONTHLY MENU

Videomaster

The latest version of Microdeal's digitiser software, with a demo sequence. 1MByte recommended.

Uncompressed size: 497K

Page 8

■ Check out our video features starting on page 17

Mouse-Ka-Mania 2

Banish the busy bee pointer for ever and replace it with a stop-watch, or one of hundreds of replacement pointers.

Uncompressed size: 241K

Page 7

Morph

Generate *Terminator 2* type effects on your ST with this great morphing program.

Uncompressed size: 90K

Page 6

QPlay 3

Brilliant *Quartet* player enabling you to show off your musical talents to your friends.

Size: 162K

Page 9

Cover Disk Cheats

Get even more fun from previous ST FORMAT Cover Disks.

Size: 25K

Page 8

■ Gamebusters and Blunder start on page 74

Supercard 3 upgrade

Upgrade *Supercard 3* from Cover Disk 50 to the latest version.

Size: 57K

Page 9

Pothole 2

Fast and furious *Boulderdash* clone guaranteed to keep you playing for hours and hours.

Size: 97K

Page 6



Cover Disk Backup

Yup, it's time to back up that Cover Disk with our easy-to-use utility.

Size: 13K

Page 9

MORPH

BY: KARL MANNING

RESOLUTION: LOW

MACHINE: ALL STS

MINIMUM MEMORY: 1MBYTE

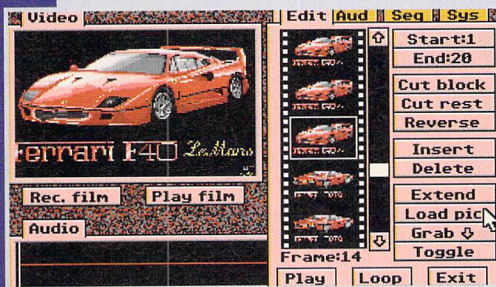
FILE: MORPH.TOS

HARD DRIVE INSTALLABLE

UNCOMPRESSED SIZE: 90K

GET STARTED WITH:

MORPH.DOC, SEE RIGHT



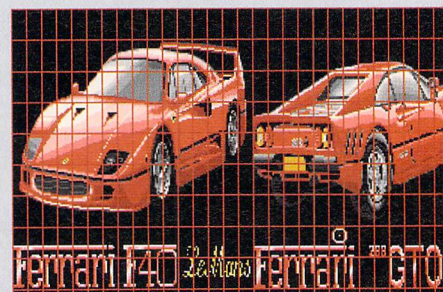
■ You can use *VideoMaster* to load in your *Morph* animation frame by frame using the *Load pic* command in the *Edit* menu of the *Vid card*. You can then save the animation as a *VideoMaster* video file.

Morph's got nothing to do with cute Plasticine men animated in Bristol, it's a cleverly written little morphing program for the ST that enables you to transform one picture into another over 20 frames of animation. The best way to use the program is to load in two similar *Degas* pictures, select morphing points and start generating the "tween" frames between the first and last picture as a series of *Degas* pictures.

Getting started

First you have to copy MORPH.TOS to a blank disk and double-click on it to unpack it, after it has decompressed you can erase MORPH.TOS. We have supplied the *Morph* program along with a couple of *Degas* images to use as start and end frames for your first animation.

Run MORPH.PRg and wait for the file selector to appear, select one of the pictures as the start



■ A couple of grabs to use as start and end points of the morphing sequence. You can see the images are a bit squashed so... press <F2> to see the start image in more detail or press <F3> to see the end image. And press <Help> to see the help page. Marvellous.

image and select OK. When the file selector pops up again select the other image, both images are then displayed on-screen side by side ready for you to start selecting points. If you want to do a test morph straight away then press the <M> key, a small box appears asking how many frames you want to

POTHOLE 2

BY: PAUL GRENFELL

RESOLUTION: LOW

MACHINE: ALL STS

MINIMUM MEMORY: 512K

FOLDER: POTHOLE

FILES: POTHOLE2.PRg,

POTHOLE2.TXT

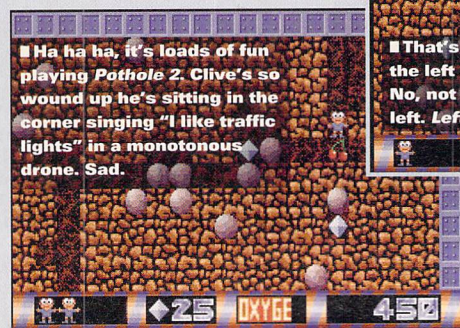
HARD DRIVE INSTALLABLE

JOYSTICK REQUIRED

SIZE: 97K

GET STARTED WITH:

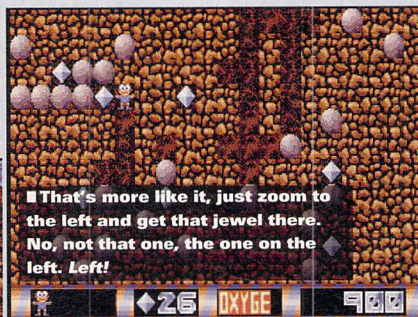
POTHOLE2.TXT, SEE RIGHT



C'mon, you must have played *Boulderdash* – or a similar game – by now. If you have then you'll be pleased to see this excellent clone of the game, if haven't then you're in for a treat.

Pothole 2 is a fast and addictive collection game where you

have to collect all the jewels and fruit on a large grid area. You may think it sounds simple, but it's not! As you move about the screen you tunnel through the bowels of the earth leaving a handy trail behind you. The only problem is that all the jewels, bonuses and boulders fall down into the gaps you make so it's dead easy to get squashed by falling objects. You do get five lives, but once you're dead you have to start the level from the beginning – OK if you're a games genius but if you're rotten at games – like Clive – then you get more and more frustrated. Then there's the problem of oxygen, you're underground so it's going to run out at some point

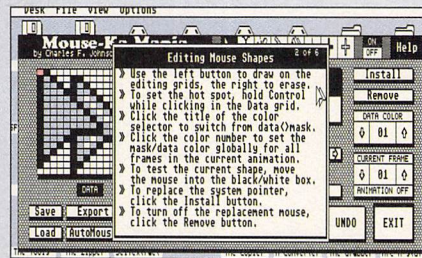


MOUSE-KA-MANIA 2

BY: CHARLES F JOHNSON
RESOLUTION: MEDIUM OR HIGH
MACHINE: ALL STS
MINIMUM MEMORY: 512K
FILE: MKM_II.TOS
HARD DRIVE INSTALLABLE
UNCOMPRESSED SIZE: 241K
GET STARTED WITH:
MKM_II.TXT, SEE BELOW

Way back in the late '80s a handy program called *Mouse-Ka-Mania* was created enabling you to design and install new mouse pointers to replace the eight standard Atari offerings built into GEM.

Now the program has been completely rewritten and updated for the '90s, with the ability to create standard pointers and animated pointers similar to those



■ If you get stuck when using the program then press the <Help> key or select the Help button for six pages of information on using *Mouse-Ka-Mania*.

found on the Apple Macintosh – you can replace the busy bee pointer with a revolving wheel or a hand “counting down” on its fingers. Best of all, you can save your newly designed set of mouse

pointers as a special program that you can stick in the Auto folder of your boot drive – it enables your customised pointers to be installed in memory and used with any program even if you don't load the *Mouse-Ka-Mania* Desk Accessory.

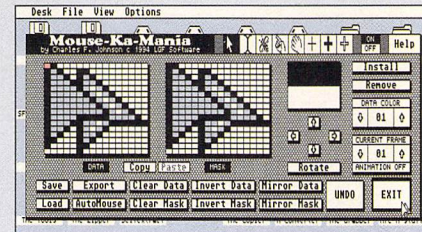
We've got the very latest version of the program for you – version 2.21 – and the author has kindly given us exclusive permission to use it on our Cover Disk.

It's compressed

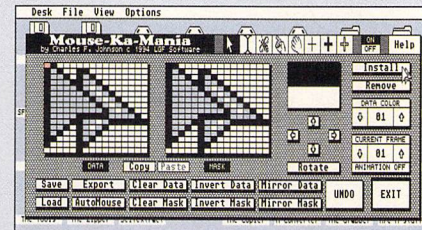
Yes, *Mouse-Ka-Mania* (MKM) is compressed. Copy the MKM_II.TOS file to a blank disk or the root directory of your hard drive and double-click on it to decompress it, after it has unpacked you can delete MKM_II.TOS. To install MKM you must reset your ST, the program is a Desk Accessory and can only be used from the Desk menu of the Desktop or any GEM program.

After resetting, call *Mouse-Ka-Mania* from the Desk menu and you are presented with a large editing screen. This is where you design your own mouse pointers or load in some of the 128 pointer designs supplied with the program. There are 65 single frame pointers and 63 animated designs, there should be something to interest you among that lot. Select the load button and you are asked whether you want to load a single frame, an animated frame or a complete set of eight pointers in an Automouse set – we've supplied one ready made Automouse set for you to load in and test.

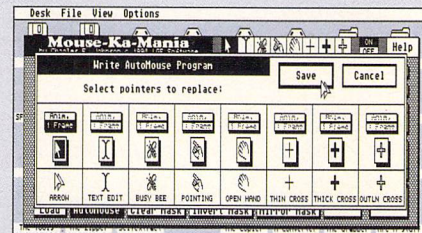
The Automouse program is a small Auto folder program – usually about 14 or 15K in size – that loads your new designs into memory when you boot your ST. To get the most from your program it's best to read the document file supplied with the program, that should sort out any difficulties for you may have. Remember that *Mouse-Ka-Mania* is Shareware, so send off that cash because MKM really is worth it!



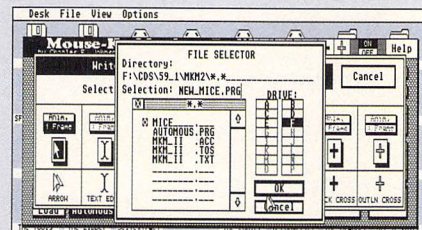
■ *Mouse-Ka-Mania's* editing screen enables you to design your pointers with ease, just click on the squares on the grid to set or reset them.



■ Once the design of your pointer is complete, go to the Install button and click on it once. This installs the pointer at the current position as part of the set you are working on.



■ After installing the pointer, click on the Automouse button at the bottom of the screen to go to the Automouse screen. The top row of pointers are the new designs and the bottom row are the Atari defaults they replace.



■ Clicking on the Save button saves a new set of pointers as an Automouse program, you can save the program with any name and with many edited pointers as you like.

KEYBOARD COMMANDS

ESC: Exit from your morph back to the Desktop.

F1: Display both images on-screen side by side so you can match points easily.

F2: Displays the start image as a full screen picture to enable fine point positioning.

F3: Displays the end image as a fullscreen picture.

F4: Increase grid brightness.

F5: Decrease grid brightness.

HELP: This displays keyboard information.

L: Load grid information from disk.

M: Start morphing calculations, enter the number of frames and click on OK.

S: Save grid information to disk.

W: Adjust mesh size for finer control of point placement.

use in your animation. Remember you can only fit about 20 *Degas* pictures on a double-sided disk so enter a number between 10 and 20 for your animation, when generating the frames they are written directly to disk.

Your only problem now is running your animation, you can use *Animtool* from the Cover Disk of *ST FORMAT* 43 or use a stan-

dard slideshow program. Another alternative is to load your animation frame by frame into *Video-Master* and save it as a video file or film file. You can then distribute your morphing sequence using the *VIDIPLAY.TTP* as a player program. There are loads of hints and tips in the *MORPH.DOC* file to help you out, so get ready because it's time to change.

leaving you with a *Cadaver* problem once more. It's great fun and you get hooked after only a few minutes playing.

To get up and running just copy the *POTHOLES* folder to a blank disk or a hard drive partition, open the folder and double-click on the *POT-HOLE2.PR* icon. When the game loads and you press your fire button to get started, you are presented with the bizarrely named “GET SEX” option, it's nothing that Roger Cook would investigate, it just determines whether you use a male or female character in the game. Cute, huh?

Basically you just dash about using the joystick until you have cleared all the jewels from a level –

■ When you clear a level you are presented with a password so you don't have to struggle through it the next time you play. Enter your password here.



or die! If you press the fire button before moving you can push a single rock or clear a space beside you – handy if you want to get a rock out of the way. With 20 levels it's going to take you some time to finish the entire game, so just sit back and have a bit of mindless fun for a while. It's great!

SHAREWARE

Mouse-Ka-Mania 2 is Shareware, that means that if you decide to use the program on a regular basis then you are morally obliged to send the Shareware fee to the author. The fee for *Mouse-Ka-Mania 2* is \$15 (about £10) and the address to send it to is in the program info window and the accompanying text file.

■ Yup, you do have to pay for *Mouse-Ka-Mania 2* if you use it – even if you only change one mouse pointer.



COVER DISK CHEATS

BY: MARTIN PUGH

MACHINE: ALL STS

RESOLUTION: SEE

READ_ME.DOC

MINIMUM MEMORY: 512K

FOLDER: CHEATS

FILES: 12 CHEAT PROGRAMS,

READ_ME.DOC

SIZE: 25K

GET STARTED WITH:

READ_ME.DOC,

SEE RIGHT

Martin Pugh sat down and hand-crafted a dozen cheats for some of the favourite games ever to appear on the *ST FORMAT* Cover Disks. Some of the cheats are for games that appeared on very early disks.

To use the cheats just copy the relevant cheat program to the folder or disk that you normally run the game from, the cheat must be in the same directory as the game. The instructions for each cheat and a description of the extra features and how to use them are listed in the *READ_ME.DOC* file on the disk. So dig out those old *ST FORMAT* Cover Disks and get playing.

FIND THOSE DISKS

Have you got any of these games on your old *ST FORMAT* Cover Disks? If you have then there is a cheat for you on this month's packed disk. If you haven't got some of the games on the older disks you can find them in most PD libraries, more recent games are available from our back issues pages, turn to page 94 to order a copy

BALLS: *STF* Cover Disk 46

CENTIPEDE: *STF* Cover Disk 43

DROID *STF* Cover Disk 37

ENTOMBED: *STF* Cover Disk 30

GRAV 2: *STF* Cover Disk 44

MEGAROID: *STAF* Cover Disk 2

NOVA: *STF* Cover Disk 54

PRENSORIUM: *STF* Cover Disk 51

PUNT 2: *STF* Cover Disk 50

SPOOKS: *STAF* Cover Disk 5

SQUISH: *STF* Cover Disk 49

STOMP: *STF* Cover Disk 55

VIDEOMASTER

BY: MICRODEAL

RESOLUTION: LOW ONLY

MACHINE: ALL STS

MINIMUM MEMORY: RUNS IN

512K BUT 1MBYTE

RECOMMENDED

FOLDER: V_MASTER

FILES: V_MASTER.TOS,

VIDIPLAY.TTP, DEMO2.TOS

HARD DRIVE INSTALLABLE

UNCOMPRESSED SIZE: 697K

GET STARTED WITH: SEE RIGHT

Videomaster is just about the best video utility ever to be developed for the ST, it enables you to create animations and sequences using images grabbed using the *Videomaster* cartridge or you can make animations yourself using *Degas* and *Neochrome* pictures created in an art package.

You really need 1MByte of RAM to use *Videomaster* and create some worthwhile animations,

EXTRACTING COMPRESSED PROGRAMS

The following instruction assume a single drive setup set to medium resolution

1 Format a blank disk and mark it as Disk B. This is the destination disk.

2 Get your backup copy of your Cover Disk, mark it as Disk A then put it into the disk drive. This is your source disk.

3 Click on the Drive A icon, a window opens with the folders on the Cover Disk displayed within it. If you can't see the Drive B icon, move the window so you can see it.

4 Double-click on the folder containing the file you want to copy so you can see the contents. Click on the file you are going to copy and keep the mouse button pressed, now drag the file over the top of the Drive B icon.

5 When the Drive B icon turns black release the mouse button. The Copy Files dialog box

appears, now click on OK to start the copy.

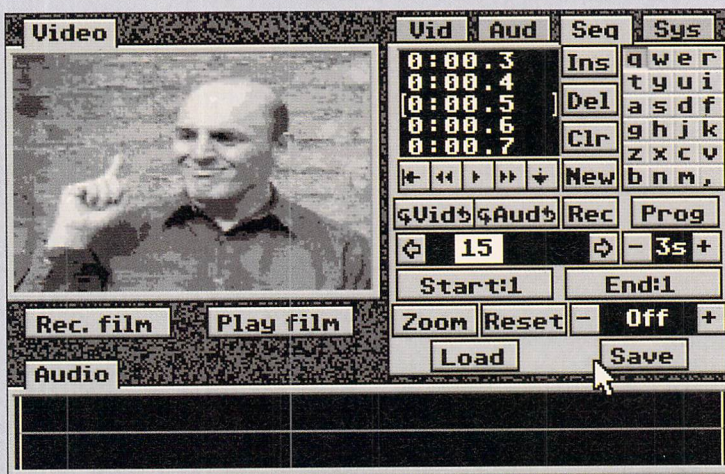
6 An alert box appears telling you to put Disk B into Drive A. Do so, and click on OK. Your ST now tells you when to swap disks, follow the instructions on screen and don't mix up the disks.

7 When the file is copied put the Cover Disk away and close all of the windows on screen. Put Disk B into the drive and click on the Drive A icon.

8 When the window opens double-click on the TOS file to start the extraction process, after a few minutes a message tells you to press <Return>.

9 You can now delete the TOS file from disk B. Follow the instructions in the magazine for the particular program you are using and read all doc files on the disk.

10 Repeat as necessary for any other self-extracting TOS files on the Cover Disk.



■ Using the sequencer menu in *Videomaster* you can create long sequences using as little as 20 images. You can also add AVR format sound samples to a sequence.

the software does run on a 512K ST but you aren't left with very much room – you can only load about six or seven frames into 512K, which isn't a lot.

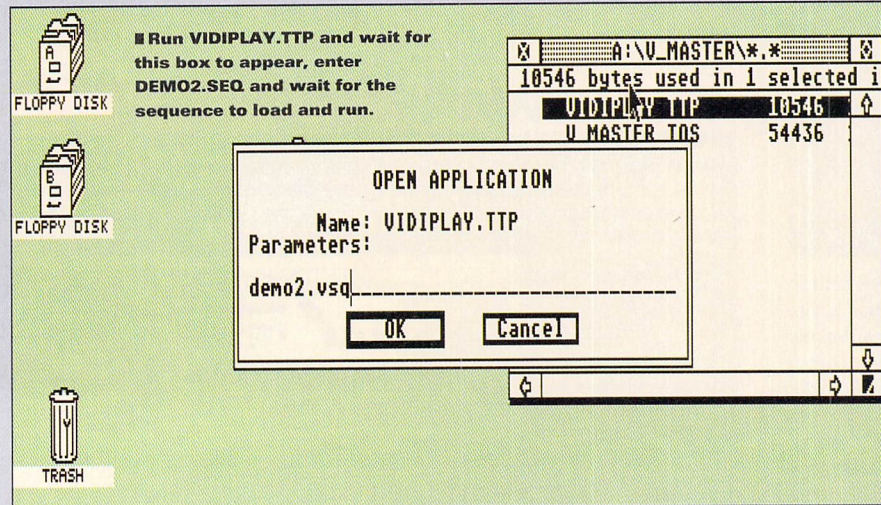
Time to unpack

Copy DEMO2.TOS to a blank disk and run it by double-clicking on its icon. After a couple of minutes the file unpacks into a monster 400K plus sequence, when it's completely unpacked delete DEMO2.TOS from the blank disk. Now open the V_MASTER folder on your Cover Disk and copy V_MASTER.TOS and VIDIPLAY.TOS to

the blank disk. To play the sequence double-click on VIDIPLAY.TTP and enter DEMO2.VSQ into the command line of the alert box. After watching the sequence play press the Spacebar to exit.

You can also play the sequence from within the *Videomaster* software, double-click on V_MASTER.TOS and wait for the program to load. At the top of the screen there are four buttons, select SEQ to go to the sequencer menu. Select the LOAD command from the menu and use the file selector to load the demo into *Videomaster*. Click on the play icon to run the sequence through from start to finish.

For more detailed instructions on how to make the most use of the *Videomaster* software, turn to page 18.



QPLAY 3

BY: DYAD SOFTWARE, SAUL FRANCIS, NICK KENT
MACHINE: ALL STS
MINIMUM MEMORY: 1MBYTE
FOLDER: QPLAY3
FILES: DELTA.4V, QPIII.DOC, QPLAYV3.PRG, SANXION.V4, SANXION2.SET, SONOFGOD.4V
HARD DRIVE INSTALLABLE
SIZE: 162K
GET STARTED WITH: QPIII.DOC, SEE BELOW

So you've got *Quartet* up and running from last month's Cover Disk extravaganza and you've written some brilliant tunes, the only problem is giving them to your friends to listen to. Well, *QPlay 3* solves the problem in spades!

QPlay 3 is a *Quartet* tune player that enables you to present

your tunes in a variety of ways and manipulate them, adjust the tempo and playback frequency and view the song in a variety of different ways. You can use four different types of sound output, standard soundchip, *Stereo Playback* cartridge, *Replay 4* and *8* and *Replay Professional*.

To run the program just double-click on the QPLAYV3.PRG file in the QPLAY3 folder on the backup copy of your Cover Disk, the program automatically loads the first *Quartet* song and voiceset it finds and starts playing it. Using the various keyboard commands you can call up the other displays built into the program, including a notation display, oscilloscope display and multimeter. Pressing the <Help> key at any time displays a full list of keyboard shortcuts you can use in *QPlay 3*.

COVER DISK BACKUP

BY: BRIAN TILLY
MACHINE: ALL STS
RESOLUTION:
ALL RESOLUTIONS
MINIMUM MEMORY: 512K
FOLDER: BACK_UP
FILES: BACK_UP.TOS
HARD DRIVE INSTALLABLE
SIZE: 13K
GET STARTED WITH: SEE BELOW

Use our fabulous, impossible to cock up, Cover Disk Backup program to make working copies of your Cover Disk before you do anything else. While you're at it, make

backups of last month's *Quartet* disk too because we didn't have enough space to squeeze Backup in. Sorry.

Run BACK_UP.TOS from the Cover Disk and have a couple of blank disks standing by – it's always best to make at least a couple of backups of any important software – and follow the on-screen instructions. It's really easy, honest! Backup cleverly tells you when to swap disks and stuff like that, so it really is simple to safeguard your software. Do it now, before it's too late.

SUPERCARD 3 UPGRADE

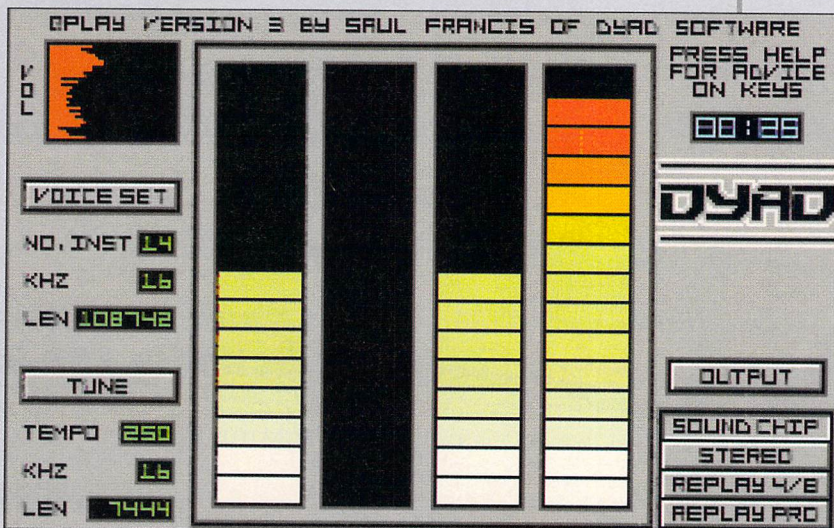
BY: BWARE SOFTWARE
MACHINE: ALL STS
RESOLUTION:
MEDIUM OR HIGH
MINIMUM MEMORY: 512K
FOLDER: UPDATE.SC3
FILES: UPDATE.PRG, READ_ME.TXT
SIZE: 57K
GET STARTED WITH: READ_ME.TXT, SEE BELOW

Supercard 3 on STF
 Cover Disk 50 is one of the most powerful and comprehensive card file databases around, that's why we gave it to you.

Now there's a new version with

added bells and whistles and several minor bug fixes sorted out. BWare Software have sent us an upgrade program to convert version 3.01 from our Cover Disk to version 3.10 using a few simple steps. If you don't have Cover Disk 50 then you can order from the address in the READ_ME.TXT file.

1. Use Cover Disk 50 to generate a new copy of *Supercard 3.01*.
2. Run the UPDATE.PRG on this month's Cover Disk.
3. Put the new copy of *Supercard* in Drive A.
4. Press the Spacebar.
5. Wait while *Supercard* is updated to version 3.10.



■ *QPlay 3* in action, use the <Help> key or read the doc file for a full list of *QPlay 3*'s large list of functions and features.

TEN TIPS FOR COVER DISK SATISFACTION

1. Write-protect your Cover Disk by sliding the black tab so you can see through the hole; this prevents you from accidentally erasing data.
2. Make a backup copy using the *ST FORMAT Back-Up* program, available on all previous Cover Disks, or order a copy of *ST FORMAT* from page 94.
3. Always read the instructions for the program you are using on the Cover Disk pages and any document file that is on the disk.
4. Never run software directly from the Cover Disk except the *Back-Up* program, and always use your backup disk.
5. Never try to decompress self-extracting TOS files on the Cover Disk, always copy them to a blank disk.
6. If you have any general problems with your ST, consult your manual. If you are still stuck then write to ST Answers, 30 Monmouth Street, Bath, BA1 2BW.
7. If you can't load, copy or back up your Cover Disk programs then you may have a faulty disk – it happens sometimes. Send the disk and a padded self-addressed envelope to:
ST FORMAT June Disk Returns, PO Box 21, Davenport, NN1 5BU
 We pay the return postage. Don't send faulty disks to our Bath or Somerton offices because we don't keep stocks of Cover Disks there.
8. If you are having problems with a Cover Disk program go back and read the Cover Disk pages and any DOC files on the disk. If you still can't get the program running, call the *ST FORMAT* Cover Disk Hotline on ☎ 0225 442244 on Wednesdays between 2pm and 6pm only – we can't accept calls at any other time.
9. If you have other hardware or software queries, contact the manufacturer or publisher. Alternatively, ring the official Atari Helpline on ☎ 031 332 93233 between 6pm and 11pm Monday to Saturday and 8pm and 11pm on Sundays.
10. *ST FORMAT* Cover Disks are double-sided, if you have an old STFM and cannot read the Cover Disk then you should upgrade your ST to a double-sided drive.

WE WANT YOUR PROGRAMS!

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

Name _____
 Address _____
 Daytime phone _____ Program title _____
 Total size in K _____

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

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

Signed _____

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Ladbroke Computing International are one of

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

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Data Pulse Plus

- Very quiet, no fan necessary
- Dual SCSI port
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The Data Pulse Plus range of drives features a full metal case with integral PSU ideal as a monitor stand.

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

Monitors/TV's

Dataview Mono ST £109.99
Screen Beat Speakers £12.99

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

Multisync Monitor

Microvitec 1438 £289.99
ST Switch Box £19.99
Falcon VGA adaptor £9.99

The Microvitec 1438 is a multisync monitor compatible with both the Atari ST and the Falcon. Utilising the ST switch box it is possible to display all three ST resolutions on the same monitor. Also compatible with screen blaster for the FALCON.

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

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

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

Scart TV

(Requires SCART Lead)

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

Modems

2400 Baud Voyager £69.99
2400 baud pocket modem, MNP 2-4 error correction, MNP5 data compression
14400 Baud Pegasus Fax Modem £159.99
14400 Baud Modem, Auto Dial, Auto answer, Lifetime limited warranty, MNP 2-4 error correction, MNP 5 data compression, S/R Class 1 & Class 2 commands, Group 3 S/R fax modem (compatible with Straight FAX™)
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The low power consumption of these Autoparking Autobooting mechanisms means that they can operate well within their safe operational temperature ranges without the need for fan cooling. This coupled with the design of the case results in probably the quietest Hard Drive range available for the ST.

Falcon 030

- 16MHz 32 bit 68030 Central Processor, 16MHz Blitter, 32MHz 56001 Digital Signal Processor
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Ergonomically designed Trak Ball. 320Dpi resolution, 2 microswitched buttons. The Legend Trak Ball is very easy to use. Unlike normal Trak balls the LEGEND is operated with the thumb freeing the fingers to click buttons

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

Unpopulated Marpet Board £24.00
See SIMM prices below

Forget Me Clock II £13.99
512K SIMM'S £7.99
2MB SIMM'S £49.99
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*"Data Pulse is astonishingly fast!"-
Andrew Wright, ST User*

Re-writeable Optical Drives offer staggering density with hard drive speed. Each 3.5" optical disk stores 128Mb with access time of 30ms and a data transfer rate of 600K per second.

Data Pulse +170Mb	£270
Data Pulse +240Mb	£360
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CD ROM Drive	£180
<i>Phone for further details on CD ROM Please note all prices quoted are for main drive unit only. Add ICD LINK for use with ST or SCSI cable for use with FALCON</i>	
ICD LINK (ST)	£79.99
SCSI Cable (Falcon)	£39.99
128Mb Optical disk	£29.99
230Mb R/W Optical disk	£69.99
ICD PRO Utilities	£39.99

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

Hand Scanner+ Scanlite £99.99

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

Repair Services

The Only ATARI Authorised Repair Centre in the UK

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

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

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

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ATARI EXPECT TO STAY IN THE RED

Atari have reported big losses for last year's operations, although they didn't lose as much as they did the previous year.

Since the period was widely acknowledged at Atari to be a time of restructuring and changing their main focus from computers to consoles – although they still remain

adamant that they haven't completely pulled out of the computer market the sight of any positive action towards the computer indus-

try is a rare one – this wasn't much of a surprise.

Sam Tramiel commented: "While we are disappointed in the magnitude of our losses in the fourth quarter and in 1993 as a whole, we believe that we have

substantially completed our transition from our older technology products and the consolidation of our worldwide operations.

"As a result of increased spending for marketing activities and until such times as shipments of Jaguar products are made in substantial volume, we do not expect to achieve profitability."

Atari have also sold some more shares to Time Warner, taking Time Warner's interest in the company up from 25% to 27%. Tramiel explained that the money made from

"We believe we have completed our transition from older technology products"

Sam Tramiel

■ Sam Tramiel expects Atari to remain unprofitable for some time to come. Bearing in mind that the Jaguar sells for a very low price with three year's worth of development costs that time might be quite considerable.

this sale would be used to expand the Jag through the US.

They are quite obviously expecting sales of the Jaguar to bring the company back into credit – and if they don't then it's very likely to be the end of Atari. However, their stock market price continues to increase and with Time Warner's continued investment, it looks as if there is still sufficient confidence in the company to ensure it stays around for some years to come.

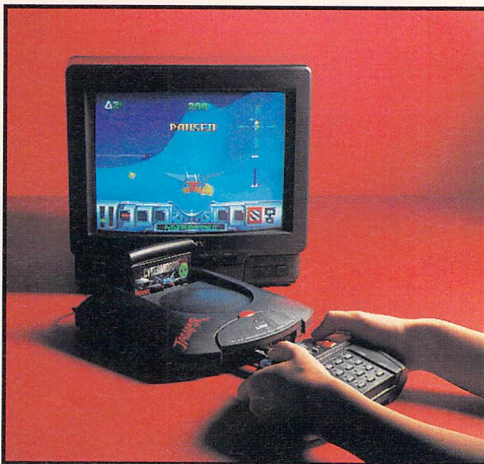
The details of Atari's financial reports for the fourth quarter and for the year ending 31 December 1993 are as follows. Net sales for the fourth quarter 1993, were \$8.5



million compared to \$25.5 million for the same period in 1992. For the fourth quarter, 1993, Atari incurred a net loss of \$22.6 million compared to \$21.9 million in the same quarter 1992. For 1993 sales value is \$28.8 million compared to \$127.3 million in 1992. For 1993, Atari incurred a loss of \$48.9 million compared to \$73.6 million in 1992.

GAMES NEWS

All the games news, whether to do with ST, Falcon or Jaguar games can now be found in the new and improved Screenplay section, starting on page 53.



■ Atari reckon the Jaguar's going to put them on the road back to profitability. Well, something's going to have to as their performance is hardly outstandingly good.

SNIPPETS

Spotlight tickets available

Last month's ticket giveaway to the Spotlight 1994 show organised by Gasteiner was such a success that they've found another 300 tickets for anyone who rings and requests one.

The Spotlight show, which normally costs £5 to get into, is to feature loads of software and hardware at giveaway prices, as well as much more expensive items which you could just go along and drool over.

The show is on the weekend of 28 and 29 May from 10am at the Novotel Hotel in Hammersmith. For your free ticket, ring ☎ 081 345 6573 and say you read about the offer in *ST FORMAT*.

Silica expansion

Silica Systems are opening new branches of their computer shops nationwide, most to be based in Debenhams stores. Within a few months Silica expect to have 20 outlets – including a new Oxford Street shop open by the beginning of May.

If you want to get yourself a new STFM Discovery pack then Silica Systems are the people to go to, they are selling the pack for a bargain £149. All STFMs in the Discovery packs are 1MByte machines, and Silica are throwing in their own Productivity software pack and Tenstar game pack as part of the deal. Give Silica a ring on ☎ 081 309 1111.

Join a user group!

There are Atari user groups throughout the country that you should join if you want some hands-on assistance with any of your ST or Falcon related problems.

Joining a user group is an ideal opportunity to meet people who have the same interests as you and they can be inspirational as well as very useful. The only problem is that you might not know whether there is one in your area. Just get in touch with Ken Ward on ☎ 0603 661149, who's involved with the Association of Atari User Groups and he can put you in touch with a local group. If you live near Herts there's the

Cheshunt Computer Club you could try – call Deryck Croker on ☎ 0923 673719 who can then send you details. Or, if you're into programming, try Ictari, the Atari programmers group, now based in Hampshire. Send an SAE to ICTARI, 63 Woolsbridge Road, Ringwood, Hants BH24 2LX for more info.

If there are any other user groups around the country who would like some publicity, send your details into us and we can collate them.

Daze Marketing...

Are on ☎ 071 328 2762, not the number we've been printing. Sorry for all inconvenience caused.

NO FALCON SUPPORT FROM ATARI

If you have bought one of the Falcons that were sold early in 1993 then you may have problems with certain types of software. In fact, if you want to use DSP based music software with your Falcon then you're likely to have a bit of trouble running the sound side of the software at all.

The problems are most likely to arise if you have older versions of TOS in your Falcon: TOS 4.01 definitely doesn't like some of the new audio software being released, and *Clarity 16* from Hisoft doesn't work at all on TOS versions before 4.04.

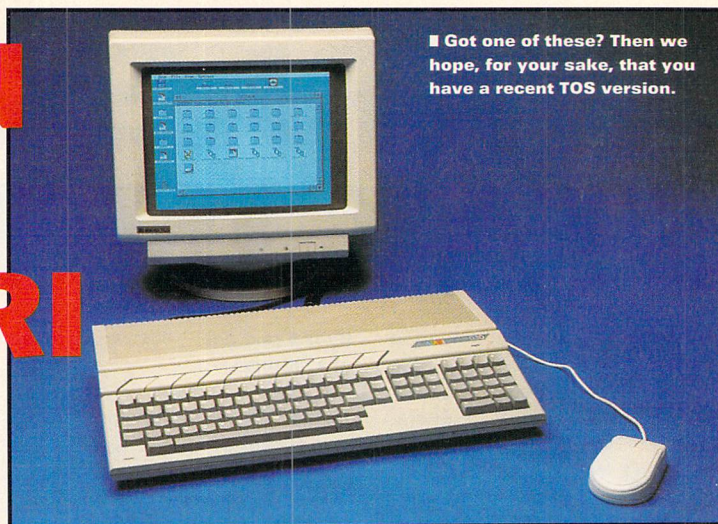
This is because of bugs in early versions of the audio sub-system hardware. We've touched on

this subject before when we had reports of buggy DSP (Digital Signal Processor) chips in some Falcons, but it seems that the fault lies with the hardware of the audio sub-system itself rather than the actual DSP chip.

"Hisoft confirmed that they had followed the official Atari programming guidelines"

When we asked Darryl Still at Atari about the problems, he claimed that the reason programs using the DSP and the audio sub-system had problems was because software programmers are not following the

official Atari programming guidelines. This seems extremely unlikely in Hisoft's case; Hisoft are renowned for their strict adherence to all of Atari's programming rules and confirmed that they have stuck



■ Got one of these? Then we hope, for your sake, that you have a recent TOS version.

to them when writing software for the *Clarity 16* sampling package.

The operating system has been changed substantially between TOS 4.02 and TOS 4.04 to fix the audio system hardware bug – TOS 4.03 was also fixed but never released – but Atari won't confirm what changes have been made. This means that developers like Hisoft are unable to write software patches enabling their programs to run correctly on older Falcons because they haven't got the information they need.

So what can you do if you have an early version of TOS 4 in your Falcon? Well, the easiest solution is to replace the operating system. Compo run Atari's official upgrade service and are licenced to

copy the latest version of the OS to blank EPROMs, then you can remove the old TOS chip and plug in the new one. The problem here is that Atari have chosen what seems to be the scarcest ROM chip in the world for TOS 4 – a 4MByte PLCC chip with 44 pins – and it's almost impossible to find supplies of such EPROM chips.

If you already have an EPROM chip in your Falcon it can be erased and the new version of TOS copied onto it, if you don't have an EPROM you're stuck with what you've got. We found this out when we tried to upgrade our Falcon – it took six weeks for us to find a replacement chip and we had to swap ours with one from a broken Falcon.

DON'T MISS OUT ON ST FORMAT

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

So go on, fill out the form and take it to your newsagent today. Alternatively, you could always take the even better option of subscribing – see page 80 for details.

Cut out this form or a photocopy and hand it to your newsagent
Please reserve/deliver *ST FORMAT* magazine each month,
beginning with the July issue, which is on sale Tuesday 31 May 1994.

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Address _____

Phone number _____

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STF GRABS 53% OF ST MAG MARKET!

Latest ABC (Audit Bureau of Circulation) figures for the period July to December last year reveal that *ST FORMAT* has increased its share of the market to a significant 53% while "competitors" *ST Review* and *ST User* have experienced major falls in circulation.

ST Review falls dramatically by 31% to a poor 17,933 and *ST User* drops by 19% to a marginally less abysmal 19,579 copies. This means that *STF* has increased its share of the ST magazine market to a very impressive 53%.

While *ST FORMAT*'s ABC of 43,469 reflects the decline in mass popularity of Atari computers, there can be no doubt that we are the most popular magazine by far.

A publisher speaks

Simon Stansfield, *ST FORMAT*'s publisher commented: "Despite an overall decline in the ST market, *ST FORMAT* has once again shown remarkable resilience and remains the number one magazine for ST users by a long way.

I'd like to send a personal message of thanks not only to the *ST*



■ A recent issue of *ST FORMAT*. It's not surprising that model Sarah looks so chuffed, she's on the front of the world's best-selling ST mag.

FORMAT team, who make it such a great mag, but to you, our readers, for continuing to support us. Rest assured we intend to continue to improve *STF* and make it, even more, your magazine."

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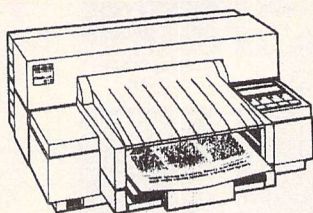
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PREVIEW: MUSIC MON 2

A new version of the Galactic *Music Mon* tracker software is now available in the UK, the English language version of *Music Mon 2* is being distributed by CGS Computerbild, along with the rest of Galactic's music software.

Music Mon 2 is a sound tracker program that enables you to use your ST's sound chip as a real synthesizer where you can create your own instrument sounds using the sound editor, copy them from the demo songs provided or load them from a disk of sampled



■ How's this for an easy to use control panel? *Music Mon 2* is certainly blessed with a multitude of options on the sound editing page.

instrument sounds. The sound disk contains 100 instrument sounds and is sold separately. You can also sample your own sounds and use them with *Music Mon 2*.

There are loads of sound modification functions enabling you to tweak the sound of your instruments including pitch bend,

pitch bend noise, frequency modulation noise, amplitude modulation and arpeggio. Your own sounds are created with an FM (Frequency Modulation) sound generator.

Music Mon 2 songs you create can be included in your own software, Galactic supply routines with the program so you can use songs in assembler, *GFA Basic* and *Omicron Basic* but it's quite easy to write your own routines in other languages that enable you to call machine code routines.

All *Music Mon 2* songs run in interrupt mode so your program can be getting on with other functions while the music plays in the background, this makes *Music Mon 2* songs ideal for you to use as music in any games software you are writing.

Because the software uses your ST's internal timing *Music Mon* only runs correctly on STs running at 8MHz; if you have an accelerator card you must disable it to run *Music Mon 2* songs.

The software runs on all STs with at least 1MByte of memory and works in both low resolution colour and high resolution mono modes. *Music Mon 2* is also fully Falcon compatible.

No firm price has been fixed yet for *Music Mon 2* but is expected to sell for £30 with the instrument sound disk for £15, call CGS Computerbild on 081 679 7307 for more details.

ST FORMAT

CHANGES ARE AFOOT!

The structure of the ST games industry is about to undergo some radically positive changes - discover what they are and how they're going to benefit you in next month's issue of **ST FORMAT!**

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■ What do you need to look for when you're choosing a word processor?

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BECOME A FAMOUS PROGRAMMER!

If you've always fancied yourself as the programmer of those brilliantly-selling and *FORMAT* Gold winning games but don't know where to start, why not consider doing a degree in games production? Middlesex University are offering a one year Master of Arts course starting from this September with a three year Bachelor of Arts starting in September 1995. The degree's called "the design and production of interactive games" and it is expected to cover all aspects of games design from software engineering, graphics and design to music and audio.

Industry involvement

It's going to be closely linked to the industry's software publishers so there are work experience opportunities as well as the necessary software and hardware. One of the companies behind the course is Domark, their development manager, Russell Ferrier explained: "The games industry was in danger of becoming stale and tired and the only solution is to seek out new blood and bring it in. Setting up a degree course provides us with this new industry with educated design-trained graduates who can bring fresh creative thinking to the whole area of consumer software."

So if you think you have the quality of blood that they're after, get in touch with Middlesex University or Domark on 081 780 2222.

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Get lucky with video!

Discover how to edit and produce animated films which you can star in, a genlock to add titles to your films and a digitiser for under £30 in *ST FORMAT's* special video issue!

So, you want to be like Clint Eastwood? You want to be able to do all the things he does like direct films, star in them, pick up Oscars, ride horses brilliantly and be very successful with women?

Well, all you need to do is read our special video and *ST* features and your dreams will come true. Probably. We've got three separate video features lined up for you starting just

over the page. We've given you the *Videomaster* software on the Cover Disk – you don't even need the hardware to create animations and sequences because you can use any *Degas* or *Neochrome* pictures. And if you do want the hardware so that you can film yourself and star in your movies, there's a special offer on page 20. We tell you exactly how to use your Cover Disk in *Mastering Video* just over the page.

Once you've created your sequences you're going to want to add titles to them for that really professional effect and for that you need a genlock. Genlocks for the *ST* have been pretty thin on the ground for the past couple of years but at last *JCA Europe* have signed the distribution rights for a new one which we review on page 22. Finally, we know that you're probably not a millionaire and that you probably

haven't got unlimited amounts of money to spend on your *ST*. So when we heard about a digitiser that was likely to retail for under £30 we got very excited. In fact, we got so excited we sent Clive off with a camera to see exactly what this revolution in bargain technology was all about. Read all about this new project on page 24.

Enjoy the features and playing around with *Videomaster*. Let the cameras roll!

MASTERING

So you've got the Videomaster software with this month's Cover Disk but you don't know what to do with it. Here's Clive Parker with some ideas...

You probably think that it's a bit silly having the Videomaster software and not the hardware to use it with. In fact, however, you can use Videomaster to create great anima-

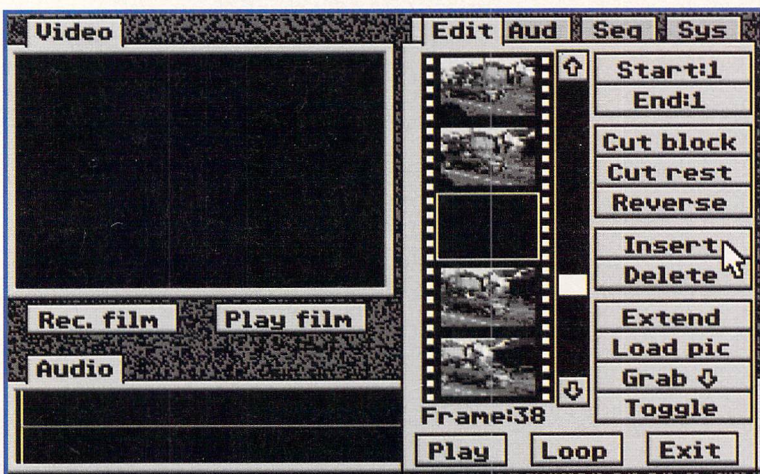
tions and sequences using Degas or Neochrome pictures and sound samples.

All you have to do is get together a series of Degas or Neochrome pictures – either scans, PD images or pictures you have

VIDEO



■ Using the Editing card you can remove or add frames to a video sequence, cut and paste blocks of images and reverse the order of a sequence.



■ If you want to insert a Degas or Neochrome low resolution picture at any point in your animation, click on Insert at the Edit screen, this creates a space in the sequence where you can insert a title. Select Load and you can use the file selector to choose your picture.

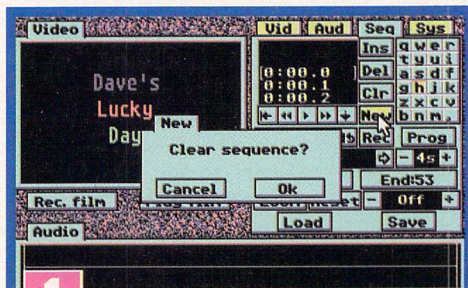
created yourself – load them into the Videomaster software and create your own animations. You can use the Edit menu in Videomaster's video card to load individual images into memory and use them as part of your sequence or animations.

Functions and features

To make things simple, Videomaster is split up into a series of function "cards" covering the four main areas of the program – these are the video card, the audio card, the sequencer card and the system card. The two main cards that you

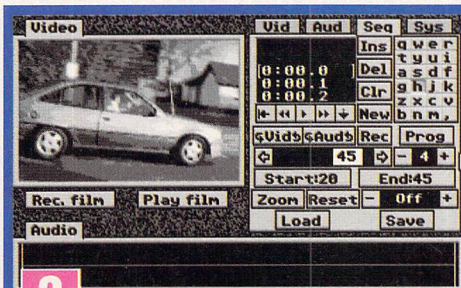


SEQUENCING: IT'S EASY TO CREATE YOUR OWN SHORT SEQUENCE FOLLOWING OUR



1

Run Videomaster, go to the Sequencer card and load DEMO2.SEQ. You can use the images supplied to form the basis of your own sequence. Click on the New button and select OK, this clears the sequence commands from memory. The next step is to assign short stretches of images to keys.



2

Click on the frame slider and move it to frame 20 - the start of the car sequence - and then click on the Start button. Now move the slider to frame 45 - the end of the car sequence - and click on the End button. To set the time between frames, use the - and + buttons above the End button and set it to 4.



3

Next, click on the Prog button. A small question mark appears next to the mouse pointer, move the pointer and select the Q button at the top of the screen. Your sequence is now assigned to the <Q> key - press it and the sequence plays at four frames per second. On to the next step.

VIDEO

use to create your sequences are the video and sequence cards. A useful addition is the audio card, which enables you to load AVR format sound samples into *Videomaster* so you can enhance your animations with music and sound effects. You can then save the combined sound and vision sequence as a film file from the video card or a sequence from the sequence card.

Take a look at the walkthrough at the bottom of the page

to get an idea of how to use the sequencer card to best effect, it contains full details for creating your own sequences using the demo supplied on the Cover Disk. All you have to do is adapt the procedures in the guide to work with your own pictures.

The video card is mainly used for grabbing images directly from a video source, but you can use the other functions to set the playback speed of your

"You can use the Videomaster software to create your own great animations and sequences"



■ You can add AVR samples to make a more effective film or sequence, the audio card enables you to manipulate the sound sample at will.

MASTER CONTROL

Using Videomaster is dead easy; everything is mouse controlled and all

you have to do is point and click to create and edit your video sequences



- 1 VIDEO WINDOW: Displays current frame or animations.
- 2 VIDEO CARD: Selects video mode screen.
- 3 AUDIO CARD: Selects audio mode screen.
- 4 SEQUENCER CARD: Sequencer mode screen.
- 5 SYSTEM CARD: System settings screen.
- 6 SIZE: Amount of RAM used by current data.
- 7 FRAMES: Select record and playback speed.
- 8 FRAME SLIDER: Move back and forth through video.
- 9 EDIT: Go to the Edit screen.
- 10 SAVE PIC: Save current screen to disk.
- 11 PLAY: Play video data only.
- 12 REC FILM: Record using Videomaster cartridge.
- 13 PLAY FILM: Play video and sound data.
- 14 LOAD: Load video or film files.
- 15 SAVE: Save video or film files.
- 16 AUDIO: Sound sample display window.

video or film files and use the Edit function to load and save images to disk and also to change the order of sequences.

Standalone demos

Once you have saved your video (.VID), film (.FLM) or sequence (.SEQ) files to disk they can be played independently of *Videomaster*

using the *VidiPlay* program supplied, *VIDIPLAY.TTP*.

The easiest way to use *VidiPlay* is to copy the *VIDIPLAY.TTP* (TOS Take Parameters) program to the disk containing your animation and double-click on it. When the command line appears just type in the name of the animation file. There

SIMPLE STEP BY STEP WALKTHROUGH BELOW



4

Move the frame slider to 45 and click on Start, then move it to 20 and click on End. Select the Prog button and click on the W button, press <W> on your keyboard and your sequence plays - it uses the same frames as the first sequence backwards. Play around a while with the keys.



5

Move the frame slider to frame 52 and click on both the Start and the end buttons, change the frame rate to 5s, select Prog and assign the sequence to the E button. When you press <E> it displays the image for five seconds. Program some keys of your own; it never hurts to experiment.



6

To link sequences click the Q button and then click on the time code window. Select the play symbol from the tape controls then select the W button and click in the time window. You can build up long sequences using relatively few images in this way. Have fun!

are several special effects you can use to enhance your animation when it plays on-screen, all you have to do is create a small script file using a text editor and type in the commands. All you have to do then is to enter the name of the script file instead of the animation when you want to be able to play your animation.

You can also set up your demo to boot and run from disk. Change the name of *VidiPlay* to *VIDIPLAY.PRG* and put it into an Auto folder on your demo disk.

Put your script file into the same folder

ensuring it is named *DEMO.CON*, if it can't find *DEMO.CON* then it looks for an animation which is called *DEMO.VSQ* in the Auto

folder. Here's an example script file to get you started.

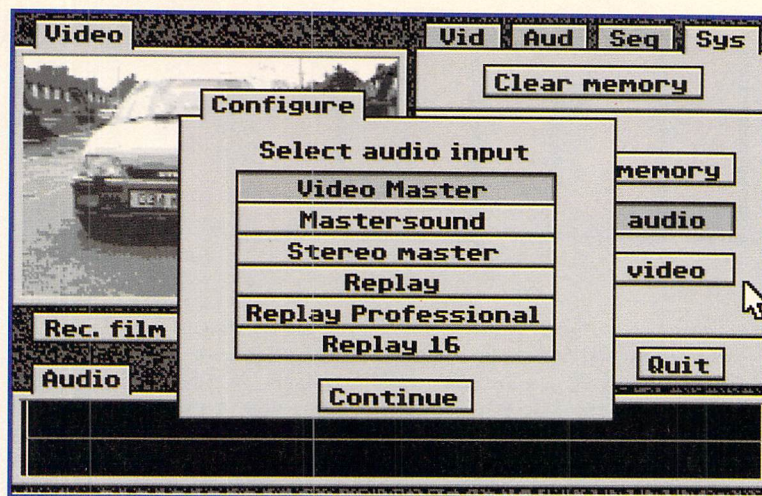
```
PICTURE=A:\PICTURE.PI1
SEQUENCE=A:\DEMO.VSQ
FORMAT=3
```

This script loads an introduction *Degas* file and then loads your animation using the *FORMAT* command, this is simply a number between 0 and 6 that describes how the image is shown on-screen. The numbers have the following effect.

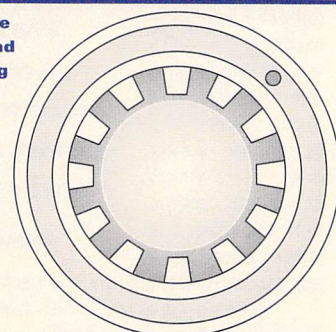
0 Full screen
1 Quarter screen
2 Four quarters

3 Picture in picture
4 Full screen interleaved
5 Split screen diagonals
6 Opposite split screen diagonals

"Just enter the name of the script file when you want to play your animation"



You can use the system card to set up the memory of your ST to leave space for sound and vision or just vision. If you're sampling sound you can use several types of cartridge using the *Videomaster* software.



You can play .VID, .FLM and .VSQ demos with these display commands, you're not just restricted to using sequence files for animations although they can last a lot longer if you're creative enough. **stf**

AMAZING VIDEO OFFERS

We've arranged some special offers with Microdeal so you can get even more from Videomaster. Just glance over the choices below and make your decision

■ Get the complete *Videomaster ST* kit enabling you to grab pictures from TV or video for just £49.95 - that's £20 off the recommended price of £69.95.

■ Or you can get *Videomaster ST* and the *Colourmaster RGB* splitter that enables you to grab 512 colour still video images for £69.95 - it would normally cost you £109.95.

■ If you have a Falcon then you can get *Videomaster Falcon* with *TruePaint* for the bargain price of £69.95 - a saving of £30.

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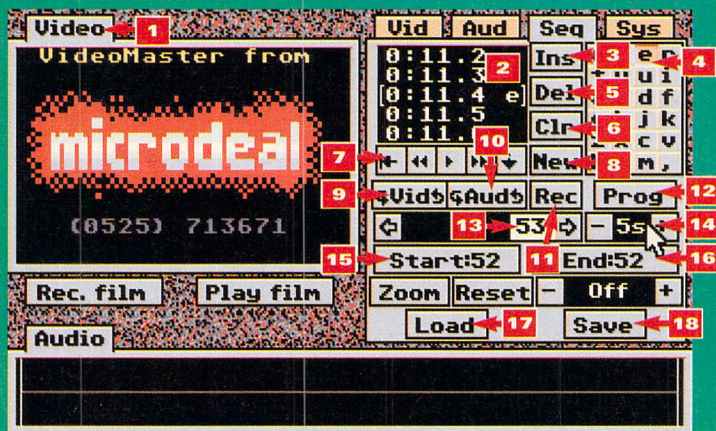
Send this form to Hisoft, The Old School, Greenfield, Bedford Nk45 5DEI

Offers only valid until 24 June 1994 (pre-summer madness!) Customers must quote reference SVFM392 when ordering.

SEQUENCE CONTROLS

The Sequencer card is where you build up long sequences using as few

as fifty images. Here's a tour of the Sequencer controls



- 1 VIDEO: Video display window.
- 2 TIMECODE: List of sequence in minutes and seconds.
- 3 INS: Insert a space in the sequence.
- 4 KEYS: These are the programmable key buttons.
- 5 DEL: Delete step before the current position.
- 6 CLR: Remove the current sequence command.
- 7 TAPE: VCR style control buttons 'cos they look pretty.
- 8 NEW: Erases your complete sequence.
- 9 VID: Loops a section of video.
- 10 Aud: Loops a section of audio.
- 11 REC: Create sequences by pressing programmed keys.
- 12 PROG: Click on this to assign a sequence to a key.
- 13 THE FRAME SLIDER.
- 14 SPEED: Enables you to adjust the frames per second.
- 15 START: This is the beginning frame of your sequence.
- 16 END: End frame of a sequence.
- 17 LOAD: Enables you to load a sequence from a disk.
- 18 SAVE: Save a sequence to disk.

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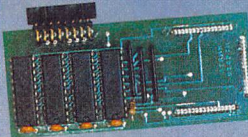
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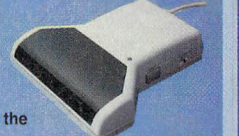
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HAMA TRILOCK GENLOCK

It's always been a problem getting decent ST images and animations onto video tape, Clive Parker takes a look at a new genlock that solves the problem

Now you can mix graphics and video quickly and easily using a new genlock from Hama.

Genlocks have been around for the ST and other computers for a few years, but there has never been a good quality, reasonably priced device available.

That's all changed with the Hama Genlock from First Computer Centre, £325 may sound like a lot of money just to mix video and computer images, but genlocks of this

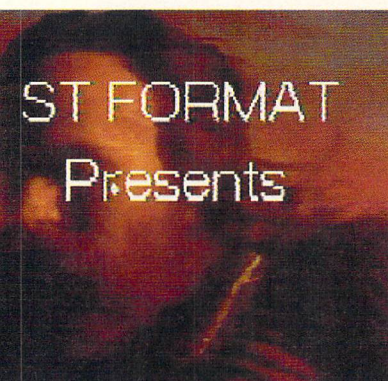
quality for other computers cost around £500.

What does it do?

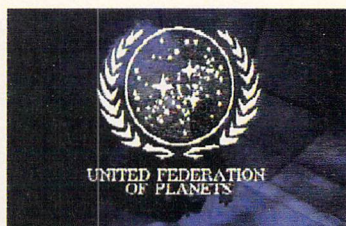
The first use that springs to mind is using the genlock is to add titles to your latest holiday video so everyone knows exactly what's going on, you could even add sub-titles to a video if



■ Hama's tiny little black box conceals a wealth of powerful genlock functions catering for your every video need.



■ It's dead easy to create simple captions or titles using just plain text over an image. The lettering is a bit fuzzy here, we need to adjust the key level.



■ If you are creating a presentation or training video then it's a good idea to use visual imagery such as logos to give the video more impact.

IT'S FEATURE PACKED

For a compact little box the TriLock is packed with useful features to enable you to get the best from your ST and video setup, all accessible from the front panel

Fade: Depending on the mode, pressing the fade button either fades the computer image to black or fades between the computer image and video image.

Freeze: Freezes the incoming computer image while the video image continues, the image is stored in an internal memory framestore.

Key Level: This controls which parts of the computer image are "transparent" when the image is overlaid

onto video. It enables the video image to be seen through the transparent colour.

Mode: Four different modes are available; for direct computer to video transfer select Convert mode, for synchronising to other video equipment select Genlock mode, for overlaying video images and computer images select Overlay mode and for fading between computer display and video select Mix mode.

Overscan: Stretches the incoming computer image so that it fills the TV screen, getting rid of the black border around the image.

Source: Switch between composite and S-Video input. Output is always available in both modes.

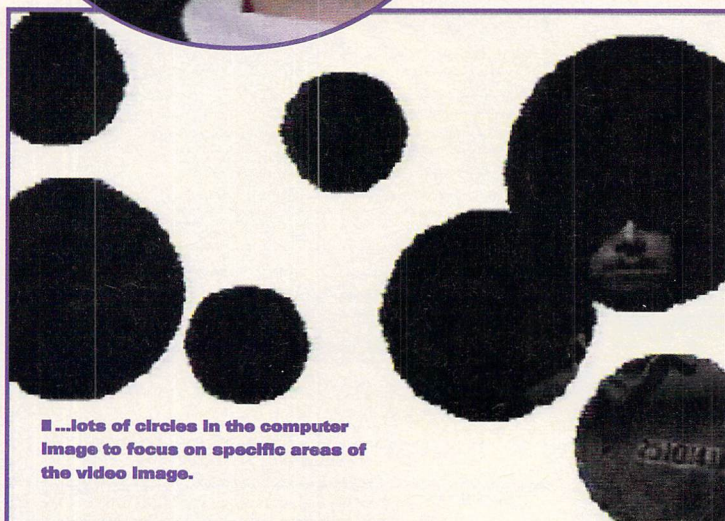


■ One day desktop video is going to be like this. Just an example of how things end up if you get carried away with videos and monitors.

■ You can use blocks to just display certain areas of the video image for spot effects.



■ A good attention grabber is a circle with video running in the middle, or if you want you can have...



■ ...lots of circles in the computer image to focus on specific areas of the video image.

you wanted to. You can also use a genlock to transfer animations from your ST to video, including sequences, videos and films you create using the Video-Master software on this month's Cover Disk. Finally, you can create taped demos of software for training or promotional purposes – if you have a new piece of software then you can create a training video showing how to use it, mixing live action and computer graphics.

To make a video of your own just using computer imagery you only need a single video recorder, if you want to create titles or overlay video and computer graphics then you need either two video recorders or a video recorder and a camcorder.

Getting started

When you order your TRiLock from First Computer Centre you must tell them which computer you use so they can supply the correct lead. Setting up is dead easy, all you have to do is connect the output of your ST to the genlock's computer input port and the genlock's computer output to your monitor.

Now you have to connect your video inputs and outputs, these can either be composite video, S-Video or a mixture of the two. For instance, you can take the composite output of a standard VCR or camcorder and connect it to the video input of the genlock. You can then take the

“Using the genlock couldn't be any simpler - always an advantage with any hardware”

S-Video output from the genlock and take it to the S-Video socket of a TV or S-VHS video recorder.

Getting up and running is simple, you almost literally just plug in and switch on. There's no software to sort out, the genlock is completely mechanically operated. A series of push buttons on the front panel enables you to select the current operating mode, you can toggle the computer image between live and freeze frame modes and you can use a special overscan mode so your ST's output fills the display without those horrible black borders. There are also controls for selecting the video source type, overlay and genlock modes and a great fade feature. All enabled



■ You can fade smoothly between video and graphics by... pressing the fade button! You can also fade text on and off the screen depending on which of the overlay modes you are using on the genlock.



■ Because a TV image is really two images interlaced together, you are always going to get some flickering when you overlay images. Built-in flicker compensation keeps the TRiLock image as steady as possible.

modes are indicated by LEDs on the front panel, so there's no chance of you getting confused about what you're doing when you're using it, it's all simple stuff.

Verdict

Hama have developed a versatile and genuinely useful genlock that puts more expensive computer specific devices for the Mac and PC to shame. The

VIDEO JARGON BUSTERS

There are so many different acronyms flying about when it comes to TV and video that we're almost up to our knees in 'em

Composite video: The video signal output from video recorders using the SCART socket or a phono socket.

Hi8: The Video 8 version of S-Video.

NTSC: National Television Standards Committee, 60Hz TV standard used in the USA and Japan.

PAL: Phase Alternate Line, 50Hz TV standard used in the UK and Europe.

RGB: Red, Green, Blue, the monitor output from your ST.

S-VHS: The VHS version of S-Video.

S-VHS-C: Compact VHS version of S-Video for camcorders.

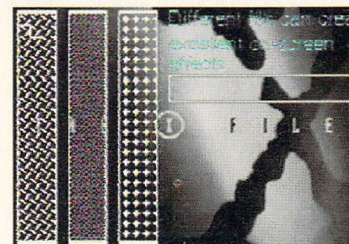
S-Video: Superior method of recording video signals, used in newer camcorders and VCRs.

SCART: Standard Connector for Audio, Radio and Television.

VGA: Video Graphics Array, standard 640x480 PC and Falcon output.

VHS-C: Compact version of VHS for camcorders.

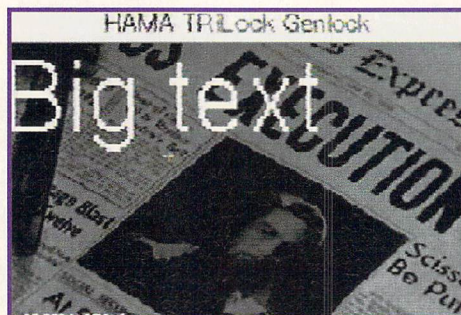
Video 8: Alternative compact video tape format for camcorders.



■ You can use fills to make patterned backgrounds for special effects, remember that you can adjust the genlock so either white or black are transparent in your computer images. Making black transparent is best for titles.

to create some excellent title and text effects, and once you start creating your own animations there's no limit to what you can do.

Using the genlock couldn't be any simpler – that's always an advantage with any hardware – and as an introduction to desktop video you couldn't ask for any more features in a medium price genlock. If you want started your own ST based animation studio then this is the perfect way to get your work onto tape. We highly recommend it. **stf**



■ You can use large or small text in your overlays for spot effects. For a company video you may want to use a small company logo in the corner of the screen like cable and satellite TV companies do.

VIDEO COMPATIBILITY

Hama have designed the TRiLock to be a truly compatible genlock, it can cope with both PAL and NTSC composite video input and output signals or S-Video input and output. Computer input can be either RGB from an ST or VGA input from a Falcon, ST

with graphics card, PC or Apple Mac. You can even convert S-Video input to standard composite video output. The TRiLock is fully compatible with the input and output signals of VHS, VHS-C, S-VHS, S-VHS-C, Video 8 and Hi8 video cameras and recorders.

Hama TRiLock Genlock

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Call for availability

Highs

- Easy to use.
- Compatible with ST and Falcon.
- Loads of video options.
- No special software required.

Lows

- Quite expensive for amateur use.

What else?

- Graffiti Genlock from Titan Designs coming soon. Call ☎ 021 414 1630 for price and availability.

85

VIDEO GA-GA

You may think you can't afford to buy a video digitiser. Clive Parker looks at a new digitiser under development that won't cost you any more than a commercial game



Soon everyone with an ST will be able to afford a video digitiser using a new system under development that is going to sell for just £30. We visited Bristol to look at the pre-production prototype of the new digitiser and to find out why it's being developed.

The DV3 Digitiser has been created because its inventor, Phillip Green, thinks that commercial video digitisers for the ST are too expensive – so he decided to design and build his own from scratch. After doing some research into the way TV images are made up and displayed on-screen and taking a good look at the ST's hardware, Phillip realised that he could assemble a working video digitiser

using standard parts available from any electronic store, all he had to do now was design the board and write the software. Simple, huh?

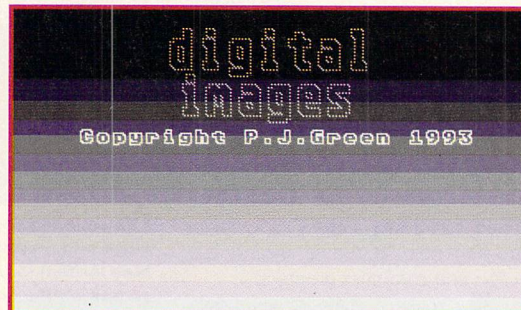


■ Across the top of the screen are icons representing the contents of the picture buffer and the four frame stores. The other icons enable you to grab, save, load, print and cut areas from the image.

Digital designs

Designing the digitiser and the software has taken Phillip round about a year to complete, roughly six months each for the hardware and the software, working in his spare time, in the evenings and at weekends. The software is almost complete with just a few minor cosmetic tweaks needed for the final version, and you can use it on any ST – even a 520 STFM!

Using the DV3 Digitiser is simple, you just plug in the cartridge, connect the video source, run the software and you're ready to grab images off air. There are a few restrictions inherent in the hardware that mean you have to use a still video source for your grabs because the digi-



■ Although the title screen looks rather bare, the shaded bars have a purpose. They enable you to adjust your monitor to get the best range of greys on-screen.

tiser takes almost 13 seconds to grab a fullscreen image from the input. This means that unless you have a video with a perfect – or

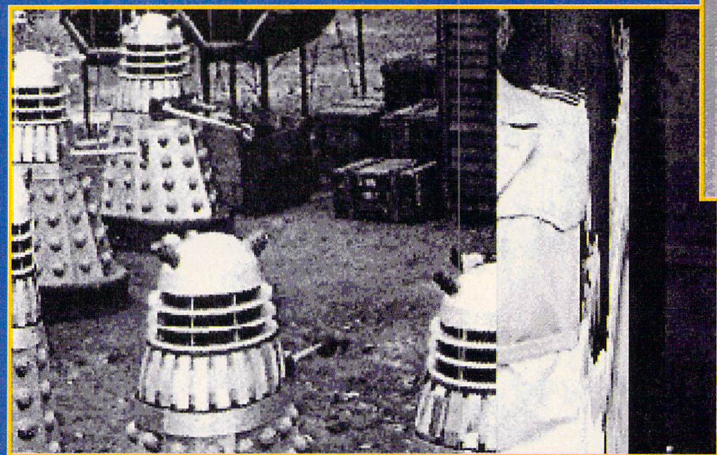
“Soon everyone with an ST will be able to afford a video digitiser using a new system under development”

almost perfect – pause function, you are going to find it pretty hard to get a perfect grab from a video tape.

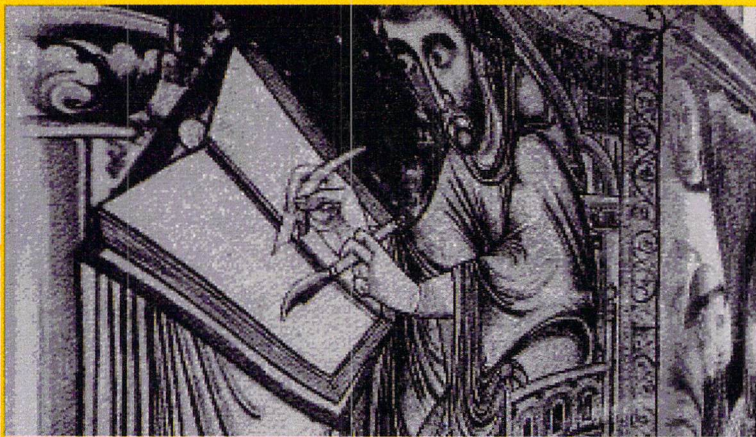
VIDEO SOURCES

The DV3 Digitiser grabs a full screen image in just under 13 seconds from any composite video source. If you use a video recorder, you need one with a perfect freeze frame facility or the ability to position the noise

bar generated by the colour-burst flyback to be positioned at the bottom of the screen. Most new videos have got rid of the flyback noise bar problem and offer almost perfect freeze frame functions. You



■ This is a grab from a live broadcast showing a group of Daleks surrounding a renegade pile of packing crates. You can see where the image changed when the scan was almost complete.



■ Another weird and wonderful grab created with Digital Images. Er, we're not quite sure what to say about it really.

can grab from a live TV broadcast as long as the picture doesn't alter very much over the time period of the grab – a difficult task to attempt at the best of times. If the image changes halfway through a grab then you end up with a split image.

Another common video source is a standard video camera, you can either use a cam-

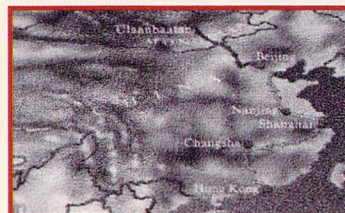
corder or – if you are working on a tight budget – a cheap black and white CCTV (closed circuit television) camera from a security system. You can get new CCTV cameras for about £125 or second-hand cameras for about £50.

Finally – and potentially the best source for video digitising – you can grab still images from CD, either perfect still frames

Digital Images grabs the fullscreen image and stores it in the screen buffer as a full 180K of data, obviously this is much larger than the screen resolution of the the ST in low resolution mode. The PAL (Phase Alteration by Line) system used by TV in the UK has a total vertical resolution of 625 lines, 50 of these lines do not contain picture information because they are used for other information such as Teletext data. This leaves 575 lines of picture data to be converted and stored in the 200 lines available to the ST in low resolution, the software can use two different modes to do this. Mode One converts every two lines of information to a single line on the ST, the resulting



■ Taking a grab from a video is very straightforward. Here we've frozen a map of China on the video recorder...



■ ...and here is the digitised version after being captured by the DV3 Digitiser.

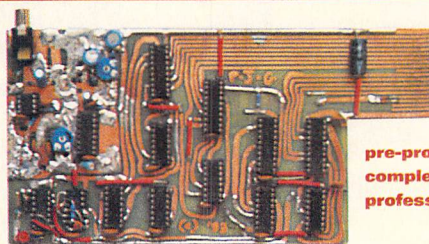
BACKROOM BOY

Phillip Green has developed the DV3 Digitiser and the *Digital Images* software over the last year in his spare time, mainly because he thinks the ST is a great computer that has never been exploited to its full potential. Phillip is a full-time physicist who works with his ST and electronics as a hobby in his spare time.

Phillip first became interested in programming when he was studying physics in the early '80s, his first programs were written in Z80 assembler for the Memotech because he wanted to play fast games. The Memotech

was a home computer designed as direct competition to the Acorn BBC B computer but was destined to fade into oblivion along with the Enterprise Elan (AKA the Flan) and the MSX range of Z80 based computers.

■ Phillip Green works on his software and hardware development for the ST in his spare time - and he has a full-time job too. Busy chap.



■ This is the prototype of the DV3 Digitiser board, it's all hand-built so it looks a bit rough and ready at the moment. The final pre-production version is almost complete and is a much more professional looking design.

image is slightly stretched vertically. Mode Two converts every three lines of information to a single line and gives a slightly squashed version of the picture. Any image you grab can be saved in either mode and be modified in a paint program later. Unfortunately there is no simple way around the problem.

There are four separate picture stores where you can keep images before saving them to disk. Any one of the images can be printed, copied to another frame store or have blocks cut from them to be saved to disk as Image files or printed out. The software tells you the physical size of the block and enables you to position it in a specific area when you print it, so with a bit of practice you can print an image in a gap left on a page of text created in a word processor.

Digital Images is an easy to use piece of software with large friendly icons on-screen, GEM is completely bypassed and everything is controlled by point and click operations of the mouse. There is still some work to be done on the software before it's completely finished, but what we have seen so far looks very good.

Coming soon

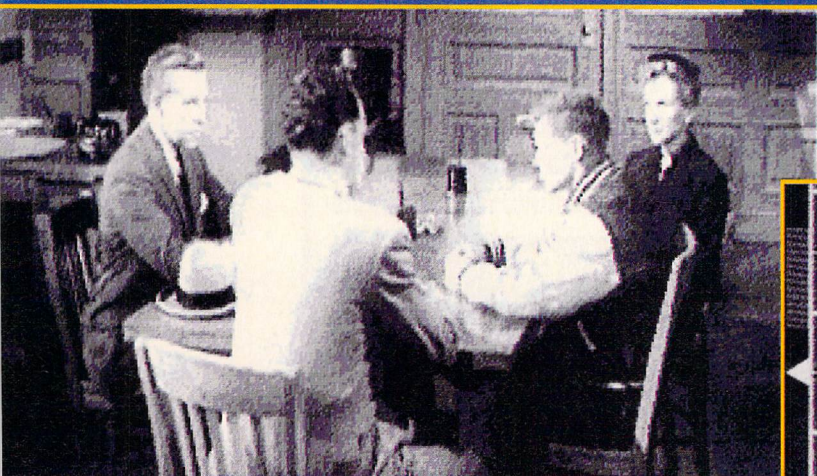
Negotiations are under way with several large companies concerning sale and distribution of the digitiser.

Ideally Phillip wants the DV3 Digitiser to be available in two separate versions, a ready assembled version costing £30 off the shelf and ready to use and a do-it-yourself kit version costing quite a bit less - perhaps as low as £20 or £25 - although nothing has been confirmed or finalised yet.

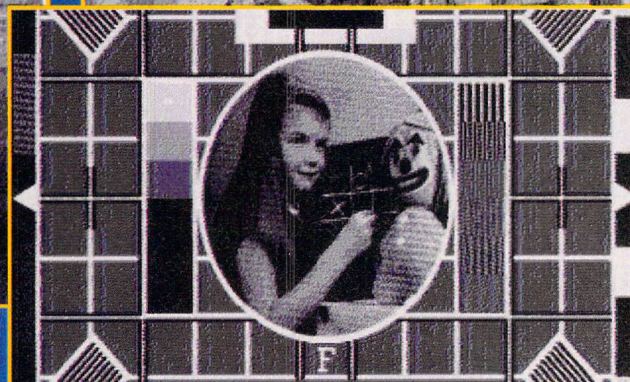
If everything goes according to plan, DV3 Digitiser and *Digital Images* software should be on sale within the next few months. Keep an eye out for details in future issues of *ST FORMAT*. **stf**

from Philips Digital Video movies on a CD-I player or Photo-CD images from a Kodak Photo-CD player. Both of these CD players have composite video output compatible with video digitisers.

■ Remember the copyright laws which come down very strongly on the distribution of digitised images, whether from TV or newspapers.



■ Old black and white movies are an excellent source for screen grabs with excellent contrast, remember that the lighting in black and white films is designed to produce good contrast.



■ Notice how the image is slightly stretched in this Mode One version of the BBC testcard.

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THE OMNIPOTENT ST?

Can the ST run the worlds most powerful operating system? Clive Parker investigates one possible future for the ST

Imagine the scenario. The biggest corporations in the world have trashed their mainframes running UNIX and other powerful "professional" languages in favour of a new multi-tasking operating system running on a bunch of Atari STs!

You may think that the very idea is just a fantasy, but the ST actually has the potential to become one of the most powerful computers in the world using a standard 68000 processor running at 8MHz. The operating system actually exists and you can buy it today, it's called SMS2 and is supplied on a cartridge that simply plugs into the side of your ST.

Amazingly, the actual core of the system consists of just 7K of data – a true micro-kernel – the rest of the software on the Program

able Erasable Reader Only Memory (PEROM) in the cartridge takes up about 150K and consists of device

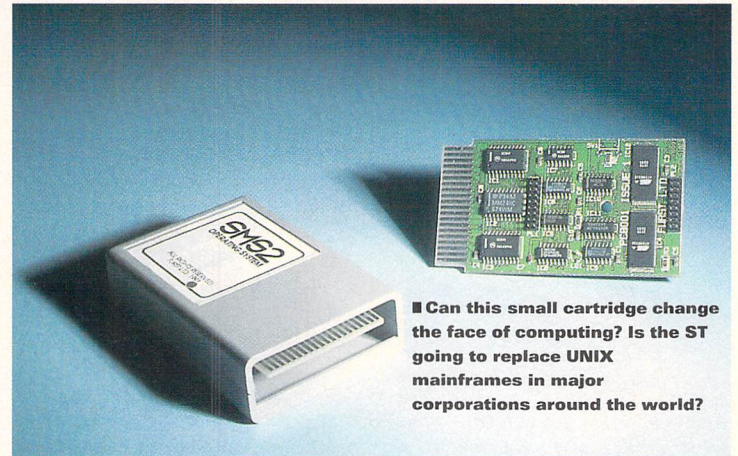
"Five STs with 20GBytes storage, running SMS2, can process the daily transactions of Barclays Bank"

drivers for the screen, parallel port, SCSI hard drive drivers and so on. Also included as part of the OS are built-in application problems enabling you to use the operating system. Micro-kernels developed by the major developers are typically 1MByte or more, not small enough to be used in anything but a computer.

Also included on the PEROM is a complete windowing environment based on *Xwindows* as used by UNIX machines, cramming all this information into just 160K is an real achievement. When any part of the OS is upgraded all you do is load the new versions and update the PEROM.

Technicalities and trivia

We visited Furst Ltd at their UK office in Southampton and talked



■ Can this small cartridge change the face of computing? Is the ST going to replace UNIX mainframes in major corporations around the world?



■ Left: Every creation has its masterminds, Graham Goodwin and Philip Gutteridge are the brains behind SMS2.

The system

To run SMS2 seriously you need a 1MByte ST with a high resolution monitor, the operating system does run on a 512K ST but it doesn't leave you much room for running large programs or developing your own software. The system runs perfectly well using floppy drives, but for serious work a hard drive can be considered a vital addition to SMS2. The operating system can use any spare RAM as up to eight RAM disks, each RAM disk expanding or contracting dynamically as data is stored or removed from it.

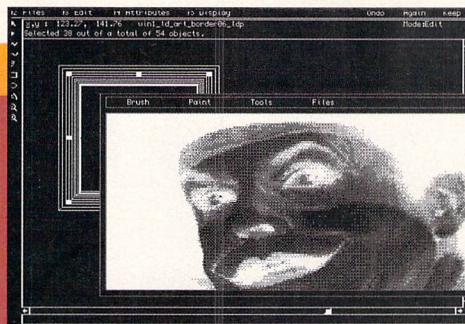
Why develop a new operating system?

SMS2 has been developed because of the ever accelerating increase in the development of electronics, the problem is that software – especially system software – has not developed at the same rate. This is because developing software is such an enormous task compared to developing hardware, so all existing operating systems are based on technology that was well established in the late '60s.

What Furst have done is develop software that's on a par with modern hardware and doesn't have to rely on brute force to run on modern electronic hardware. Because the big companies have such a large established user base they

■ One of the first graphics programs for SMS2 is a brilliant vector graphics package displaying the Joker. The real jokers are those who don't recognise a good thing when they see it.

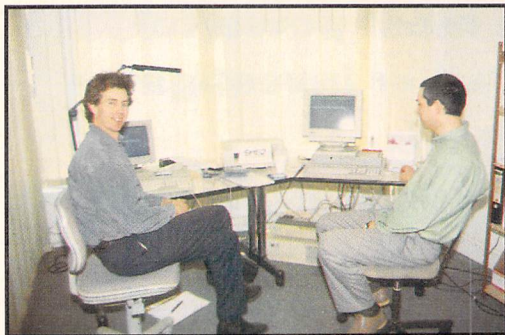
can't afford to turn around and say "scrap all your DOS and Windows software, here's a brilliant new operating system." That's what's happened with OS/2 on the PC, and that's why nobody uses it.



written. SMS2 is doing computing in a different way to the big SQL file servers used by large corporations, five Atari STs with a couple of GBytes of storage space can outperform some of the big modern mainframes that are used in banks, capable of processing more transactions per second than the mainframes are capable of. Five STs with 20GBytes hard drive storage running SMS2 can process the daily transactions of Barclays Bank for the UK.

It's not just a good operating system, the reason it is so much better is because it is different in almost every respect to any other operating system that has ever been written. The only part of the system a traditional software author might recognise, if he looks at the code, is the scheduler, the rest of it is unrecognisable to authors of conventional systems, they just wouldn't understand how it's working.

Furst looked at GEM multi-tasking systems for the ST, MultiTOS, MagIx, MultiGEM and Geneva, the best any of these can achieve is to produce something like System 7 on the Macintosh. System 7 cost millions of dollars to develop and it is not what Furst



■ A small network set up in the Furst office in Southampton, there are two other STs on the network in other offices in the building.

consider to be a multi-tasking system by any stretch of the imagination, the Mac was designed to be a single-user, single-tasking system using multiple windows, that's just not the same as a multi-tasking

directory of a 245MByte hard drive on a MegaSTE in under five seconds. In contrast, our Mega STE takes ten seconds to read a single 25MByte partition under TOS. The only limit on the drive access speed is the time it takes to read data from the hard drive, tests have proved that SMS2 accesses drives at within five per cent of their theoretical mechanical limits – this is because the operating system puts so little overhead on data transfers. SMS2 can access data at about 50 times the speed of a typical mainframe system.

What's in it?

One reason for the development of SMS2 is that all the giant computer

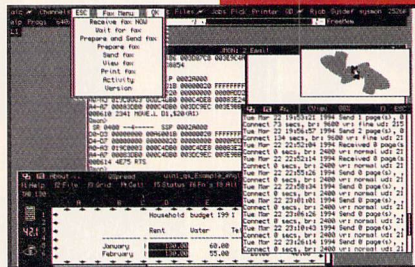
SMS2'S MULTI-TASKING SYSTEM

SMS2's version of multi-tasking is different from MultiTOS, Windows and System 7 because all open windows are always active. With the other multi-tasking systems you only have one active menu bar on-screen at

once, hence only one truly active task.

With SMS2 each window is active, if you move the mouse pointer over a text editor window you can type text directly into it, if you move the pointer over another program you can enter keyboard input directly into that one without selecting the window first.

■ SMS2 running a PD fax program, a spreadsheet and a disassembler/monitor at the same time - each program is always active.



"SMS2 is highly accessible and easy to use system, everyone can get it and use it"

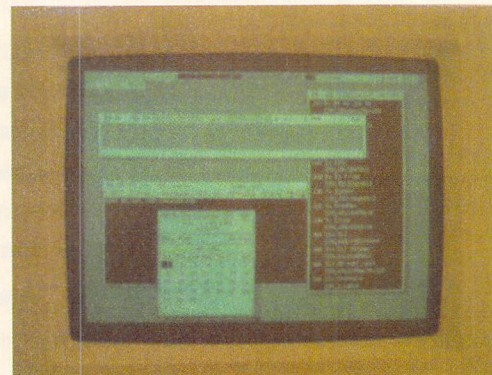
multi-windowing system. Just adding bells and whistles to an operating system doesn't make it multi-task.

Disk access using SMS2 is very fast and can read the entire

manufacturers are trying to produce small, embedded, intelligent operating systems that can be distributed – that's what they're all aiming for. These systems must be small enough that you can use it in telephones, TVs, video recorders and so on. The systems that have appeared so far have all been so gigantic that they only work with hard drives – try sticking one in your telephone!

SMS2 uses just 160K of code including the main kernel, all the device drivers for floppy, RAM and hard drives, the MIDI network, the serial port(s), the parallel port, the DMA devices, the keyboard, the screen and the ROM. There's a graphical user interface built into it and enough application programs built in to do some sensible work. 160K is considered a micro-kernel by modern standards yet SMS2 has a complete operating system on board and has all the objects needed to extend it. SMS2 contains everything that the industry giants have been paying millions to develop – and runs on an ST.

■ Calling the STF BBS using a PD comms program written in SMS2. The MegaSTE has a graphic card and SMS2 can cope with large screen monitors and 256 colour displays.



■ SMS2 running on a standard 1040ST with high resolution monitor, you don't need hard drives to use SMS2 but the system is obviously more versatile if you do.

Furst have plans for building some amazing systems in the future, but they can't indulge in these plans unless there is some real interest in what they've already done with SMS2, it's impossible to continue as a pure R and D (research and development) company unless people look at SMS2 seriously and consider it as an option.

The system has been offered to several major computer companies, typical reactions range from glazed eyes and blank expressions to SMS2 being regarded as a joke. One company rep thought that it was some kind of simulation game and another was convinced that the inkjet printer, being used as part of the demo, contained a powerful mini computer or a parallel processor and tried to dismantle it. A couple of Japanese companies have expressed real interest and can see the potential, then again, the Japanese usually spot the good stuff first.

So could SMS2 be the first of a new line of powerful operating systems for the ST with the capabilities of a mainframe computer? Fantasy? Perhaps not, the mainframes in use at the end of the '70s only had the processing power of the ST and typically used a maximum of 2MBytes of RAM. **stf**

THE ADVANTAGES

SMS2 is a very low cost system to buy and install, the price is comparable to buying DOS and Windows for the PC – and that doesn't even come in hardware form. Add to this the fact that you can pick up a 1MByte ST and a high resolution monitor for around £150 and you have an inexpensive and powerful setup.

For example, using LBasic – the current title of the BASIC language under development – it's possible to write networking E-mail systems in about 20 lines of BASIC code, the same sort of software that large companies spend millions of pounds developing to run on their mainframes using teams of soft-

ware developers. SMS2 inherently understands the differences between different types of storage media, device drivers are built into the operating system itself. UNIX and similar operating systems have a real problem understanding the concept of removable media such as optical drives and CD-ROM drives. SMS2 supports the ICD Link and other ICD SCSI host adaptors with full support for 5.25inch SyQuest drives.

All this is built in to the hardware, there's no messing around with configuration files and stuff. When a new driver is developed the PEROM is updated by loading the new data into it.

SMS2

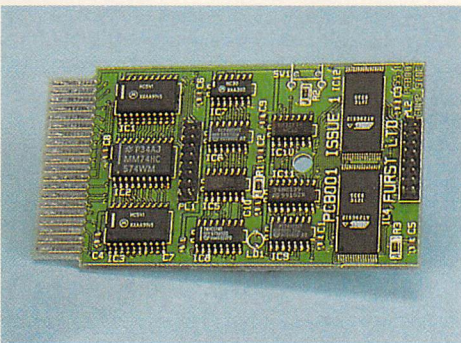
SMS2 is the powerful new cartridge based operating system for the ST, but what is it good for?

It's claimed to be the most powerful and versatile multi-tasking operating system in the world and it runs on your ST. In fact, you can only run it on your ST – there's no version for any other platform yet.

SMS2 doesn't physically look like much, it's just a standard little cartridge you plug into the side of your ST. Inside the deceptively normal case is an operating system that's on a par with UNIX, VMS and other powerful mainframe operat-



■ SMS2 comes packed in an unpreprocessing cartridge with no indication of the powerful operating system lurking within.



■ Furst have used PEROM technology and squeezed everything onto a standard sized cartridge. The build quality of the cartridge is the best we've ever seen.

it runs at speeds rivaling that 66MHz processors – all this on a standard 8MHz ST.

Using the new operating system is quite different from the GEM

Desktop you are used to, it's much more like *Xwindows* on UNIX machines. Most of the familiar functions of GEM windows are retained although some of the window gadgets perform some unexpected functions.

There are none of the familiar drop-down menus of GEM, instead there are around a dozen built-in application programs stored in the PEROM that you can access from the keyboard using hotkeys or by selecting the program's button.

ing systems, all crammed into 160K of code and running on a standard 1MByte ST with a high resolution monitor. The cartridge completely takes over the system of your ST, in fact, the ST's own operating system is bypassed and SMS2 accesses the ST hardware directly.

It's really fast

Because SMS2 interfaces directly with the ST hardware, all operations run at a phenomenal speed. Disk access, printer operations and the built-in networking are as fast as you're ever going to see on any system whether it's on a mainframe, mini or micro computer. The built-in MIDI networking is so efficient that its speed is on a par with ethernet systems used on mainframes and office networks, even though the ST's MIDI ports have an abysmal 32K per second throughput rate as standard. Every part of the SMS2 operating system is optimised to such an extent that



■ You just plug the SMS2 cartridge into your ST in the usual way and it takes over the system when you power up. If you want to use your standard Atari software then press <Esc> as you power up and the cartridge is ignored.

Each application is loaded into memory as an executable object – or Thing – and appears as a button across the top of the screen, you can decide how many or how few of the applications you want to load.

SMS2 uses a CLI (Command Line Interface) for many of its functions – but don't cry out in despair, it's not as complicated as MS-DOS or any of the hoary old PC style systems. In fact, the CLI instructions are quite easy to get used to after a couple of sessions with the OS and you're soon bashing away at the keyboard like a lifelong CLI addict. The fact that



■ An SMS2 screen packed with different applications running at the same time, and each one is active. All you do is move your pointer over a window and you can enter data directly into the application - you don't have to select the window because it is already active and recognises that the pointer is over it.

"SMS2 is a powerful operating system with a smattering of software"

all the commands are clearly explained in the manual is a big reason why it's so easy to get to grips with the CLI.

Is it worth it?

SMS2 is a powerful operating system with a smattering of software converted from UNIX already available. There's not a large choice of software available for it as yet, but you can always revert to your ST operating system by holding down the <Esc> key when you boot your ST. SMS2 is designed to be used as a basis for a powerful processing system using your ST as a dumb terminal, you can use SMS2 to develop your own software or use it for an office-wide networking system using one ST with a hard drive as the main file server.

SMS2 has great potential as an alternative – and powerful – business and development operat-

ing system, but there is no clear idea as to what to do with it if you are just a run-of-the-mill ST owner. You can plug it in, switch on and have a multi-tasking environment running immediately, so that's ten out of ten to Furst for technical innovation, but only about six out of ten for general usefulness. It's a hell of a system just waiting to be exploited, so exploit it! **stf**

SMS2 software

SMS2 has been around in one form or another for around two years, and has been in development for around five years. This long development period means that there is already a quite substantial base of PD, Shareware and commercial software available ranging from spreadsheets to fax software. More software is being developed by existing SMS2 users.

SMS2

£135 per cartridge from First Ltd ☎ 0489 894674. Mono monitor required, minimum 1MByte recommended

Highs

- Just plug-in and go.
- Built-in networking.
- Fast and powerful.
- Simple to learn and use.

Lows

- Not much software yet.
- Expensive as a one off.

What else?

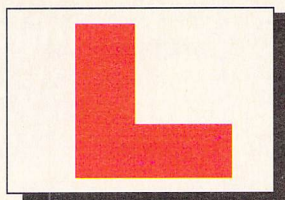
- UNIX computers contact IBM for details ☎ 0705 561000.

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PUBLISH AND BE DAMNED!

You've seen tips on how to get into desktop publishing on your ST - watch that white space, don't use too many fonts and so on and so forth - but what equipment should you use and what else do you need to know? Darren Smithson reveals all

Whether you're new or old to the world of the ST, you probably spent the first few weeks ploughing through the games that came with it and then, having got round to using the utilities and

applications that were also bundled with it, realised that there is far more to our ST than just beat-'em-ups.

The ST paints, is a musician's dream and is more than capable of word processing with the best of them. But why stop there? The ST

is one of the best work-horses around, and to use it simply for writing the odd letter is a criminal waste of massive power. Your ST can do almost anything you want it to do, and there's no doubt that the ST was made for desktop publishing. Even an entry level ST can help you produce some great work, potentially earning some useful dosh or at the very least saving you a small fortune. Forget where Atari took the ST with their games driven marketing - even they origi-

nally envisaged the ST as a serious Apple Macintosh competitor.

Aha, I hear you cry - the Macintosh with a decent printer costs well over £1,000, and that's before you pay the £500 for a desktop publishing package like *Page-maker*. How can a lowly £200 ST hope to compete? The answer is quite simply, it can.

Who is this so-called DTP expert anyway?

Darren Smithson is a long time ST user and evangelist. When he's not enthusing to anyone who can bear to listen to him about his STE, he works in the computer industry, as he has done for six years, as a marketing consultant. He is just about to launch a line of creator-

owned comics aimed at a mature audience, the first title, *"Rogue's Warriors"* is written by Darren himself. His STE - named "Stacey" - is an essential part of this venture because it is "the most versatile, easy to use, and downright friendly computer" he has ever used.

START AT THE BEGINNING

■ The basic setup includes a 1MByte ST, an external floppy drive, a basic document processor and a simple printer.



■ The Canon BJ10 printer is the best value printer we've seen, this week at least. It's inexpensive, reliable, and prints out better quality than laser. What more do you want?

The minimum selection of gear you need to start desktop publishing in earnest consists of a 1MByte unit with two floppy disk drives, a Philips CM8833-II colour monitor and a Canon BJ10 printer. The first

thing you need to know is that making your ST capable of DTP takes much less effort and dosh than you'd probably expect.

Let's imagine a scenario: you are soon to be 21 years old (old!?)

and you want to invite all your nearest and dearest to this grand occasion. Have you any idea how much it would cost to have these invitations produced by a good design and printing house? Sure, you could buy off-the-shelf cards from your local WH Smiths, but wouldn't it be better to send

an invitation for this special day that was totally unique? Well, you can't get a more unique offer than something you've produced yourself, and this is where your ST comes into its own.

To get started, all you really need to add to the basic configuration is *Easy Text Plus* (£19.75 from the FaST Club, ☎ 0602 455250), a

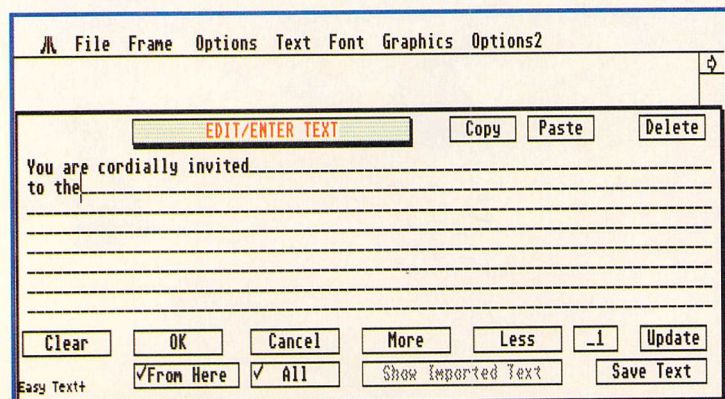
little clip-art, a headline creating utility like *TextStyle* at £19.95, (also from the FaST Club) and a little patience on your part, and you can save yourself a whole lot of dosh, or for around £75 you can start with the more advanced – at least in terms of features and flexibility – *Calligrapher Pro*.

And that's just about all there is to it. Honest.

OK, there are a few things to bear in mind. With just 1MByte of memory and no hard drive, the use of peripherals like a scanner aren't a real option. It's possible, but you shouldn't invest in a scanner until you've saved or earned

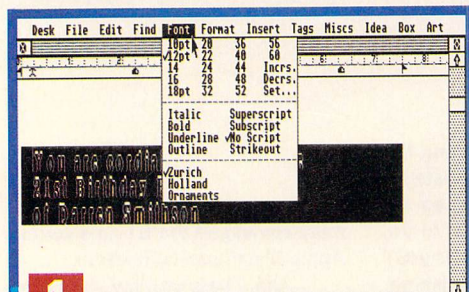
enough money to advance your basic ST configuration first – that is, having bumped up your memory and number of disk drives. You won't be able to produce large complex newsletters or colourful

“Making your ST capable of DTP takes much less effort and dosh than you'd probably expect”

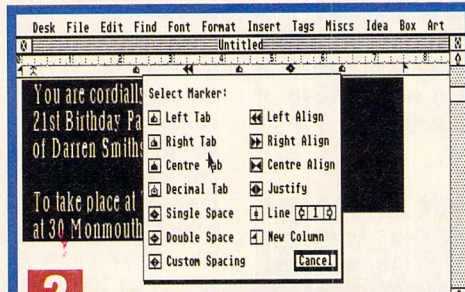


■ The method for entering text is the worst part about *Easy Text Plus* because you have to call up a separate window. Editing what you've scribed afterwards is also a convoluted process. However, you can import *.DOC files from word processing packages like *First Word* or *STWriter*.

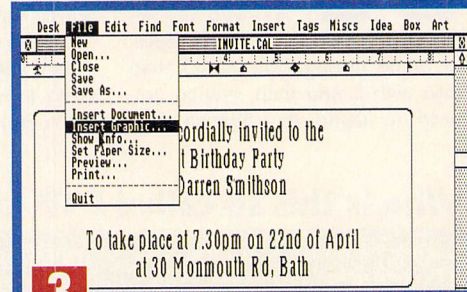
CREATING SOME SIMPLE INVITATIONS FOR AN EXCITING YET VERY



1 At first sight, *Calligrapher Pro* looks like any other GEM-based word processor application. But look closely and you notice that unlike 90% of ST word processors, we're able to scale text to any size, and create a series of text effects. Once you've got the text right...



2 ...highlight it and then double-click on the "Ruler" at the top of the page. This brings up a nifty dialog box which enables you to format many aspects of the text layout. In this case we want to centre the text but you could also alter the tabs or the spacing if you wanted.



3 So far so good, but we want to make the invitation a little more interesting. An easy way to draw attention to text is to "box" it. In *Calligrapher*, to box text is as easy as a mouse click or two. Simply place the cursor anywhere in the text you want to box and choose box from the menu bar.

flyers either, so balance your ambitions with a realistic view of your ST's configuration. Given this last point, the fact that you can't use a scanner isn't an issue, especially because there is a mountain of clip-art disks for you to choose from various PD libraries, with everything from symbols, scenery, borders, people, cakes – you name it and it's there. Two clubs who are particularly good at this are Warpzone PDL (☎ 0272 553758) and NewAge PDL (☎ 0702 480691).

Easy Text Plus is never likely to be a threat to the likes of true DTP packages, such as *Calamus SL*, but then at £19.75 what would you expect? It is, however, a competent application that is simple and easy to use in some ways, although a little quirky in others – for example, its method of inputting text by calling up a separate window to type into is a pain. It can only import *Degas* graphic files too – and even then it's a little flaky and that's where the patience comes in – so remember to convert any images first. Still, it does bring limited DTP power at a price that

doesn't hurt, and it's more than capable of producing something relatively easy like party invitations, and for £34.95 you can purchase *Easy Text's* big brother *Easy Text Professional*.

And returning to that party scenario for a moment, remember that apart from the invitations, there are going to be thank you notes for the prezzies! Your friends will also be impressed to hear that you created them all yourself and when they decide to have a party, who do you think they're going to ask to produce them? Which means still more cash that you can spend on your ST. Of course, you're not limited to this kind of work, even on a 1MByte ST.

However, once you start to get a little more creative, say, producing a single or double sheet newsletter for your local parish, then you may find that *Easy Text Plus* just isn't able to cope. What's more, DTP packages in general are not very good at text or graphic manipulation – some are actually very good, but most aren't. The ST is blessed with a whole host of word processing packages and

"The ST is blessed with a whole host of word processing and graphic manipulation packages"

BEGINNING TIPS

They've been said lots of times but here is a few DTP dos and don'ts

- 1 Don't clutter your page with loads of graphics and text. Utilise so-called "white space" to your advantage.
- 2 Don't use loads of different fonts – not only on the same page, but in the same document! Settle on two or three.
- 3 Make sure that you plan well ahead on what it is you are going to do. Should your leaflet be A4, fold-up, or A5, for example?
- 4 Don't think that colour is any more effective than black and white. It isn't. Some messages are better suited to black and white while some benefit greatly from the addition of colour.

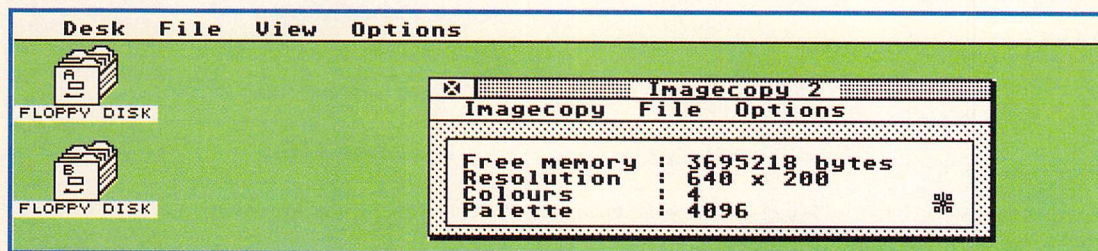
graphic manipulation packages, and many of them are PD or Shareware. The best of PD or Shareware applications available are *STWriter* for word processing, and *GEMview* for converting graphics from one file type to another (both are available from WarpZone or NewAge). Alternatively, for £9.95 you can get the entry level member of the *ImageCopy* family (the FaST Club again) which is absolutely superb for graphics converting.

For true text processing there's *Calligrapher Pro*, one of the so-called document processing applications. These are not true DTP applications but souped up word processors that have so many features, they give many dedicated DTP applications a run

for their money! Although £75 may seem a lot for an entry level package, *Calligrapher* works from two floppy drives and 1MByte of memory, and possesses its own in-built vector font technology.

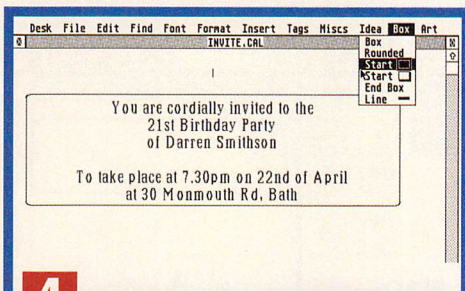
The vast majority of cheaper DTP applications, *Timeworks* for example, can't and doesn't. If you have the money this is a good package for a starting point, if not, then as soon as *Easy Text* has earned you £100 or so, upgrade your 1MByte ST to 2MBytes and buy *Calligrapher*. Remember that *Calligrapher* can run in 1MByte, but 2MBytes give you a great deal more flexibility.

The beauty of *Calligrapher Pro* is that you can purchase the core package, and then add modules to it as and when you need them or can afford them. What's more, the print quality that *Calligrapher* produces is superb. This truly is a stunning package for the price – the only other document processors that are so feature filled are *Papyrus*, the new document processor from Hisoft (£129, Hisoft ☎ 0525 718181) and *Word 6.0* for Windows on the PC – and that costs a stunningly huge £395! (And, of course, you need to buy the PC as well).



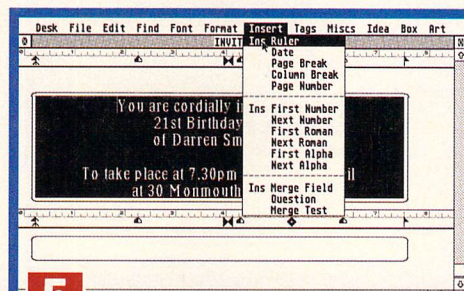
Make sure that you have a graphics utility available - and preferably one that can be used as a Desk Accessory. *Easy Text Plus*, for example, only accepts *Degas* (*.PI?) graphic files, so you have to convert any other type of graphic files (for example, TIF, PCX, IMG) if you want to use them. *ImageCopy* and *GEMview* are two such conversion utilities.

IMPORTANT AND PERSONAL OCCASION WITH CALLIGRAPHER



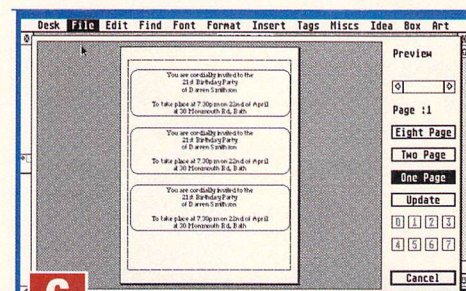
4

Now, you could leave your invitation like that, but you may want to make it even more interesting by importing a graphic or two. In *Calligrapher Pro*, once again, adding a graphic is as easy as a point and a click. Sometimes though, less is best. See if you can keep a minimalistic view.



5

To divide the page into three invites, use the *Ins Ruler* command from the *Insert* menu. Copy the text from the first box and then choose *Copy* from the *Edit* menu. Then place the cursor in the new box, and from the *Edit* menu again, click on *Paste*. Repeat and you have your invites on one page.



6

Finally, to make sure that you have indeed got three copies per page, choose *Preview* from the *File* menu. Of course, something like this is easy for *Calligrapher Pro*, and it is capable of much more complex layouts! Spend some time experimenting and see what you come up with.

BANG IN THE MIDDLE

Take an ST with as much memory as you can afford, a hard drive also with as much memory as you can afford, a decent DTP program like *Calamus 1.09N* and *Speedo-GDOS* and you can start "real" DTP work.

SpeedoGDOS™
the Outline Font System for your Atari Computer

HiSoft
PUBLISHING

A mid-range ST system consists of a 2MByte ST, a high res monitor, a BJ10 printer, an external disk drive and a hard disk drive. The hard drive is important because it enables you to be much more adventurous in your designs – a 720K floppy disk rapidly fills up when it comes to DTP files! You could also invest in

a scanner like the Power handy scanner, an award winning 400dpi greyscale unit (£99, Power Computing on 0234 843388).

You've done invitations and parish newsletters until they're coming out of your ears, and now you want to try something different.

With a mid-range configuration you can approach

local small businesses (such as the local hairdresser), and try and persuade them to organise a leaflet mailer to drum up business in the

local community, and offer to save them a small fortune by doing it for them yourself – instead of that bureau that's several miles away, that the small business never sees, and that charges the earth.

You only have to break into one local business, and very soon word of mouth should open up more opportunities.

When looking for the best DTP application to use, look for one that can take advantage of the

power of your ST's configuration. You're likely to find that *Easy Text Plus* has given up, and even *Calligrapher Pro* may

be finding it hard to cope with the kind of stuff you want to do, so what do you choose? Well, a year ago we would have recommended

Timeworks Publisher – it was a

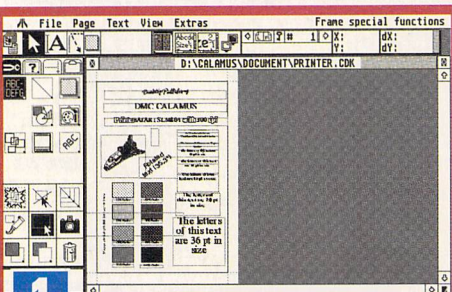
powerful package at a very inexpensive price. You can probably pick it up for under £50 these days. But that was a year ago. Since then *SpeedoGDOS* has been released. *Speedo* is probably the most important development for

YOUR ST HAS THE POWER!

The 68000 Motorola chip – the heart of your ST – was specifically designed to manipulate graphics, as the chip fits into machines that use a graphical user interface (GUIs) like the ST, Mac and Amiga. These GUIs are designed from the ground up to be a true operating system, unlike Windows on the PC

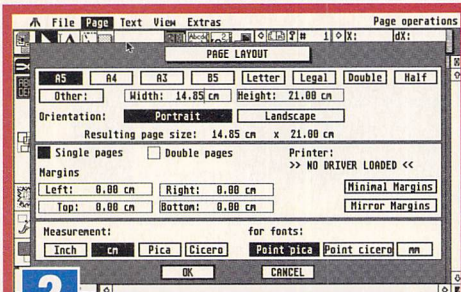
which is a bolt-on for a character based operating system called DOS, and which runs on an Intel 80x86 processor. The Intel processor was designed for number crunching, not graphic manipulation so a five year old STE can be actually faster at DTP work than a modern 386sx/25 PC!

GET RICH QUICK(ISH) WITH CALAMUS AND THEN YOU COULD



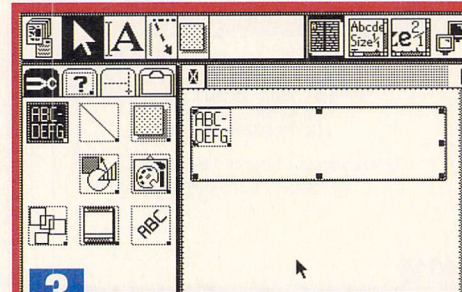
1

As soon as you load *Calamus*, you just know you are about to use a quality package with a wealth of features. Of course you might already have got that general idea after you've shelled out a not insubstantial amount of dosh for it. It's worth it though, you know it makes sense.



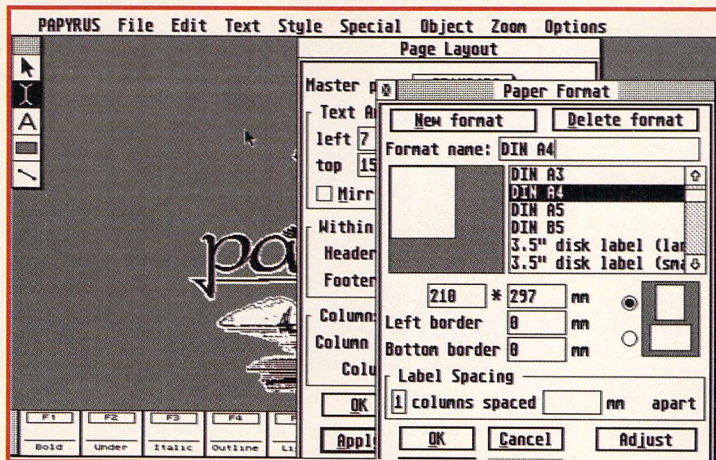
2

OK – so you want to help your local hairdresser drum up some business. The easiest way is to produce a leaflet to be posted through letter boxes, and the easiest format is a one sided A5 sheet. It is probably easier to create the text files you are going to use in a word processor first.



3

You need to create text and graphic frames. Click on the Frame Toolbox icon (the highlighted arrow symbol) from the top line of icons and the General Frame menu page (the pair of pliers underneath). Choose the Text Frame or Graphic Frame icons, and draw a frame on the page.



■ One of the "nice" (that is, well thought out) aspects of Papyrus is the ability to have multiple dialog boxes open at the same time - useful for making sure you're not setting contradictory information about your document format!

FIVE BASIC RECOMMENDATIONS

1 If you only have 520K of memory, upgrade now! 1MByte is a start, but you should go for at least 2MBytes, and possibly 4MBytes if you can afford them.

2 Buy an Atari high res monitor. Its quality is superb, it's easy on the eyes, and for finely-tuned DTP it is essential!

3 Buy a hard drive - or at the very least a second external floppy drive.

4 If you have a hard drive and 2MBytes of memory, buy a copy of SpeedoGDOS

now! It revolutionises your printing capabilities and your font handling (and only purchase applications that support SpeedoGDOS).

5 Start building up a collection of clip-art disks from PD libraries, although beware, some collections leave a lot to be desired! A couple of the best ST PD companies are Warpzone and New Age PDL - call them and ask for their advice first.

Remember, all this may sound rather expensive but you can actually do all of the above for under £500.

Another excellent mid-range package is *Calamus 1.09A*, an old and trusty workhorse (£88; First Computer Centre. ☎ 0532 319444) distributed in this country by JCA Europe. *Calamus* is probably the standard ST DTP application, and it's easy to see why. Although it has a few quirks - and it certainly doesn't

win prizes for word processing capability - the ease in which you format a page is breathtaking to see. Although it relies on frames like *Timeworks*, *Calamus* is much faster in how you adapt and import files into them. As a mid-range package, *Calamus* is just about the best you can get.

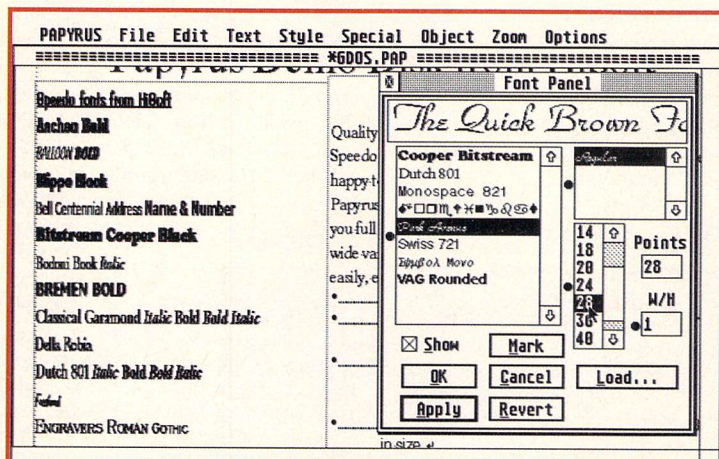
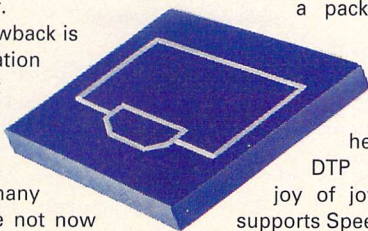
"Papyrus started life as a document processor and has developed into one heck of a flexible DTP application"

the ST in years, completely revolutionising the ST's font handling and printing capabilities and introducing vector fonts to the ST's operating system for the very first time (remember, some applications, such as *Calamus* and *Caligrapher* have their own vector font technology, so they don't need SpeedoGDOS). A vector font means that you can scale a font to any size instead of having to load all the sizes you might wish to use into memory first. This frees up valuable RAM for extra creativity and flexibility. SpeedoGDOS also vastly improves the ST's output rate to your printer.

The only drawback is that an application must support SpeedoGDOS for you to get these benefits and despite many promises, GST are not now

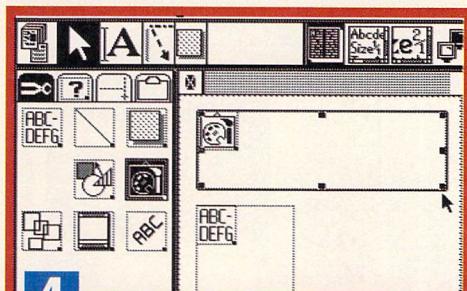
going to issue a fix for *Timeworks* ST, concentrating solely on the Windows market place. For GST to turn their back on the ST is quite amazing since it was largely ST users who paid for the company's expansion into the PC arena! Besides, a fix for *Timeworks* almost exists - I have a beta copy - so how much would it cost to put a finished version into PD? Not a lot. So, sorry, I'm afraid my principles won't allow me to recommend any GST product until they honour the ST community that made them who they are.

Hisoft have released *Papyrus*, a package that started life as a document processor but has developed into one heck of a flexible DTP application. And joy of joys, *Papyrus* fully supports SpeedoGDOS!



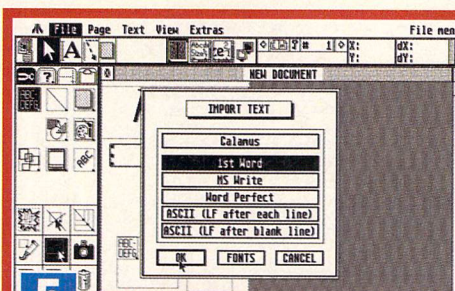
■ Papyrus is fully SpeedoGDOS compatible (supports vector fonts) and also uses Signum and GDOS bitmap fonts too. The addition of a Font Panel enables you to view text before you change it in your document.

RETIRE AND LIVE HAPPILY EVER AFTER IN THE BAHAMAS



4

Once you've added a couple of either type of frames, import your text and graphic files. You could use *TextStyle* to create a couple of banners, although you can manipulate the text with *Calamus* should you want to. *TextStyle* can also utilise *Calamus* fonts too.



5

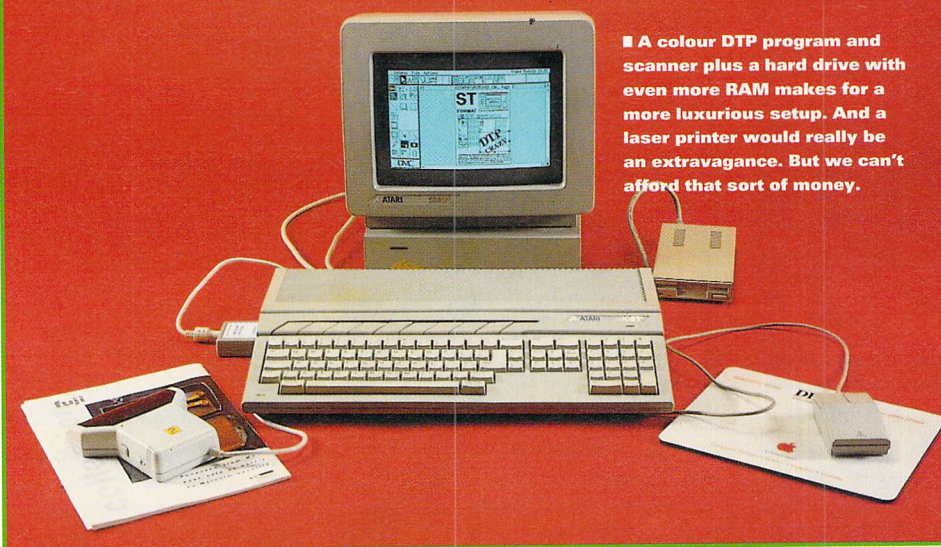
To input either the text or the graphics onto your page, simply click on the Frame Edit icon, then click on the frame itself and choose Import. Although *Calamus* is a complex program with loads of functions, it's generally quite intuitive to use. Importing graphics and text is one such example.



6

Once you've started to import the various bits of text and graphics you can start to see the results of your handywork. Fiddle about with where they should be on the page for the best effect to sell the services of your hairdresser and make it look most attractive.

THIS IS THE HIGH END



■ A colour DTP program and scanner plus a hard drive with even more RAM makes for a more luxurious setup. And a laser printer would really be an extravagance. But we can't afford that sort of money.

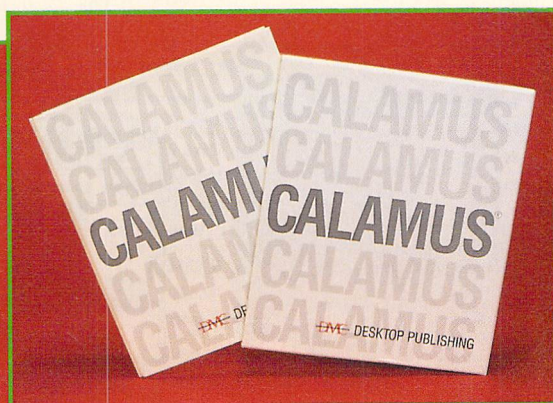
You need a 4MByte ST, two disk drives, a hard drive, a scanner, a laserjet printer or a colour inkjet and a multisync monitor if you're going for the top end of DTP work, though you only need a multisync monitor if you have a graphics card – otherwise your mono monitor is perfectly adequate. You can improve the configuration still further by adding an accelerator card (the T28 or T36

cards from Systems Solutions), and the new Marpet Xtra Ram Plus 8 taking your ST up to a massive 12MBytes of memory!

Your setup now also has the capability to use multiple scanned images – even scans made in colour! By this stage you should be earning enough money to invest in the Epson GT6500 colour scanner. This is a full colour, A4 flatbed scanner and is amazing quality at around £800. Shop around – it may be cheaper.

As far as the choice of desktop publishing packages for this configuration goes, the two best ones are Pagestream v2 (£169, First Computer Centre on 0532 319444) and

2 is exceptional value for money, especially as the application handles both four colour separation techniques and PostScript, the page description language. But *Calamus SL* is the desktop publishing package for the ST – and although it may seem rather expensive, this package is truly aimed at the professional! Also, unlike its rather cheaper predecessor, *Calamus 1.09A*, *SL* is more menu-driven, as opposed to icon driven. *SL* also enables you to load just the features you need as and when you need them. Obviously, the more features you load, the more memory you use – and the



Calamus SL (from £495, also First Computers) – although I think *Calamus* is by far the stronger of the two. *Pagestream*

more icons you get! Both systems have their advantages and disadvantages, but you might find a menu system much more controllable than having dozens of icons everywhere!

Calamus SL handles colour separations so the production of colourful large posters, books and magazines is easy. It uses virtual memory, so if your ST runs out of physical memory, *SL* sets aside a swap area on your hard disk, and *SL* has font caching, so that you don't have to wait until the screen redraws itself

when you change your viewing aspect of a page.

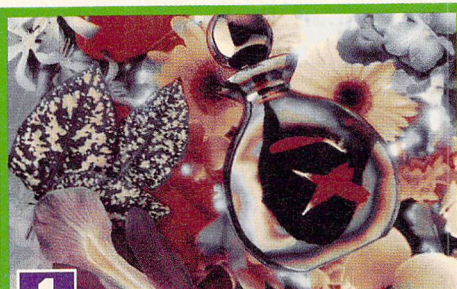
The single biggest advantage of *SL* over all other ST DTP packages though is that *Calamus* is the de-facto standard: most ST bureaus have standardised on

Calamus so when you get to the stage where you are using your ST to produce glossy brochures and leaflets for your local businesses, *SL* gives you more

How much and where from?

Product	Retailer	SRP
Zydec external floppy drive	First Computers	£57.95
CM8833-II monitor	Gasteiner	£199
Multisync monitor	Gasteiner	£349
High res monitor	Silica Systems	£129
50MByte drive	Analogic	£249.95
Canon BJ10e	Dixons	£200
DeskJet 550c	Gasteiner	£630
LaserJet printer	Silica Systems	£419

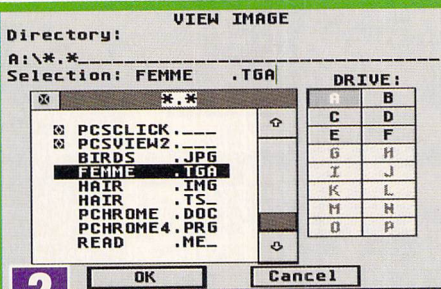
DESKTOP PUBLISHING IN COLOUR – THIS IS THE SORT OF QUALITY



1

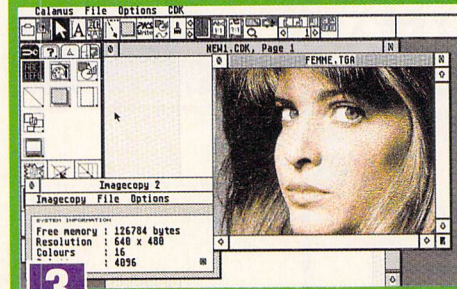
The Falcon's colour ability is truly superb. Just keep looking at this picture and realise just how lovely it is!

For a start there are all those colours and the quality is quite wonderful. If you're still not sure, turn to the review of *POV 2* on page 42 for some really gorgeous pictures.



2

After the success of the one sheet flyer, your local hairdresser is about to launch a new salon and wants your help to produce something a little more adventurous to announce the opening, say an A5, four page brochure in full colour! Don't forget, there could be dosh in this...



3

With a Falcon and *Calamus SL* (and a little help from a graphics utility like *ImageCopy*) creating such a flyer is a doddle. First, choose your layout, and the pics that you want to use. Then convert the file into a *Calamus* importable graphic... as shown in the picture above.

FASTER, FASTER FASTER...

If you want to add an accelerator card to your ST, the only real choices are the T28 and T36 cards available from Systems Solutions (☎ 0753 818816). These cards make your ST run at 28MHz or an incredible

36MHz – that basically enables an average 890% increase in speed! Although only available for STfMs now, if you have an STE wait for a couple of months because the STE versions are on the way!

choice of production houses. In effect, with SL and the high-level ST configuration, there is very little that you cannot do in terms of DTP. The only thing that limits you is your experience!

So, where next?

When you get to the stage where you have work piling in faster than you are shifting it, you may decide that you need to move to an even more powerful setup, and it's very tempting to fall into the PC salesman trap and go for a pretty new 486 DX2, or a Macintosh, instead of comparable TT or Falcon systems. But just think for a moment – true, the costs of all these computers are

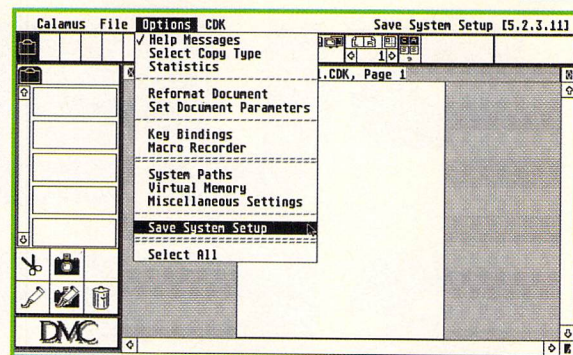
similar, but what about the cost of all the software and add-ons and add-ins? Do you really want to waste the investment you've made in your Atari DTP platform? True,

some ST software definitely needs tweaking or replacing to work on a TT or Falcon, but it may be possible to upgrade the application – now many developers have already brought out

either Falcon compatible applications or fixes.

OK, so you're staying with Atari. What's it to be: a TT or Falcon? Well, the TT is a real powerhouse, but it is a little over-priced and still limited in

terms of on-screen colour, whereas the Falcon has got off to such a shaky start that all kinds of rumours are flying about regarding its future. We recommend you go for the Falcon (a 4MByte version with a 209MByte hard drive is available from Silica Systems for just £999. So, what are you waiting for?) – its quality is superb, and the single biggest factor in its favour, is that it brings



As can be seen from this shot, Calamus SL isn't cluttered with icons. Instead, the program is more menu driven.

"Go for the Falcon, its quality is superb and brings true colour to the eyes of the Atari user for the first time!"

If you want a really exotic Falcon setup, then just grab yourself a few of the things here and you'll be away!



true colour to the eyes of the Atari user for the first time!

So what? Well, in VGA mode, you can now produce finely-tuned DTP layouts with fully coloured digitised images positioned for full effect. Already products like TruePaint and Prism Paint 2 are available, while Calamus SL is more than happy on the Falcon. The Falcon's DSP and true multi-tasking capacity means that rendered or newly created images can also be added to documents on the fly – no more closing down an application – simply bring up another window courtesy of MultiTOS and launch TruePaint or Persistence of Vision!

There's really isn't any doubt that the Falcon is a machine years ahead of anything in its price range, and recent sales have been very healthy indeed, thanks to the musicians among us. So can the second wave of purchases be because to increasingly confident DTP'ers? **stf**



PRODUCTION HOUSES AND THE ST

By the time you are moving up through the mid-level DTP scenario and into the more professional side, you are going to need professional printing, often on different stocks of paper and with colour. That's where a bureau fits in – a company that can take your finished designs and produce the hardcopy for you. Although most production houses have standardised on the Mac or PC, there are a few that can accept ST output, and some that even specialise in it. There are at least three in existence:

Silicon Quill (call ☎ 0923 248576 and ask for Paul Archer), CY Services (call ☎ 0602 605377 and ask for Jane), and Castle Print and Design (call ☎ 0635 522449 and ask for Paul Hruza).

All three companies are bullish about the ST's place in the DTP arena. Castle Print and Design art department, for example, is centred around a TT030 consisting of 12MBytes of RAM and a 455MByte hard drive, and mainly uses Calamus software. Output is to a 300dpi laser printer for proofing or masters

for leaflets and so on. If higher resolution is required, files are sent by modem to The CY Services Bureau in Nottingham. Customers range from multiple one-man businesses through to a large hospital authority up to an international shipping company, with a geographic spread as far afield as Norway, Portugal and Italy. And with new ST printing houses like Silicon Quill arriving, all this goes to prove that the humble Atari can hold its own when competing with other platforms.

YOU CAN EXPECT IF YOU USE A FALCON



4

Place the graphic inside a graphics frame making sure that you keep the aspect ratio in the right proportions otherwise you're either going to make the girlie look far thinner than she should be or much fatter than is healthy. And that won't encourage the customers.

hair!



5

Add a text frame and type a few choice words... Or alternatively if you find typing into a DTP program frustratingly slow you could create your text in a word processor and then import it in the normal way. Make sure there are no typos and you know your possessives, or else it looks tacky.

hair!



6

And then use the Text Effects module to colour and style up the text and whoopee! you have the flyer's simple but effective cover. The most stunning aspect of all this is how quickly the Falcon processes all the information – blink and you've missed it! Amazing if you're used to an ST.

PUBLIC SECTOR

Who shot JFK? Here's some Public Domain software instead of any attempt at an answer

EDUCATION

WORD WIZARD

LAPD - DISK L84

Criminally offensive alliterative title aside, this straightforward quiz game for either one or two players works rather well. After specifying the maximum length of the words used and deciding whether you want to gamble points, you enter a head-to-head contest of synonym identification.

Elegantly presented – the boxy screen hardly inspires confidence, but with each new choice the mouse is limited to that area of the screen, so there's no chance of accidentally choosing the wrong option – *Word Wizard* is surprisingly verbose, challenging you to match a hearteningly obscure word with one of three diabolically plausible alternatives. And that's it. Simple but effective, like a famous

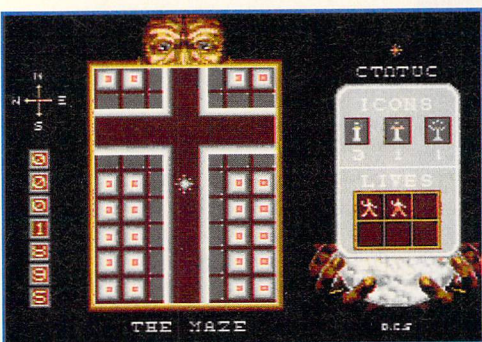


■ Craftily, the second alternative is invisible. Or did the author die before typing it in? But that would fail to explain the third possibility. Baffling.

recipe, or a cricket bat to the nape of the neck, but nowhere near as

flavoursome, or dangerously waggish.

STF RATING 61%



■ It's a sinister man holding a large ball of fluff in his claw-like and off-centre hands.

QUEST FOR KNOWLEDGE

LAPD - DISK G357

Educational games. We love 'em. This is an obvious lie. All too often the mantle of self-improvement and splendid things is used to excuse a quite terrible game. Such a game as, for example, *Quest for Knowledge*. It's a combination of maze and quiz, and succeeds in the same way as a combination of comically

bumbling British character actors and uncertificated agricultural machinery. First of all you guide your bizarrely star-shaped character around the maze. Very slowly. With no map. And corridors that run for ages before terminating in dead ends. Eventually, moments before your respiratory system collapses, you may run your character around a final corner and at a key. This launches the quiz, triggering



either a multiple-choice question, or a true or bluff/

true or false question, which are completely different things. Honest. Answer correctly, win the key, and step back into the maze to find the other 11 in order to escape Level One. Sample question: "How far from the backboard is a basketball shooting line?" Mmmm. Does anyone care a row of buttons? Of course not.

Everything you hate about educational games in one easy-to-avoid package. And, thanks to the marvels of PD, it costs even less to avoid than usual. Or something.

STF RATING 17%

UTILITIES

SPECCY EMULATOR

GOODMAN - DISK GD2205

It seems most astonishing that many talented people spend many hours emulating one computer on another. Why not simply have both computers in the first place?

You can now pick up a Speccy for the price of a stamp: you merely find somebody who already possesses this legend of home computing and threaten to push 25p in coppers up their nose unless they hand it over.

But let us say you find yourself without the price of a stamp. In such a case, this new emulator would be ideal. Alas, it impersonates only a 48K machine, and it's vastly slower than the real thing, but there are extensive disk loading/snapshotting facilities to replace the original tape routines. There's even a very smart Z80 monitor in there. Why, you even get a selection of randomly chosen games, but as these are (a) staggeringly illegal, and (b) no advertisement



for the emulator – the simulated two-channel music of the *Gyroscope* snapshot thrashes about feebly because the interrupt speed is all wrong – we'll gloss over them with this gloss.

We've no idea what happens when you tire of the supplied games – details of loading your own are sketchy, and if you've access to more you've very probably got a Speccy anyway – but it's sort of gracefully useless fun in the meantime. It is a silly thing, but for all the right reasons.

STF RATING 63%



■ Gyroscope. It's *Marble Madness*, but with a gyroscope rather than a marble. Hence the clever use of the word "gyroscope."

GAMES

SHOCKER

GOODMAN – DISK GD2191
HIGH RES ONLY

Puzzle game. The phrase strikes terror into even the stoutest of hearts. What exactly is a stout heart? A fat one? Or what? But anyway. *Shocker* is a puzzle game, through and through. The complicated level design. The utterly unforgiving gameplay. The ceiling-brushing sense of achievement coupled with the wobbly-handed expectation when you complete a screen. You know the sort of thing.

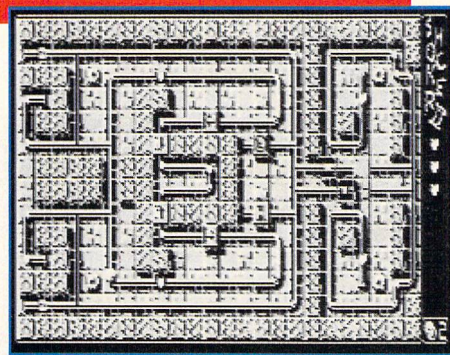
Shocker involves pushing a ball around the screen, collecting hearts to open the exit.

Complications arise with the mouse control – you need an incredibly large desk for this game – all sorts of perfectly evil blocks, and gravity. And differing gameplay as the levels progress. Sometimes you're moving around the pipes of a maze, sometimes you're bouncing around in an arena, sometimes you don't control the ball at all but lay a path for it to follow instead. And the killer shoes. And the bottomless pits. And the

competitive two-player mode via null-modem cable, and so on, and so on.

Shocker really is a find. The unusual controls and developing gameplay – what a horrible phrase – lend it a special feel all of its own. What an equally horrible phrase. Certainly one to play, treasure and register for, because some of the 100 levels are password locked, which is awfully sneaky, but we'll let it go just this once.

STF RATING 76%

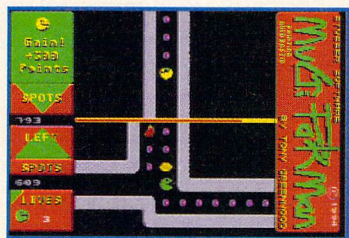


■ You simply would not believe the trouble we went to in order to get this picture. (Pregnant pause.) Well worth it though.

MULTIPAKMAN

MERLIN

If you're going to clone a game, do it properly. There's nothing guaranteed to raise the ire more quickly than a *Jogger* or a *Skramble* which isn't exactly spot-on. There is no excuse. And since no one has ever – ever – managed to clone a game correctly, it's kept us going in a Holy Grail sort of way. Fortunately, as the notes for



■ The steal-a-life bonus is best. Deaf to the pleas of your opponent, you swoop like a troop with a sw not a tr.

Multipakman admit, the intention of the game isn't to be *Pacman*. It's all just a cruel joke. Or something.

Multipakman is a two-player maze game. You're trying to outdo your opponent in all departments, including that stylish twiddle of the joystick when performing an outlandishly complicated manoeuvre. The *Pacman* parallels come with the



dots, and the graphics, and that's it. There are no ghosts. Instead, there are randomly placed killer stones, which you should studiously avoid. There are also witty bonuses, which reverse the joystick controls, or do odd things, or enable you to either collect a bushel of points or rob the other player of a life. With hilarious consequences. It's very good fun. Wafer-thin, but very good fun.

STF RATING 64%

WING LORD

LAPD – DISK G355

The really irritating thing about this version of *Joust* is that either of the two players can be controlled by the ST, and they're both better than people. The other really irritating thing about *Wing Lord* is that it manages to make *Joust* dull. *Joust*, you may recall, is the game of flapping around on ostriches by



smashing the fire button, and shoving the sinister Dark Riders off their ostriches by diving at them from above. It was fabulously playable, and easily outdid *Lunar Lander* in the imaginatively cursing the laws of physics stakes.

Wing Lord gets everything right but the gameplay. Lots of enemies, different attack waves, arbitrary bonuses; even the deliberately antagonistic messages between

levels, finely calculated to entice you into doing extremely silly things. It's just that the game is, well, so dull. It takes forever to get beyond insultingly easy, failing at almost every turn to fulfill its potential. "Swarm wave," bellows the screen. "3,000 point survival bonus." And then three decrepit wasps drift through a door and sort of waft at you for a while. Such a pity. Such a pity.

STF RATING 26%

STORM '94

LAPD – DISK L87

Once upon a time (1953 or thereabouts, wildly exaggerated allusion to the history of computer games fans) there was a game called *Denizen*. It was a *Gauntlet* clone, but set in space, slower and tremendously dull. The only reason the three people who

bought it did so was because the intro pictured the programmers aiming Trojan Light Phazers out of the screen, thus giving themselves away as



■ Players Software, eh? That diamond bloke? Silly, really.

the three people who bought Trojan Light Phazers in a justly neat fashion.

Anyway, here we are, a substantial number of years

and two eerily familiar *Alien Breed* games later, and *Denizen* lives again. You poke around a maze, shoot aliens, buy equipment, find keys and escape to the next level, all within a severe time limit. It is, in fact, a *Gauntlet* clone, but set in space, slower and tremendously dull. Sort of gets you right there, really.

STF RATING 19%

AUTO STEREOGRAM CREATOR

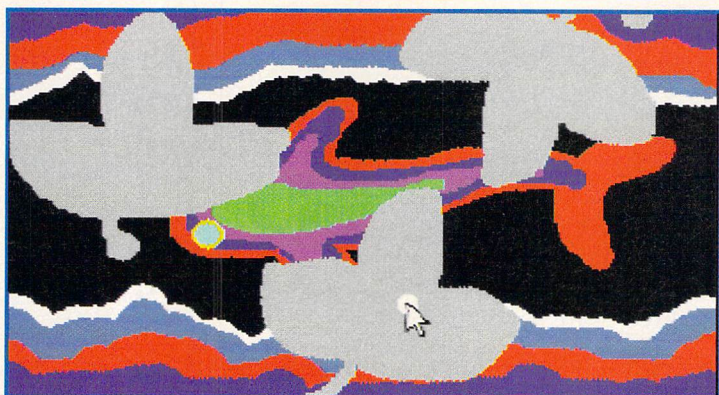
LAPD – DISK L77

Disappointingly free of those perfectly glorious coloured glasses, *Auto Stereogram Creator* is actually a generator of those dynamic blotches of coloured dots which some people claim to be able to decipher as spectacularly revelatory 3D pictures, but which others see as dynamic blotches of coloured dots. Here is what happens when you run the program: you draw something using various "layers" of colour, then the program goes away and thinks for a little while, and

then it displays a dynamic blotch of coloured dots. Er, a spectacularly revelatory 3D picture. Dammit.

It's an odd fish, is *Auto Stereogram Creator*. Even if you're desperately interested in the idea, the program leaves much to be desired. The actual drawing is a clumsy affair. You can only step through the screen layers, rather than leaping straight to the one you want, and there's no Undo option. There's no print option, either, even though you can display the pictures in black and white. What, then, is the point? There is no point. Thank you.

STF RATING 7%



■ If you squint a bit, and look at the page behind some glass, and turn down the lights, and stare through the dots, you may just see a fish. No, hang on.

FALCON GAMES

MINI F1

GOODMAN - GF65

Bundled with the frankly boringly empty *Laser And Men* (a staggering 85% in *STF* 55), this attractively foolish *Super Sprint* clone really won our hearts. Not for the pointlessly glitzy graphical intro, which zings your chosen racetrack about the place in rotating 3D, and not for the way that once a race is over the cars stop dead just beyond the finish line, so laggards slam into the back of the pack causing grotesque pile-ups, but for a very special thing. The lap times. The lap

times, you see, are spoken by a ghastly synthesis routine which sounds exactly like a killer Smurf. A



■ An exciting point, this. The Smurf is just about to speak. Clottedly.

Smurf who sadly couldn't take any more. A Smurf they pushed too far.

There you go. The game itself is standard *Super Sprint* fare, and makes laughably inadequate use of the Falcon, and requires you to register in order to get anything more than the Phoenix track, but that Smurf is a winner every time.

STF RATING 57%



■ Actually, do you realise how difficult it is to type Smurf? It keeps coming out Smurg. Curses.

BLACK HOLE

GOODMAN - DISK GF66
VGA ONLY

So. A VGA-only exclusive Falcon game. Fairly sings of quality, doesn't it? Practically sits there, taunting you with the amount of work necessary to provide a set-up on which the game deigns to run. How could we resist? 28 minutes of horribly dangerous

electrical fiddling noises later, and there it was. *Black Hole* in all its glory. A single-screen game where you buzz a cursor around a blank playfield revealing entirely random items.

Actually, that's not quite true. Each level hides two coins. The slightly ineptly explained aim of the game is to reveal both coins at once. An item, once uncovered, only stays on the screen for a few seconds

before vanishing into the ether. And to stop you buzzing around willy-nilly, bombs are fiendishly scattered around. If uncovered, they fizz gleefully for the briefest of moments before detonating. So you're constantly cheesewiring with tension, zooming around madly, trying to remember where the coins are and keeping an eye out for bombs. Except you aren't. For, because of the

entirely random nature of the game, you can do just as well swinging back and forth between a pair of squares. Once you've accumulated a healthy reservoir of bonus time, then you go looking for the coins. An endearingly silly idea waylaid into a suspicious building and banged repeatedly over the head with an expensive golf club by careless implementation.

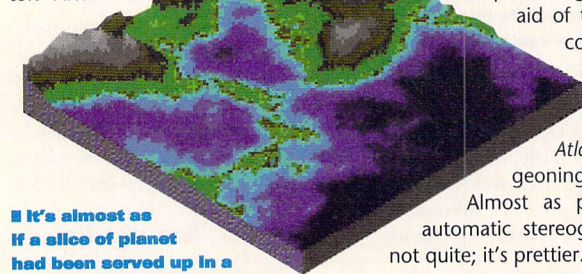
STF RATING 39%

FALCON DEMOS

JAGUAR DEMO

GOODMAN - GF67

This optimistically baldly titled demo shows promotional pictures of Jaguar games and plays a tune. Later, there's a scrolling message which apologises. Sharing a disk with it for the obvious reason is *Geotech*, a landscape genera-



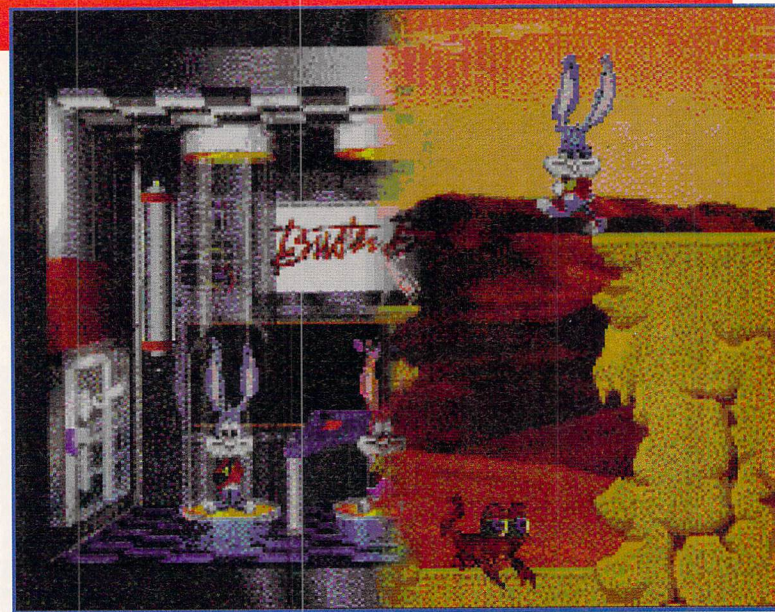
■ It's almost as if a slice of planet had been served up in a terribly peculiar restaurant.

choosing a topographically interesting chunk of earth, you can see it in first-person, excitingly forced, or even thrillingly raytraced 3D.

It's all very admirable, and there's no denying the impressive effects that result, especially as the program razors through calculations in real-time. But. The landscapes are randomly created, rather than you loading them in or painstakingly reproducing them with the aid of the fascinatingly colonial 1861 edition of the *Young Victorian's Wonder Atlas*, which bludgeoningly limits its use.

Almost as pointless as the automatic stereogram thing, but not quite; it's prettier.

STF RATING 11%



■ Two pictures of *Tiny Toon Adventures* merging, yesterday. The show's on ITV, Wednesdays, at a quarter to five. Watch it, or we'll come round and hurt you.

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PERSISTENCE OF VISION RAYTRACER 2



A familiar story. Maths meets art, maths loses art, maths finds art again and settles down

Raytracing is a hugely powerful mathematical process that creates some of the most realistic and magical images you are ever going to see on your ST – the results can be incredible. The *Persistence of Vision* raytracer (POV) has long been regarded as the one of the best raytracing packages available on any computer and this version takes its images even closer to reality.

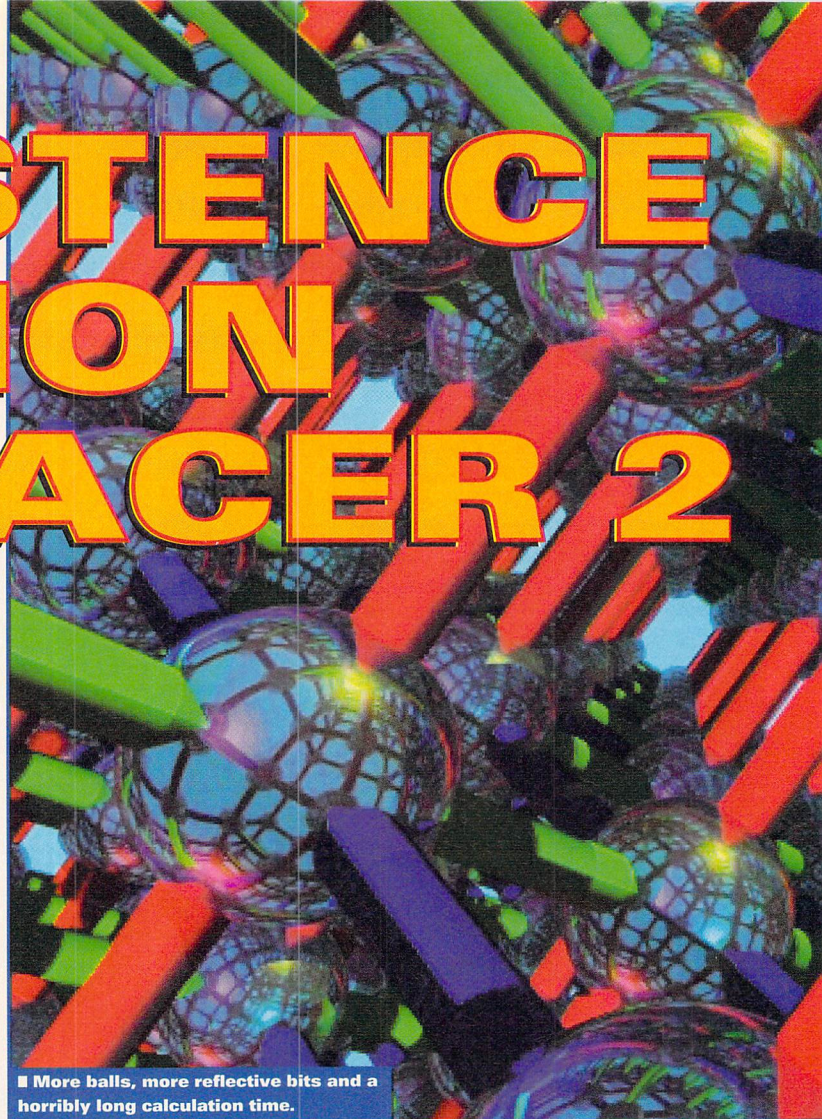
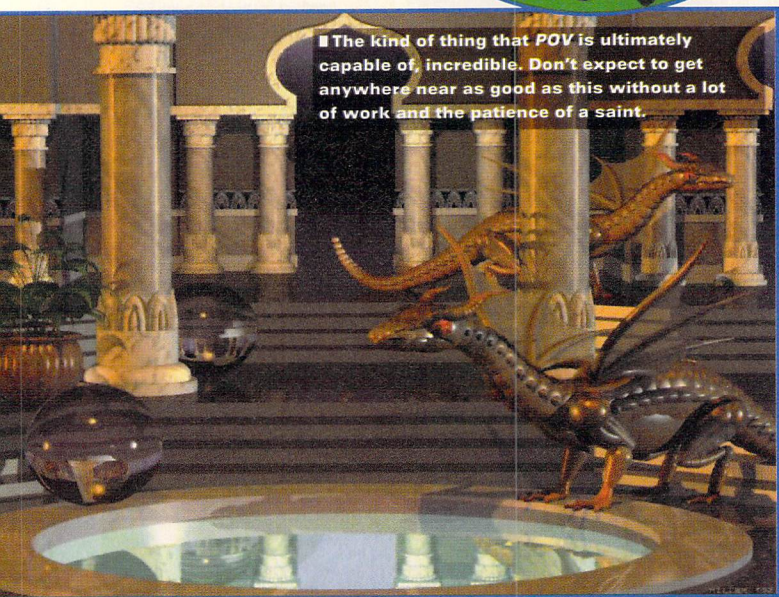
POV is not well known for its initial friendliness and this hasn't

POV has a wide range of basic shapes, with a clever bit of juggling almost any shape is possible.

changed. The descriptions of your scenes are written out as text files and passed over to the rendering program. It may seem weird, but you write your pictures as a text file using a word processor. The objects within the picture are described using a sim-



The kind of thing that POV is ultimately capable of, incredible. Don't expect to get anywhere near as good as this without a lot of work and the patience of a saint.



More balls, more reflective bits and a horribly long calculation time.

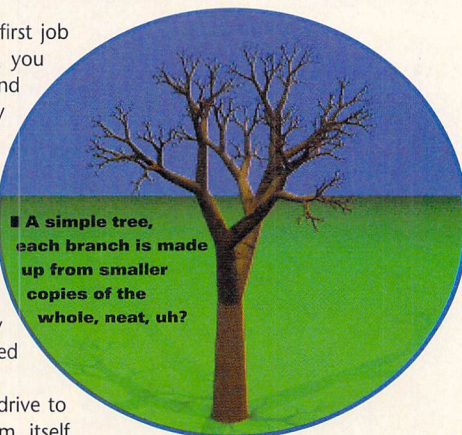
ple sort of programming language – mastering this leads to the incredible pictures.

The ST incarnation comes on three disks full of zipped files including huge amounts of documentation, source code and scenes ready to render. Your first job is to print out the manual, you won't get far without it and you'd have to be the memory man himself to read it on-screen and digest it all. Now you start to wonder if it's all a good idea; the manual is huge. Luckily you don't need to learn all of it straight away, getting simple scenes together is easy enough once you've grasped the basics.

You don't need a hard drive to run POV, the actual program itself

“POV has long been regarded as the one of the best raytracing packages available on any computer”

and the scene files are quite small, you can run the whole show from one floppy disk. What does come in handy is memory. You need 1MByte minimum to run it and render simple scenes,



A simple tree, each branch is made up of smaller copies of the whole, neat, uh?

SO WHAT IS RAYTRACING WHEN IT'S AT HOME?

At the heart of raytracing there are some terribly complicated mathematical equations. It works by taking a three dimensional model you have defined as text in a script file, including light sources and the viewing

position, and calculating where all the rays of light from each picture element comes from. If a ray intersects with an object then the paths to your light sources are checked to see how much light there is and where

it's coming from. It takes into account the reflective and refractive nature of any objects as well as the surface texture and colour.

For the technically advanced POV 2 comes with the complete source

code in C. Understanding it, let alone modifying it, is a job for experts. Most of us want to leave the programming end of POV well alone and concentrate on understanding the script files.

I CAN'T SEE ANYTHING!

While *POV* is working the screen is full of static text. At first it looks like nothing is happening. Don't panic, right at the bottom of the screen it tells you how many lines of your picture have been rendered so far, each line can take many minutes so you've got time to throw a party or take a short break in the Lake District for the more complex scenes. When it's

all finished the picture is written straight to your disk drive.

To see the results of your, and your ST's, hard work you need to use a separate graphics program to look at the rendered pictures. *POV* outputs in 24-bit colour, that's 16.7 million colours. Obviously to view the image as is you need a beefy graphics card. Fear not, even a standard STFM can

get an excellent representation using a clever program called *Photochrome*, which uses raster and interface trickery to put thousands of colours on-screen at once. It was on Cover Disk 49 – see page 94 if you missed it. Falcon owners get even better, the difference between 24-bit and the Falcon's 16-bit display takes close examination to spot.

dratics and hyperboloids. You can also use constructive solid geometry to define your shapes – a rather nasty bit of maths. Each object has its surface properties defined including colour, texture, reflective properties and more. You can also map pictures onto objects. The degree of control over your objects and surfaces is one of the things that puts *POV* into the big

"POV has some very powerful shapes built-in including blob, toruses, quadratics and hyperboloids"

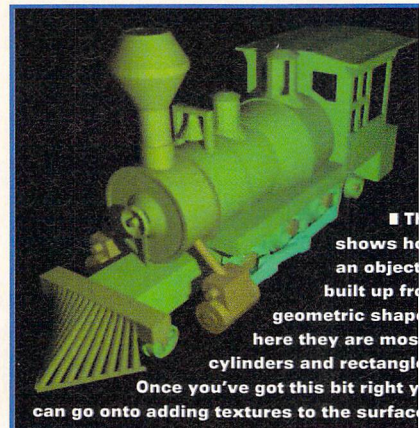
and again, *POV* comes with a number already worked out for you including files of colours, textures and standard shapes ready to use.

The *POV* rendering program itself is a TTP (TOS Takes Parameters), this means you need to pass program parameters, such as the name and size of the output file, to the program as you run it. Using a CLI (Command Line Interface), makes the process easy enough, you can create batch files with your settings and just pass across the file names. It's the rough end of things, no neat file selector boxes and menus here.

There are over a hundred *POV* script files supplied, ready to render although some of them need a 14MByte Falcon before they behave. A good way to learn the tricks of the trade is to take a peek at them to see how they are put together. Persevere with it and you soon find yourself at the cutting edge of computer graphics – *POV* is a frighteningly powerful rendering machine.

POV can be ordered from any good Public Domain library. It isn't PD, the copyright remains with the authors, but you are free to use it without any Shareware fee. There is a long document detailing the legal position, all you need to know is that you can use it without hassle.

Don't expect any instant miracles, *POV* is definitely one for the dedicated. Using the script files is unwieldy at first and it's easy to leave a bracket out or put it in the wrong place and have to comb through your file looking for it. Get it right and the

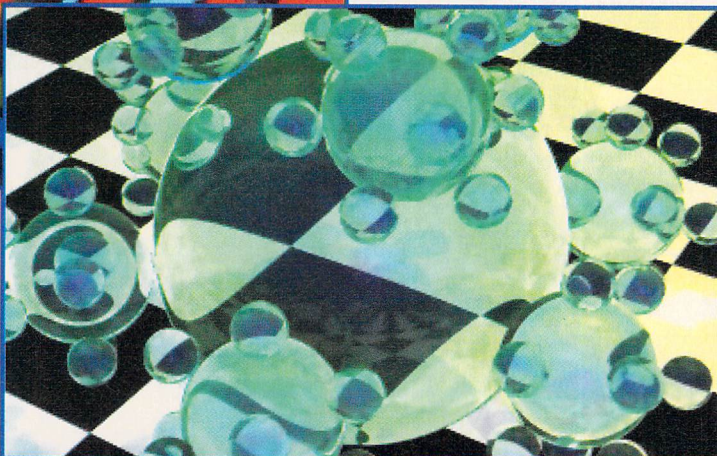


■ This shows how an object built up from geometric shapes here they are most cylinders and rectangles. Once you've got this bit right you can go onto adding textures to the surface

results can be extraordinary, you get a buzz looking at one of your renderings for the first time, you can never be quite sure what's going to come out at the end of it.

If you're serious about raytracing then *POV* is the ultimate program, if you just want to tinker then something simpler might be in order. The lack of any graphical modelling is frustrating if you're not used to it. You need to think in 3D – using numbers rather than simply looking at the screen. If you can hack the programming and the frustration of learning, then *POV* gives results beyond any other program.

CHRIS LLOYD



■ We couldn't have a piece on raytracing without some balls on a checkerboard pattern. Just to be extra clever these are made of glass with accurate refraction.

the more complex pictures get, the more memory you need. Many of the example files need two, four or even more MBytes. To render the really heavy-duty scenes you need silly amounts of RAM.

There are three versions of the program, one for STs, one for Atari machines with an 68030 processor such as the Falcon and one for machines with an 68030 and a maths co-processor such as the TT. The big difference, of course, is speed, even simple scenes take an hour, more complex ones need to be left overnight. The ST comes out surprisingly well, nearly as fast as the average 386 PC.

Right, now you are ready to get the reflective ball rolling. The objects in the pictures are built from primitive shapes, spheres, cubes and the like. *POV* has some very powerful shapes built-in including blob, toruses, qua-

league, it's very comprehensive indeed. The range of textures includes metals, lots of different types of stone and wood as well as leopard skin and other more esoteric stuff. Anything that isn't there you can define yourself.

Standard definitions can be stored in include files and used again

WHAT'S NEW?

Version 2 of POV offers loads of enhancements, many are academic to the new user but make it faster and more realistic. Penumbra shadows are a welcome addition, previously the sharpness of raytraced shadows often gave an unrealistic look to renderings. Improvements to POV include;

- Automatic bounding slabs for faster rendering
- Background colouring.
- Improved anti-aliasing.
- Mandelbrot pigment texture.
- Phong shaded heightfields.
- Smoother bezier curves.
- Soft penumbral shadows.
- Total internal reflection for more realistic refraction.

POV 2

Available from any good PD library
Highs

- Unsurpassed quality of final pictures.
- Incredible amount of control over 3D model. It's virtually free.

Low

- Strictly no-frills interface. Difficult at first.

What else?

- *Xenomorph*, STF 93% £79, 16/32 Systems ≈ 0634 710788, easy to use

renderer with graphical interface, lacks the raw power of *POV* but is very flexible.

InShape, STF 85%
£149, CGS

ComputerBild
≈ 081 6797307, tasty renderer with extensive modelling section, only

90%

STRAIGHT FAX! 2

How your ST, a fax modem and *Straight Fax!* more than equals your common facsimile machine

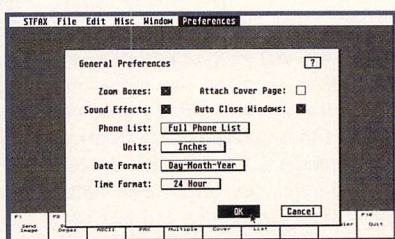
In today's fast modern world, everything either needs to be done with great urgency or it should have been done half an hour ago. Thank goodness for the fax! It enables you to send copies of any document via the phone line so they arrive instantly on a similar machine at the other end.

The use of fax is now so commonplace, it's hard to remember they were once a novelty. At a few hundred quid a go, you're not likely to find them in many domestic situations. However, more computer buffs are going in for comms – communicating via their modems with services like Compuserve, or ST's own Bulletin Board Service. Many newer modems now have fax capabilities, so you can use them to send and receive faxes in addition to their traditional uses. You do require suitable software though, and that's where *Straight Fax 2* comes in.

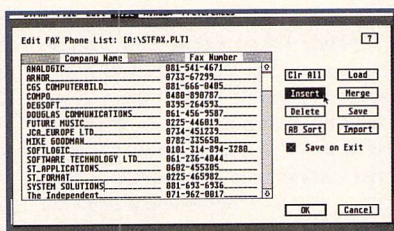
Send me a FAX

This American program claims to be among the most advanced and friendly fax software available, and it runs on any ST, STE, TT or Falcon machine with a minimum of 1MByte of RAM and is provided on a double-sided disk.

The manual is a smart 148 page A5 sized manual which describes all its operations in detail. It supersedes the earlier and well-received v1 of the



■ There are plenty of features to tinker with in *Straight Fax! 2* and its many options can be configured to suit your needs exactly.



■ All your important contacts can be accessed from the phone list, which is very easily edited and sorted.

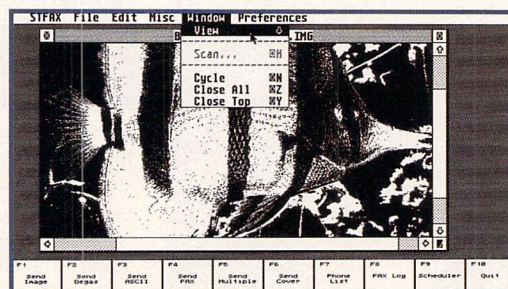
software, adding many refinements and improved facilities, like the ability to run as a Desk Accessory.

Before you use it, *Straight Fax! 2* has to be personalised with your name and address by running the Installation program provided on the disk. You are advised to make a back-up of the master disk first, which is not copy protected.

The installation process checks which version of TOS your system has, then ensures the correct patch is put into your Auto folder to deal with the ST's flow control problems. You chose what drive and partition to place *Straight Fax! 2* onto, and although a hard drive is not essential, it certainly makes life easier.

Verdict

So how do you send a fax? Unlike a conventional facsimile machine, which has to optically scan your document and convert it to digital information prior to sending it down the



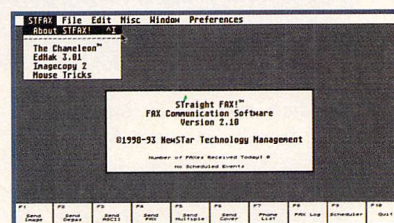
■ An "Import to Fax" feature enables you to convert many common ST files into faxes and preview them before you send 'em.

THE STRAIGHT FACTS

The 12 most important bits of *Straight Fax! 2*'s specification

- 1 Both fine and normal resolution fax modes possible.
- 2 Direct support for images scanned either by hand or flatbed scanners.
- 3 Each fax document can be up to 255 pages in length.
- 4 Has SpeedoGDOS driver for newer programs such as AtariWorks.
- 5 Imports text as ASCII, 1st Word, 1st Word Plus and Word WriterST.
- 6 Schedule the times of transmission or reception of faxes.
- 7 Sends a fax document to up to 100 destinations at a time.
- 8 Sends *Calamus*, *PageStream* and *That's Write 2/3* documents as faxes.
- 9 Supports Atari clipboard standard and alternative Desktops.
- 10 Fax! supports speeds of 2,400 to 14,400 baud send and receive.
- 11 Uses all versions of GDOS, prints faxes to any printers supported by GDOS.
- 12 Uses mono *Degas*, *Degas Elite*, GEM metafile and also uses PCX images

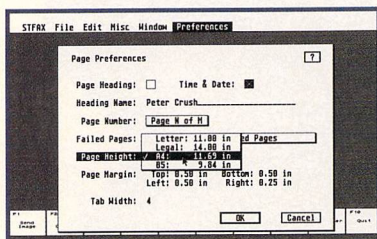
■ *Straight Fax! 2* presents a standard GEM screen with all operations accessed by clicking on drop-down menus or via function keys.



wire, *Straight Fax!* accepts your documents in their original disk-bound state. So if you have a page of, say, 1st Word text, without it ever being printed out or actually existing as a "real" document, the program converts it directly into fax format and transmits it via your modem to any fax machine. Click on send fax, and your file selector appears, find the file you want to transmit, it can be ASCII, 1st Word, or some graphic formats. Decide where you want to send it, the fax number you want is just one of up to 100 phone numbers you can store in *Straight Fax! 2*'s phone list. Just click on your number and away goes your fax. Easy peasy!

Straight Fax! 2 is instant, much cheaper than sending a letter, and you can fax them, but they can't fax you – unless you want them to!

PETER CRUSH



■ Before you use the program you should go through the Preferences menus and select the appropriate settings, the manual guides you.

Straight Fax! 2

£89.95, or £26 to upgrade from v1
System Solutions
081 693 3355

Highs

- You can make it what you like.
- Fast and easy to use.
- Good upgrade from v1.

Lows

- A bit expensive.

What else?

- There's no real competition.

83%

QUILL

A new, easy to use, freehand drawing program that's as versatile as pen and ink

If you're into sketching, hand-lettering or cartooning on your ST, and especially if you own the Tabby Graphics Tablet (reviewed in *STF* issue 54), *Quill* is the program for you. Written by the author of the *Tabby* software, it's a vector graphics sketching and tracing program with an unusual approach.

Unlike normal vector programs, *Quill* only has one main tool – the nib. Instead of the picture being built from vector objects, it stores each image as a series of "nib strokes." If you enlarge the image, the nib is rescaled and *Quill* redraws the picture at the higher magnification, producing smooth results at any size. The pen nib can be reshaped to your own design, and even striped to give some interesting effects. Zooming into your work for close examination is as easy as dragging a rubber band box over the area you want to magnify, and it rescales the image automatically without any loss of quality. You're not stuck with set zoom levels either – keep on going until you have the part you want to view closely.

Quill is as easy to use as a "real" pen and paper. A single window with a work area is displayed, and a click on the pen icon starts your drawing.

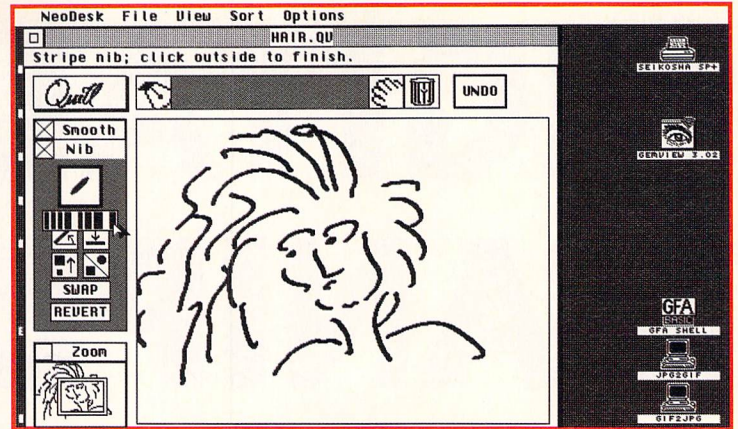
When you're finished, hit the Spacebar to stop – it really is that simple! Each pen stroke is held in memory separately, so you can delete single ones, or pick them up and move them around if you fluffed half way through writing.

So what's it for?

The manual describes *Quill* as a tool for producing hand lettering, cartoons and sketches. With a single screen and one drawing tool, it looks under-powered at first, but after five minutes doodling with it you realise how handy it is. The latest version enables you to draw with the mouse, but *Quill* really finds its niche when used with the Tabby. Using the tablet, pen strokes are fast and effortless, and end up looking exactly as if you'd drawn them on paper – a feat hard to achieve with a mouse at the best of times. A testament as to how fluent the pen strokes are is to sign your name – with no practice at all, we produced lettering in just a few minutes which was amazing – it looked just like pen writing on paper.

It's not just for simple signatures though. If you're handy with a set of calligraphy pens you should be able to produce stunning results eas-

"The pen nib can be reshaped to your design, and even striped to give some interesting effects"



■ The pen nib can be resized, squeezed and rotated to simulate a real quill. Here we're striping the nib used to produce this cartoon face.

ily. If you're a Tabby owner who likes to produce sketches in a normal art package, *Quill* is invaluable. The smooth vector graphics combined with the intuitive pen use produces far better results than anything else we've seen.

Quill and *Tabby*, combined, are much closer to traditional art techniques than just using a mouse. If you draw on paper then scan the pictures with a hand scanner, it gives you smoother, cleaner results – and you can chop and change them at will.

Saving and loading images is where *Quill* seems strange at first glance – it saves its own .QV format, but can't export in any of the standard vector formats. This might seem a little bizarre for a vector program, until you try it. *Quill* exports images in IMG bit-image format, as used by almost every DTP system or word processor, but which can't be rescaled without loss of quality. *Quill* gets round this niftily by giving you the power to choose the exact size and resolution of your IMG file before you save it. The pen nib is enlarged and the image is recreated in memory, then saved as a bitmap.

By doing this you can produce IMG files of the same graphic in lots of sizes, and the bigger they get, the

more polished they look. Since you can go back to *Quill* and re-do the IMG at any size you need, the lack of vector graphic export isn't a limitation at all.

Verdict

Used with the mouse, *Quill* is capable of good results. If you have a Tabby, it's absolutely brilliant. At such a low price, *Quill* fills a gap we didn't even know was there until now. Give your graphics and DTP a human touch with *Quill*.

FRANK CHARLTON

Quill

£29.95 CGS ☎ 081 6797307
Any ST, TT, Falcon (Falcon 80-column Mode)

Highs

- Runs as an Accessory or program.
- Neater than scanning hand-drawn images.
- Fast and simple to use.

Lows

- Can't mix nibs within drawings.
- Not so useful without a Tabby.

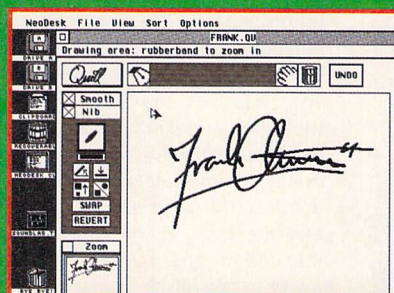
What else?

- Nothing – it's unique!

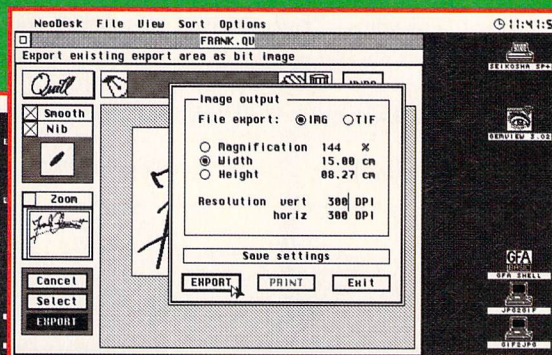
84%

SIGN ON THE DOTTED LINE

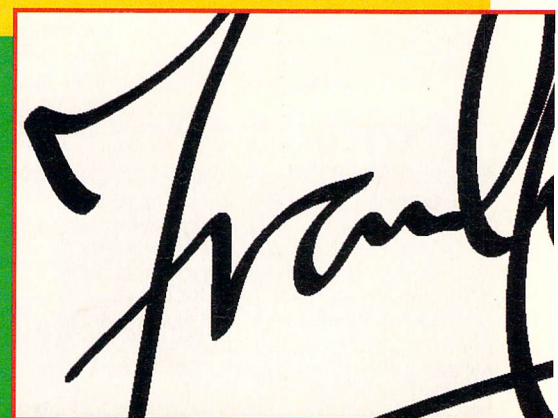
Quill's manual suggests starting with an easy task like signing your name. Here's how it's done



■ Using a standard nib, just sign your name as you would with a pen and paper. Remember the image is vector-based, so don't worry if it looks a little rough at first.



■ Once you're happy with your signature, click on EXPORT to save a standard IMG file. *Quill* enables you to decide what resolution to save as, and here we're using the 300dpi setting to produce a big, bold image.



■ The finished IMG loaded into an art package, which came out at 1,771 by 976 pixels. *Quill* scaled the vector image before saving, so the signature is beautifully smooth even at this huge size.

DIGITAL MANIPULATION



Quartet is complemented by a handy digital processing utility program. Clive Parker uses the Digital Filter software to manipulate samples for use with Quartet

Filtering samples

Many samples you get from a PD library or create yourself suffer from hisses and crackles, you can eliminate these noises by using the filters in *Digital*.

Low pass filtering removes high frequency sounds from a sample without affecting the low frequency sounds they are passed through. A low pass filter gets rid of excess hissing and noise from a sample. It takes time to get samples to sound exactly right using filters but the results are worth the trouble. To use low pass filters in *Digital*, select the LoPASS button and enter the frequency.

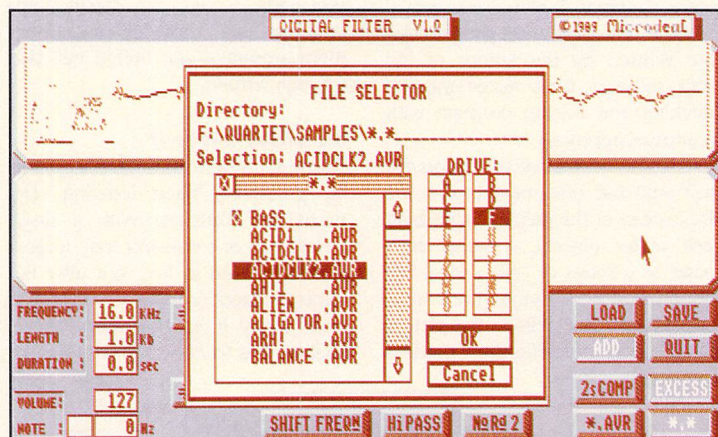
High pass filtering works in a similar way but eliminates low frequency sounds, only high frequencies are passed through the filter. Removing low frequency sounds eliminates problems caused by drift in sampling hardware. Use the HiPASS button in the *Digital* software.

You should have created your first *Quartet* tunes by now using the voice sets on last month's Cover Disk, now you can start to build your own voice sets so you can create your own unique music.

There are several ways to build up your voice sets, you can either edit the existing voice sets we gave you with the program and make new voice sets using the sound samples supplied, create a completely new voice set using the samples on the Cover Disk or use samples you have made yourself or "borrowed" from other sources. If you are going to use "foreign" samples then you need to be able to convert them to *Quartet's* AVR sample format, you can do this using the *Digital* program.

Getting digital

You can use the *Digital* program to load and manipulate any kind of sound sample and save it in the AVR format used by *Quartet* and other Microdeal sound software.



■ Load up your first sample, click on the ADD button and then select your second sample. When they are merged together you can save them as a single file.

The program is supplied in two versions – DIGITAL.PRG for colour systems and DIGITALM.PRG for high resolution systems – they both work in exactly the same way.

Using *Digital* you can work on samples up to 40K in size on a 512K ST or up to 64K in length on an ST with 1MByte or more of memory. Instrument samples are almost always less than one second long, so *Quartet* itself only uses samples up to 32K in length.

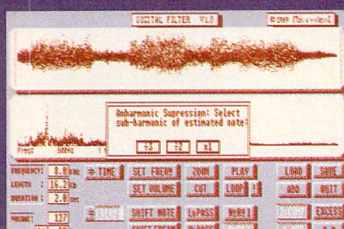
Almost any kind of sound sample can be loaded into *Digital* for conversion including .SAM, .SPL and .SND files, they are not always loaded correctly because the way the data is stored in the file varies between different formats. You can even use sounds created

on PCs and Apple Macs. If you have a non-AVR sample you want to load there are a couple of ways you can change the setup of the *Digital* software to help you import the file. Select the Excess button and load the sample, when it has loaded select the Play button. If the sound is distorted so much that it is unrecognisable then select the 2sCOMP button and load the sample again. This time you should be able to play back the sound without any problems. Any sample with an .AVR file extender automatically loads correctly because the *Digital* detects the information in the file header.

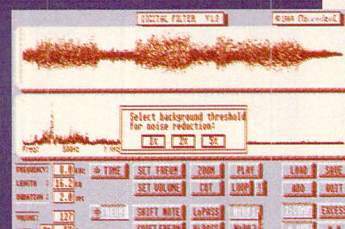
After you have imported a "foreign" sound sample you may notice that there is a clicking sound at the start of the sample, this is caused by the redundant header information of the sample being played as part of the actual sound. To get rid of this unwanted data you must cut the sample using the sample markers at each end of the main display window. The marker at the left of the window denotes the start of the sample and the one on the right marks the end of the sample, use the mouse to move the markers to the position you want. When you select the CUT button all data outside the marker is lost, the data between the markers is retained.

SOOTHING SMOOTHING

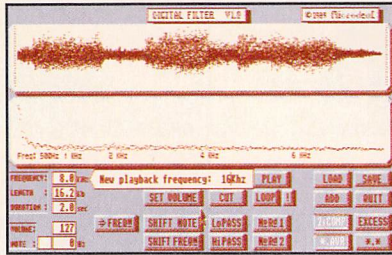
If you have a sample that is really hissy and noisy then you can try the background smoothing options. *Digital* has two methods of noise reduction, activated by the NoRd1 and NoRd2 buttons. NoRd1 reduces noise by adjusting small values in the frequency spectrum towards zero using a range of three thresholds. NoRd2 uses Anharmonic Suppression to filter around the estimated note and its subharmonics. Both of these methods of noise reduction tend to corrupt the start and the end of samples, so you may have to use the Cut option to clean it up afterwards.



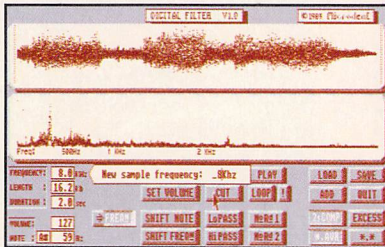
■ Anharmonic Suppression is another way to clean up your noisy samples, select the NoRd2 button to reduce frequencies between the harmonics.



■ Selecting NoRd1 gives you a choice of three levels of noise reduction, select five per cent for really noisy samples and one per cent for not quite so noisy.



■ Select the **SET FREQN** button to alter the playback frequency of the sample until it sounds correct.



■ Select the **SHIFT FREQN** button to change the sample rate frequency of your sound, any changes you make are saved with the sample.

Now save the data as an AVR format sound sample ready to load into Voices.

Playing around with sound

If you want you can add samples together to build up a single sample, you can create a chord by adding three slightly different guitar samples together or add two completely different samples together to save memory – say a piano and a drum sample.

If you are going to add two samples together make sure that they have both been saved at the same frequency and that they are in AVR format. Load the longer file into *Digital* and then click on the ADD button, select the shorter file using the file selector and wait while it loads. It's worth noting that the new sound is added to the sample in memory, the samples

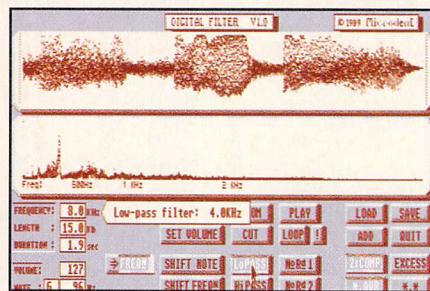
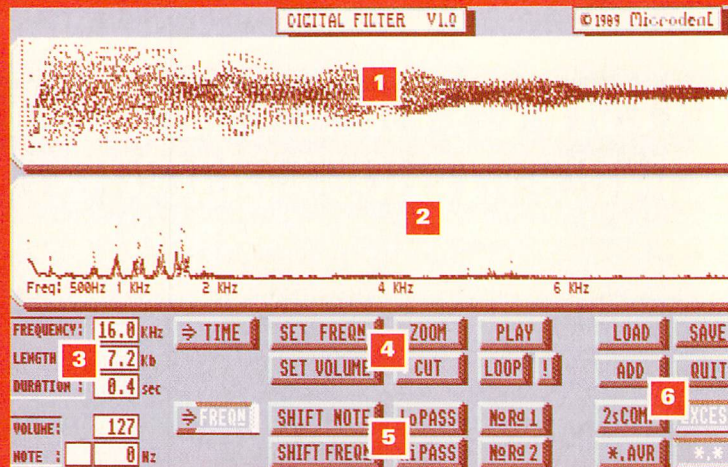
EXPLORING THE DIGITAL FILTER

Using the *Digital Filter* software is simple, the main screen is split up into six main areas

6

Disk functions: Enables you to load and save samples to disk.

- 1 Main sample window: Displays the complete sample in memory as a graph.
- 2 Secondary sample window: Displays zoomed sections of the sample or its frequency spectrum.
- 3 Information: Gives information about the sample in memory and current settings.
- 4 Time functions: Cutting and zooming functions, set frequency and volume.
- 5 Frequency functions: Filtering and frequency shifting functions.



■ Using the low pass filter in *Digital* enables you to combat the effects of noise and hiss in a sample, the highest frequency you can use is half the sample frequency.

are merged together to form a single sample overlaying each other, they are not saved sequentially one after the other.

Another problem can be caused by sounds you import being sampled at differing frequencies, *Quartet* uses 16KHz as its default setting, but imported samples can be any frequency. It's a

good idea for all samples contained in a voice set to be at the same frequency, if they are different you can get some strange effects and your songs can sound terrible. The answer is to use the *Digital* software to change the frequency of the sample to the one you want to use for your voice set.

Load your sample into *Digital* using the LOAD button, the current playback frequency is displayed in the box on the left of the screen. Play your sample to make sure it sounds exactly as you want it, if it doesn't then select the SET FREQN button and enter a new playback value – a lower value slows the playback speed and a higher value speeds it up. Keep adjusting the frequency until it sounds correct.

Now select the FREQN button, you have to wait a few sec-

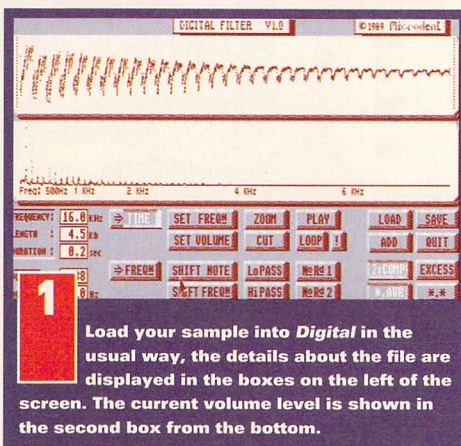
onds while *Digital* sorts itself out and recalculates the current settings. When the mouse changes back from the busy bee to the normal pointer you can select the SHIFT FREQN button, a box appears enabling you to enter the new frequency of the sample. Enter the frequency you are going to use for your voice sets and press <Return>, the sample is converted to the new playback frequency. If you convert samples to lower playback speeds you can lose some sound quality. Now save your sample to disk, it is saved at the new playback speed.

You can chop and change samples in many ways to suit the purposes of your music. Remember, you are controlling what happens to a sample and how it sounds, a bit of creative manipulation with your instrument samples can make a world of difference to your *Quartet* songs. **stf**

CHANGING THE VOLUME OF YOUR SOUND SAMPLES

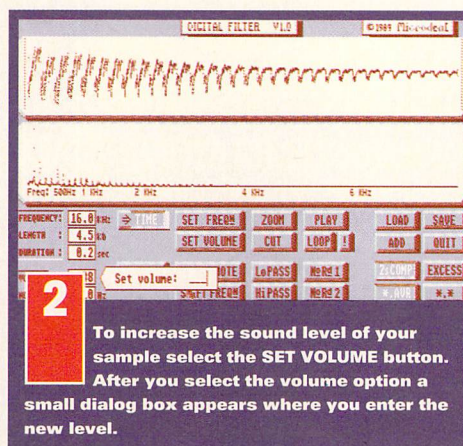
You may want to change the volume of some of your samples to either give them more punch or to mellow them slightly. Good sounds to make louder are drum and

bass samples, they can be much more effective if they are slightly louder. It's just a matter of selecting the correct option and entering a new volume setting



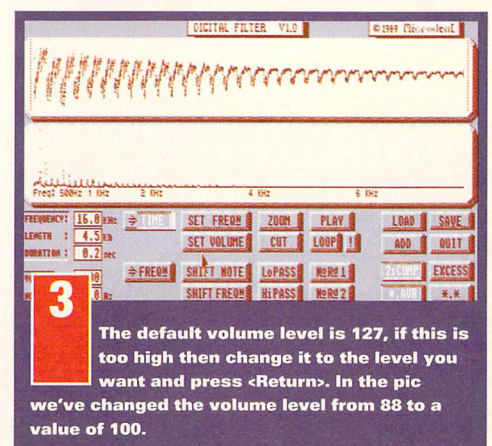
1

Load your sample into *Digital* in the usual way, the details about the file are displayed in the boxes on the left of the screen. The current volume level is shown in the second box from the bottom.



2

To increase the sound level of your sample select the SET VOLUME button. After you select the volume option a small dialog box appears where you enter the new level.



3

The default volume level is 127, if this is too high then change it to the level you want and press <Return>. In the pic we've changed the volume level from 88 to a value of 100.

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HP DESKJET 520 PRINTER



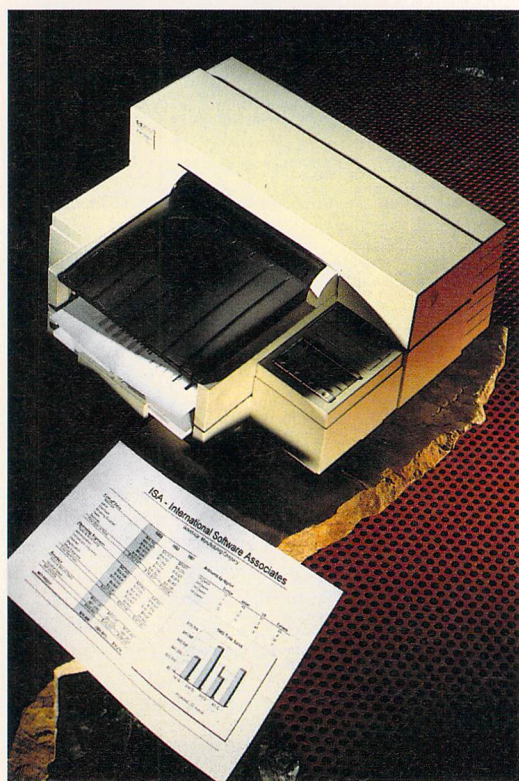
Well, double my resolution, Hewlett Packard have launched yet another new DeskJet! We check what's special about this inkjet machine

Hewlett Packard must be running out of numbers, they have the DJ310, DJ500, DJ510 and now they've just launched the new DeskJet 520! This printer

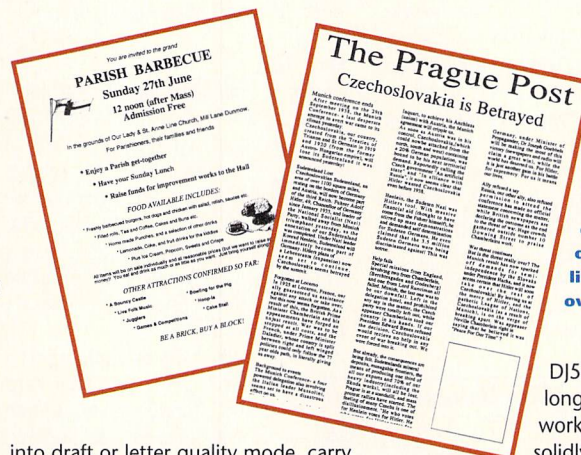
replaces the previous DJ510 – reviewed in *STF* 51. We reckoned that was the best mono Deskjet that HP had ever produced, but the new DJ520 is claimed to be even better.

All previous Deskjet printers printed at a resolution of 300x300 dpi, but HP claim the new model DJ520 works at twice this resolution.

Apart from its name badge, the new Deskjet looks identical to its predecessor. The built-in paper feeder holds 100 sheets of paper, and is adjustable to accommodate different paper sizes. You can even stack up to 20 envelopes in the feeder. The control panel enables you to switch the printer



■ This is it, the brand new DeskJet 520, looking for all the world like a DeskJet 510, or DeskJet 500, or perhaps even a DeskJet Plus.



■ They may be old and familiar, but using these admittedly rather familiar test pages does mean we can compare like with like over the years!

into draft or letter quality mode, carry out test prints or load and eject paper among other things. Connect the printer to your ST with a standard Centronics parallel printer lead.

Performance

There are certainly no problems setting up the printer, just pop in the print cartridge, load some A4 paper and you're ready to roll. For text output we used *Protext v6* using its printer driver for the DJ510 which commands the DJ520 too. The printing speed is quite good, it took 34 seconds to produce the test page with 60 lines of text in draft quality,

■ As you can see, the professional-looking output from the new enhanced DeskJet 520 is really jolly good, actually.

and 40 seconds in letter quality. Compared with the earlier model, the pace of printing is virtually identical. The text's appearance is very good indeed, and although all Deskjets produce admirable output, this one seemed first-rate.

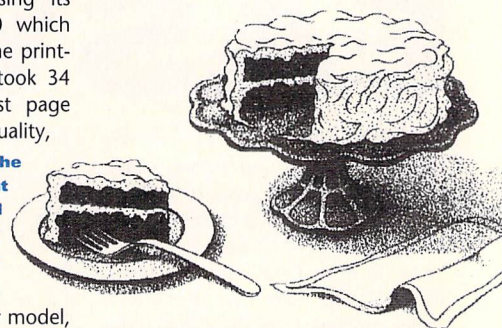
For the next test we used *PageStream*, SoftLogic's DTP program – a good way to check the printer's graphical prowess. The print speed is serviceable, between two and a half and five and a half minutes to produce a page, depending on its complexity and content. Resulting quality is excellent, in fact when comparing DJ520 inkjet prints with those from a HP LaserJet 4P laser printer, it is difficult to spot much difference between the two.

Verdict

HP's new DeskJet is an excellent machine that's very easy to use. The

DJ520 follows on a long line of HP workhorses, it's solidly built and comes with a three year warranty. When some express printer drivers are written to take advantage of its capabilities, printed results from your preferred ST software should look even better than before. If you are looking for a budget priced, high-performance printer, this could be the one for you.

PETER CRUSH



HP DeskJet 520 printer

£304, Hewlett Packard
☎ 0344 369222

Highs

- New lower price.
- Well-built and dependable.
- Best inkjet results ever.

Lows

- Mono printing only.
- Lack of printer drivers as yet.

What else?

- DeskJet 310, £235, Hewlett Packard, ☎ 0344 369222.
- Canon BJ10sx, £186, First Computer Centre, ☎ 0532 319444.

91%

More dots for your money?

You still get the usual 300dpi in the horizontal axis, but HP's new DJ520 machine gives you 600dpi in the vertical axis, which means that your text should look more detailed when printed. As the DJ520 uses the same print-head cum ink cartridges as all preceding Deskjets, any extra resolution must come from improved mechanical features in the

printer. It's claimed by HP that this new machine has Resolution Enhancement Technology, a technique normally used to improve the look of laser printed material, although the manual makes no specific reference to it. This printer is so new, no specific ST printer drivers exist yet. Not to worry, the standard Deskjet drivers provided in a lot of ST software operates the DJ520 adequately. However, to get the full 300x600 graphics resolution capabilities you are going to have to wait until ST programmers get busy.

EXTENDOS



One of the biggest problems with using CD-ROM drives with your ST is that all the CD-ROM driver software currently available is either unreliable or only works with MultiTOS installed.

When you try to use the ICD drivers they seem to work but you often end up with garbage in files, so you can't use them.

Another drawback is that the MultiTOS drivers only work with the Falcon and the TT, if you try to use them on your ST you get an error message when you attempt to install the driver. This means that many ST owners who have CD-ROMs can't

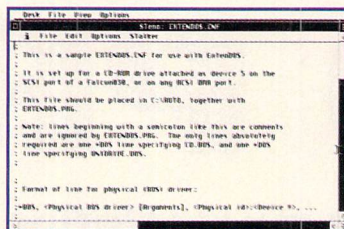
actually use Kodak Photo-CD (PCD) discs or the Gemini Atari CD-ROM – see the review in *STF 58*, which you can order from page 94 – properly. The images are scrambled and software copied to hard drive either doesn't run or refuses to decompress.

Driving

Anodyne Software in Canada have come up with a set of CD-ROM drivers that work with any ST with a SCSI host adaptor and the Falcon, and as a bonus, you don't have to use MultiTOS to use ExtenDOS. This means that CD-ROM files and images can be used on your ST or Falcon by installing a small Auto folder program on your hard drive.

Installing the software is just a matter of copying it to your hard drive and altering a configuration file so the software can find the drivers and the CD-ROM, it's quick and easy to do. Apart from being easy to use, ExtenDOS is very fast. Using it on the Falcon

■ After installing ExtenDOS on a 4MByte STE with 12MBytes of RAM we loaded the Cover Disk from CD-ROM Today into our disc caddy.



■ As usual with CD-ROM drivers, there's a couple of lines to configure in a text file so ExtenDOS can find your CD-ROM drive. The example file is extremely well documented so you shouldn't have any trouble.

with the latest version of *Photo Show Professional* enables you to load Kodak PCD images in around six seconds; using MultiTOS drivers the loading time is more like 30 seconds.

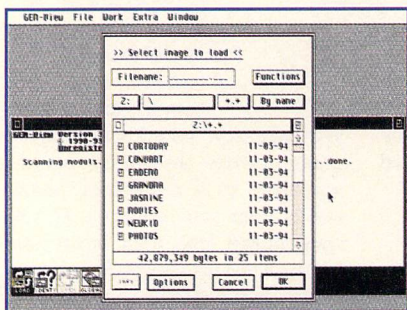
The final innovation is the use of two types of cache buffers to speed CD-ROM access times, the first cache keeps track of the path tables and the other is set for general access. You can easily change it from the configuration file and impressively speed up access time.

ExtenDOS is a must for anyone who uses their ST or Falcon with a CD-ROM drive.

CLIVE PARKER



■ Luckily for us, the CD-ROM Today disc has a section devoted to images taken from Kodak Photo-CD discs, we viewed them in high resolution using GEM View 3.



ExtenDOS

£29.95 from System Solutions ☎ 0753 832212. Requires CD-ROM drive

- Highs**
- Easy to install.
- Compatible with all SCSI CD-ROM drives.
- Uses caching to speed up access times.

Lows

- Editing the configuration file can be daunting.

What else?

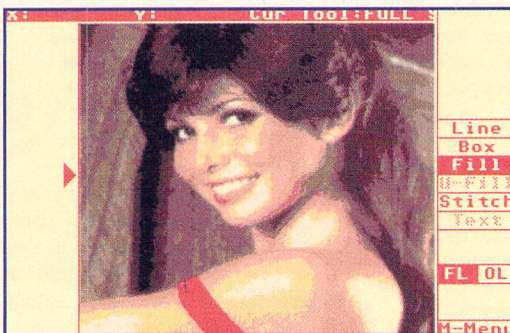
- ICD Professional Hard Drive Utilities, £39.95 from System Solutions ☎ 0753 832212.

90%

EASY STITCH

If you've ever seen the embroidered samplers adorning many walls, you've seen cross-stitching – the art of creating pictures on fabric with coloured thread. The tapestries are sewn from paper patterns, but creating your own designs is often more complex than the stitching. Enter *Easy Stitch*, a sort of DTP package for cross-stitching.

Instead of using graph paper and pens, *Easy Stitch* enables you to design patterns using the mouse, so it's a doddle to correct mistakes or make major changes to a pattern.



■ Easy Stitch imports your own designs and automatically converts them to a pattern for you.

horizontal back, and diagonal back stitches. *Easy Stitch* makes the point that the other commercially available packages won't handle half or back stitches.

Get stitching

Pictures can be imported for conversion to cross-stitch patterns automatically, and the P11 and NEO formats are supported as well as a basic 32K screen dump file. You define the area you want to use, and the program does the rest.

The finished design can be output to your printer, and 9- and 24-pin dot matrix and NEC compatible inkjet models are supported directly. If you own a printer not supported, the author also offers to write a custom driver for *Easy Stitch* owners free of charge. Printouts replace the

picture colours with symbols, using the standard pattern format used by all pattern books, with a key to match colours to symbols. The can select the printout size, and larger patterns can be tiled – printed in sections for pasting together later. Printouts are fast and the results are easy to follow.

If you, or anyone you know, are into cross-stitching, *Easy Stitch* could well make life a lot easier.

FRANK CHARLTON

Easy Stitch

£16.95 Emerald City ☎ 0703 672577.

Any ST, TT, Falcon in low resolution

Highs

- Very easy to use.
- Imports your own designs.

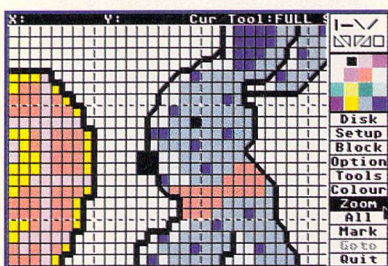
Lows

- Doesn't use GEM.

What else?

- X-Stitch Master, Ursa Software.
- X-Stitch Designer, ILSoft.

88%

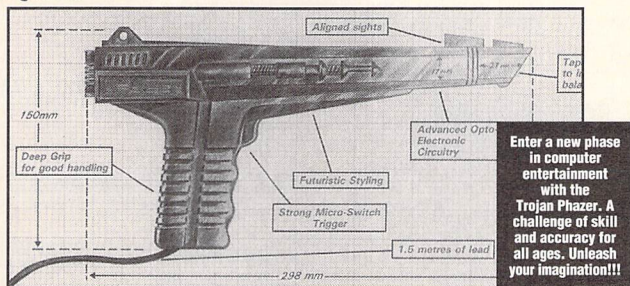


■ A handy zoom function enables you to get right into your design, making it easy to edit individual stitches.

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SCREENPLAY

A brand new bumper games section sits snugly in the middle of the magazine and stars new writer, Jonathan Nash

GAMES NEWS

- Great news – there are still plenty of ST games to come out this year! Page 54
- Jaguar wins its sixth award this year – but what on earth are Atari playing at? Page 56
- First reported sighting of Jaguar CD-ROM unit at the European Computer Trade Show. Page 57
- Charts – this month's best-selling ST games. Page 55



PLUS!

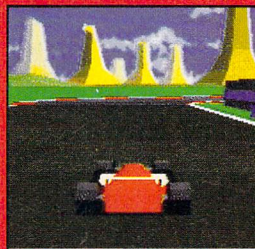
Wolfenstein 3D (Jaguar). Page 60
Flashback (Jaguar). Page 61
Kick Off 3 (Jaguar). Page 61

PREVIEWS

Football Tactician 2 (ST)
Does the world need another football management game? Page 59

Redline Racing (Jaguar)

Previously Chequered Flag 2, this racing sim left a lot to be desired the first time we saw it. Has it improved now? Page 62



REVIEWS



Rock 'n' Roll Clams (ST, Falcon)

The first pinball-like game for the ST from new developer and publisher,

Caspian Software, plus your chance to win your very own rockin' and rollin' furry clam! Page 68

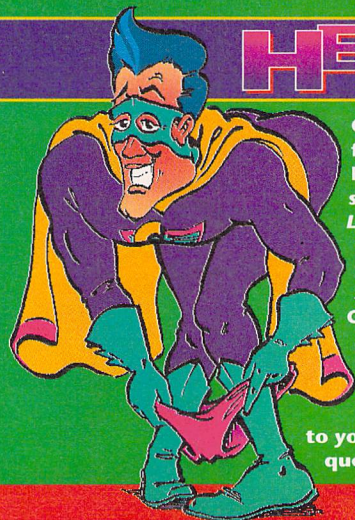


Tempest 2000 (Jaguar)

Cited as the best game ever, anywhere, here's Minter's latest. Page 64

PLUS!

The Battle of Britain (ST). Page 72
Muzzy (Falcon). Page 73
Jimmy White's Whirlwind Snooker (ST). Page 73



HELP!

Gamebusters featuring a brilliant solution for Lemmings 2, hints and tips for Chaos Strikes Back, Civilization and Frontier: Elite 2. Captain Blunder has more answers to your gaming queries. Page 74

As the unreasoning mind of chaos laid plans for a hideous revenge against those who would soon defeat him.

CHAOS STRIKES BACK

■ What sort of sentence is that? There should be another clause, surely. These demons, eh? Illiterate, the lot of them.



LEMMINGS 2

■ First, there was Lemmings. Then there were two of them. Here are four of those.

PRESENTING...

ID Software, developers of Doom, are under scrutiny this month. Discover who they are on page 79

Yippee! more

Despite Atari putting all their efforts into the Jaguar and the software houses concentrating their development endeavours into cartridge and CD ROM formats, there is still a comparatively healthy selection of ST games – both full price and commercial – to come out this year. So that's good news if you're sick and tired of us harping on about the Jaguar and Falcon.

Of the big software publishers, Mindscape are releasing the German adventure game, *Genesis*,

in which you have to find seven jewels that have carelessly been mislaid or take over the world with the usual selection of activities including inventing and trading and, above all, keeping ahead of the Joneses. You can expect to see *Genesis* soon, but don't hold your breath... Call Mindscape on ☎ 0444 246333 for more details.

Also from Europe come more adventure games from Silmarils – *Robinson's Requiem*, a game of human survival and endurance and *Ishar 3* (unsurprisingly the follow up to *Ishars 1* and *2*) which are poised for imminent release. Con-

tact Silmarils on ☎ 071 328 2762.

Another footie sim, if one was needed, is also to come to the ST courtesy of Gremlin after some indecision. Expect to see *Premier Manager 2* within the next couple of months.

The indies

One trend that's looking very interesting is the development of independent software houses who are creat-



● *Rock 'n' Roll Clams* is reviewed fully on page 68 and is the first in a long line of games to come out from real ST enthusiasts who are determined to continue providing support for the platform.

GAMES SNIPPETTY BITS

Comms gossip

There were some interesting comments from Atari's director of communications, Bob Brodie, sighted on Compuserve this month...

"The signing of WMS Industries is very significant. They are the leading arcade game manufacturer in the world. Some of the finest arcade games, like *NBA Jam*, *Mortal Kombat* and others have come out on the Williams platform. This means that future Williams hits can

be readily ported to the Jaguar for home use."

But there's still no word on what could be the most exciting releases to come for the Jaguar so far are going to be.

We do love computers

And Brodie's still attempting to claim allegiance to Atari's computer business: "It is not our intention to abandon the computer business, however, we must be

successful with the Jaguar, which means doing the right things in the right way at the right time." And judging from their total absorption into the Jag, doing the right thing is to forget all the forays they've made into the computing world, leaving Falcon and ST users at the mercy of third parties...

Jaguar extras

Jaguar peripherals have started to appear with the JagDapter. Expen-

sive at \$49, it enables you to use your Jaguar with your TV and get a monitor-clear picture.

Call Mars Merchandising on ☎ 0101 708 627 7462 for more details – and since they're in the US don't forget the time difference!

EA and Atari?

Rumour has it that Electronic Arts are poised to sign up with Atari to develop for the Jag... interesting considering EA's 3DO allegiance.

First glimpse of Jag CD

ST FORMAT has been able to catch a little more than a glimpse of the Jaguar CD-ROM drive at the ECTS courtesy of Bill Rehbock, director of software applications of Atari US.

The drive, all exposed circuits and twisted wires, is still in the distraught state of hanging from the back of a Falcon. The sort of thing that it's capable of can be seen as Rehbock deftly pushes a few buttons... and the climax of the film

Jaws springs into life on an accompanying monitor.

"It's MPEG [video CD compression standard] running at 30 frames per second," reveals Rehbock as Roy Schneider blows up Bruce the shark with a lucky shot.

"But the Jaguar's so powerful, you could have that running – see, with the screen moving around – and still be playing a game such as *Crescent Galaxy* in the background."

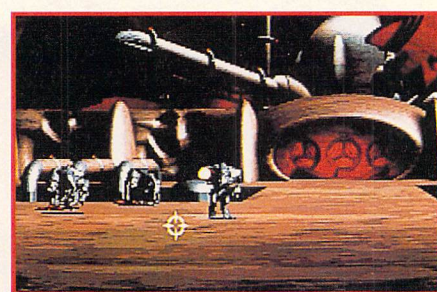
He fails to explain why you should want to be playing *Crescent Galaxy* at all, however, though that's not

really the point. But what of the frankly piddly screen size?

Rehbock explains this is because the version of *Jaws* shown is a Quicktime movie designed for Apple Macintoshes, ported across for demonstration purposes. The Jaguar CD, with a double-speed data transference rate

of 300K per second, can handle a screen of 320 by 200 pixels with 65,536 colours.

The video quality is very good, with sharp images and negligibly-pixelated edges. "The software that runs this – the decompression, the translation and so on, is only 6,000 bytes long," comments Rehbock. The



● There was a demo of *Creature Shock* on the PC at the European Computer Trade Show. And very nice it looked too.

film sequence ends with Bruce dissolving in a cloud of blood. "That's the absolute worst case – the absolute worst image you can get on this," Rehbock adds as the image unsupportively blotches and flares momentarily.

And the games?

The games that are ready to run on the CD ROM unit are conspicuous by their absence. Rehbock drops some very impressive names, such



● Argonaut was one of the first companies to sign up to develop Jaguar CD games, practicalities aside...

ST games!

ing their own games, distributing, marketing and packaging them. We are going to be taking an in-depth look at these entrepreneurs next issue, but for now they're particularly interesting because the people behind the games tend to be ST enthusiasts who feel that the machine – especially the STE – hasn't been used to its full potential. There should be some extremely interesting material to come from the following softies within the next few months.

There's Bath-based Binary Asylum who are working on *Zee-wolf*. At present they're developing

the Amiga version – and reports from Amiga enthusiasts have been very positive so far. Then there's Fusion who are based in the Netherlands. They've almost finished *Spherical*, the demo of which we put on *STF 54's* Cover Disk. Despite *Spherical's* amazing gameplay, Fusion still haven't managed to find a publisher who wants to support them, so they're going to do all that work themselves. Look out for a review of the full game shortly – or you can contact Fusion on ☎ 010 31 10 4180348 for more info.

From Finland hail Bloodhouse who are developing *Stardust* for the STE, they say that it's one of the first games ever to really use the STE's advanced architecture and that it has a real coin-op feel to it. As well as this, it sounds as if the game is going to look and play brilliantly – it has ray-traced graphics

and includes four warp tunnel sequences with two special missions. We haven't actually seen the game at all yet, but we should have more details next month.

Caspian Software of *Rock 'n' Roll Clams* fame (see page 68 for the review) also has another release on the way later this year, the details of which are very sketchy, save to say that it's going to be a 1MByte STE-only game.

And finally, from Sweden comes the STE-only pinball game, *Obsession*. That too should be available shortly and sounds good. In fact, if everything goes to plan, we hope to have a demo of it on next month's Cover Disk.

And the budgets

Excellent news on the budget game front is that the Hit Squad have signed a deal with Virgin to put 12 of their top titles, including

the stunning *Cannon Fodder*, onto their budget label so that everyone can have a taste of what Virgin are capable of – so let's just hope they don't include the buggy *Goal!* in the deal. These games are expected to be released over the next

few months and include *Archer McLean's Pool*, *European Football Champions*, *The Games and Realms* and are expected to cost £12.99. Call the Hit Squad on ☎ 061 832 6633 for more details.

Kixx XL also continue with their assault on the market with more mid price games to add to their substantial catalogue of ST golden games. During the rest of the year classics like *Winter Gold*, *Cadaver* and the golfing sim *World Class Leader Board* are to be added and should be ready for appraisal soon. Call Kixx XL for more information about any of their titles on ☎ 021 625 3311.



● *Cannon Fodder* is going to be released on budget for the ST in the coming months and later on the Jag.

as Ocean with their *Lobo* licence, and coin-op supremos Williams with the supposedly quite fabulous *Double Dragon 5*, gained after buying Tradewest – "It's no coincidence," he comments, rather grandiosely – and also brandishes "my personal list of developers," implying there are some heavyweights not yet revealed in the

official announcements, but, as yet, there is nothing concrete to see. Stranger still are the discrepancies between Atari's views and those of the developers themselves. *ST FORMAT* talked to Interplay, who told us they are definitely not programming for the Jaguar. Not so, insists Rehbock; they're working on *Battle Chess*,

and it's almost finished. Well, how about *Return to Zork*? "Yes." (No, say Activision.) He and Darryl Still blame a breakdown in communication between companies' US and UK branches.

August launch

"Atari expects to deliver its Jaguar CD peripheral later in 1994 at a

suggested retail price of \$200," dickers the official press release. Rehbock reckons the company is looking at an August launch.

A major developer, who prefers not to be named, told us that they still hadn't received their Jaguar CD development kit. But that's probably a breakdown in communications.

CHARTS

This month	Last month	Game	Publisher	Price	STF Rating
1	NE	Cannon Fodder	Virgin	£29.99	93%
2	1	Frontier: Elite 2	Gametek	£29.99	91%
3	NE	Lotus Trilogy	Gremlin Graphics	£29.99	91%
4	7	Sensible Soccer 92/93	Renegade/Mindscape	£25.99	91%
5	3	Championship Manager 93	Domark	£29.99	80%
6	NE	The Greatest	Beaujolly	£32.99	91%
7	NE	Steve Davis World Snooker	Blue Ribbon	£7.99	N/A
8	NE	Striker	GBH	£9.99	79%
9	NE	BBC TV's Match of the Day	Zeppelin Premier	£25.99	N/A
10	NE	Street Fighter 2	Kixx XL	£14.99	91%

Atari ooze confidence

The best hardware of the year award went to Atari for the Jaguar at the European Computer Trade Show. This bumps up its number of accolades received this year to six, following the five it picked up at the Las Vegas CES. This must have been the icing on the cake for the company who were having a buoyant ECTS, principally an event for the computer industry to showcase its latest software and hardware releases.

Atari haven't attended the show at all in recent years but this time they were there with a vengeance – even Sam Tramiel, president of the company, came over from the States to be there. The company were showing off the Jaguar and previewing 11 games which are due to come out in the next month or so.

Atari's selection of games wasn't as wide as they'd anticipated, however, with some games apparently still stuck in customs or on the plane. Even those that were there – like *Kasumi Ninja* – were some way from completion. *Ninja*, for example, lacked many of the characters the finished version is expected to include. Also going on

behind the scenes were discussions with potential new developers.

The official line

Darryl Still, Atari UK's marketing manager, particularly, was confident about the Jaguar's future, sticking to his expectation that 100,000 machines will have been sold in the UK by Christmas.

He explains that Atari are specifically targetting present games players and so, he reckons, the best way to reach them is through the independent retailer. This is despite the fact that the Dixons Group (which includes Curry's and PC World) account for around 40 per cent of home electrical appliance sales, including computers, in the UK.

The idea behind this decision is that sales people in chain stores are less likely to push the Jag compared to

Sega and Nintendo machines. The States-wide Jaguar push has concentrated on the larger retail chain stores like Toys 'R' Us, however, to achieve the high levels of distribution they claim they're getting.

It seems likely that IBM are unable to meet the demand for

both NTSC and PAL machines so they're concentrating their efforts on the American NTSC format.

The realistic view

Taking Atari's claims at face value (just assuming you do...) you would suppose that since Atari are putting all their eggs into the independent retailers' baskets that these indies would be keen to enthuse about Jaguar sales. But no, while NASCR (the National Association of Specialist Computer Retailers) agrees that if they could get hold of Jaguars they would undoubtedly sell very quickly, the truth of the matter is that most independent shops simply haven't had any Jags to sell.

And Atari's personal relationship with the independent retailer also left a little to be desired – their hospitality suite was closely guarded by Atari staff who made sure they couldn't get close to shop owners who, understandably, wanted to be able to see for themselves the products they were supposed to be selling. The route, apparently, was for the shop owners to go through the only confirmed UK distributors, SDL.

Thornley had also been distributing the machine, but now appear to have ceased – Atari's theory was that they couldn't afford the investment necessary to guarantee the minimum delivery



● This is a picture of Sam Tramiel, but it wasn't taken at the ECTS. It was one we had lying around. It's still him though.

although it is more likely that they got fed up waiting for deliveries of Jaguars that never came.

What the softies know

Atari's other major announcement included the fact that almost 100 developers have now signed up to work on software for the Jaguar – and discussions with other developers took place during the show.

This fact doesn't appear to have filtered down through the representatives of the cited companies who were present at the ECTS. Interplay, for example, denied everything although they have been expected to produce *Battle Chess* for the Jaguar from almost the launch of the machine last November, and Ocean too were distinctly unhelpful – they suggested we looked to our sister magazine, *Edge*, for any details we needed. And *Kick Off 3* which was

THOSE JAG GAMES THAT ARE ALMOST HERE (BUT NOT QUITE)

The Atari representative (or the marketing manager, Darryl Still, as you probably have heard of him before) is grinning maniacally. He's just performed an extremely nasty death move, involving the character on-screen seizing his opponent and breaking him in half across his knee. The game isn't *Mortal Kombat*, but *Kasumi Ninja*, one of a handful of new Jaguar releases unveiled at the ECTS.

The version being displayed of the new beat-'em-up is very early. Only one character is available; a sort of hooded rogue with glowing red eyes. Atari are expecting the latest revision, with three of the expected 12 characters, typically just after the show closes.

The parallels with *Mortal Kombat* are lawsuit-promptingly obvious: large, digitised sprites fighting before larger, digitised backgrounds. The character in the demo – probably called something like Mangler, or Vernon – can perform all the usual punches and flying kicks, with special moves like

zapping his opponent with a fireball or teleporting across the screen to appear beside him unexpectedly. And, of course, there's blood and gore all over the place.

Playing the game is fairly fun – the problem is with the Jaguar joystick. With only three buttons (if Atari think the dreaded trimphone keyboard is of any use at all, they're frankly mad) the chances of hugely complex fighting moves are somewhat remote. In the demo game, A+C launches a fireball, while B+C makes Vernon teleport – what a shame if this were to mean each character had only two moves. But the mechanics are there – it's slick, and it's fast – and with Acclaim's official *Mortal Kombat* looking less and less likely, *Kasumi Ninja* may well fit that beat-'em-up gap. You can judge for yourself when it comes out in August.

Alien vs Predator

Also being shown was the game everyone, but everyone, is talking about. Apart from when they're talking about *Tempest 2000*. The extremely quick go we had proved

an oddly dispiriting experience. The scenery of the game, all battle-scarred wall panels and failed lighting, is undeniably impressive. Both speed and detail are tremendously high. It's just things look scrappy. Movement feels floaty and distanced – the scenario on view, where you play the Marine, has a dangerously military rifle waving in the centre of the screen to suggest you're swaying as you walk. But it just looks like a dangerously military rifle waving in the centre of the screen. And as for the gunshots and explosions, they're miserably poor. Your gun flashes half-heartedly a few times, and then the target fades away.

It also looks as if Rebellion are still having trouble fitting their preferred samples into the game – apart from some clunks, whirrs and clicks the demo version is silent. Furthermore, the demo version is bugged. At one point we were attacked by the disembodied right arm of an alien.

It's not fair to judge a game on only a five-minute jaunt, but the demo version is rattlingly unnerving. Maybe our expectations have been heightened by playing PC *Doom*. Atari say *Alien vs Predator* is two weeks away from completion. You can read what we think of the finished game next month. Probably.

Tempest 2000

Some fools wanted to throw us off the display Jaguar to play this game



● Everybody who has seen or heard of AVP reckons it's really quite good. But our short go on it wasn't actually that impressive.

at ECTS

expected to be released by Anco in the next couple of weeks has been put back because, they say, Atari simply haven't sold sufficient machines to make it worth their while to rush it.

Rumours

Although on the surface the future for Atari is a rosy one, you don't have to scratch very far beneath to find some rather major cracks in the woodwork – and the worrying thing is that the concerns come from people very close to the company.

One source suggested that as few as 112 Jaguars had been sold in the UK, and even went as



● Bob Gleadow, the MD of Atari UK who was also at the ECTS, though he wasn't there here. See?

"Atari's other major announcement included the fact that almost 100 developers have now signed up"

far as to say he expected Atari UK and Europe to be dissolved within the next couple of months. Although this would be potentially disastrous for the European distribution of Jaguars, and at the very least a major inconvenience for everyone who owns an Atari computer of any description, and any company who depends on Atari for their livelihood, it would support their apparent conviction that the States is the place to be to lead the world. The reasoning being that the rest of the world usually follow anyway.

Jean Rechin, Atari's European marketing director, is a little more optimistic when he talks about Atari's future. He believes, at least, that Atari are going to be in the future of games machines in some way or another – he seems relieved that they're not being discounted completely.

Despite the teething troubles that Atari have had for several months, they're still way ahead of the competition since Sega or Nintendo's 64-bit offerings haven't yet seen the light of day. The word on the street is that the Jaguar could succeed – in spite of Atari's best attempts.

with a view to buying it for worldwide distribution, or something, but we kicked them in the shins until they went away.

Stop it. Now

You can read about the other games on show – *Wolfenstein 3D* and *Flashback* – in the previews on pages 60 and 61. But we can't leave the Atari stand without mentioning the advertising campaign running unnoticed on a video in one corner.

It's a series of about half a dozen designed for US audiences, and they're startlingly bad. Most of them revolve around a Typical Teenager, called Vernon, or Mangler, or something, playing either *Cybermorph* or, er, *Crescent Galaxy*. You see a montage of cleverly presented scenes from the games that ingeniously fail to reveal *Crescent Galaxy*



● *Tempest 2K*. This is brilliant. Turn to page 64 to discover why.

is amazingly grim, then cut back to the Typical Teenager.

They're suitably astonished, and either fall over, comically crispy-haired from the almost physical shock, or else vomit copiously over the camera. Cut to lethargic animated jaguar, the picture of cool, who slouches in a seat and growls disinterestedly out of the side of his mouth.

Excited announcer bellows horrible slogan and then collapses from respiratory failure. Yes. We'll take two, please.

JAGUAR DEVELOPERS

ACCENT MEDIA PRODUCTIONS

ACCLAIM *Mortal Kombat*
ACCOLADE *Hardball 3*

Brett Hull Hockey
Charles Barkley Basketball
Jack Nicklaus Power
Challenge Golf

Bubsy
ACTIVISION *Return to Zork*
(CD-ROM)

ALL SYSTEMS GO *Jukebox*
Horsenose and Booger
(CD-ROM)

AMERICAN LASER MASTERS

Mad Dog Mcree
ANCO SOFTWARE *Kick Off 3*
World Cup

ANTHILL INDUSTRIES

ARGONAUT SOFTWARE LTD
Creature Shock
(CD-ROM for Virgin)

ASG *Bio-spear*
ATARI

Chaos Agenda (CD-ROM)
Crescent Galaxy

Club Drive
Tiny Toon Adventures

Batman the Comic
Battlezone 2000

Space Pirates

ATTENTION TO DETAIL

Cybermorph
Battlemorph

Blue Lightning (CD-ROM)
Cybermorph 2 (CD-ROM)

AUDIO VISUAL MAGIC

BETHESDA SOFTWARES

BEYOND GAMES *Battle Wheels*
Mechfiles

Ultra Vortex

BJORN JOOS/KRIS VAN LEER
BLACK SCORPION SOFTWARE

BORTA AND ASSOCIATES

BRAINSTORM

Jaguar development system

BRODERBUND

BULLFROG PRODUCTIONS LTD

Theme Park (for Ocean)
Syndicate

CLEARWATER SOFTWARE

COMPUTER MUSIC

CONSULTING

CROSS PRODUCT

SNASM development system

CYBERVISION

CYBERWARE

DELTA MUSIC SYSTEMS INC

DIMENSION TECHNOLOGIES

DOMARK

DTMC *Lester the Unlikely*
ELITE *Power Slide*

EPIC MEGAGAMES

EUROSOFT

GAMETEK INC

GENUS MICROPROGRAMMING

INC

GREMLIN GRAPHICS *Zool 2*

H2O DESIGN CORP

HANDMADE SOFTWARE

Kasumi Ninja (for Atari)

HIGH VOLTAGE SOFTWARE

HISOFT

ICD INC

ID SOFTWARE

Doom: Evil Unleashed
Wolfenstein 3D

IMAGINEER

IMAGITEC

Bubsy
Evolution Dino Dudes
Raiden

Freelancer 2120 (CD-ROM)

INFOGRAMES *Alone in the Dark*
INTERPLAY

Battlechess (CD ROM)

Another World

JALECO

LIMELIGHT

LLAMASOFT *Tempest 2000*

LUCASARTS

KRISALIS SOFTWARE INC

Soccer Kid (for Ocean)

MANLEY AND ASSOCIATES INC

MAXIS SOFTWARE

MEDIA INC

MICROIDS

Commando

Navy Commando

Evidence

MICROPROSE *Gunsip 2000*

MIDNIGHT SOFTWARE

Car Wars

Dungeon Depths

MILLENNIUM *Brutal Football*

NMS SOFTWARE LTD

OCEAN

Apes

Lobo

ORIGIN

PARK PLACE PRODUCTIONS

American Football

PHALANX *Phong 2000*

PHOTOSURREALISM

Galactic Gladiators

PIXIS INTERACTIVE

READYSOFT INC

Dragon's Lair (CD-ROM)

Dragon's Lair 2 (CD-ROM)

Space Ace (CD-ROM)

REBELLION

AVP

Red Line Racing

Legions of the Undead (for Atari)

REST ENERGY

RETOUR 2048

Zozziorx

Indiana Jags

SCULPTURED SOFTWARE INC

SENSIBLE SOFTWARE

Cannon Fodder

SILMARILS *Robinson's Requiem*

SOFTWARE CREATIONS

SPECTRUM HOLOBYTE

Star Trek: the Next Generation

SUNSOFT *Aero the Acrobat*

TEAM 17 SOFTWARE LTD

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Jimmy Connor's Pro Tennis

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V-REEL *Arena Football*

Horrorscope

VIRGIN

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VISA



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FOOTBALL TACTICIAN 2

PREVIEW

Surely the ST has enough football management sims to keep every would-be manager happy for ever? Do we really need another one?

PUBLISHER: TALKING BIRDS
(☎ 0702 523607); **ALSO**
DISTRIBUTED BY KOMPART
PRICE: £22.95

Right - Trevor Peake is improving all the time. There is satisfaction at Luton Town. Apparently.

Changing names is a tricky and agonisingly confusing business. Just for the record, *Football Tactician 2*, which is available through mail order from the programmers Talking Birds Software, is exactly the same program as *Tactical Manager*, the commercial release from Kompart. The only differences, as far as we can see, is that *Football Tactician 2* comes in a small plastic bag rather than the typically ridiculous box, lacks the enormous manual of Kompart's version, and is continuously being updated and therefore may be slightly more up-to-date, at least that's according to the information received by the marketing department. Have you got that?

Quandary

Previewing footie management games is a tricky and agonisingly confusing business. Reviewing them is bad enough – it's usually only after about 2,000 years that you finally manage to get to the bit that's different from every other footie game on the market. Therefore, we're not even going to attempt to pass judgment on this before time. Not one vaguely authoritative statement is going to be made until some lucky reviewer's played this for 2,000 years. Bearing that in mind, here

Stop whimpering, Sheridan. If you'd paid attention and tempered your aggressive playing, Scorppy would be alive today. You bear responsibility.



are some of the more attractive features to whet your appetite.

You know how you get the feeling management games are run up on some sort of fanatically guarded universal editor? You get *Football Tactician 2*'s editor with the game, so if you're not particularly happy with the supplied setup, you can do your own. There's also provision for completely customising the program with a view to running a play by mail game.

The game features all manner of insanely complicated mathematical calculations in the typical management game approved manner.

SHEFFIELD WEDNESDAY				FRESHNESS				FITNESS				PERFORMANCE				OVERALL			
1	C	WOODS	GOA	GOA			18			10	1					1	110		
2	R	JONES	M-D	DEF			17			10	1					1	103		
3	D	WALKER	DEF	DEF			14			9	4					4	109		
4	C	PALMER	M-D	DEF			17			8	1					1	110		
5	N	WORTHINGTON	M-D	DEF			15			8	1					1	94		
6	A	SINTON	MID	MID			12			6						4	104		
7	C	B. WILLIAMS	MID	MID			15			6						3	96		
8	C	WADDLE	M-A	WIN			14			7						5	105		
9	M	BRIGHT	ATT	ATT			19			8	1					0	107		
10	G	WATSON	ATT	ATT			19			8	1					0	99		
11	J	SHERIDAN	MID				15			9	1					0	94		
12	N	JEMSON	M-A	SUB			20			9	1					0	98		
13	A	PEARCE	M-D	SUB			20			6	1					0	103		
14	S	COLEMAN	M-D	RES															
15	P	KING	DEF	RES															
16	G	HYDE	MID	RES															
17	N	PEARSON	M-D	INJ															
18	D	HIRST	ATT	INJ															
19		VACANT																	
20		VACANT																	



Left - So Sheridan's been tackling recklessly again, eh? He simply won't be told. Have his dog shot.

One of the features that you probably won't have seen before (but don't quote us on that until 2,000 years have passed) is something called "flow." *Football Tactician 2* uses this to nudge you into playing a tactical game. It describes through how many plays you have to keep possession before a shot at goal is favoured.

Other things Talking Birds reckon are unique (and who are we to argue at this appetite-whetting stage?) include notes for players – you just bang out something of interest in a text file, link it to the player, and there you go: top libelous revelatory action. Alternatively you could use it to store useful stats and other things that might prove handy at some point in the future. You can also switch to rough play – with a greater chance of fights between famously antagonistic

MANCHESTER UNITED				ALEX FERGUSON			
1	SCHMEICHEL	GOA	GOA	SVAN	GIGGS		
2	IRWIN	DEF	DEF	MID	ATTR	WINGER	
3	BRUCE	DEF	DEF	DEF	DEF	DEF	
4	PALMER	DEF	DEF	DEF	DEF	DEF	
5	WADDLE	DEF	DEF	DEF	DEF	DEF	
6	WADDLE	DEF	DEF	DEF	DEF	DEF	
7	WADDLE	DEF	DEF	DEF	DEF	DEF	
8	WADDLE	DEF	DEF	DEF	DEF	DEF	
9	WADDLE	DEF	DEF	DEF	DEF	DEF	
10	WADDLE	DEF	DEF	DEF	DEF	DEF	
11	WADDLE	DEF	DEF	DEF	DEF	DEF	
12	WADDLE	DEF	DEF	DEF	DEF	DEF	
13	WADDLE	DEF	DEF	DEF	DEF	DEF	
14	WADDLE	DEF	DEF	DEF	DEF	DEF	
15	WADDLE	DEF	DEF	DEF	DEF	DEF	
16	WADDLE	DEF	DEF	DEF	DEF	DEF	
17	WADDLE	DEF	DEF	DEF	DEF	DEF	
18	WADDLE	DEF	DEF	DEF	DEF	DEF	
19	WADDLE	DEF	DEF	DEF	DEF	DEF	
20	WADDLE	DEF	DEF	DEF	DEF	DEF	

A lot of numbers. Yesterday. (Long pause.) They're very good numbers. Look at that seven. (Pause.) Lovely.

players – but only if you think you can get away with it, because the referees are rated as well. Cunning. And, as they say with no regard for people's sensibilities, there's much more.

Suspense

Annoyingly, this version only contains English clubs. If the Amiga game can manage Scottish, Bundesliga and Italian leagues as well, why can't the ST? Surely that's a foul ref.

Twittish wordplay aside, there's plenty to recommend *Football Tactician 2* looking at it at this early stage. As ST football management games seem to have refined play mechanics just about as far as they can possibly go, it's the extra features and comprehensive statistics that make the difference. *Football Tactician 2* contains 920 players, 46 managers and clubs, 12 famous matches and 88 referees. It quite drips numbers. But is it any fun? A fine link, you have to agree. Next month, eh?

JONATHAN NASH

WOLFENSTEIN

3D

In which you too can shoot
Erich von Stroheim and George
Sanders. In a way

PREVIEW

PUBLISHER: ID
PRICE: £45
RELEASE DATE:
END OF JUNE

The good news is, the Nazis are in. If you're unfamiliar with the Great Nazi Fiasco connected with this game, when Nintendo licensed *Wolfenstein* for the SNES, they insisted that all Nazi references and imagery were removed. So, for example, you still find portraits of Hitler on the walls, but it isn't really Hitler because they've coloured over his moustache. And the guards, previously shouting "Halten," and other such damnably outrageous phrases, now drawl, "Stop," in heavily American voices. No one quite knows what Nintendo are thinking of, but the message that comes across is that it's all right to shoot people through the head with a chain gun, but they mustn't be Nazis for fear of offending, er, Nazis.

Happily, Jaguar *Wolfenstein* remains true to PC original. In the war movie-staple plot, you're a ludicrously beweped soldier sent to assassinate Hitler, but you've been captured and imprisoned in the sinister Castle Wolfenstein. The game starts just as you escape from your cell, and you have to move up through the levels of the castle, decimating everyone you meet with that ludicrous weaponry and indulging in a spot of lucrative looting on the side.

A bit rascally

If you're a PC owner, you can't move without falling over yet another texture-mapped 3D blasting game. *Wolfenstein* is the game that started the whole thing. (Probably.) If you imagine, say, *Alien vs Predator*, but more cleanly presented, as if you're running around hospital corridors maintained by an almost, but not

■ Hello, I am a stranger to your fair city. I have a pocket full of money and I appear to be lost. Can you help me? Aarghh.



■ It's one of those special secret room things. The effect is rather muted from your point of view, but take it from us, it's an exciting find. Yes it is.



■ Taught you to offer to help the person lost in the caption just above, didn't it? Oh, hang on.



■ These screenshots are a mixture of PC and SNES pictures. The Jaguar version makes them look etc etc etc.

quite, competent caretaker, you have *Wolfenstein*. Sort of.

The annoying thing about the Jaguar version is that it's a straight PC port. Judging by what John Romero says about the capabilities of the machine (page 79, corroboratory evidence fans) that's a scandalous waste. As it stands, the original code had to be slowed down in order to work, and it's still exceptionally zippy. Too much so, in fact. The famous *Wolfenstein* Wobble, where you round a corner and spin out of control as you overcompensate in trying to get back on course, is frighteningly amplified and rather shabby. You get the feeling *Wolfenstein* is being rushed out to let the programmers concentrate on the *Doom* conversion.

But it's still the top game it always was. The feeling of ghastly danger as you sweep through the complex is unparalleled. It's not really paranoia, because there usually is somebody behind you. And those umpteen doors don't really help – the Nazis can open them as well, but at least the accompanying

whines giving you a vital clue as to which direction they're going to spring from next. Apart from the hopelessly ineffectual soldiers, Castle Wolfenstein is guarded by



■ Stop offending me with that dreadfully ill-fitting suit, you uncouth, rumples peasant.



■ Multiple caption time. 1. Hello. 2. Sorry. 3. Bet that surprised you, pal. 4. Society's to blame. 5. Stop that.

smarter officers with sub-machine guns, large dogs, begoggled scientist types and, er, radioactive zombies. Apparently some sort of genetic experimentation is going on as part of the war effort, and it's gone horribly wrong. What larks.

If things get too tough, you can always duck into a secret room. Secret rooms play a very large part in *Wolfenstein* – after completing a level, you're rated on kills, looting, and the percentage of secret rooms discovered. Up to half a level can be concealed behind marginally suspicious walls or false paintings, and this is where the good stuff is stashed – the disgracefully large machine gun, the rocket launcher, and so on. It's not a game you nip through once and then discard, which can only be a good thing.

If you can hold on until next month, *Wolfenstein* should be fair fit for public consumption. Although you might do better to wait for the superior *Doom*, but saying that here would be dashed unporting. So sort of pretend the last few sentences never happened, eh?

JONATHAN NASH



FLASHBACK

PREVIEW

PUBLISHER: US GOLD

PRICE: £45

RELEASE DATE: AUGUST

■ Hang, Conrad. Hang like the innocent Derek Bentley. Swing, Conrad. Swing like Louis, King of the Swingers.

In the beginning there was *Prince of Persia*. It featured a magnificently animated central character springing around cellars and palaces, indulging in the sort of balletic swordplay that would put Basil Rathbone to shame, if he wasn't dead. The game became the most popular thing ever in the history of the world, because it was converted

to every computer and console ever in the history of the world. You could ask anybody at all about *Prince of Persia*, and they'd know. They would. Even the dramatically incoherent ones.

Now comes *Flashback*. It's sort of a follow-up to *Prince of Persia*, because it, too, has a magnificently animated central character. And it's been converted to every computer and console ever in the history of the world, except the ST, but that's another story. The problem with *Flashback* is that it's really a mystery story – you start the game having lost



the extra vim and verve of the Jaguar really shows it off. The graphics are actually smaller than other versions', but none of the detail has been lost. The effect is to make the colours seem richer, and the animation more fluid.

The other main selling point is the gameplay. No, really. *Flashback* looks like a platform game, but

it plays like something else. For a start, you've got a gun. Never mind all this jumping on heads nonsense; flick open your jacket, draw that pistol and blaze away in the approved manner. Just the thing to take your mind off the puzzles, which are of the take object W to location X to get object Y and snazzy animated cutaway Z variety. Truly a classic, and not just in a bludgeoning, converted to every computer and console ever sort of way. It's out in August. We love it.

That Jaguar, eh?

The main selling point of the game has always been the animation, and



■ The Jaguar game makes this SNES version look ill. It really does. 256 colours? Pah.

KICK OFF 3

PREVIEW

PUBLISHER: IMAGINEER

PRICE: £45

PRICE: MID SUMMER

There's a funny story attached to this. According to Anco, who are programming the game for Imagineer, Jaguar *Kick Off 3* is very nearly finished. The month of June sees it all done, but the release date has been put back because Atari haven't sorted out the launch of the machine itself. According to Atari themselves, however, the game isn't very nearly finished at all. Hardly started, in fact. Who's

bluffing? It's a fine guessing game for all the family. But anyway.

Kick Off 3 is the fantastically obvious sequel to *Kick Off 2*. We only mention this because everyone thought that was Virgin's *Goal!* (It was by the same programmer, you see.) Fortunately, especially considering the astonishing ineptness of *Goal!*, *Kick Off 3* is a different game altogether. Anco reckon to have modified the basic play mechanics.

■ Not quite sure why those cherries are on the pitch.

Previous *Kick Off* games use a mind-bogglingly tricky way to kick the ball: when a player touches the ball, the ball is knocked away. So you have to time it so you kick as you touch the ball. Mmmm. This time round, though, things should be a spot easier.

Other things

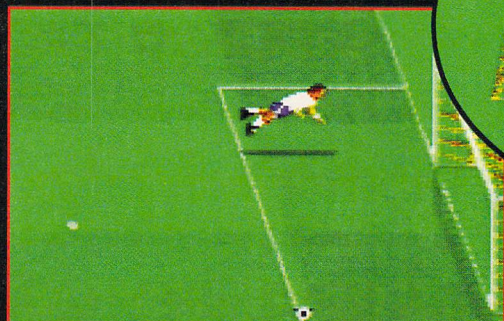
The presentation's also been beefed up. The player sprites are much larger, and the viewpoint's been changed to a sort of side-angle thing. There are animated bits whenever something happens and an enigmatic sounding practice (noun) option. Gosh.

Whether you find the fact it's *Kick Off 3* amazingly promising, or look forward to the prospect with about as much enthusiasm as Basil

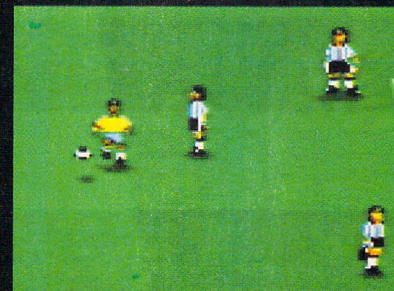


Rathbone could muster for another meaty villain role, which would be quite a lot except he's dead, the game shall be leaping out of Anco's special bag in June. Or possibly August. Who can tell?

■ Not quite sure why the goal is strung with camouflage netting.



■ Hello birds hello sky it is Fotherington-Thomas who is a wet and a weed and not worth a d.



■ Upset by Henry's arrogantly assured control of the ball, Kenneth and the others feigned boredom.

REDLINE RACING

Jason Kingsley of Rebellion is shouting across a room. "Is it *Redline Racing*, or *Redline Racer*? *Racing*? *Racing*. *Racing*? *Racer* sounds better. All right." He turns back to the telephone. "It's now called *Redline Racing*."

PREVIEW

PUBLISHER: ATARI
PROGRAMMERS: REBELLION
PRICE: £45

He's talking about the game that used to be splashed over glossy Atari brochures as *Checkered Flag 2*, but which has now undergone a slightly confused name change for no adequately explained reason. At least you

don't have to worry about the staggeringly irritating American spelling any more.

"It's a homage to *Virtua Racing*," explains Kingsley by way of describing the game. *Virtua Racing*, if you didn't know, is a spectacular polygon car game wowing them in the arcades even at this very moment thanks to its terribly high speed and witty manner of zooming the camera in and around the car at the most inopportune moments. Sega have converted it to the Mega Drive with the aid of an extra maths chip in the cart, and very nice it is too.

Redline Racing has changed quite a bit since *ST FORMAT* last saw it. "We've



■ **Your car.** With a sort of white thing on the front. Not that we mean to demean your powers of observation or anything. But it's nice to be sure.

added a hell of a lot more recently," says Kingsley. "We're very pleased with it. It's awesome." There's a horrifying silence. Birds drop from the sky. "Let's try another word. It's good. I'm a master of understatement." Quite.

New things

The game is a hybrid of *F1* and *Indycar* racing. Starting life as a straightforward simulation, it's evolved into more of an action



■ **It's got different viewpoints and everything.** Let's hope they manage to do something other than the usual tedious engine whiny growl for the sound, though.

colour light-sourced polygons slamming around the screen at a rate of knots. There are ten tracks to race on at the moment in either a one-off contest or a championship, weather conditions to contend with, the slightly unusual ability to change the car's livery, and... a two-player mode?

"There's no two-player mode," admits Kingsley. "That's the only negative point. But, to be fair, that wasn't part of the original commission. They just wanted a 3D car game for one player. We'd eventually like to get a two-player link-up for *Redline Racing 2*."

The game's almost finished; all that remains is to fine-tune the intelligent computer drivers. "In most racing games, if you're no good at the game, the computer drivers leave you behind. Similarly, if you're a good player, you leave them behind, and there's nothing to do but drive around an empty track. It gets boring. But with *Redline Racing*, some of the drivers are better than you, and some are worse. They're self-adjusting, so you're always racing against someone," beams Kingsley.

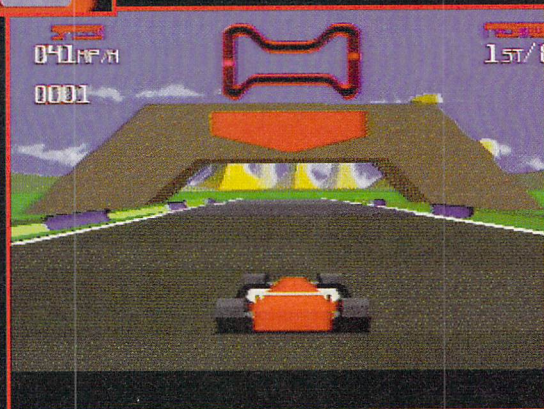
Punchline

Entirely expectedly, a demo version of the game for the ECTS failed to make an appearance. But you'll see it in June, but not before we do, because we're clever like that.

JONATHAN NASH



■ **Where is this supposed to be?** Those mountain ranges look a bit funny. And the track's a bow-tie.

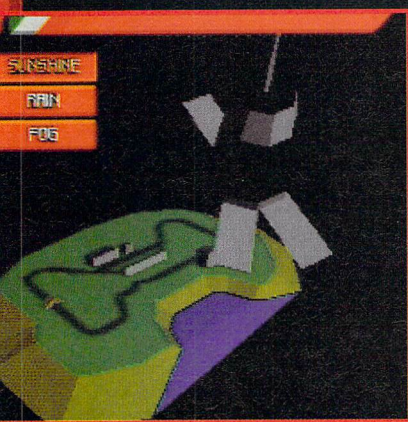


■ **You're freefalling through space in the exciting Level One sub-game.** Press fire to open your parachute and aim for your car. An obvious lie.

■ **Why do they have those bridges there?** It's not as if you can stand on them and wave hopefully.

game. "Everybody complained they couldn't drive the car," comments Kingsley. "We said, of course you can't. It's a real

F1 car. If you tried to drive a real *F1* car you'd smash it to bits." So out went all the convoluted statistics. Instead, you've got tons of 65,000-



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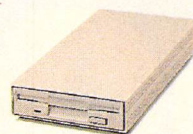
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TEMPEST

2000



First, there was *Tempest*. And now there are 2000 of them. Or something

There's no denying the usefulness of the pause button in a game. Whether unexpectedly called to the telephone or suddenly reminded that a favoured radio programme is about to start... Or if you ring for the butler to be faced by the Hooded Tiger,

time began is why, when you pause a game, does it print the word "Paused" in extremely large letters? Surely



■ A fuseball on the rim is a very bad thing. You

can't shoot it without the jump power-up, and it follows you. O-ho.

fisticuffs in a disagreeable and entirely avoidable manner.

But anyway.

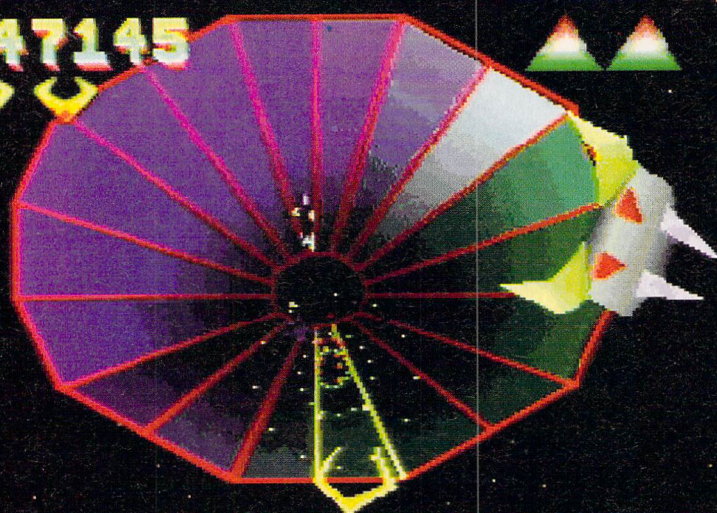
Preliminary things

Tempest 2000 is a game of flying around some lines, shooting dots at some lines. Periodically you can catch some dots arranged in a ring,

which enhance your dots and really show the enemy lines where to get off. Some lights flash while you are doing this. You can also play a copy of the original *Tempest*, which is quite similar to *Tempest 2000*, except there are no flashing lights.

Dammit. Look, the problem with *Tempest 2000* is this: there is no problem with *Tempest 2000*. The game's unblemished presentation and frankly amazing playability make a mockery of the whole reviewing process. It demands, in fact, a complete abandonment of traditional critical faculties and the adoption of a slightly demeaning, unquestioningly adulatory tone, with special dispensation from the Pope to use the word "superb" in public. But we must at least keep up appearances, so here's a reasonably objective overview of the game just to get in the way.

Your ship sits on the rim of a well of a web, snapping between the corridors and always firing



■ It's the first red web. You've got two of the three warp icons, and there's a demon head attacking. You're reading *ST FORMAT*, and this is page 64. Sigh.

arch-criminal thought killed when his subterranean mountain headquarters was destroyed by a secret task-force of disaffected Middle European nobility led by Captain Jack Thorpe and yourself in an advisory

capacity, the pause function is invaluable. But one question that has baffled the keenest minds since

"The problem with *Tempest 2000* is this: there is no problem with *Tempest 2000*"

only the most unattractively stupid would become alarmed if, say, the screen just froze. This would mean reviewers could capture illustrative screenshots at their leisure, instead of becoming

obliged to enlist the help of a harried colleague and shouting unpleasantly when the opportunity



■ Tricky blighter, Johnny polygon moving web. You can lock the view, as if you're looking down on the screen from the head of a valley. This is good.

inwards. Bad things skitter up the web towards you and try to kill you. The basic monster walks optimistically in your general direction, aiming to reach the rim where it can cart-wheel around in a vulnerable but craftily dangerous fashion, but before long you're fighting things which swim freely around the web, or expel two other monsters when shot, or invest laying spikes against

"Vase-damaging techno music bursts in your ears, voices of authority congratulate you on your skill"

And you thought we just made it up as we went. To your credit – and that's you as a player, rather than as a reader; keep up, keep up – you have a once-per-screen smart bomb. And! power-ups periodically whizz out of the web, awarding a stupidly vicious gun, lots of points, a smart little drone ship, the ability to leap away from the web for a thrilling moment, or an instant escape to the next level. In addition, if you

■ The bonus levels are ludicrous. You move through things, or try to keep on a path, while the background goes a bit "odd." There's lots of oozing, some horribly... wait a minute. It's broken my brain. Help me.

real-time. The screenshots placed so lovingly on these pages, while full of impact and fetchingly devoid of "Paused" signs, entirely fail to convey the feel of the game in action. When you shoot something, it explodes in a blizzard of dots. Bonuses and the worse of the bad things blurt gigantic scaling numbers that fill the screen and comically obscure the view. Colours cycle. Shapes pulse. The web swings wildly on its axes to follow your ship. Vase-damaging techno music bursts in your ears, voices of authority congratulate you on your skill, and the screen sweeps round to centre the fatal explosion while a large message



■ The bonus levels are ludicrous. You move through things, or try to keep on a path, while the background goes a bit "odd." There's lots of oozing, some... horribly... inconvenient... hang on.

the moment when you zoom through the web to the next screen, or electrify the whole of a corridor, or survive several shots, flinging the damaged bits of themselves at you disturbingly, or fly around outside the web, impervious to your hostile attentions. And your gun fires some dots.

Actually, things aren't quite as bad as all that. That long, rather ominous description of your foes was deliberately skewed to present an excitingly dramatic picture of hopeless odds. It's a standard literary device to interest the reader.

collect three warp rings, you get to play a terribly special bonus screen where you can rack up bags of points and allow the nurse to prep you for cardiovascular surgery. You lucky people you.

Right, descriptive bit over. Opinions.

Good things

The frightening thing about *Tempest 2000* is that it's calculating everything in



■ Even this terrifying cat head screen pales beside the genuinely evil red poppy level. Old florally themed webs? You know what should happen to you.

Frankly embarrassing ways to get killed in *Tempest 2000*

1 The caught-you

You're on a ludicrously difficult level. You've collected the jump power. You zap a tanker, creaming the two pulsars before they can even fire. You flip the length of the web, jitterbugging across the path of the demon. You snap upwards, snatching the final warp ring. A dull, insignificant, arthritically-articulated flipper sits there quietly and you run into it.

2 The victory roll

You've cleared a screen. You're zooming through the web to the next level. Self-satisfied, you barrel-roll around the screen. But – oh no! – you've forgotten about a spike, and crash into it. You have to do the whole screen again.

3 The assassin's bullet

You've beaten the all-time

high score. You've crowed to your friends, and, because it's your cart, you've refused to let anyone play until everybody knows how great you are. You're cut down by a .50 calibre round fired from a strategically advantageous position.

4 The terrible

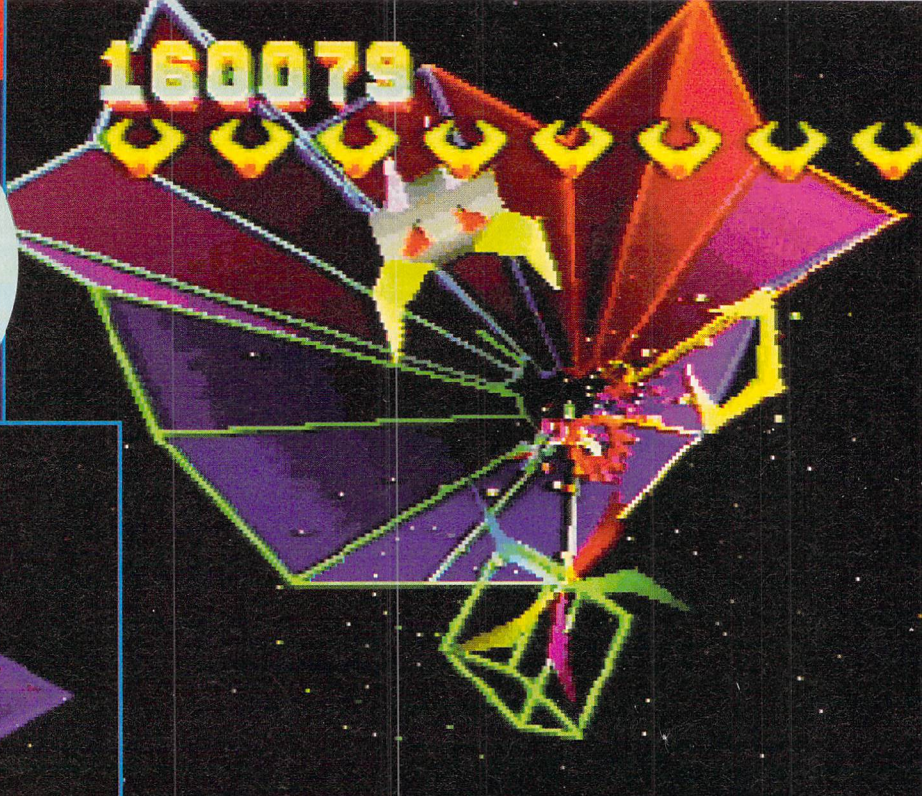
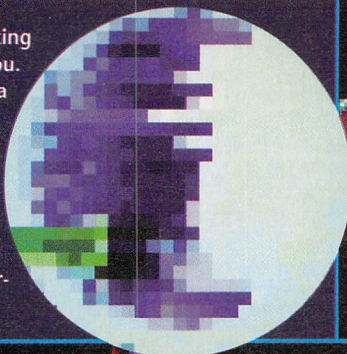
You're no good, whatsoever, at the game.

5 The out-of-body experience

You're watching a pulsar with vague interest. It's slipped on to the play-field. It's coming towards you. You continue to watch it detachedly as it fries you. Your brain then returns from a short holiday, tanned, rested and full of energy. It then has the insensitivity to enquire politely after your health.

waves its contempt by highlighting exactly how the monsters got you. It's your brain, hotwired by a professional.

Playing the game really is like nothing else, ever. Nothing. Really. Veterans of the original *Tempest* may recognise the underpinning ideas, but the fresh treatment adds immeasurably to the game.



114443

■ Actually, all these screenshots were taken from a very large bunch collated when *ST FORMAT* originally went to see Minter at home.

Tempest 2000 is intense. It's incredibly intense. You know those games which boast that there's always something happening? In *Tempest 2000*, there's always everything happening. That's intense. It's sort of like trying to solve a booby-trapped Rubik's Cube while hyperventilating in a diving suit at a depth of over five atmospheres and realising you're slightly claustrophobic. But fun.

For, make no mistake, this game is appallingly playable. It tests your reflexes. It challenges your peripheral vision. It rains enquiries upon your special perception, and gives you the special power to see

"It's like trying to solve a booby-trapped Rubik's Cube while hyperventilating in a diving suit"

■ Our special Jaguar grabbing lead was smashed to bits and before we could get it repaired, Darryl Still, Atari's marketing man, demanded the return of *Tempest 2000*: "We can't use any other on our Jaguar."

through giant coloured dots. *Tempest 2000* takes that mildly tedious phrase "Just one more go," and mutates it into "Get away from me this instant. If you touch this machine I shall hunt you down and shoot you like a dog." There are 100 levels in the game, and beyond Level 17 every odd-numbered screen completed yields a key so you can return to that point later on. Or carry on immediately, criminally threatening everyone who wants to have a go.

More things

And there are other games on the cart as well. Where *Tempest 2000* is all soft edges and velvety panic, the original *Tempest* is angled monofilaments and razor terror. Or something. Anyway, it's a fine game, and harder than the remake. For, you see, there were no such things as power-ups when the coin-op first appeared. So you have to rely entirely on your wrist-twisting skills.

Tempest Plus is a two-player version of *Tempest*. Basically. It pales beside *Tempest 2000*, but does have a perfectly great bit where the incomprehensible mayhem on the screen makes you utterly forget which ship

you're actually controlling. *Tempest Duel* is a head-to-head game which nobody plays. You've got a mirror to reflect your opponent's shots, and it really doesn't work at all. Let me play *Tempest 2000* again. Oh, go on.

Bad things

Oh, all right. But really quickly. First of all, why is there no two-player option on *Tempest 2000*? Secondly, why is the joypad so unutterably detestable? Thirdly, because there are only four keys – you enter a tag to associate yourself with one – why can't you selectively delete them? There we are. Piddling quibbles, really. Now get away from me instantly. If you touch this machine, I shall hunt you down and shoot you like a dog.

JONATHAN NASH

TEMPEST 2000

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GRAPHICS



Absolutely spectacular.

SOUND



Clumpy techno and fabulously loud effects.

CAPABILITY



Bundle this, Atari, or die.

GAMEPLAY



Buy this game and attain a new plane of existence.

STF RATING

97%



■ Our protests and arguments were waved aside. Still cared nothing for our Minter-beating top score, won by accompanying the game with some very loud Mozart. The game was returned. It was all over.

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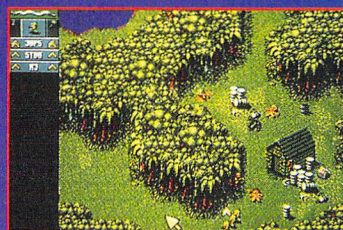
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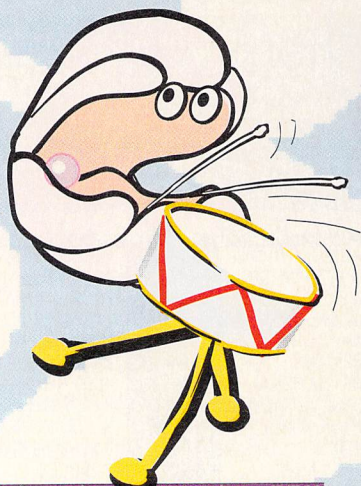
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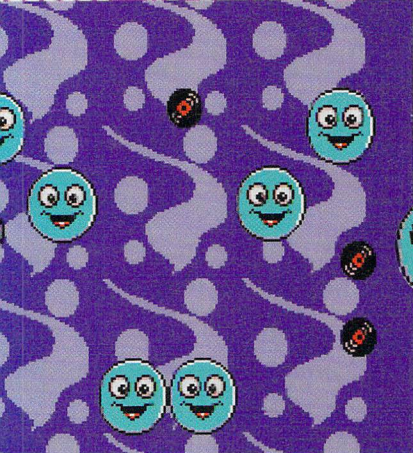
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ROCK 'N'

Fishy puns and jokes about seafood diets make up a large proportion of the review of this near-pinball game from new commercial programmers, Caspian Software

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■ They look innocent enough but these blue faces can be swines to navigate around. You have to watch your spin and angle when you hit them.

Shellfish don't usually rate very highly on the list of cuddly animals – they have no limbs, no fur and no discernable faces, as such. They are roughly round, though. A highly important fact, as you are about to discover.

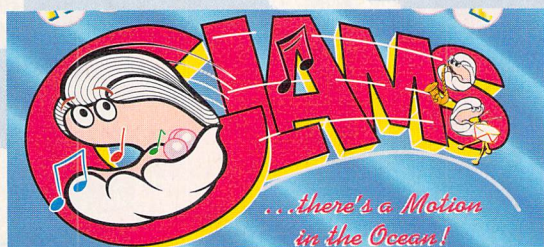
Rock 'n' Roll Clams features Caspian the clam in his first major role. The game hails from a new outfit called Caspian Software, dedicated

to original ST games. Top marks to Caspian for supporting the full Atari range; providing you have 1MByte of RAM *Clams* runs on everything from an STFM to the Falcon. It uses the BLITTER and DAM sound chips if you have an STE or better. It also supports Atari's power pad and is hard drive installable. Using the extra capabilities of the STE earns Caspian Software extra special bonus points – it's a far more capable game playing machine.

The plot is, as usual, relatively unimportant, but here goes.

Caspian the Clam was bored, he was listening to classical music on a school trip. Although he loved music, he didn't dig classical. Then, from above the waves, came the groovy sounds of rock 'n' roll. Sneaking off to investigate, Caspian and his friends are caught in the nets of the mackerel, Mac. It looks like Clams 'U' Like is in store for them, until Caspian escapes. His mission is to free his friends, get some musical instruments, form a rock 'n' roll band and get a record contract. There, we told you it was unimportant.

It all boils down to eight worlds of between six and eight



HAT TRICK

There are four hats for Caspar. He doesn't have a head, as such, so they go over his whole body. Using the right one in the right place is vital. In an amazing stroke of luck the right hat is often to be found just before the spot where it comes in handy, amazing stuff.



CRASH HAT – Don this and steamroller your way through the level, hurrah! Works in all directions.



GUN HAT – Aha, shooting at last. You can blast some of the baddies. It fires in all directions, too.



PROPELLER HAT – Caspar flies through the air like a bird, well, more like a clam with a propeller on his head, actually.



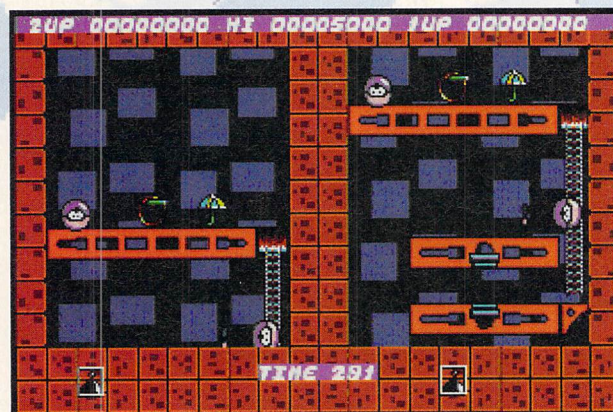
START BLOCK – Not a hat, as such, touch this and if you get killed you start back at this point rather than the start of the level.



TIME EXTEND – Not a hat either, extends the amount of time you get for the level.



VIKING HAT – Delivers a spiky message. Only works up or down.



■ Two-player mode, it's always more fun completing a level if you've stuffed someone else while doing it.



■ A level with a distinctly beachy theme, well, you are a clam after all.

ROLL CLAMS

levels apiece. On each level there is a goal – you either have to get a band member or an instrument. The final level takes place in the record company's office. *Rock 'n' Roll Clams* – or *Clams* as we shall now refer to it because we're already sick of typing in the *Rock 'n' Roll* bit – is a bit like pinball, only different.

You control Caspian as he careers around each level under the force of gravity. You can spin

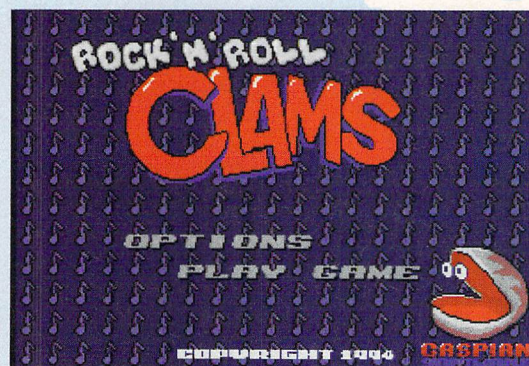
him left and right and move him upwards against gravity. When he runs into an object the speed and angle of the deflection depends on his rotation. It sounds a little on the tricky side and it is. Controlling the little tyke can be a very frustrating business; misjudge the spin and he tends to cannon off in the wrong direction altogether.

The levels are vertical and very smooth scrolling with a parallax scrolling backdrop. It moves

pretty fast on the Falcon, but it plods along a bit on an ST. Once you've played it moving fast you're spoilt.

The graphics are fun and functional. Each level is full of bonuses, obstacles and the odd budgie. You have to reach the exit before the clock reaches zero. There are no lives – it's a race against time. You can either hang about collecting bonuses or race for it and collect the time bonus.

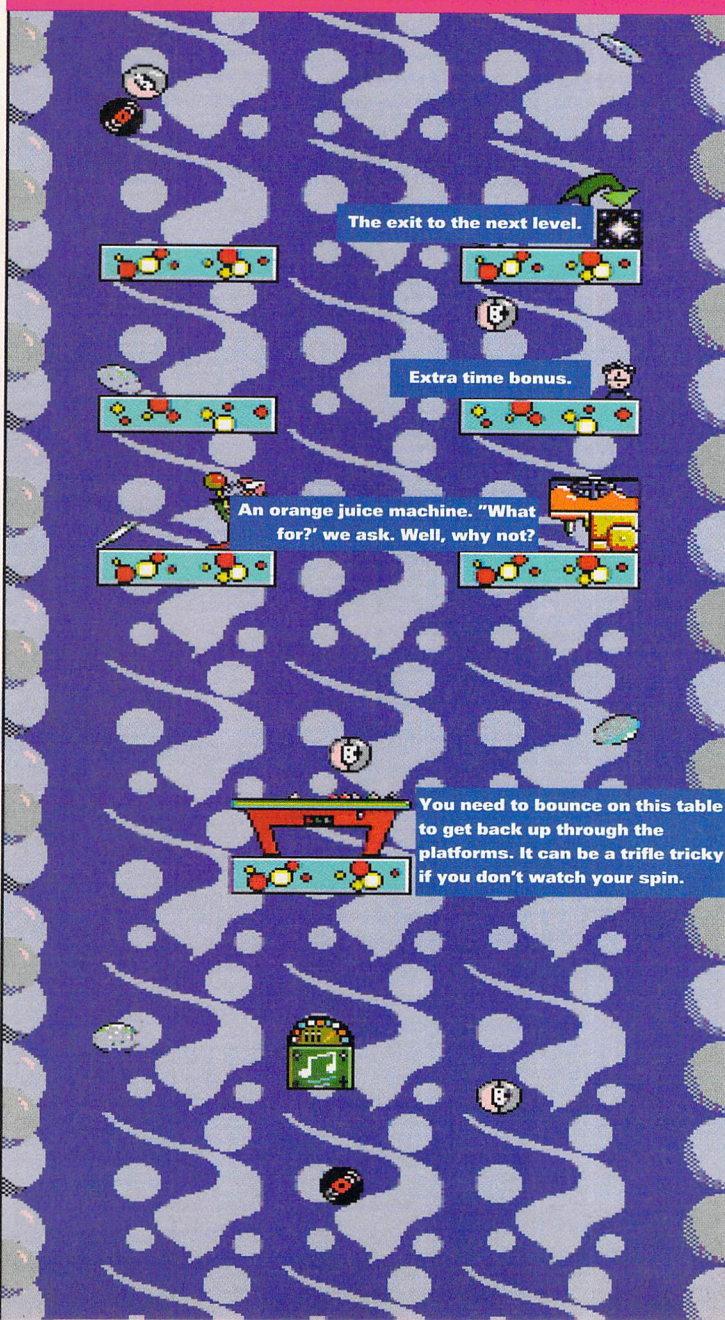
The options screen enables you to jump to different worlds,



■ The title says it all – you're a clam and you're into rock 'n' roll, what more do you need to know? Let's form a band and make loads of money with our new music, clam rock. Sorry about that joke, we couldn't resist it – at least we didn't do the one about the seafood diet.

NO WAITING ON THE PLATFORM

Towards the bottom of the first level, called Tom's Bar, you find this little lot. The clam you need to collect is below these platforms. It all looks easy enough but negotiating these platforms quickly can be very ticklish indeed



■ Tapes and record bonuses galore. This is the first bonus bit of the game from Level One; time is ticking away so grab as many as you can and still leave in time.

Office nightmare

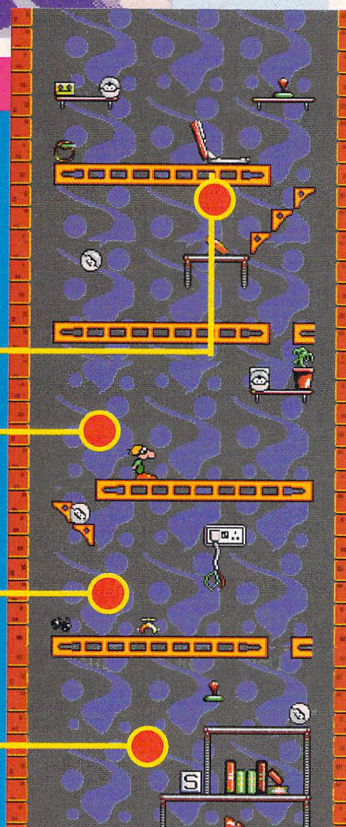
This is the start of the World Two office level, and it's a tricky one. The ways a young clam, out on his own in the world, can meet a grisly death are numerous, and sometimes rather amusing

The stapler, get too close and you are...

The mallet man, what a swine.

Look, a propeller hat, just what the doctor would have ordered if he'd been playing.

A start block, touch this to restart the level at this point if you stuff it.



DO YOU LIKE FLUFFY CLAMS?

Does the sight of a cute little clam make you go all gooey? Do you long for a cuddly clam of your own to take home? Well, if you do, you're in luck. We've got ten fluffy clams to give away. Each comes with his own personal stereo, which he might let you use, if you talk to him nicely. It's an Aiwa and has something called super bass as well as treble and bass controls and some other buttons and things on it. All you have to do is answer a few simple questions

Those clam winning questions

- 1** What's the Latin name for the round clam?
a. Roundous claminara.
b. Venus mercenaria.
c. Sillious sodus.
- 2** If someone "clams up" what do they do?
a. Go silent.
b. Bend double.
c. Wibble frequently.
- 3** What is a clam bake?
a. Cooking clams on hot stones.
b. A type of seafood cake.
c. A very hot clam.
- 4** Which of these is also known as a clam?
a. A style of sweet pancake.
b. The smell generated by chip shop.
c. The noise made by ringing two or more bells.
- 5** What is the hinged part of the reverse thruster in a gas turbine called?
a. Reverse thrust-o-meter.
b. A fish.
c. A clam shell.

■ Win your very own Caspian clam (complete with handy headset) by answering the few simple questions below!



Read the rules and make sure you abide by them or else you don't stand a chance of winning anything

1. No multiple entries please, it doesn't impress anyone.
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■ Not a pretty sight. This blighter with the mallet belts you every time you get anywhere near him. We've got unpleasant names for clams like him.

you can also use passwords to get to the individual levels. You earn them by trading gold and silver tapes you get while singing around the level for the password, rather than by getting points. Scattered through the

levels there are also start blocks. If you get zapped you start at the last start block you touched. Neat, that – it's so annoying to be sent back to the very start of a level when you've nearly made it.

Now, to the important matter of which hat to wear. Along the way you find hats to pick up. These appear as icons next to the game screen. To get anywhere you need to suss out which hat makes things

■ This is the office world and things get really halry. You need careful and accurate control of the little chap to avoid dozens of unpleasant deaths.

bearable. When you've collected them, they appear at the side of the screen – you can select which to wear and when.

The two-player mode is a hoot. It's on a split screen and the players race it out to the end of the level. As well as all the tricks and traps of the one-player game, you also get weights and umbrellas. Drop a weight on the other player and he gets squashed. Use the umbrellas to protect yourself from your mate's clam-squashing weights.

It's not a game that's going to knock your socks off the first time you get it out of the box. The control method is difficult to get to grips with and there are some frustrating sections where you get killed too often. You need skill to get through it, which means practice. Once you're proficient at steering Caspar about, the game comes to life. Arcade fanatics with a dexterous touch are bound to go far and enjoy themselves. The rest of us are likely to flounder a tad.

CHRIS LLOYD



Rock 'n' Roll Clams

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Highs

- Lots of wacky bouncing.
- Loads of levels.
- Smart two-player option.

Lows

- Rather repetitive gameplay.
- A trifle slow on an ST.
- Pretty difficult to control at first.

72

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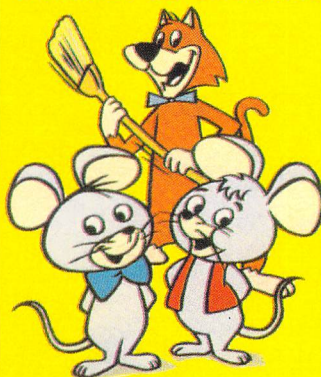
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THE BATTLE OF BRITAIN

In the warground of the skies there can be only one winner. In most cases it happens to be the plane manufacturers

Out of the sun they came, gigantic metal machines filled with men wearing large jackets. Fearless they were, and ever so slightly stupid, too, but good to their mothers and perfectly willing to have their limbs blown off to show Jerry a thing or two. We are talking the Battle of Britain, recreated here by the strictly impartial LucasArts.

It's standard flight sim fare with the added twist of being able to fly for either good old Blighty or those despicable Huns with their strangulated vowels and unnaturally efficient economy. Four types of mission are available: training flights, combat flights, custom missions and entire campaigns.

Training gets you used to the planes, the Spitfires, Hurricanes, Messerschmitts, Junkers and Dorniers, by giving you simple tasks such as bombing a runway to complete. Once you're sure where "stop" and "go" are, you can progress to a single combat mission, plucked from history and lovingly reassembled in binary. Most of these involve taking out enemy factories and armament sites, or piddling little places like Dresden. Oops, mustn't mention Dresden.

Then for the real aces there's the full campaign, 25 missions of derring-do in a row. Here you control everything, from the flight groups to the plane types to the actual mission plans, so if anything

■ The gunner gets to see all the interesting things, such as his friends in other planes getting their heads blown off. What a lucky chap.

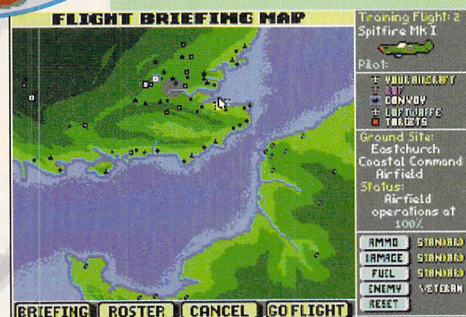
goes wrong it's entirely your fault. A good option if you have an inferiority complex, then.

Paradoxically, because WW2 fighter planes are much simpler than the modern equivalent, they're more difficult to fly, in simulation terms anyway. You can't just pull off a 9G turn or switch in the afterburners; there aren't any. In a F-117A armed with AMRAAMs and Sidewinders, you don't need to see the enemy. In fact you don't even need to be in the same country as him; all you do is lock on, loose off a missile and wait 20 minutes before it hits him. It's hardly edge-of-the-seat stuff.

Here, you haven't got any of the technical widgetry modern pilots use, it's just you, your plane, and a pair of reinforced underpants. To be successful your flying skills have to be up to scratch, or rather up to scratching another Hun from the sky. You're forced into close combat, which in the end makes for a more exciting game. So while the graphics can't compete



■ Above - Meanwhile, the hapless pilot has little to do but gawp at some blocky ships up front.



■ The brief: take off, fly about a bit, get lost, land somewhere in Clacton and retire as soon as possible.

developers in the world. It just looks a teeny bit wizened and grey around the temples these days, and like a few old folk, sometimes it's just not interesting enough to be worth your time.

ED RICKETTS



■ Hit the Hun where it hurts - on their bodies, generally. War is hell.

■ Marvellous views of the wings are available for the avid planespotter.

with a MicroProse offering, and the sound's not going to worry Infogrames, the gameplay can easily give some of the young 'uns on the scene a good kicking. But there was, and is, nothing ground-breaking about the game. You see, *The Battle of Britain* is now getting on for four years old, and it really shows sometimes in the clunky graphics and occasionally primitive presentation. No matter how great the gameplay is, if there's a similar offering on, er, offer with equally great gameplay but up-to-date graphics - say *F-15 Strike Eagle 2* - then sooner or later you're going to return to that. If this re-releasing of games must go on, why can't some of the more innovative titles appear again, eh? *Tower of Babel*, or *The Sentinel*, or *Virus* - they're all fabulous games which you can't find for love nor money. (Incidentally, if you hear a crashing sound it's us falling off our soapbox.)

Verdict

The Battle of Britain doesn't pretend to be anything amazing, and as long as you keep that in mind while playing you won't be disappointed. It's a perfectly competent flight sim from one of the best software

The Battle of Britain

US Gold/LucasArts £16.99
☎ 081 960 2255

Highs

■ No poncey high-tech stuff to help you out - it's fly or die.

Lows

■ Slow and jerky graphics which are getting on a tad.
■ Sometimes looks as if it could do with a cup of tea and a nap.

66%

MUZZY

You might think that for just under six quid you're not going to get a great Falcon game. Well, you'd be mistaken. *Muzzy* costs just that and is 72 levels of

glorious puzzling – and it's worth every penny, really.

You play *Muzzy* and your mission is to collect lots of shiny objects through levels of various elements; fire, water, air and earth. And all within a time limit. The levels vary from outrunning the bad-dies to getting down to some serious puzzling. Things get a little more complicated later on when *Muzzy* starts multiplying and you have to control all of them. You are

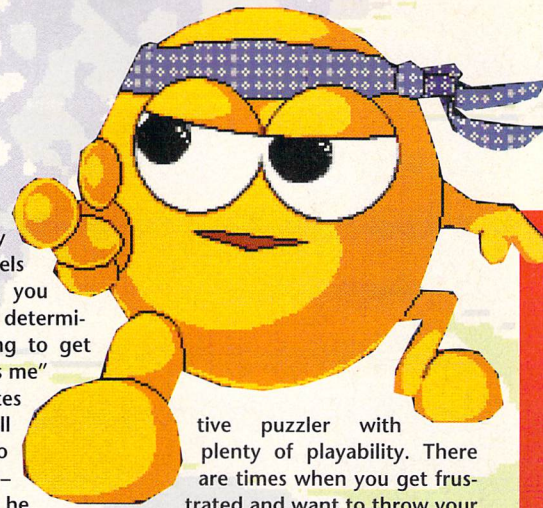
■ Zap through the heavily glazed buns to find the teleport. So why has *Muzzy* only got eight fingers and eight toes? Just a thought.

also helped out by being given passwords every five levels. The harder levels really keep you hooked, you grit your teeth with grim determination and an "I'm going to get through this level if it kills me" type of attitude. The sprites are a little on the small side and it's difficult to spot *Muzzy* at times – especially on some levels he tends to blend in with the background. The controls are a bit sticky and are on the slow side, you find yourself shouting at the screen willing *Muzzy* to go faster.

This Falcon version isn't very different from the ST version, the sprites are a lot sharper on the Falcon but it certainly doesn't make full use of the 256 colours.

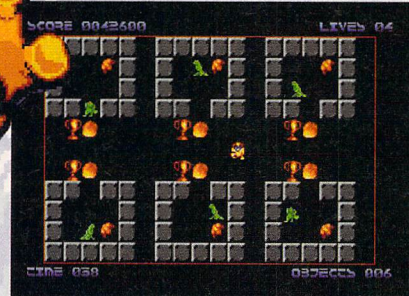
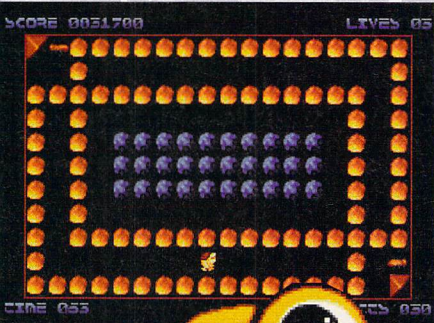
Muzzy is so addictive you always find yourself having "just one more go." An addic-

■ When you actually find *Muzzy* – right of centre – collect all those sparkling objects and move on to the next level. Easy, eh?



tive puzzler with plenty of playability. There are times when you get frustrated and want to throw your joystick at the screen but persevere, *Muzzy* is great fun and it's easy on the pocket.

DEBORAH COOK



Muzzy

£5.99 Holburn Software
☎ 0224 211866

Highs

- It's great fun and horribly addictive.
- Excellent value for money.

Lows

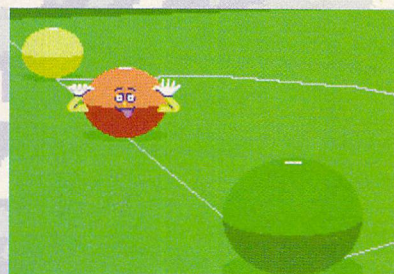
- Jerky controls.
- The sprites are on the small side.

80%

JIMMY WHITE'S WHIRLWIND SNOOKER

Once, snooker was the sport of champions. Now it bolsters a Saturday evening quiz show where demoralised contestants entirely fail to attack Jim Davidson with cue sticks. How the mighty have fallen.

Archer Maclean's game – Jimmy White's involvement goes beyond nothing more than a mugshot on the box and the lending of his name to a computer player – returns some of the dignity lost by the noble game. Or something. It's a mouse-controlled game which overcomes an initial awkwardness to emerge as something really rather fun.



■ Snooker tables originally had no banks at the sides...

The awkwardness comes in the control method itself. Rows of icons litter the screen, each lighting up with a helpful legend as you pass over it, but actually setting up a shot involves rotating the whole table with one mouse button and zooming in or out with the other. Awfully confusing to start with, especially as, when you click on a

■ ...so the balls would fall off a lot and cause terrible, terrible accidents.

ball, the table whizzes around again so you can see things from the ball's point of view. Even when you've got into the swing of things, it seems unnecessarily flashy. Still, eh?

Options abound in the game. There's even that chess sim favourite, a "suggest play" button. And a trick shot mode, so now everyone can pretend to slap a ball out of someone's mouth as they lay on the table for the amusement of the TV audience.

Fun

It's a lot of fun. The only problem is, you feel you should be practising intently in order to perform all those snappy curve shots, but instead all you do is zoom around the table and whack things as hard as possible. It's a game that lends itself more to a quick, silly, two-player blast than a serious competition, but there you go. Years old,

but still the best game of its kind, and whether there is another game of its kind is neither here nor there.

JONATHAN NASH

Whirlwind Snooker

£14.99 Hit Squad
☎ 061 832 6633

Highs

- Friendly icons with on-board help.
- Jolly fast 3D – that table really zings.
- More options than you could complain at for parking in front of your house.

Lows

- The mouse control is a mite picky.
- It's really not going to last you that long.

73%



GAMEB

Gamebusting galore this month with loads of handy hints and tips for the classics *Lemmings 2*, *Chaos Strikes Back*, *Civilization...* and much more!

LEMMINGS 2 PSYGNOSIS



Manuel de Mey of Antwerp in Belgium sent us these tips for the brilliant Lemmings 2 and wins himself £25

These tips really work, not like the tip in STF 50 which sounded really good but is crap, really. It's true, you do get a shiny gold talisman after a bit of effort (though not all levels can be completed with one lemming), but what do you get after the shiny round thing? A "good effort but not good enough" message – you have to rescue at least half of every tribe... Now, one lemming out of 60 may be half mathematically-retarded people's minds, but it isn't in everybody else's, is it?

Anyway, it's difficult to describe what the lemmings have to do to solve a level, so here's the right order in which to use the skills, which makes it much easier to solve the levels – and since there are 120 levels in total and only 100 pages in STF, I have only given the solution for the last level of each tribe. Some levels can be solved in different ways – but all these are tried and tested solutions.

Polar "stay frosty" level

This is much easier than you might think – stay up.

1. Attractor (fourth lemming)
2. Twister (make a ledge!)
3. Icarus wings
4. Glue pourer
5. Flame thrower
6. Glue pourer
7. Flame thrower (twice)
8. Jumper (to free attractor)

Highland "eat my shrapnel" level

1. Attractor (fourth lemming)
2. Ballooner (and immediately after...)
3. Exploder (try and fan him to the wall on zero)



■ You can shout oggie oggie oggie oi! oi! oi! as many times as you like but it won't get you outta here. Just give you a bad throat.



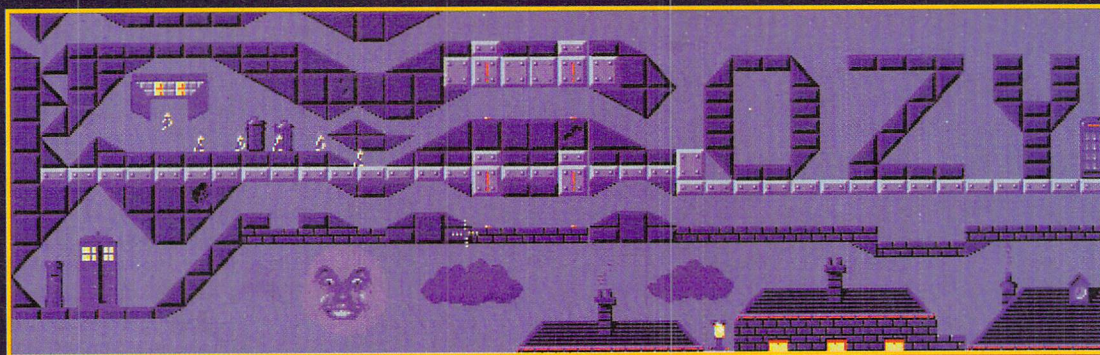
5. Club basher (first lemming)
6. Platformer (first lemming)
7. Jumper (second lemming – this is necessary to stop digging)
8. Filler
9. Filler
10. Filler
11. Stomper

Classic "what's it like up there?" level

You have to know how...

1. Climber (going left, let's call him Fred for the sake of it)
2. Climber (go right, he's Barney)

4. Jumper (to free first lemming)
5. Rock climber
6. Jumper (jump on wall)
7. Mortar (lemming only stops climbing for a split second, so watch it!)
8. Jumper (return)



■ In the depths of the night you never know quite what's going on. Little did you think there were hundreds of green hairy things lurking under the roads.

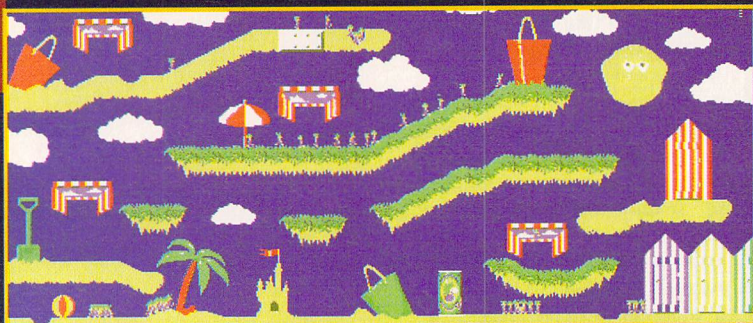
9. Platformer (twice – above pool)
10. Jumper (to free attractor)

Circus "swings and roundabouts"

This is an easy one

1. Scooper
2. Pole vaulter (twice, using two lemmings)
3. Stacker (in order to make second lemming return)
4. Scooper (second lemming)

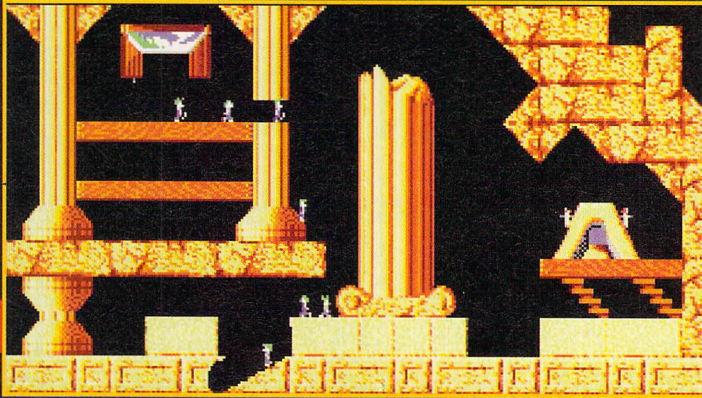
3. Builder (Fred, doesn't want to go home yet!)
4. Basher (Barney)
5. Miner (Fred, still going left)
6. Basher (Barney)
7. Miner (Fred, going right now)
8. Basher (Fred)
9. Digger (call this one Wilma perhaps?)
10. Basher (Barney, four times)
11. Builder (Fred)



■ "Here comes the sun, it's all right, everybody, here comes the sun." That's what the dear little lems are singing as they try to escape. Probably.



USTRERS



■ Before any clever train spotter points it out, we'd just like to point out that we know these pictures aren't from the final levels. OK? Thank you.

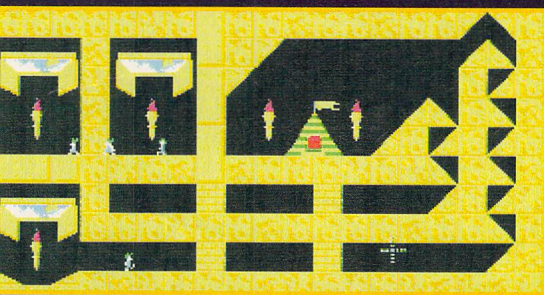
Medieval "Just jousting around" level

1. Runner (Lancelot)
2. Stacker (Lancelot)
3. Pole vaulter (Arthur)
4. Roper (Lancelot)
5. Floater (Arthur)
6. Glue pourer (Arthur)
7. Bomber (anyone)
8. Ballooner (use him to rescue the last lemming)

3. Jumper
4. Jumper (jump in pool)
5. Kayaker
6. Platformer (twice)
7. Bomber

Beach "surf lemming" level

1. Runner (first lemming)
2. Filler (second lemming, to slow him down)
3. Filler (third lemming, to slow him down)
4. Scooper (lemming must be going right!)
5. Scooper (not too quickly!)
6. Archer (just shoot downwards to create return point, works some-times)
7. Archer (twice)
8. Filler
9. Builder



■ Come on down, move along, get outta here. What a wacky life.

Egyptian (pyramid of despair) level

1. Hopper
2. Glue pourer (twice)
3. Sand pourer (twice)
4. Rock climber
5. Shimmier
6. Sand pourer
7. Shimmier
8. Sand pourer
9. Shimmier
10. Sand pourer
11. Glue pourer
12. Sand pourer (though this may not be necessary)
13. Jumper (to save last lemming)

Outdoor "garden of stone"

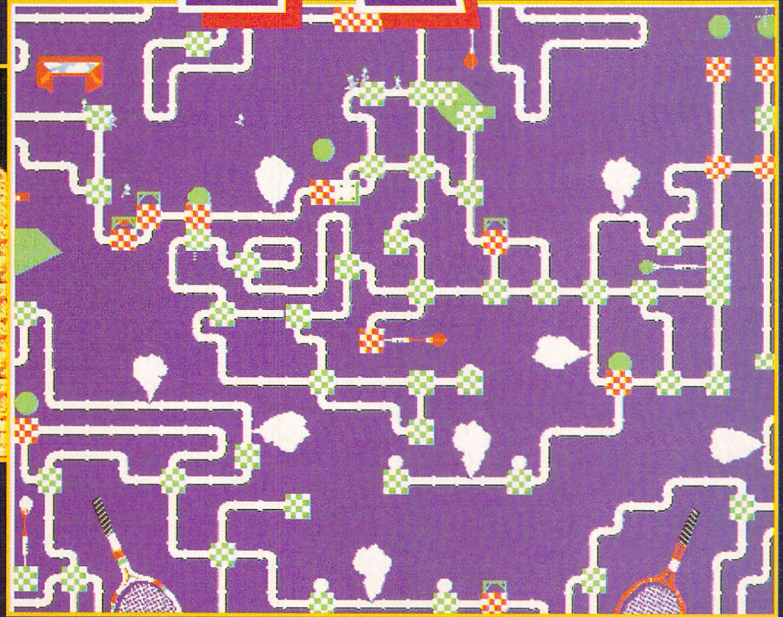
1. Runner (first lemming)
2. Stomper (second lemming)



Sports "take up archery"

Bloody impossible, this level. Does anyone have a better solution - this only seems to work every fiftieth time (approximately).

1. Runner
2. Jumper
3. Archer (twice)
4. Jumper
5. Roper (from red and white block to pipeline)
6. Archer (to opposite wall, as high as possible)
7. Roper (to arrow)
8. Spearer (five times)
9. Archer (six times)
10. Jumper
11. Archer (backwards)



■ This might look like a simple matter of leaping from pipe to pipe. But it's not, it's damned hard. In fact, even we can't find a decent solution. Sorry and all that.

Shadow "moonswings" level

This level can be solved in many different ways

1. Attractor
2. Builder
3. Glue pourer
4. Planter
5. Builder
6. Glue pourer
7. Super lem (fly to ledge, right and then down)
8. Builder
9. Glue pourer (on last step)
10. Builder
11. Stomper (to free attractor)

Cavelem "Ah'm no done yet" level

But I am!

1. Attractor (fourth lemming, on mushroom)
2. Glue pourer
3. Jumper (on skeleton)
4. Jumper (just before tail sweep)
5. Jumper (from mushroom to mushroom)
6. Jumper (on last mushroom)
7. Platformer (on the little ledge)
8. Stomper (just above exit)
9. Jumper (to free attractor)

Remember that you could use a shimmier to jump.

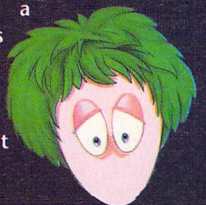
10. Fencer

Space "frontiers of surreality" level

Red Dwarf stuff, this

1. Jumper (twice)
2. Bazooka (stand as far right as possible, face right)
3. Bazooka (same spot)
4. Bazooka
5. Climber
6. Jumper (don't want to be shot now, do we?)
7. Jumper
8. Bazooka (two or three times)
9. Jumper
10. Glue pourer
11. Club basher
12. Bazooka (this is how you save all the other lemmings - blast them to salvation)

Or you might want to turn your lemming into a runner. This makes him jump further but it makes control a lot more frantic.



JAGUAR - CYBERMORPH

James Trubridge of Chester sent in the first Jaguar cheats for Cybermorph. They enable you to skip levels

Level Two	1328
Level Three	9325
Level Four	9226
Level Five	3444

Level One 1008

FRONTIER: ELITE 2 GAMETEK

Frontier's a massive game and there are so many ways to approach it that there are some hints and tips that help you more than others, depending on the way you like to do things. Steven Dick from Glasgow suggests the following strategy if you're new to Elite 2

Start in the Lave system, where you receive a Cobra mark 3. Immediately sell the Cobra and buy the Viper defence craft available on the

market. Fit the ship with an autopilot, 1MW beam laser and atmospheric shielding. Unfortunately you can't get a scanner at Lave.

To start trading set a course for Zaonce and launch. Save your position before you go through hyperspace because you want to reach Ridley Scott unchallenged because fighting without a scanner is a bit on the tricky side. Having removed your atmospheric shielding and fitted a scanner you can now start making a profit by trading in illegal goods between

Zaonce and Arexack. Narcotics and slaves make the biggest profit, it is worth saving your place before you dock at a space station in the Arexack system as you can reload your position if you get fined for smuggling – after about three attempts you land somewhere that won't charge you.

In combat, missiles are useless so sell them for cargo space. To kill

■ **Oops, watch out, that looks like the sun, that does. Get too close and you frazzle to death.**

enemy ships there are two methods you can choose from:

1. If the enemy ship is faster than you, use the autopilot to bring your ship towards them. Note that all enemy ships stop firing at about 0.5km from you. This is the point at



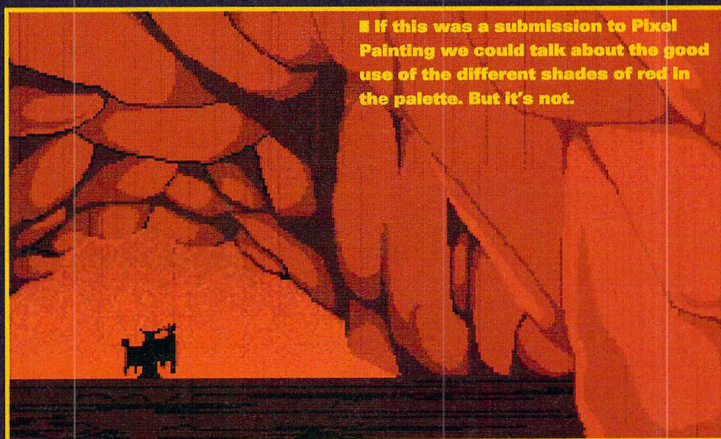
CHAOS STRIKES BACK

Matthew Dixon of Co Durham sent us the full solution to the Dungeon Master followup. More next month

Big bad Lord Chaos is back, but with my solution he should crawl away whimpering in *Chaos Strikes Back*. Here are some of the basic things you should know about the game – next month you can see the full solution.

Tips

Problems with teleports? Use blue footprints spell. Magic vision spells reveal what's behind doors and walls so use these if you're anxious about what's coming next. Check that you can't fireball/hack or use open lock spells on doors you can't



■ **If this was a submission to Pixel Painting we could talk about the good use of the different shades of red in the palette. But it's not.**

open. The Golems take a long time to kill, so if you can run past them. All other monsters are best slaughtered immediately. Gold keys open dead ends containing treasure or food.

The bug uglies

1. Mummies – use fireballs.
2. Scorpions – use the fireballs, they're poisonous.
3. Worms – use fireballs. They are poisonous and edible.
4. Dragons – aren't partial to gas clouds; breathe fire; edible.

5. Devil dogs – breathe fire; edible.
6. Death knights – have to fight with them; their armour is cursed.
7. Rock monsters – use fireballs; poisonous.
8. Demons – cast fireballs.
9. Flame monsters – use Kill Ghost Spell or Vorpal Blade.
10. Munchers – use fireballs; poisonous.
11. Vexirks – little wizards; cast the fireballs.

12. Flying eyes – cast fireballs.
13. Oitu – spiders that shriek.
14. Shriekers – mushrooms that shriek; edible.
15. Golems – use fireballs and lightning.
16. Blue antmen – use fireballs.
17. Giggles – sneak thieves who take your best weapon and scarpers. They usually steal what's in your hand first.
18. Skeletons – carry a shield which can be useful. Use fireballs.
19. Black ghosts – cast fireballs and poison clouds. Use Kill Ghost spell.
20. Green blob – hurl poison at you. Lightning or fireball.
21. Rives – ghostlike mouths. Use Kill Ghost spell.

As the unreasoning mind of chaos laid plans for a hideous revenge against those who would soon defeat him.

■ **Well, this is all very blue, isn't it? And you can hardly read the red text. Makes your eyes go funny.**



■ **This is the sort of selection of champions you get when you click randomly. Not recommended.**

CAPTAIN BLUNDER

Captain Blunder the ST gaming wonder has been round at PJH Publishing's offices to get some hints and tips for your ST gaming problems. If you want a comprehensive list of hints, cheats and solutions, get in touch with them on ☎ 0480 433455



Round and round

Have you got any cheats for *Magicaland Dizzy*?

Brian Wilson, Aberdeen

CB: Simple – just type in **DIAMONDS AND PEARLS** for infinite lives anywhere in the game. Remember to press <P> to unpauses.

Out of the way

As you can see I live in Saudi Arabia where it is difficult to keep in touch with things. I have bought a lot

of software over here in the last few years and although most of it is pretty old, I'd appreciate any help you can give me for the games *Prince of Persia*, *Hammerfist* or *Weird Dreams*. Thanks.

Ross Hemmings, Dharan, Saudi Arabia

CB: Sure, Ross, here are some hints and tips I hope can help you. In *Prince of Persia* hit <Shift> and <I> to skip levels. This should make the game a lot easier. If you're feeling adventurous and brave you could make changes to your saved game file so

which you want to be able to get them in your sights.

2. If you're faster than the enemy then lock on to their ship and jet away from them. Once you reach about 12km, activate the autopilot and it lines up the ship in your sights. Wait until the ship is 8.5km

away (the maximum range of any laser) then blow them away.

Always save your position after killing an opponent. It helps to have two saved game files – one which you save only when you're docked and another as you travel to a destination. This way if something goes wrong on a journey, you don't lose everything.

When you upgrade to a larger ship, make sure you sell all your equipment first.

Also make sure that you're going to have enough cash to trade with after buying and upgrading your new ship. All sizes of ship can dock in the space station.

When you're given clearance simply click on the three arrows on the three arrows symbol on the Stardreamer control and you land easily assuming you're using the autopilot.

And one last tip – don't bother working for the Federal or



■ This looks like an industrial estate in Widnes.

Imperial Navy until you've made your fortune because it isn't worth trying to trade and complete missions at the same time. This also means you can arm your ship for combat without leaving any space for goods.

■ What planet's blue?
Any answers on a postcard please.

22. Water Elementals – use Kill Ghost spell.

23. Lord Chaos – do your best to fight him off or run away!

The dungeon has ten levels set out like this:

General

Level One – Fulya pit. (Demons, worms, Lord of Chaos, black ghost)
Level Two – Corbum level (Golems, devil dogs)

Level Three – Demon Director (Demons/flame monsters)

Level Four – Coin in slot. All sections access this.

Level Five – start supplies for quick (worms/flying eyes)

Level Six – junction of the ways

Ku section

Level One – Fulya pit. (Demons, worms, Lord of Chaos, black ghost)

Level Two – Corbum pillar (Golems, devil dogs)

Level Three – Demon Director/dead end (Demon/rock monsters/death knights/golem/flame monsters)

Level Four – Coin in slot/BBBD level/dragon's den (dragons/skeleton/giggler)

Level Five – Start/supplies for quick passage (Scorpion)



■ If these hints aren't enough for you, wait until next month for the rest of the solution.



Level Six – Junction/start of Ku

Level Seven – Passage (blue antmen)

Level Eight – Passage (Oitu)

Level Nine – Executioner/no fireballs/possible start (mummies/death knights/munchers/vexirks/giggler)

Level Ten – Mongor's level (dragon/worms)

Ros section

Level One – Fulya pit

Level Two – Corbum pillar/pit puzzle one

Level Three – demon director/zoomer/pit puzzle two

Level Four – surprise attack/pits/coin in slot (dragons)

Level Five – Death row/fireball trap (scorpions)

Level Six – passage

Level Seven – possible start/torch (mummies)



Neta section

Level One – Fulya pit

Level Two – Fireball passage

Level Three – Demon director

Level Four – coin in slot

Level Five – gas trap

Level Six – blob rooms (green blobs/gigglers)

Level Seven – Trap the mummy (mummies)

Level Eight – Muncher maze/start (munchers/shriekers/oitu)

Dain section

Level One – Fulya pit

Level Two – Corbum bomb pillar

Level Three – Demon director/value for valuables

Level Four – coin in slot

Level Six – Possible start/teleporting fireball (rives)

Level Seven – Start/laughing pit/ watery death (rives/ water elementals/blue antmen)

Level Eight – Spider crossroads/ start (spiders)



make sure you create a backup of this file first.

Using a disk or file editor, such as Knife ST, you can edit the first four bytes of the file to gain extra time and so on. Set the first two

bytes to F6 10 (hex) to reset the time remaining to 60 minutes. The next two bytes are the level and your energy. Change byte three to 01-0C (hex) for Levels One to 12 and byte four to a suitably high hex number such as 44.

Now save the amended file and simply reload it into the game and carry on. Be careful not to change anything else in the file because the game may not then recognise it. In

■ What an attractive pair of people. His eye make-up is especially fetching, don't you think?

Hammerfist just get a high score and type your name in as TAEHC OT TNAW I, then hit <F7> which takes you to the next level.

And finally, in *Weird Dreams*, while halfway you're in the mirror and half in the hallway, tap out "SOS" on the Help key in morse code. That comes out sounding something like dit-dit-dit-daaaah-daaaah-daaaah-dit-dit-dit.

We cannot reply personally

Can you send me some tips for *F-19 Stealth Fighter* and *Robocop*?

Matthew Fuidge, Bristol

CIVILIZATION MICROPROSE

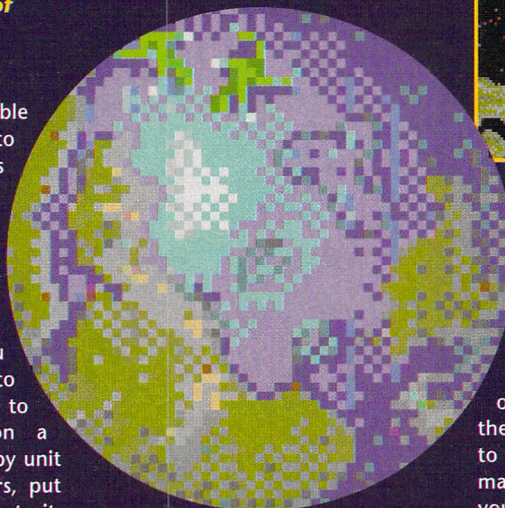
Mikko Siukola of Helsinki in Finland thinks Civilization is brilliant, let him tell you...
"Civilization is the best strategy game for the Atari ST or any other home computer. Period. While waiting for Civ 2, here are a couple of neat things you can do:

1. The efficient settler

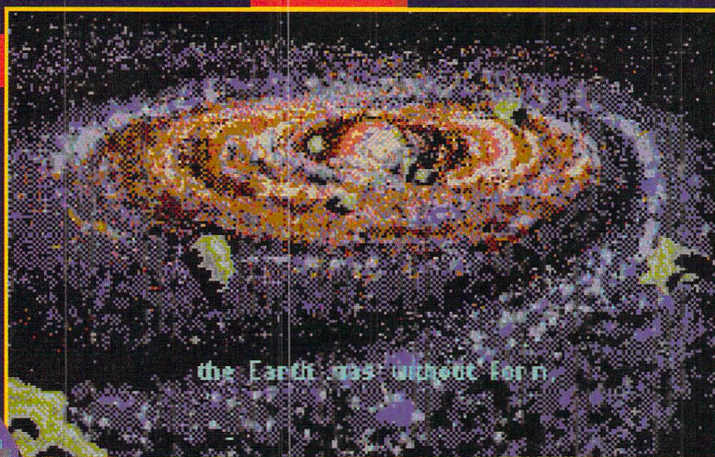
Sometimes you hope to be able to develop without having to rely on robbing inventions from other nations, although that's a great idea in some circumstances. Your cities grow a lot faster if they have developed mines, roads and so on which means a lot of work. You don't really have to wait up to 15 turns for a settler unit to accomplish any project on a square – just leave one nearby unit blinking and awaiting orders, put settlers to work, then reactivate it, put it to the same thing again and so on. Keep doing that and it finishes the job in one turn instead of many – no more wasting time turning swamps into fields, for instance.

2. Swapping sides

Sometimes you become almost too powerful – perhaps you wish your opponents had more guts – or your opponent becomes too powerful, or you just want to do some extra spying. Well, just swap sides, com-



peting thereafter with the civilization that you built. For that you need the program *Knife ST* – we gave it away on *STF 42* (ring *STF Back Issues* department on ☎ 0225 442244 for details of availability if



■ Although this might just look like a mass of pixels to you, it is, in fact, what the Earth used to look like a long time ago. Honest.

you missed it). Load *Knife ST*. Choose Read File. Load *Civil0* (which is in position one) or *Civil1.SVE* (position two) and so on, depending which of the saved games you wish to edit. Choose Commands/Edit Buffer. Now you're in edit mode. In the first page of a cluster, change the fourth two-number group in the first row into: 01 (Romans or Russians), 02 (Babylonians or Zulus), 03 (French or Germans), 04 (Egyptians or Aztecs), 05 (Americans or Chinese), 06 (English or Greek) or 07 (Mongols or Indians). If you want, on the right you can also carefully edit the nation and ruler names. When you're saving the edited buffer (the current page), you must use the same Game Save disk that you loaded the saved game from because *Knife ST* writes only to the location in disk where the edited cluster is; it

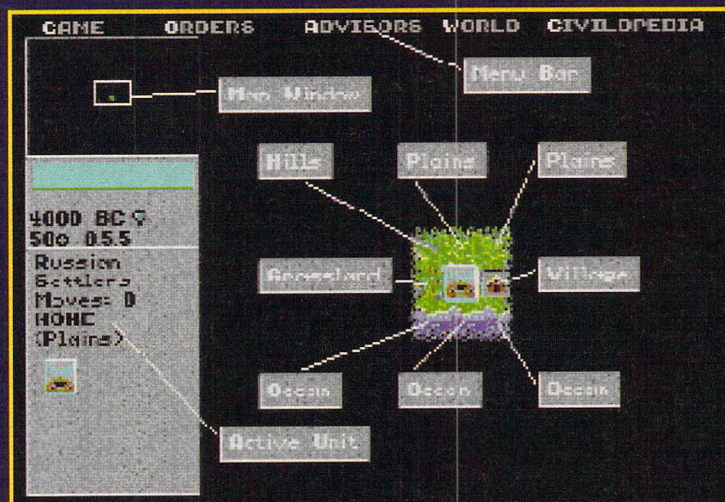


■ This space is just begging for a caption which starts "I remember this place when it was all fields..."

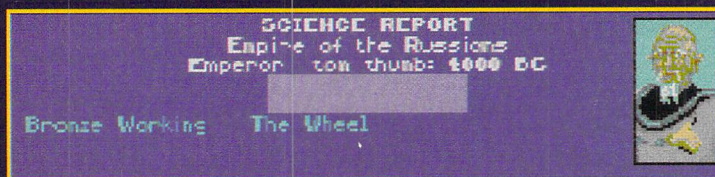
does not write the whole file. Be sure to choose a civilisation that is still active in the saved game situation otherwise time might pass without you having to do anything.

WARNING!

Make sure, when you're using *Knife ST*, that you only edit your saved game disks, not your original game disks.



■ Civilization really is a brilliant game. And if you're confused about anything you can just look the answer up in the Civilopedia. Handy, that.



■ If you decide, after a while that you don't want to be the Emperor of Russia any more you can always swap sides. Shame life isn't quite so simple.

CB: Can't send you any, unfortunately, but try this... When you're flying at night in *F-19*, you might find it hard to see where you're going. Just press <Alternate> and <N> to make your life a little brighter. And as for *Robocop*, pause the game, type BEST-KEPT-SECRET and unpause for infinite energy. Alternatively, hold down <Help> <Undo> and <Backspace> while typing AXELMURPHY and hit the left mouse button for extra energy.

Drink for your life

I'm a bit stuck on *Shadow of the Beast 2*. Is there a cheat that you

can give me?
Andrew Radon, Bucks

CB: Walk right until you come to the first man. If you ask him for about ten pints, he rewards you with invincibility.

Funny thunder

I have just one humble request. Is there a code for *Rolling Thunder* that gives me infinite time or lives?
James Green, Sussex

CB: As soon as the sampled piece of laughter has been played – and make

sure you wait for that, type JIMBBBY. You now have infinite lives and you can skip levels by pressing either <1> or <1>.

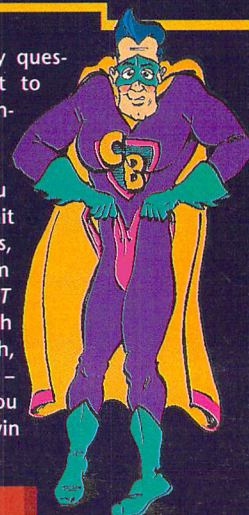
That's magic, that is

Do you have any cheats for *Axel's Magic Hammer*?

Paul Kennedy, Leamington Spa

CB: Ah yes, indeed we have... when the "Continue" message appears on the screen, take the disk out of your ST and press <Fire> to start again. All of the blocks you destroyed in your last game don't reappear.

If you have any questions you want to ask Captain Blunder or any tips, hints, cheats or solutions you want to submit to *Gamebusters*, then send them in to *ST FORMAT* at 30 Monmouth Street, Bath, Avon BA1 2BW – don't forget, you could even win some cash!



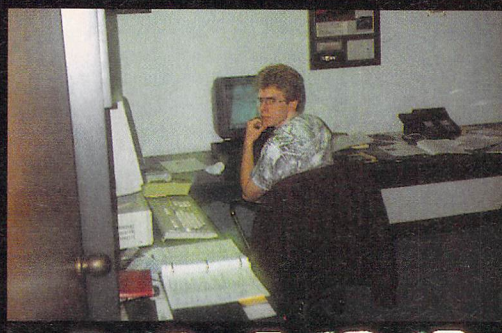
presenting...

ID SOFTWARE

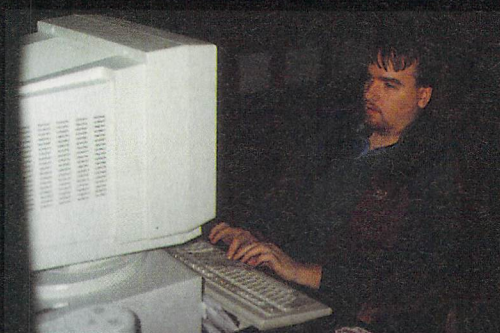
They're much nicer than their games would have you believe. Really they are



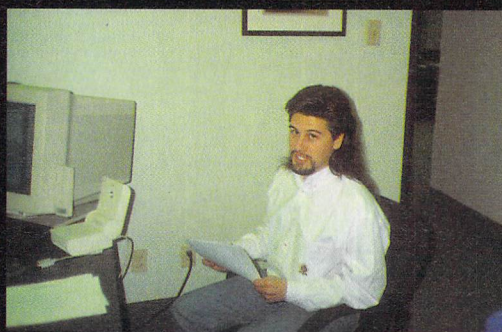
■ You can tell Id are a pleasant bunch because they've got framed animation drawings from Warner Bros cartoons on the walls.



■ None of those dramatically backlit studio photos for these chaps. These cheap Polaroid shots really do capture the flavour of home. Er.



■ John Romero. Probably. "He's got a beard." "They've all got beards." It was a fun conversation.



■ We're so excited about *Doom*, we're utterly unable to express it lucidly. It's going to be so good.

■ Id (as in the sum total of the primitive instinctive forces in an individual subserving the pleasure-pain principle as opposed to the chummy term for identification) have been around since 1990, first programming the *Commander Keen* series for Apogee. The ten-strong Texas based company blasted to fame with *Wolfenstein*, following up with the game described as "Dawn of the Dead on a bad day," *Doom*. Both are coming to your Jaguar. Isn't that fine? **ST FORMAT** asked Id's John Romero the questions you, the readers, want answered

STF: Can you name the members of the *Dirty Dozen*?

Romero: Er, no.

STF (prompting): The fat one was Telly Savalas. He came back as a different character in *Dirty Dozen: The Deadly Mission*. And he was even fatter in that one.

Romero: We've really no idea.

STF: It's just that *Wolfenstein* has such a war movie-staple plot...

Romero: I came up with the general storyline for the game. John Carmack created the 3D technology.

STF (adopting standard US term for the machine): How will the Jagwah versions compare with the PC games in terms of graphic detail and size of screen?

Romero: The Jaguar versions of *Wolfenstein* and *Doom* will be full-screen. *Doom* will most likely have a status bar at the bottom as a result of some hardware tricks we want to pull to make it very speedy. *Wolf's* graphics are at twice the resolution of the PC, so it looks great. It's also a very smooth 30 frames per second. We're using all the Jag's resources for these - the Blitter, GPU, DSP, Object Processor and 68K. Everything.

STF (attempting to keep up with the slangy familiarity): Any problems fitting everything into the, er, Jag?

Romero: *Doom* on the PC is 11MBytes and we get a 2MBytes cart for the Jag. This means we have to strip out and simplify a lot of the textures in *Doom*, as well as simplify the level maps by taking out lots of line segments.

STF (slightly worried about what line segments actually are): Do Atari want to censor the games, as Nintendo did with the SNES version of, um, *Wolf*?

Romero: Atari want more blood and guts than the PC version, if possible. They're very cool about the "mature" subject matter.

STF: The sly dogs. A great asset of PC *Doom* was the multiplayer mode. Will it be there on the Jag game? If so, how many players will it support?

Romero: Well, we are planning on using the serial port to link two Jags together (like the Lynx could). But two players are probably the most we'll support. Multiplayer support is not written in stone, either - we might not do it.

STF: "We"?

Romero: John Carmack is doing about 75% of the *Doom* port, with Dave Taylor taking up the slack. John is converting all of *Wolf* himself, with Dave on MIDI sound drivers.

STF: What do you think of the Jag?

Romero: What an excellent machine. We hope *Doom* sells a million Jags, because it's priced to sell and can deliver some great entertainment, if properly programmed. *Doom's* graphics look much better on the Jag than they do on the PC - we're also pulling some very unique tricks in the *Doom* port to get the speed up there.

STF: What next for Id?

Romero: We're currently working on *Doom 2* for the PC and will port it to the Jag if *Doom* sells well. Then, we begin our next masterpiece, *Quake*. *Doom* will look like *Wolfenstein* next to *Quake*.

STF (fiercely defending the English language by finishing with an incomprehensible exclamation of our own): Crikey.

"We hope *Doom* sells a million Jags because it's priced to sell and can deliver some great entertainment, if properly programmed"

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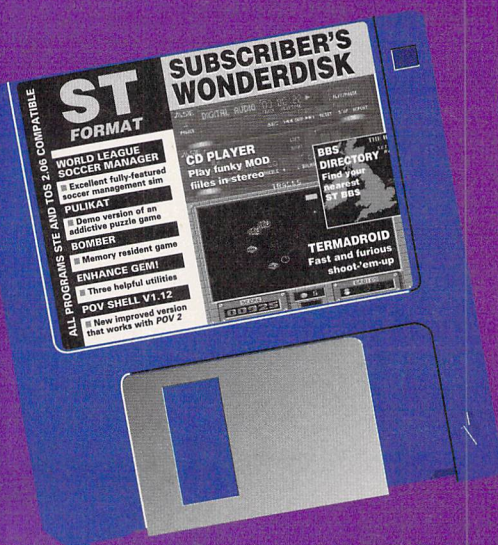
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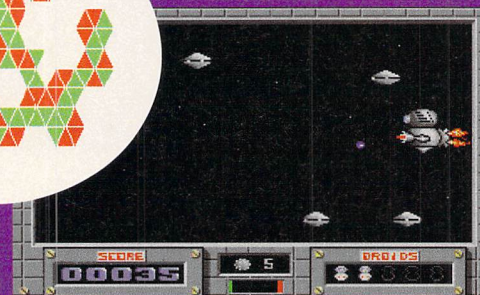
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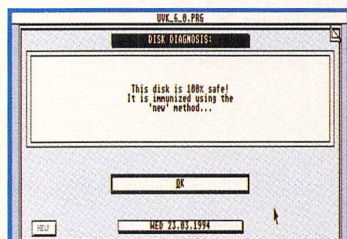
ST ANSWERS

This month we solve your usual ST problems and bring you a two page special on *Before Dawn*

Cover Disk virus?

DISKS I'm writing to let you know that there is a virus on the Cover Disk of ST FORMAT issue 57. I found it using my virus killer program before any of my other disks became infected. I find this ironic considering you had a feature about viruses in the same issue. **Danny Davis, Luton**

A Sorry to disappoint you, but there wasn't a virus on the Cover Disk of issue 57 - it's perfectly safe. Several people sent their Disks



■ It's not a virus after all - it's the extraordinarily safe Cover Disk 57, handcrafted by techy supremo Clive "I've immunised it!" Parker.

back with the same complaint, we checked them all and found that the Ultimate Virus Killer (UVK) found each Cover Disk 100 per cent safe. The Cover Disk of issue 57 was "immunised" using UVK 6, some older virus killer programs don't recognise the new immunisation method and think that they have found a virus. There's no need to worry about it.

Wrong size

HARDWARE Why are Atari making the CD-ROM drive for the Jaguar a three inch drive, smaller than the five inch drives supported by Philips CD-I, Sony and 3DO? **Abdul Aziz Ali Jabr, Saudi Arabia**

A Er, they're not! The CD-ROM drive for the Jaguar takes standard five inch CDs, so you can use it for Jaguar CD games, audio CDs, Kodak Photo-CDs and - by using a special Digital video cartridge - Philips Digital Video CDs. You can use

three inch CDs in any CD-ROM drive by using an adaptor.

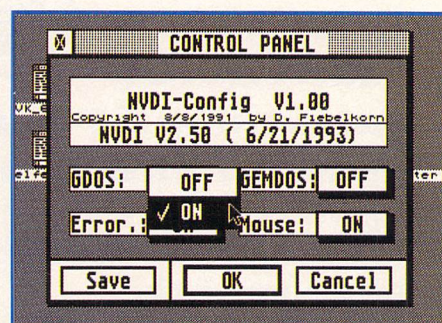
Conflicting software

SOFTWARE I can't install GDOS because it interferes with NVDI. I think that it's because both programs use ASSIGN.SYS files that are incompatible with each other - with the ASSIGN.SYS file for GDOS installed NVDI cannot find its files. How can I get around this problem? I use a hard drive and twin floppy drive system. **Chris Brown, Harrow**

A There are a couple of ways around your problem. The easiest way to avoid the problem is not to use GDOS at all because NVDI has a replacement version of GDOS built in. This means that you can run NVDI and any GDOS program should work perfectly - without loading GDOS. All you have to do is put the

GDOS fonts in your NVDI folder and alter the ASSIGN.SYS file in a text editor so NVDI can find the fonts.

Another way is to disable the GDOS functions of NVDI using the NVDI CPX or Desk Accessory, if you do this you lose your Desktop and win-



■ Use the NVDI CPX to switch off the GDOS functions of NVDI if you don't want them or need them.

dow fonts but you can then use GDOS in the usual way.

The final method is to use a boot manager program in the Auto folder of your hard drive, you can

SOUND

MUSIC AND MIDI

Andy Curtis attains escape velocity in his quest to sort out your MIDI queries

A question of velocity

I have a Roland Juno 106, a Technics SXX700, an Alesis SR16 drum machine, a Roland Dr Synth GM Sound Module and I need help! They are connected to my 2MByte STE running the Rave sequencer. The problem is that no matter which keyboard I use to input MIDI data the note velocities always come out at a uniform 64. Is there a way to enter notes at a default velocity of 127 or a way to force all notes to register as 127 on the sequencer?

Patrick Lanigan, Pershore

stf: We have tested Rave in the office and it does respond to the note velocities input into it. Both your keyboards are outputting note values of 64. See if there is something in their respective manuals to vary this. It is possible, within Rave, to raise all the note velocities using the block operations page, give this a try if you are still stuck.

Non-plussed

Please could you tell me how to convert AVR samples on Replay 16 to IFF format on Sequencer One Plus because this is the reason I am buying it.

Aaron McClelland, Co Antrim

stf: Good news - no need to convert samples to IFF format if you have Sequencer One Plus. It handles AVR

samples with no problem. Are you sure you have the Plus version or is it just Sequencer One that you have?

Stereo in mono?

I own a 520 STFM with 1MByte and I would like to know if the Stereo Playback cartridge is still available and if it is, where can I get it?

David Walsha, Reading

stf: We're very pleased to be able to tell you that Stereo Playback is alive and well and living at Hisoft/AVR. Give them a ring on ☎ 0525 718181 for further product information.

Problems with insertion

I have recently upgraded to Cubase v3 and I am having trouble inserting controller events into my music. I often need to insert a sustain pedal event but I'm having no success at all. Can you help?

Lyall Daniels, Dorchester

stf: Edit the part you need to add to using the list edit page. Select the song position at which you need to insert and then move the mouse pointer up to top right-hand corner of the screen. There is a sub-menu entry labelled "Ins" and it normally displays "Note." Click on "Note" and hold down the mouse button. A pop up menu appears, select "Controller" from this list and then press the <Insert> key on your Atari keyboard. A controller event is added in the event list. Simply edit the event number to 64 for a Sustain event and Cubase

shows a Damper Pedal event. Then set Value 2 to 127 for on or 0 for off. Easy when you know how.

Minims and things

I have difficulty understanding the quantise values in my sequencer. They are all expressed as musical notes which I can't read very well. Actually, I can't read them at all. Can you explain?

Anthony Washburn, Derby

stf: This is quite simple, really. You may be more familiar with seeing quantise values as equations, for example, 1/1, 1/2 and 1/4. The musical notes mean just the same really. The semi-breve (empty circle with no stalk) is the same as 1/1. The minim (empty circle with a stalk) is the same as 1/2 and the crotchet (filled in circle with a stalk) is the same as 1/4. If you think about it you should be able to work the rest out.

MIDI guitar

I have a acoustic guitar and I've heard that I can get a MIDI guitar pickup for it. Is this true? If so, can I use it to write music on a software sequencer on my 1040STE? It all sounds too good to be true.

Alison Brierley, Halifax

stf: You can purchase a MIDI guitar pickup that functions with any acoustic guitar. One example is the Shadow SH075 MIDI Guitar pickup which should be available from most good music stores at round about £300. Having bought the pickup you can use it to input MIDI data into any MIDI sequencer you choose.



GFA CORNER

So, who is that Mac'd man? It's Mac Marsden, delving into your GFA programming problems

Secret code

I am trying to write a program that requires a password entry, is there a GFA Basic routine that enables me to input a secret code (say of five characters) without having it displayed on the screen?

Brian Whyte, Tyne and Wear

stf: If you enter the following code and then enter five letters or numbers followed by the <Return> key you can check if the entered code is correct by examining pas\$.

```
PRINT "ENTER YOUR PASSWORD :";
PAS$=INPUT$(5)
```

Now place your password checking routine here.

Virus vs virus

Could you please explain what a cluster is and is there anyway using GFA Basic in which I can detect whether a floppy disk has either executable code or a virus held in the boot sector?

John Thompson, Somerset

stf: A cluster is a storage unit for data you save to disk, normally consisting of two sectors each sector being 1024MBytes or 1K in size. By adding all of the bytes of the boot sector, if this sum &HFFFF equals &H1234, the boot sector is executable, this could be a virus, virus protector or even a games disk boot sector.

Accessories

I have a requirement for a small data file program that I have written in GFA Basic. I need to access the program while running other software, so it must be compiled and linked as a Desktop Accessory. When the program was compiled as an .ACC and placed in the root directory and loaded, it continuously resets the computer and I have to switch off. Please can you offer a solution to my problem?

Roy Davidson, Netherlands

stf: A lot of people think that all they need to do is to compile it under the option of .ACC, in fact, some extra

code is required to make a Desk Accessory work. Take a look at the listing below.

```
$m xyz
ap_id$=APPL_INIT()
me_id$=MENU_REGISTER(ap_id$," abc ")
exit!=TRUE
DO
  -EVNT_MESAG(0)
  IF MENU(1)=40
    ' place your program here
  ENDIF
  exit!=FALSE
LOOP
```

Where xyz is the size of the accessory including space for any DIM statements or pictures, abc is your name for the Accessory, this appears in the File drop-down menu.

Putting the boot in!

I am having a little bit of trouble with a GFA Basic program I have written to format floppy disks, I cannot seem to get the boot sector right. Please can you help?

Charles Letterby, Scotland

stf: Here is a table of the boot sector which should help you.

OFFSET	LENGTH	NAME
0 2	&H038 =	branch to boot routine
2 6	FILLER	fill bytes
8 3	SERIAL	serial number of disk
11 2	BPS	bytes / sector (512)
13 1	PC	sectors / cluster (2)
14 2	RES	reserved sectors
16 1	NFATS	number of FATs (2)
17 2	NDIRS	max entries in main directory
19 2	NSECTS	total sectors
21 1	MEDIA	not used
22 2	SPF	sectors/FAT (5)
24 2	SPT	sectors/track
26 2	NSIDES	sides (1 or 2)
28 2	NHID	ignored
30 2	EXECFLAG	start of boot code

32 2	LDMODE	0=FNAME, <0=load sectors
34 2	SSECT	first sector (LDMODE<0)
36 2	SECTCNT	number of sectors
38 4	LDADDR	load at this RAM-address
42 4	FATBUF	address of FAT-buffer
46 11	FNAME	filename (nnnnnnnn. eee)(LDMODE=0)

Behind the scenes

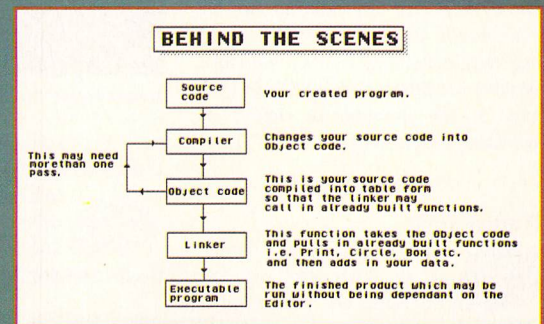
Can you explain how GFA Basic takes my program code and makes it into an executable program?

Darren Young, Sunderland

stf: Your source code is broken up into tables (Object code) from where the Linker takes each command you have entered, such as PRINT "Hello World," and converts it.

Remember the PRINT command is held in one table and "Hello World" in another table. The Linker now fetches a routine for printing and then adds your data to it. It does this with each command you have typed in until no more code is left, just leaving as the finished product your .PRG program ready for you to run.

If you look at the picture we have included it may clear things up a little, all you really need to know is



■ The steps GFA Basic makes to transform your source code into a stand alone program.

that GFA Basic produces a program from your source code and that you really do not need to worry about what it is doing.

then use it to choose between NVDI or GDOS and between different ASSIGN. SYS files. The best manager for the job is XBoot 3 from Hisoft/AVR (0525 718181), it costs £34.95 plus £2 postage and you can enable or disable Desk Accessories on booting.

Screen corruption

I have installed a 512K upgrade for my STE so I now have 1MByte of RAM. Although the upgrade tests OK, using the supplied software, we are now getting some strange symptoms when we run software, both games and serious. Many games now suffer from screen problems with the picture becoming corrupted and the programs crashing. The Desktop itself sometimes "bombs out" for no reason and the mouse pointer leaves a trail when moved around the screen. Is

there a problem with the upgrade or is my STE just starting to fail?

David Gowdy, Newtownards

A Judging by the symptoms you have described you do have a memory problem; screen corruption is a classic indication. It's most likely that your two 256K SIMMs you have installed are not inserted into the sockets.

Take the lid off your ST and gently make sure that the SIMMs are firmly in place, each SIMM should be held in place by a clip at each end. If the SIMMs are fully inserted and you still have problems, remove the two new SIMMs – the first and third SIMMs counting from the front of your ST – and see if it works OK with just the original 512K of memory. If it does work without the new SIMMs then they may be faulty, get a replacement from your supplier.

Un-editable

Are there any PD clocks which run in the background when I am using

Write On from Cover Disk 33? I have tried several but when they are on screen I am unable to edit any text, do I need multi-tasking? Where can I get a Write On manual so I can learn some of the other functions of the program?

James Lee, Selby

A No, you don't need multi-tasking to run a corner clock on your ST. Corner clock Auto programs and Desk Accessories work correctly with almost all software except – you guessed it – Write On and That's Write. The code used by the clock programs interferes with the functioning of these two programs, so you'll just have to use the clock on the Control Panel. You can get the Write

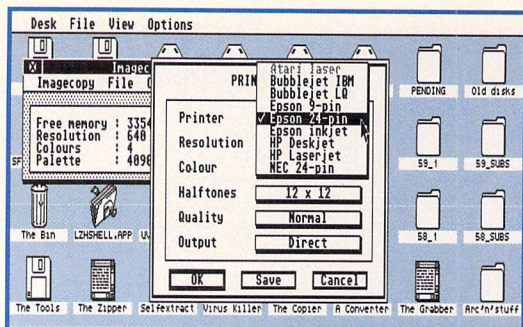
On manual from Compo Software, give them a call on 0487 3582.

Any colour you like

I have a Panasonic KX-P2123 colour printer but I am unable to produce anything in more than one colour at a time. I have tried several paint programs including Hyperpaint 2 but to no avail. What is it that I'm doing wrong?

David Sullivan, Lyme Regis

A Nothing, the problem is that you don't have a printer driver for a 24-pin colour printer. All you need to do is buy Imagecopy Colour 2 from the ST Club, it enables you to print Degas, Neochrome, GIF and TIFF images in colour with your printer. You can contact the FaST Club on 0602 455250.



■ Using Imagecopy Colour 2 you can produce colour images on your printer, even if you only have a mono monitor. Er, you do need a colour printer.

Screen-dumps

PRINTERS Can you tell me how get my Commodore MPS 1270 to print out a screen-dump of what's displayed on my mono monitor?

David Lee, Chesterfield

A If your printer is Epson compatible then you should be able to get a screendump by pressing <Alternate> and <Help> at the same time. We contacted Commodore, and while they had no information on your specific printer because it is quite old, they assured us that Commodore printers are Epson compatible. Take a look at the manual for details of switching to Epson mode.

Dodgy PSU

HARDWARE My Mega 4 ST sometimes shuts itself off for no apparent reason and then it turns itself back on again. Sometimes bumping the table can trigger or solve the problem. What's causing the difficulty?

William Beaupre, Minneapolis

A It sounds like you have a dodgy connection of some kind in your Mega ST. The solution could be as simple as changing the power cord or there may be a loose connection inside your ST. Try another power cord, if that doesn't work then take your ST to a reputable repair shop. Sorry, we can't recommend anywhere in Minneapolis.

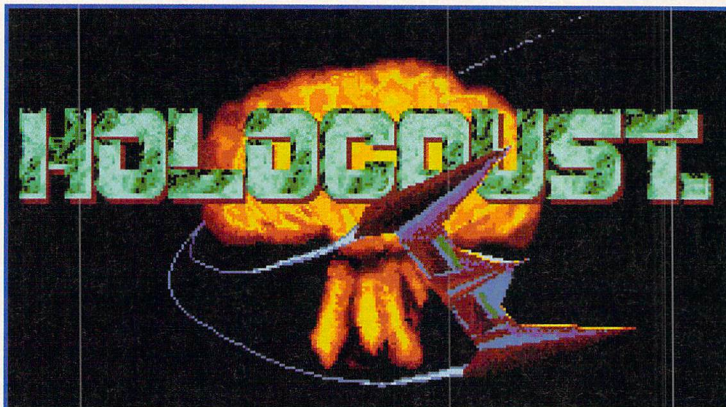
Compatible or not?

DISKS On the April issue of ST FORMAT Cover Disk you gave away the games Holocaust and Tri-Heli. In the Cover Disk pages it states quite clearly that the games work on all STs but not with TOS 2.06.

I have TOS 2.06 in my STE and both games work without any problems at all, can you please make sure you get your facts right about Cover Disk software compatibility in future.

David Allenby, Humberside

A Our Cover Disk editor, Clive Parker, says: "We tested the games on both of our STs equipped with TOS 2.06, a 4MByte Mega STE and a standard STE with 1MByte of RAM. The games failed to run on both of the test machines so we naturally assumed they were not TOS 2.06 compatible. As you do."



■ Holocaust really, really, really does run on TOS 2.06 after all - sometimes.

Desk driver

BEGINNERS Where can I get a GDOS driver for the Deskjet 500 inkjet printer?

David Fielder, West Yorkshire

A Contact the FaST Club on 0602 455250, they have a wide range of GDOS support disks. FaST Club disks are £1.75 each.

Upgrade path

HARDWARE My STFM has finally died on me and the cost of repair is so high that I have decided to buy a new ST. I have loads of ST software but I am concerned that it won't run on an STE. Is this true? Should I buy an STFM or an STE?

Anthony Medd, Morpeth

A All ST software written since the STE was introduced in 1988 is STE compatible. There were some games - very few in fact - that were not compatible with the STE. Most of these were older games written when the ST was first launched. Buy an STE, it's easier to upgrade and has better sound capabilities.

Icons for all

HARDWARE I have recently upgraded my STE to TOS 2.06 using a switchable unit from Analogic computers. In

ST FORMAT 47 you mentioned in the TOS upgrade feature that you can edit the Desktop icons using a resource file editor, but I don't have a RSC file on my boot disk to edit. You also stated in the article that you have to switch off your ST before switching between TOS versions, is this true?

David Moffat, Glasgow

A You should have had a file called DESKICON.RSC with the TOS 2.06 upgrade, TOS 2.06 spots this file in the root directory of your boot disk and loads it into RAM when booting up. Issue 48 of ST FORMAT

three bombs on the screen and stop working. Is this because the games aren't original copies?

Jacki Davies, Saltash

A If the games you bought in Cyprus are pirate copies - and it sounds like they are - then there are no guarantees about the quality of the disks used by whoever made the copies. With original copies of games you can get replacement disks if you have any problems. There's not much you can do about your Cypriot software. In future make sure you buy your games from reputable sources.

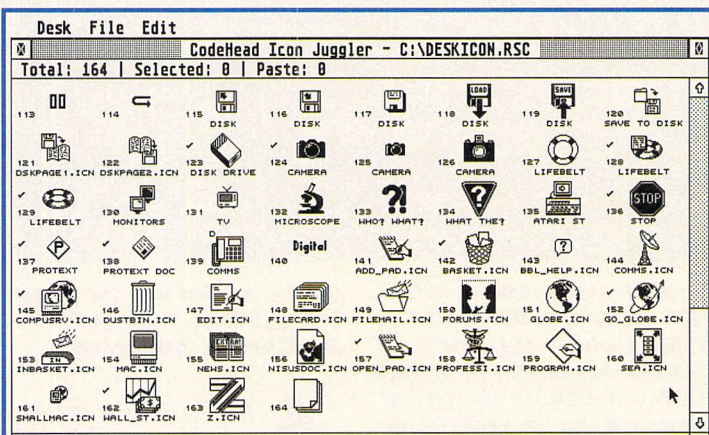
Wiped disks

SOFTWARE I have an STE and I am having problems with games that have a save option. After I have saved data to the disk it doesn't work again. I have checked the disks and they do not contain a virus.

Dave Allen, Bradford

A Your problem may be that you are saving data to a game disk instead of a blank data disk. Whenever you have to save data using a commercial game you should always use a blank formatted disk, saving data to the game disk may overwrite the game code and erase the game. This is especially true if your game formats a disk before it saves information to it.

contained a DESKICON.RSC file comprising 100 new icons for TOS 2.06 along with a pair of programs to cre-



■ You don't have to use a resource file editor to make new icons, just use Icon Edit and Icon Juggler from Cover Disk 48.

Internal affairs

FALCON Can I fit a MiniS hard drive from System Solutions into the Falcon Tower case with an internal standard CD-ROM drive?

Max Muinos, Spain

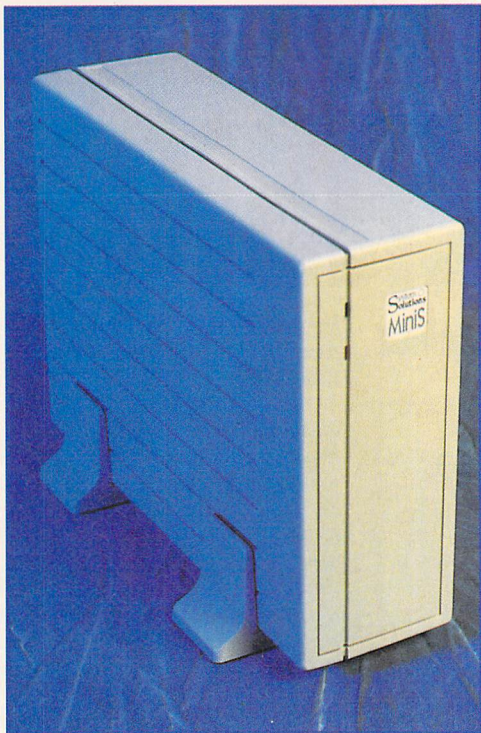
A The MiniS drives are external SCSI drives, it's a bit pointless buying a drive complete with power supply and case just to strip it down and fit it inside a Tower system. All you need to do with a Tower case for the Falcon is to get a large internal 3.5inch IDE (Intelligent Drive

ate and edit your icons. Turn to page 94 to order a back issue.

You don't have to switch off your ST to switch between TOS versions, it's quite safe to do it with your ST running.

Crashing games

DISKS I bought my ST and most of my games in Cyprus. Most of the games I bought in Cyprus are not the original copies - even though I bought them in shops - and some of them display



■ A MiniS external hard drive, yesterday. Why strip it down when you can buy a bare drive instead?

Electronics) hard drive, you can connect this directly to the Falcon motherboard.

You can fit a CD-ROM drive in a Tower case but you should make sure that the drive you buy can work in a vertical position. Most CD-ROM drive are not orientation independent – they like to be in a horizontal position.

Why go backwards?

Are you going to review ST games on the Falcon using ST emulators like Backwards?

Larry Niven, Cheltenham

■ No, we are going to review ST games on STs and

Falcon games on the Falcon. If a game is compatible with the ST and the Falcon, and has extra Falcon enhanced features, then we'll review it on both machines. Check out this month's Falcon review of Muzzy on page 73.

Upgrading STEs

Where can I get a 2MByte or 4MByte memory upgrade for my STE? All I have seen advertised are upgrades for the STFM.

Lee Holding, Flint

■ All you need to do to upgrade your STE to 2MBytes is buy two 1MByte SIMMs, open your STE, remove the two 256K SIMMs and plug in the two new ones.

To upgrade your STE to 4MBytes you just buy four 1MByte SIMMs and put them all in your STE. Contact Marpet Developments on ☎ 0423 712600 for their latest prices for STE upgrades, they supply kits with complete installation instructions. The price of 1MByte SIMMs fluctuates quite a lot, but you should be able to get 1MByte boards for between £25 and £30.

The big picture

GRAPHICS I have an STE with a colour monitor, when I load Image format clip-art the picture is always larger than the screen. Is there any way of altering the size of Image files so I can see them on screen?

F Edmundson, Burnley

■ Image format clip-art is normally created in high resolution on a 640x400 pixel screen, when you run your ST in medium resolution you only have a 640x200 pixel screen. One way around this is to use Hyperpaint 2 – it was on the Cover Disk of ST FORMAT issue 54, if you haven't got a copy then turn to page 94 to order a back issue.

Hyperpaint enables you to load Image files in any resolution, so you can load high resolution pictures in medium resolution and save them as Degas files.



ASSEMBLY CORNER

Tony Wagstaff examines more of your incomprehensible assembly language questions

STOS boot up

I'm a beginner in assembly and am interested in writing a program into the boot sector, as seen in assembly pointers issue 48, that fades in a Degas picture and runs my compiled STOS program. Can you help me?

Bob Kenny, Hereford

stf: Running a boot program, if it exists on the boot disk, is one of the first things the your ST does during its boot up. This means that a lot of system variables are not set up, and your STOS program may not work without these variables. However the same effect can be achieved by using the Install Application option, if you let the STOS program load the picture. Simply install it with Auto boot status, and save the desktop onto your boot disk.

If your TOS version is less than 1.4 then you need the PD Startgem program. If your STOS program is non-GEM, then even simpler, place it in the Auto folder.

Select a number

Could you explain how to use the file selector, I am using Devpac 2.

J Johannesson, Iceland

stf: You can take advantage of the AES macros contained in the gemmacros file that comes with Devpac. All you have to do is include this file towards the beginning of your listing.

Firstly, you need to tell the AES that you exist, using the appl_init call. Once you've returned from the call, the first word of the global array contains the AES version number of the computer that's running. You need to store this as there are two different calls for the file selector. The first, fsel_input, is used on earlier versions of the AES. From version 1.30 of the AES, the new, improved fsel_exinput became available, and should be used in preference. This new call displays

a label in the file selector, informing the user what action is to be taken.

Both calls need to be passed a path specification, which should be at least 128 bytes long, 200 bytes for CD-ROMS, and takes the form of drive:\path\mask, as in the example path below. The file selector initially displays the files matching this specification. You can use the two wildcards, * which displays any files containing any number of characters in place of the asterisk, or ? any one character. Also needed is a file buffer, of at least 13MBytes which is displayed on the filename line. For fsel_exinput, pass a label of up to 30 characters. All of these should be null-terminated.

On return, the path and file buffers are updated to specify the user's choice, you need to strip the mask from the path specification, and int_out+2 contains 0 if the Cancel button was selected, otherwise 1 if the user clicked on OK, or double-clicked a file.

First we set things up:

```
appl_init
move.w global,aes_version
lea path,a1
lea my_path,a2
load_path move.b (a2)+,(a1)+
bne load_path

lea file,a1
lea my_file,a2
load_file move.b (a2)+,(a1)+
bne load_file
```

Now we check the AES version number, and call the relevant file selector routine:

```
cmp.w #$0130,aes_version
bge .aes130

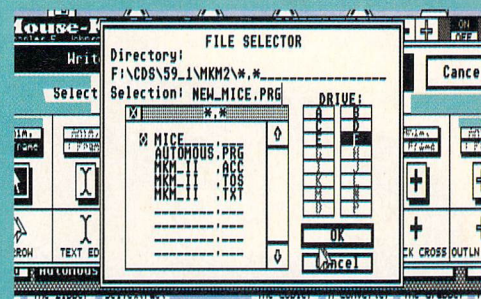
fsel_input #path,#file
bra .not130
.aes130

fsel_exinput #path,#file,#label
.not130
```

```
move.w int_out+2,button
```

```
bss
path ds.b 128
file ds.b 13
button ds.w 1
aes_version ds.w 1
data
```

```
my_path dc.b 'A:\FOLDER\*. *',0
my_file dc.b 'TEST.S',0
label dc.b 'Select a File',0
```



■ A file selector, yesterday. It's dead easy to call the file selector using assembly language code.

Game routines

Could you recommend any books which show me how to achieve the various techniques used to write games in assembly, screen-scrolling, joystick commands and so on?

Darren Vine, Exmouth

stf: Budgie UK, a group of programmers dedicated to the ST, have produced a disk full of routines that are particularly useful to games writers. It contains 85 macros covering everything from sprites to sound to mouse and joystick handling. The disk is available from the FaST Club on ☎ 0602 455250. Ask for disk BPR.01. Budgie themselves can be contacted at 5, Minster Close, Rayleigh, Essex SS6 8SF.



DAWNING COMPREHENSION

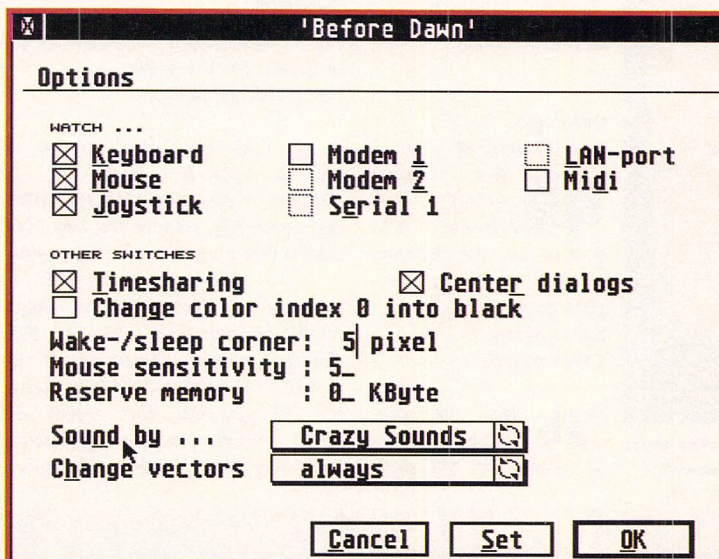
The crack of dawn

SOFTWARE I've been having terrible trouble with the *Before Dawn* screensaver you gave away on Cover Disk 55 (turn to page 94 if you missed it). Although I put the DAWN-AUTO.PRGM in the Auto folder and DAWN.ACC, DAWN.RSC, DAWN.INF and the IMAGES folder in the root directory of my boot disk, the animations refuse to run when I use any other disk. All I get is a blank screen when the animation is supposed to run. What am I doing wrong? I have a 1MByte STE and a single floppy drive.

Craig Matthews, Merseyside

A We've had a few queries about running *Before Dawn* on floppy drive based systems so here's a special ST FORMAT guide to using the best screensaver you can get for the ST.

Here's a few of the basic principles of *Before Dawn*. Although you have the Desk Accessory and the main program loaded into memory, the animations load from the disk when they are required. That means that the IMAGES folder with the animations inside must be on the disk in drive A – or drive B if that's how you've set it up – or the



■ Use the Options menu to set up how *Before Dawn* reacts. You can select the parts of the system that *Before Dawn* watches while it's active, so if you like you can set it up to watch for keyboard and mouse movement only.

animations won't run. Alternatives include setting up the animation to be loaded from a RAM disk held in memory or from your word processor disk itself. You don't need to copy all of the *Before Dawn* animations to your working disks, just the one you want to use with that specific application. Use the *Before Dawn* Accessory to look for the animation on the work disk

and then save the DAWN.INF file to the same disk. When the screensaver

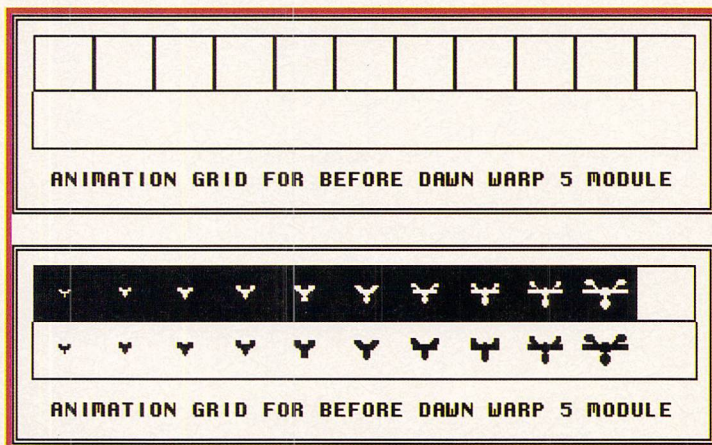
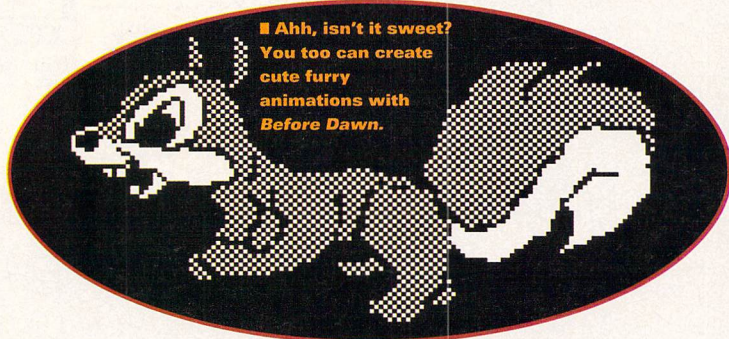
kicks in it reads the DAWN.INF file from the disk and loads the animation. Simple.

Setting up

It's dead easy to set up *Before Dawn* to install and run from your boot disk. All you have to do is copy DAWN-AUTO.PRGM to the Auto folder of your boot disk and DAWN.ACC, DAWN.INF and DAWN.RSC to the root directory. If you're not sure about Auto folders and the root directory then turn to page 90 and take a look at our feature on file management.

Once you have the files in the correct places then reset your ST with the *Before Dawn* disk in the drive, when your ST boots all the *Before Dawn* files load into memory. All you have to do now is set up the individual sections of the program from the Desk Accessory.

All of the modules are selected in the same way. You choose the module you want to run from the *Before Dawn* Accessory screen and simply



■ We created a grid to make a *Star Trek™* Warp 5 module. We used ten of the 11 frames for the sequence, the image is white on a black background. The mask below is black on a white background, you must cut out the ten frames and masks as a single GEM Image file with the animation above the mask.

DAWNING AWARENESS

1. Don't use *Before Dawn* with 1st Word Plus – it just doesn't work.
2. You can use *Before Dawn* in any res, although it looks best in high res.
3. If you use a floppy based system keep animations and images on your work disks.
4. *Before Dawn* uses lots of RAM, don't be too ambitious on a 512K ST.

5. You can create 256 colour animations on the Falcon or by using a graphics card.
6. If you have enough memory in your ST then you can store and run your animations from a RAMdisk, they load much faster.
7. If you have the Paula MOD file player or *CrazySounds* you can play samples along with your animations.

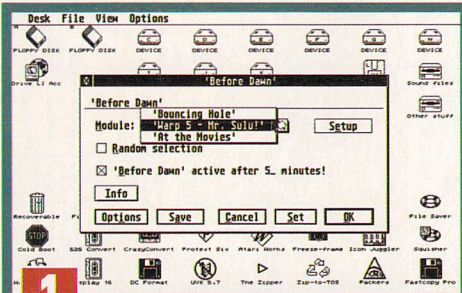
8. You can create your IMG files in Hyperpaint 2 using the Save As command in the block menu.
9. Or if you have a hard drive use that. Obviously.
10. Always make sure the images you design to use with *Before Dawn* have a black border or else parts of the animation remain on-screen.

select the specific animation you want to use from that modules Setup dialog box. The only module that's any different is Warp 5 – Mr Sulu, here you select the number of frames in the animation and the number of times the animation appears on screen in the "Number of stars" option.

Making Warp 5 animations

Warp 5 is the name given to the screen module that looks like the viewscreen in *Star Trek™* when travelling at warp speeds. You can create

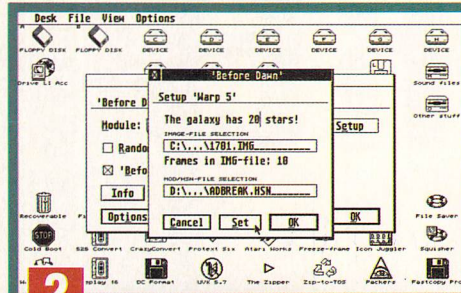
SETTING UP WARP 5



1

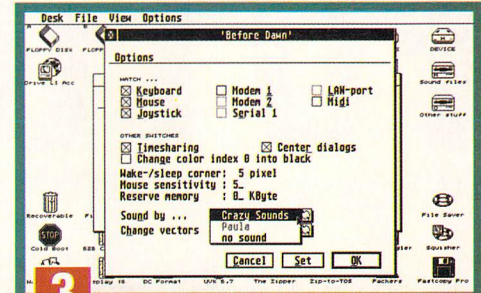
Call the *Before Dawn* Desk Accessory and select the "Warp 5 - Mr. Sulu" option from the Module button.

Because *Before Dawn* uses pop-up menus you may not be used to selecting items, all you have to do is move the mouse over the module you want and then release the button.



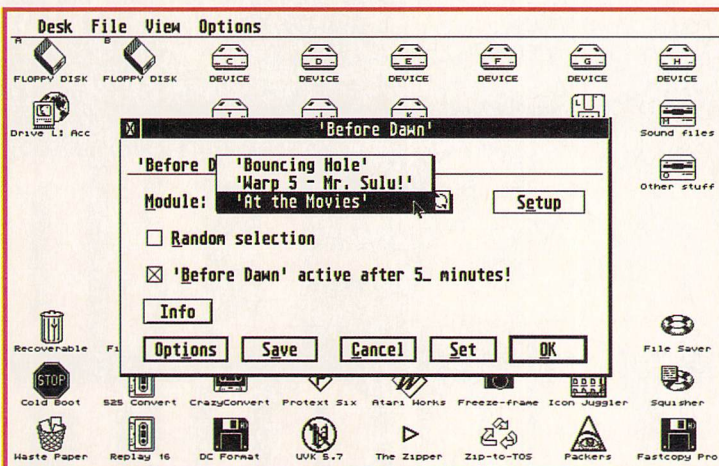
2

Now you must select the Image file of the animation you are going to use for the Warp 5 module. Click on the box labelled Image-File Selection and use the file selector to select the image file. You can also select a MOD or HSN sound file if you have Paula or CrazySounds installed.



3

Click on the Set button, then the OK button to exit. At the main menu select the Options button to go to the Options menu. Select the options to cancel the animation including the keyboard, mouse and joystick. You can select your sound module player, select Set followed by OK to store.



Select *At the Movies* from the *Before Dawn* menu screen to go to the Setup screen...

your own animations to use with the Warp 5 module with as many animation frames as you like. You must specify the correct number of frames in the Setup menu or the animation doesn't run correctly.

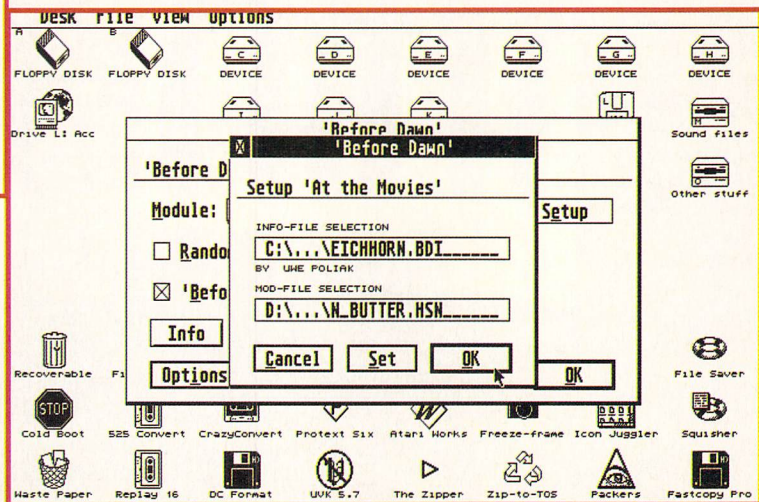
To create your animation set up a grid and decide the number of frames you are going to use, your basic grid can have more frames than

you actually use. Create your sequence of pictures using Hyperpaint 2 - high resolution is best, but you can do it in medium resolution - and then create a mask for each frame in your sequence. The mask must be the exact opposite to the original frames. Cut out the animation sequence and the mask and save it to disk as a GEM Image file.

You then call this file from the *Before Dawn* Accessory.

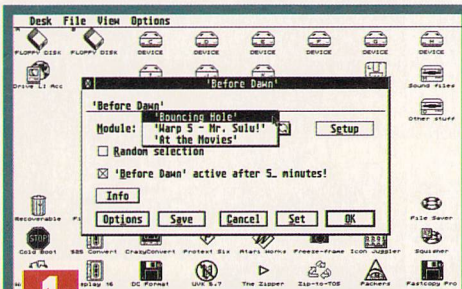
Basically it's best for you to just play around with *Before Dawn* and set it up to your own preferences, it's fun designing your own animations and star fields using a paint package. You've got the software, so why not get designing? **stf**

THE STF ADDRESS
Send all your ST related problems to ST Answers, ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW. Please indicate the type of problem on the envelope.



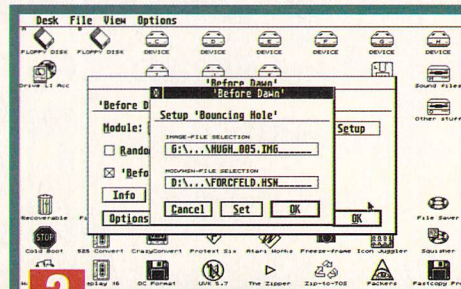
...and choose the animation you want to run using the file selector.

BOUNCING HOLE



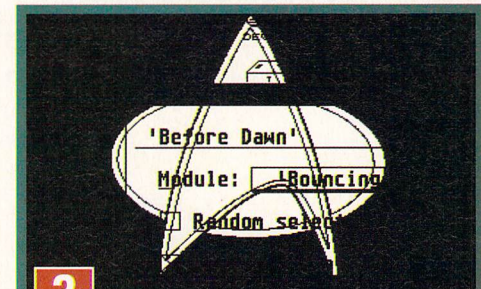
1

Call the *Before Dawn* Desk Accessory and select the "Bouncing Hole" option from the Module button. This takes you to the Setup dialog menu box where you can select the Image file you want to use as your screen saver.



2

Click on the Image-file Selection button to search your disk for the Image file you are going to use, use the file selector to select the file. You must always select the Set button before you leave a menu to store the information.



3

When you get back to the main menu click on the Set button to enable the Bouncing Hole module, then click on Save to store the info. When it runs the screen is displayed through a hole shaped like your Image file.

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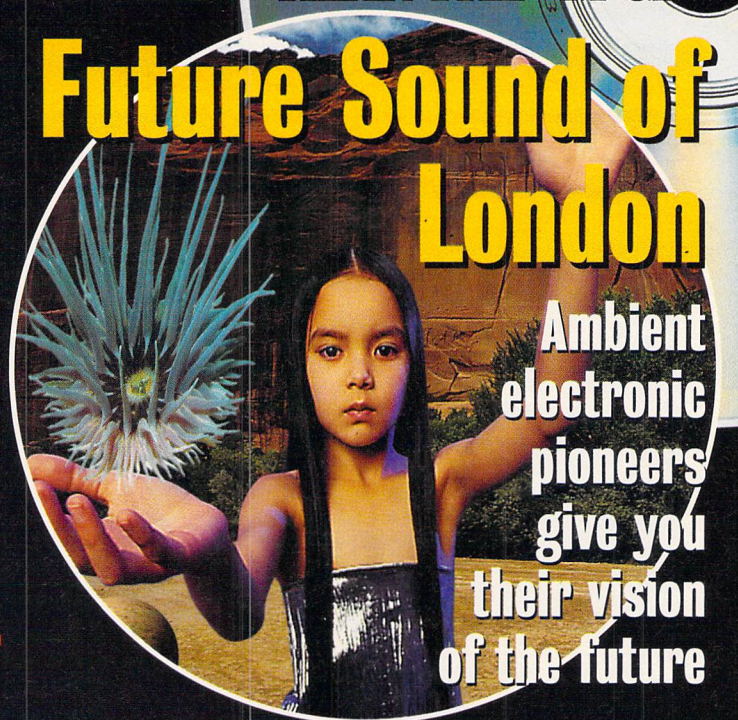
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DSP DECODED

You've heard of the Falcon's DSP chip by now, but what does it actually do? Clive Parker takes a closer look at the DSP56001

One of the big selling points of the Falcon is the DSP co-processor chip, a standard part of the audio sub-system. So what exactly, is the DSP56001?

A Digital Signal Processor is a high-speed, single chip micro-processor specifically designed to perform extremely high-speed digital data processing. Because it has been included as part of the Falcon's audio sub-system it has been generally assumed that it has been installed purely for processing sound, in fact, the DSP can be used for other kinds of digital data processing – it's not just restricted to processing sound data.

That's fast

When you combine the processing power of the DSP chip with the general processing power of the main Motorola 68030 CPU, you get a powerful combination that is capable of some incredible feats of processing. The DSP in the Falcon is a very high speed device that can actually process three items at once in parallel using its three address buses, the Program memory bus and the X and Y data buses. This type of design is called Harvard architecture and is a major contributor to the DSP56001's fantastic processing speed of 27MIPS.

It's this high processing speed that makes the DSP such an important part of the Falcon, it can process data while the main 68030 processor is working on something

else giving another boost to the system's data processing capabilities.

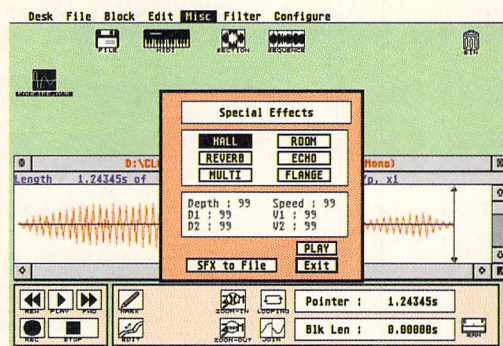
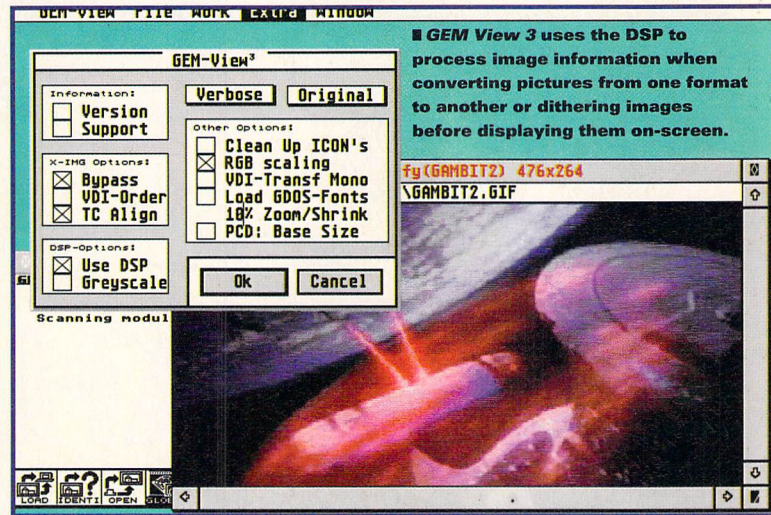
In many ways the DSP56001 is rather like a 68030 microprocessor, it contains 96K of its own RAM, it can load and run programs to its memory and can receive, process and output data. This makes the DSP very versatile and capable of performing almost any kind of processing, all you have to do is load your DSP software into its RAM and run it. This makes MPEG 1, MPEG 2 video decompression a relatively simple task for the Falcon to perform, the Philips CD-I and the 3DO machines have add-on cartridges to perform this kind of data processing for playing Compact Disc Video films.

DSP hardware access

There are already several pieces of hardware that plug directly into the DSP port of the Falcon. *Clarity 16* uses a dongle to ensure that you are using an authorised version of the software while D2D Systems have developed 41/40 – a hardware interface that enables you to input and output four channels of digital stereo sound through the Falcon at the same time, freeing you from the restriction of the single stereo channel available from the microphone and the headphone ports on the back of the Falcon.

The DSP is capable of using the DSP port as a high speed interface for fax modems, laser print-

41FX from D2D System uses the DSP hardware to generate its special sound effects in real-time while the music is being played.



Using Clarity 16 you can create 16 bit sound samples using the Falcon's built-in sampling hardware and a good audio source like a CD.

ers of colour scanners. JVC and Excelsior are working on a DSP interface enabling the Falcon to be linked directly to JVC consumer products like CD, CDV and DAT players. When these DSP add-ons appear, the Falcon looks set to take another leap forwards. **stf**

What uses the DSP?

Some software already takes advantage of the amazing processing power of the DSP chip within the Falcon. Most of the packages available use the DSP's built-in routines for sound processing; *DigiTape*, *Clarity 16* and *Falcon D2D* all incorporate DSP access into their programming.

Some graphics software uses the DSP to decompress JPEG images at high-speed – Brainstorm's JPEG decoder is one example – while other graphics software use the DSP for generally speeding up image processing, *GEM View 3* has a DSP option switchable from the Globals menu. The DSP can also be used to increase the calculation time of raytraced images and chaos imagery.

JARGON BUSTERS

DSP acronyms explained.

All these acronyms can get quite confusing at times, what with DSP and JPEG. Sort this little lot out

CD: Compact Disc, standard audio CD.

CDV: Compact Disc Video, better known as Digital Video.

CPU: Central Processing Unit – the Falcon uses a Motorola 68030 chip.

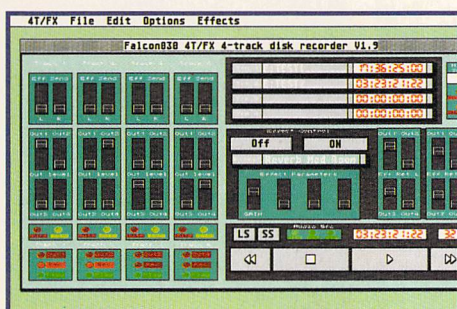
DAT: Digital Audio Tape, a digital recording medium using small cassettes.

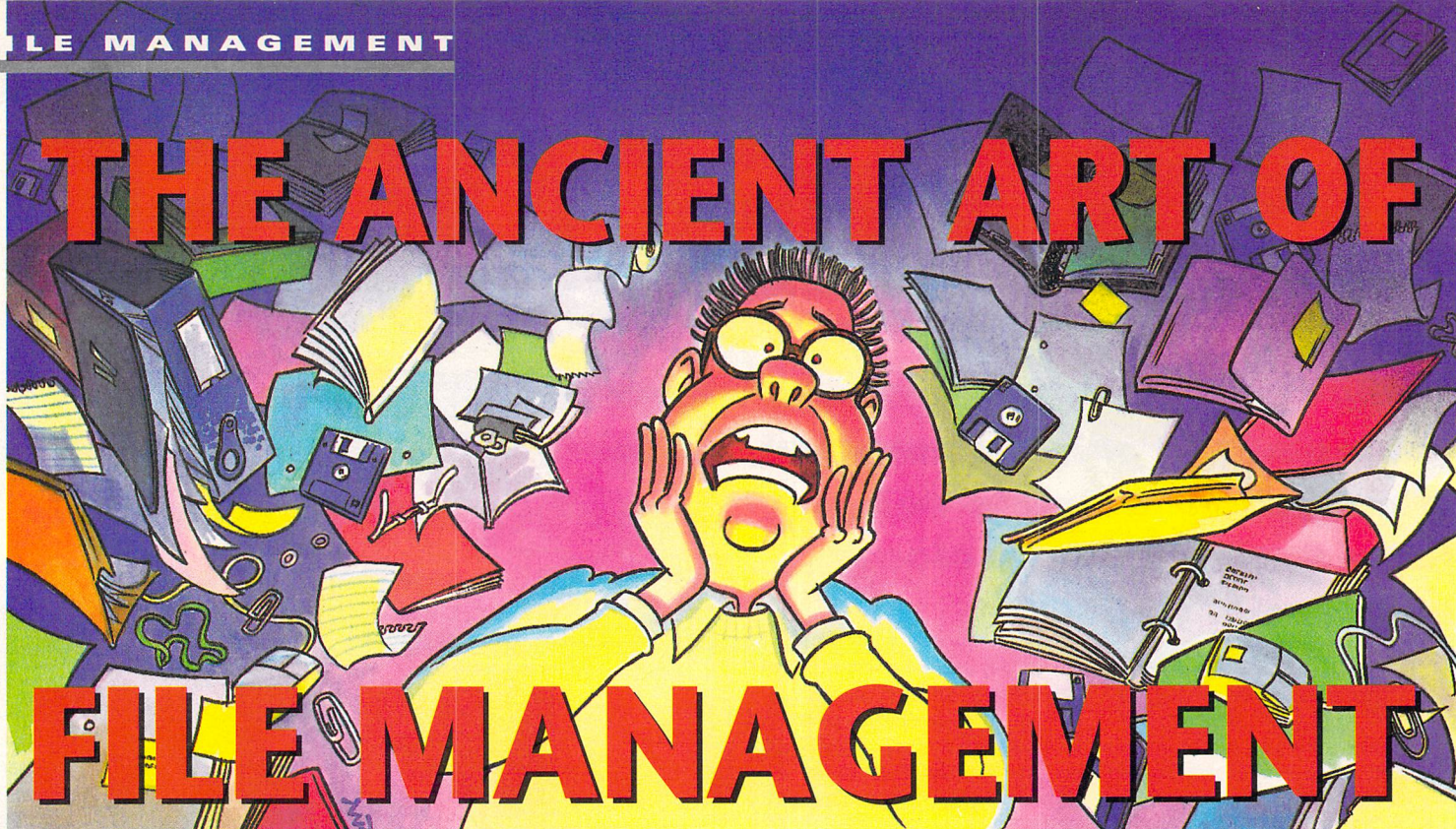
DSP: Digital Signal Processor, the Motorola 56001 chip used in the Falcon.

JPEG: Joint Picture Expert Group, an agreed international format for compressing and storing still images.

MIPS: Millions of Instructions Per Second, the number of instructions a processor can deal with in a second.

MPEG 1 and 2: Motion Picture Expert Group, an agreed international format for compressing and storing digital video images.





Even the relatively simple task of copying a file from one disk to another can be a complex operation on a one drive system, Clive Parker offers some practical advice

You've just bought your copy of *ST FORMAT* and ripped the disk off the cover to get to grips with the great

games and software, you turn to the Cover Disk pages and find that you must copy files and folders to a blank disk. How the hell do you do that with a single floppy drive?

Don't panic, it's not as difficult as you may think, it's just a matter of practice and getting to know your ST and how its file management systems work. Because so many Cover Disk programs need to be copied to other disks to be decompressed or run, we've included a step-by-step walkthrough giving a full description how to move files from this month's Cover Disk to a blank disk. You can use the same method to transfer any file or folder between any two disks, not just from the Cover Disk.

Basics of the system

There are two types of file stored on your disks, folders and data files. A folder is just an area of the

"When you format a disk a directory is created which stores all the details of any files and folders you create"

disk where you can group together files of a similar kind, it acts in the same way as a real folder because you can store data inside it. Folders are often referred to by other names such as directory or sub-directory. The other type of file

stored on disk consists of computer data, this can be any type of data ranging from executable programs to picture files and text. All of these types of information are generally referred to as files.

When you format a disk a directory is created which stores the details of any files and folders you create, this is called the root directory. When you read an

Jargon busters -

There's all kinds of weird and wonderful jargon associated with disks and file

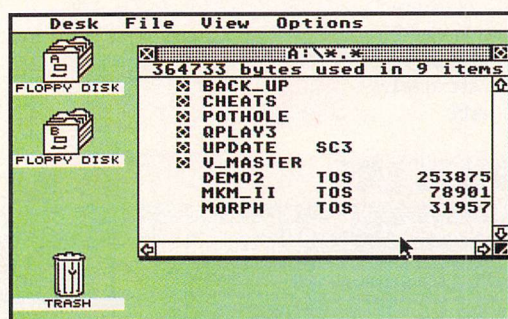
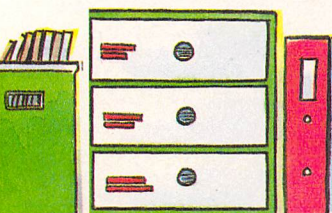
Auto Folder - A special folder that the operating system uses to load small programs into memory when booting up.

Auto Program - A small utility program that loads into memory before the system loads GEM, only runs from the Auto folder.

Bootling - Initialisation sequence that takes place when you switch on your ST.

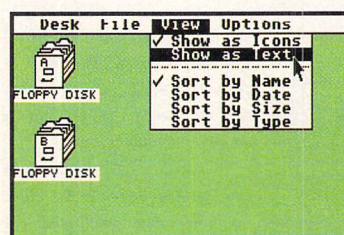
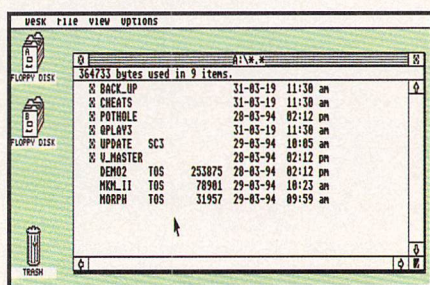
Desk Accessory - Memory resident GEM program you can access from the Desk menu from within any program that uses a menu bar.

Desk Menu - The first drop-down menu on the Desktop



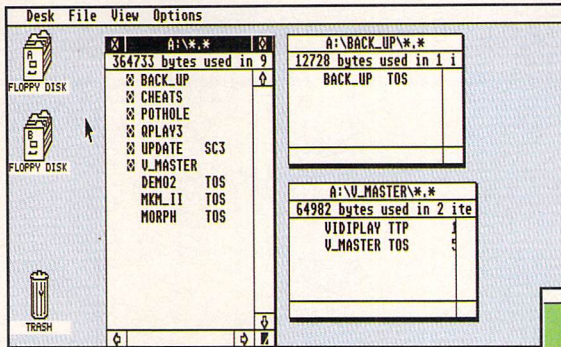
■ You've all seen this hundreds of times, it's the ST Desktop in low resolution. It's a lot find it easier to work with files if you view them as text, not icons.

■ It's even easier to work on your ST if you set it to medium resolution, you can see a lot more detail in any windows you may open.

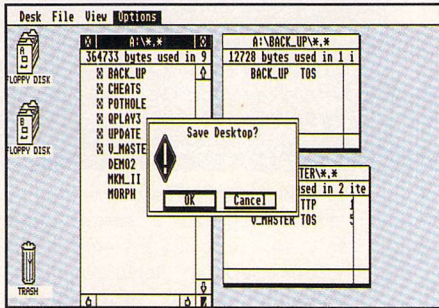


■ To switch to text mode go to the View menu on the Desktop and select the Show as Text command, the files in the window then change to text display.

Once you have sorted out your background colours and set up your preferred window layout, go to the Desktop Options menu...



... and select the Save Desktop command. Later versions of TOS ask if you want to save the Desktop while older versions just do it!



into memory when you switch on your ST. You can use these programs by selecting them from the Desk menu.

instruction in a magazine or a document file that tells you to copy a file to the root directory it means you just copy the file to the disk, the file must not be inside a folder. Generally, the only programs that need to be in the root directory are

If you are using a word processor all you have to do is create separate folders for each type of document

Desk Accessories, this is because the operating system looks in the root directory for program files ending with .ACC and loads them

Be neat and tidy

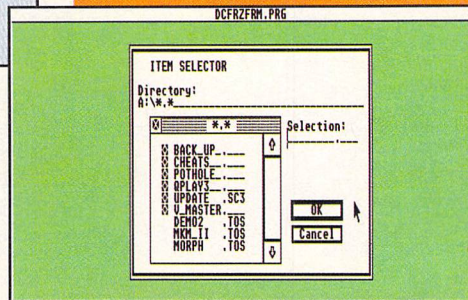
Because you can store files in folders it makes sense to group similar files into one folder. If you are using a word processor all you have to do is create separate folders for each type of document, you could have folders called Letters, Faxes, Work and Private with each folder containing the relevant file type.

You can create folders inside other folders, so your Letters folder could contain sub-directories called Work and Private to keep different kinds of correspondence separate. Another idea is to store similar files, such as Degas pictures, into folders sorted by type. One folder for low resolution and one for medium resolution pictures, with more folders inside

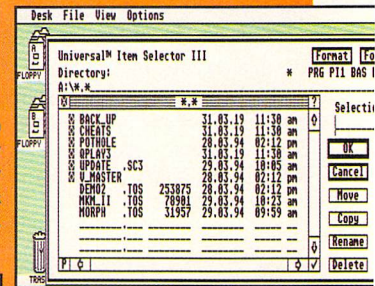
DIFFERENT FILE SELECTORS

Your file selector looks different depending which version of the operating system you are running, if you have an older STFM or Mega ST then your file selector doesn't have buttons enabling you to swap between disk drives or hard drive partitions. The only way to change drives is to edit the search path line at the top of the file selector by hand and enter the new drive letter by hand. Thankfully, Atari took notice of some of the PD file selectors available and modified the built-in device, slightly.

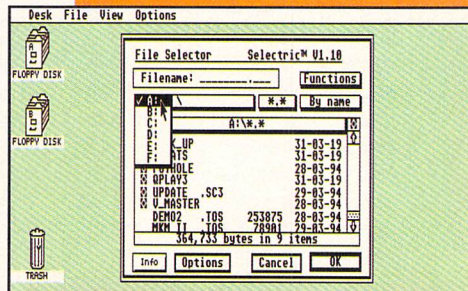
This is the original file selector built into early STs, it's adequate but selecting alternative drives is a bit of a problem - you have to edit the top line under the Directory label.



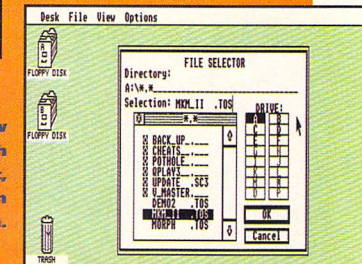
The Universal Item Selector 3 is a commercial program that completely replaces the GEM selector, and has many other options built-in such as disk formatting and file renaming.



Selectric is a Shareware file selector available from PD libraries. It has more functions than selecting files such as creating folders and stamping files with the current date.



Newer STFMs and all STEs have the new improved version of the file selector with a column of drive buttons on the right, you can just switch drives by clicking on the drive button.



everything you ever wanted to know about files

enabling you to run Desk Accessories, also available within GEM programs.

Desktop - The display that appears when you switch on your ST enabling you to configure your system setup and appearance.

Directory - The directory is an area of a disk that lists the name of all the files stored upon it, the index. Folders are also called directories or sub-directories.

Executable Program - A program file that loads and runs when you double-click on its name or icon.

File Menu - The second drop-down menu on the Desktop enabling you to open and close files, get information about files, create folders and format disks.

File Selector - The GEM dialog box that enables you to load and save data files from within programs. Alternative selectors are available as PD or Shareware.

Folder - You can store files and programs "inside" a folder. It's also known as a sub-directory.

GEM - Graphic Environment Manager, the program that controls the windows, icons, menus and mouse pointer on your ST.

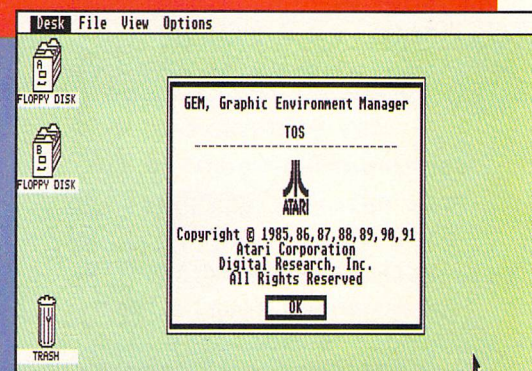
Options Menu - The fourth drop-down menu on the Desktop enabling you to set the screen resolution, add disk icons to the Desktop, save the setup and install applications.

Resolution - Your ST has one mono and two colour resolutions, you can switch between low and medium resolution using the Set Preferences command of the Options menu.

Root Directory - The main directory of the disk, an index of all files and folders is stored in the root directory. Files copied straight to a blank disk - not in a folder - are said to be in the root directory.

Sub-Directory - Any folder on a disk either in the root directory or inside another folder.

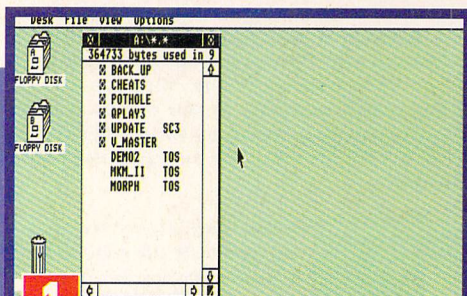
TOS - The Operating System, the program that controls the operation of your ST. There have been several versions of TOS for the ST ranging from TOS 1.0 in early STs to TOS 2.06 in the Mega STE.



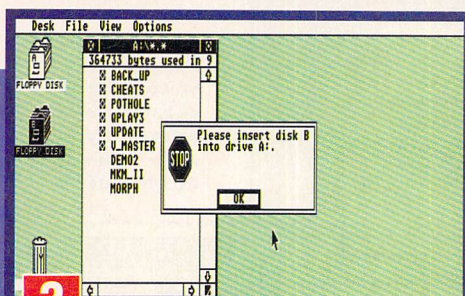
When you select the Desktop Info command from the Desk menu you get the Atari copyright message. The newer your version of TOS is, the longer the list of dates in the dialog box. This is the copyright message for TOS 2.06.

View Menu - The third drop-down menu on the Desktop enabling you to display files as text or icons and decide how they are sorted into order.

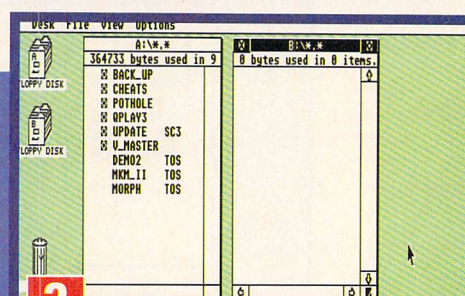
HOW TO COPY FILES FROM ONE DISK TO ANOTHER ON A SINGLE DRIVE SYSTEM – IT



1 Get your backup copy of your Cover Disk and mark it as Disk A, then put it in the disk drive and double-click on the floppy disk A icon and wait for the window to open.



2 Get a blank formatted disk and mark it as disk B. Now double-click on the floppy disk B icon. An alert box opens telling you to put disk B into the drive, do so and click on OK.



3 A window opens for disk B, your ST treats this window as if it were another disk drive. You can now move files from one disk to another by dragging them from one window to the other.

containing abstract, portrait and other subjects. If you are churning out reams of business letters you can sort them by date, creating folders for January, February and

so on, and you could even split the files into folders for each week of the month. It makes everything much easier to find.

Of course, you have to know how to make a folder before you can start all this superb organisation of your filing. It's dead easy, just put a blank formatted disk into the drive and double-click on the floppy disk icon to open the drive window. Now go to the File menu and select the Create Folder command, a small alert box opens where you enter the name of the folder. That's all there is to it, if it was any simpler your ST could do it by itself!

The file selector

It's easy to get confused when you are using the file selector because it doesn't always "remember" the last directory where it loaded or saved a file, it sometimes defaults to the last directory used before loading the current program.

This means that if you are using a different disk drive to save files you have to changing the search path – not too much of a problem if you are using a newer ST or a replacement file selector, but if you have TOS 1.0 or 1.2 then you have to edit the directory line every single time you save a file. It's not the fault of GEM file selec-

tor, the program you are running should keep track of current directory and pass the information to the file selector. Replacement file selectors like the Universal Item Selector 3 and Selectric run as programs in memory and keep track of current events.

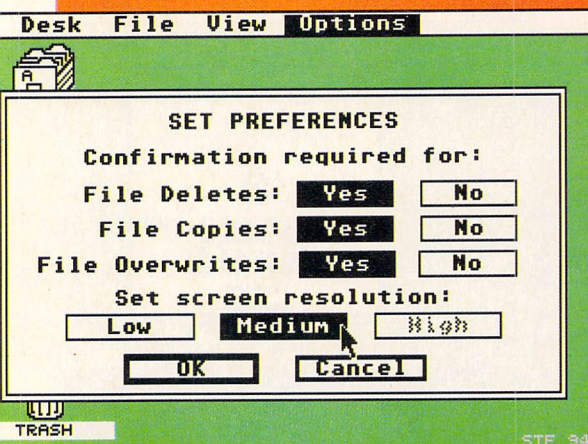
Informed your Desktop

An excellent way to keep your system organised is to use the Save Desktop command from the Options menu. When you have arranged the Desktop to suit the program you want to use you can save the information to your boot disk, it stores the information in a file called DESKTOP.INF on STs using versions of TOS up to 1.62 and as NEWDESK.INF on TOS 2.06 and above.

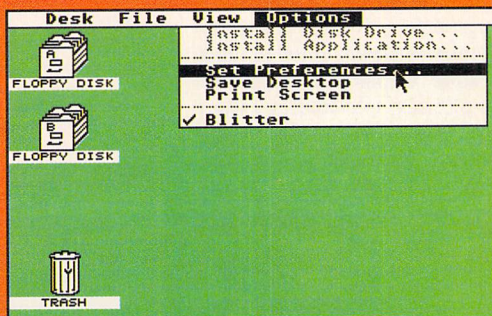
It's a good idea to have different boot disks for different jobs, each with different Desk Acces-

CHANGING RESOLUTIONS

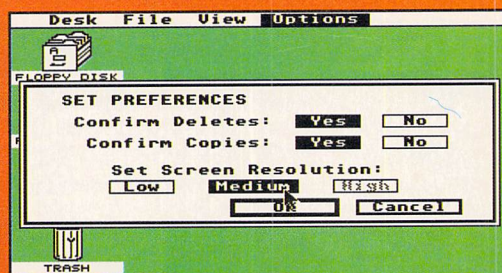
It's always best to change the resolution of your ST to medium if you are using a colour TV or monitor, it's much easier to keep track of everything that's going on in the various windows on-screen. Another tip is to view files as text, everything becomes easier to understand



1 ...the Set Preferences menu. Select the Medium button and then click on OK, your ST switches to medium resolution.



2 Go to the Options menu of the Desktop and select the Set Preferences command, this takes you to...



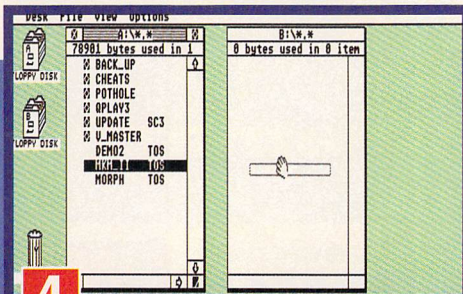
3 If you have an older STFM, your Set Preferences dialog looks like this, it's a bit different but it does the same job as the later versions.

"You can set up the other Desktop parameters like displaying files as text, sorting files by name"

sories and Auto folder utilities. You could have a boot disks for word processing and DTP that boots in medium resolution, and one for using art programs that boots in low resolution. It's simple to set up your Desktop so that you no longer have to put up with the awful green colour Atari picked when you boot up your ST.

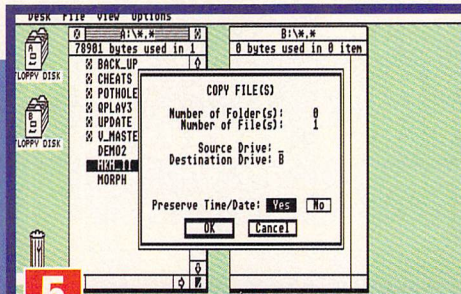
Let's take it one step at a time. Copy the Desk Accessories and Auto folder programs you want on your boot disk to a blank disk, remember you can only load six Desk Accessories into memory at once. Next, copy the CON-

REALLY IS A LOT EASIER THAN YOU MIGHT THINK, HONESTLY!



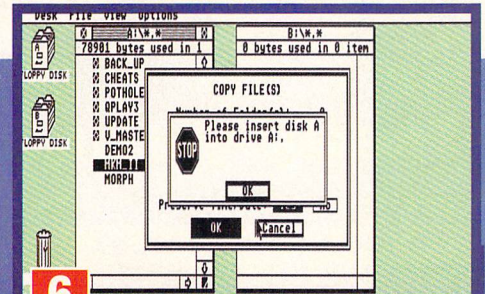
4

Click on the file you want to copy and hold the button down and, keeping the button pressed, drag the file over the drive B window then release the button.



5

An alert box appears telling you that you're about to copy a file or folder, click on the OK button to start the file copying process.



6

An alert box tells you to put disk A into the disk drive, do so and click on OK. Your ST tells you every time you have to change disks until the job is complete.

TROL.ACC from your UK Language disk that came with your ST to your new boot disk. With your new boot

"It's a good idea to have different boot disks for different jobs, each with different Desk Accessories"

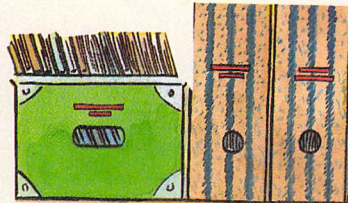
disk in the drive press the reset button of your ST.

Your ST boots up and loads your Accessories into memory, change the resolution to medium using the Options menu – when the medium resolution screen appears use the Save Desktop command to save the information to disk. Press the reset button again and your ST now boots straight into medium resolution. Next, use the Control Panel Accessory to change the

background colour of your Desktop to something a bit easier on the eyes, pale blue is very soothing and relaxing.

You can set up the other Desktop parameters like displaying files as text, sorting files by name and opening up a drive window – you can even drag the floppy disk icons to different places on the screen by clicking on them once, keeping the mouse button pressed and moving around the screen. When you use Save Desktop all of this new information is stored in the DESKTOP.INF file ready for use the next time you boot up.

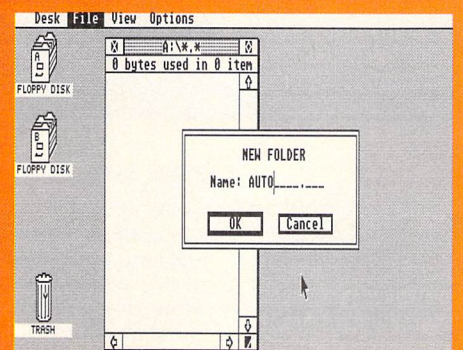
So now you're sorted out your disk collection, you need never lose a file again. **stf**



MAKING AN AUTO FOLDER

Some utilities or small programs can only run when your ST is first switched on, they load into memory from a special directory called an Auto folder. You make an Auto folder in the exactly the same way as you make any other folder with two important qualifications, the folder must be named Auto and it must be in the root directory of the disk. The programs you are most likely to use in an Auto folder is a utility or system enhancement such as a replacement file selector.

Programs that use GEM – windows, icons, menus and the mouse – do not work if they are put in an Auto folder, this is because programs in the Auto folder run before GEM itself loads from ROM – yes, GEM is



Auto folders must be in the root directory of your boot disk or the programs in them won't run when you boot up your ST. Just open the disk window, go to the file menu and select the Create Folder command. When the alert box appears just type in Auto and click on OK. Easy-peasy.

just another program running on your ST.

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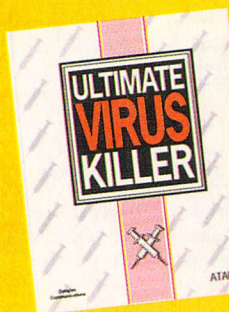
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ISSUE 58

MAY 1994
Disk: Quartet; Cannon Fodder demo
Inside: Piracy - your views; DIY monitor switcher; GDOS exposed; AVP previewed; DA's Picture reviewed.



ISSUE 57

APRIL 1994
Disk: Demos of UVK v6 and Thought!, plus Tri Heli and Holocaust
Inside: direct to disk recording; Chagall and Cannon Fodder reviewed; move the ST's mouse port.



ISSUE 56

MARCH 1994
Disk: F1 demo, children's colouring book; plus 5 utilities
Inside: Over 100 ST tips; image processing; Cubase Audio review; Goal! review; Jag pages.



ISSUE 55

FEBRUARY 1994
Disk: Frontier - Elite 2 demo; Stomp; Before Dawn, DM Editor. Inside: Your ST's future; Atari-Works; Cybermorph reviewed. 16 page Jaguar section.



ISSUE 54

JANUARY 1994
Disk: KCS Omega; Hyperpaint 2; Spherical, Nova.
Inside: Frontier: Elite 2 previewed; best buys of 1993; Vidi ST and Colorburst scanner reviewed.



ISSUE 53

DECEMBER 1993
Two disks: Arabesque, a vector graphics program worth £130 plus a useable demo of Raystart. Inside: Falcon special plus the index of 1993.



ISSUE 52

NOVEMBER 1993
Two disks: Wordflair - a whole program; Magic Boy demo; Inside: Five DIY upgrades; scanning, digitizing and sampling; footie games.



ISSUE 51

OCTOBER 1993
Disk: Zool demo; Fractal Playtime; STOS extension
Inside: Games testing; colour printing; high and low end DTP; using fractals in art and music.



ISSUE 50

SEPTEMBER 1993
Disk: Civilization demo; Supercard database; Mega Depack; Runes
Inside: 50 inspiring ideas; Photo CD; 50 techie terms; Legends of Valour.



ISSUE 49

AUGUST 1993
Disk: POV Raytracer complete program and the Chaos Engine demo. Inside: Discover the power of raytracing, and take a look at MultiTOS.



ISSUE 48

JULY 1993
Disk: B17 demo, the complete Prism Paint and Composer Two. Inside: Make music on your ST, summer sports, review of Digital Arts' Vector.



ISSUE 47

JUNE 1993
Disk: Legends of Valour demo, three more games, DynaRAM, Picture Monitor. Inside: Adventure games, upgrade your TOS, Xenomorph review.

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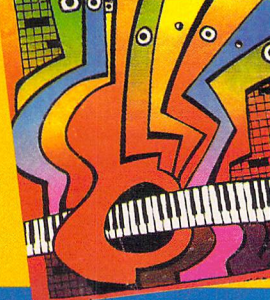
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A complete guide to MIDI sequencing



MUSIC IN SEQUENCE

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MUSIC IN SEQUENCE

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EMPIRE

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STF RATING 84%



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STF6/94

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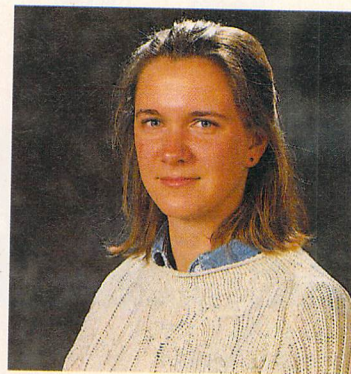
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FEEDBACK

Hello, Feedback here. Your chance to argue, complain, rant, rave, shine - or even win some cash! Keep those letters rolling in



The fun of war?

Oh dear, I feel myself unable to avoid rising to the bait. As I sat reading Andy Nuttall's review of *Cannon Fodder* I kept thinking back to the opening paragraph. The message I received was that war is a fact of human existence and that it is not worth worrying about.

That's fair enough, Mr Nuttall, it's a nice easy argument that enables people to rationalise away something evil. Perhaps we should adopt the same attitude towards murder. I shall restrict myself to saying that war is something uniquely human and it arises not because of evolutionary factors but through political, cultural and economic conditions.

The rich industrialists and politicians who have benefitted from war this century would no doubt applaud you, although, of course, none of them had to lock horns like young Mr Nuttall's proverbial wildebeest.

Richard Mussett, Brighton



LEMMINGS DON'T WANT TO BE SAVED!

I had *Lemmings 2* for Christmas and I have tried and tried in every way I can think of to save the game. I have followed the instructions but they are not clear. The on-screen instructions refer to a *Lemmings 2* saved game disk. Was I meant to have a second disk in the package? I have tried a blank formatted disk as the saved game disk but this did not work either. I wrote to Psygnosis but they did not reply. What should I do?

Ashley Tuck, Hertfordshire

stf: You shouldn't have any problems saving your game by following these simple steps.

stf: Point taken, Richard, though I don't believe that Andy was saying that the fact that war exists is something not to be worried about. War happens and that's a fact of life. It wasn't intended as a debate about whether war is right or wrong - apart from anything else most people, apart, perhaps, from your industrialists and politicians for whom maybe war has happened at the most politically opportune moments - would agree that it is fundamentally wrong; surely there are more civilised ways of sorting out disagreements other than killing each other.

The very beginning

My son Thomas and I have owned a 520STE for about two years. He has lots of games but for the last six months there seem to be fewer and fewer Atari games available and those few that are in the shops seem to be for the ST model.

When we bought our STE we were led to believe that ST models were no longer being made and all new models would be STEs. So why are STE games so difficult to get hold of? Does it have to state STE to be STE compatible?

Also could you tell us whether we are going to see more Atari games in the shops or do we have to stick to ordering mail order? You have to admit that to a

youngster it's not quite the same as going to the shops and picking a game up off the shelf.

Jayne and Thomas Nock, Nottingham

stf: STs weren't being made at the time you bought your ST until Atari had the brainwave they did about a year ago when they decided to re-release the STFM at a bargain price. Because many people still had STs when the STE was released, software houses wrote games that would be compatible with all the versions of the ST - the

"Since the ST games scene is decreasing rapidly couldn't you put some old full price games on your Cover Disk?"

STE included. Virtually all ST games, therefore, run on the STE whether or not the box states specifically that they do so. The problem arises when STE owners feel, quite rightly, that there should be games specifically created for the STE, taking advantage of its enhancements giving you better in-game sound and graphics. There

are very few STE-only games - Comic Relief's *Sleepwalker* to name but one, although there are a few which are written for the ST but if you have an STE the game notices and is enhanced with better sound, for example. The *Chaos Engine* is one such game.

The bad news, however, is that we're unlikely to see more ST games available in the shops - you'll still be able to get ST games but mail order is going to continue to be the main method of getting hold of them.

Something for nothing

Since the ST games scene is decreasing rapidly couldn't you put some old full price games on your Cover Disks as you did with *Interphase* on ST *FORMAT* issue 18. I do not mean every month, just now and again to break the mould of all your competitors. I find that between you there are too many art packages, word processors, utilities and so on to warrant something different.

Lee Butler, Hampshire

stf: We'd love to but unfortunately ELSPA's (European Leisure Software Publisher's Association) regulations do not permit magazines to give away full games on the grounds that it is too damaging to software publishers. After all, if we started giving away games, you would be less likely to spend money on them which, so the argument goes, would damage software house's profitability. And it probably would as well.

Customer service?

I read with interest John Titchmarsh of Bristol's letter to Captain Blunder regarding his problems with *The Secret of Monkey Island*. I have had the same problem on a 520STFM with TOS 1.4 and the Xtra-RAM Deluxe 1MByte upgrade.

On 15 February I telephoned Kixx XL to tell them of the problem and was told they were aware of it. Further, that if I returned my disks

1. Get ready a blank formatted disk and play as far as you want.
2. Instead of continuing through the game when you've finished a level, return to the main menu.
3. At the menu choose the Save option, the program then asks you to insert your saved position disk into drive 0. Just put your formatted disk into your disk drive and click on Ready.
4. Name the saved game you want by typing over where it says "Unsaved position" and call it something so you remember what it is.
5. Click on Save and then re-insert the *Lemmings 2* disk when it asks you to.

6. To reload the saved game just click on Load in the main menu and load the saved game you want. Simple when you know how.



■ You've done all that hard work - you don't want to waste it, do you? Just follow our step by step instructions.

SEX, PERVERT AND OTHER RUDE WORDS

I normally have nothing but praise for *ST FORMAT* but the April issue has got me going!

Why oh why did you permit the *Leisure Suit Larry* article to take up so much valuable space when there is no *ST* version and so the solution is therefore irrelevant to 99.9% of readers? What possible interest is it other than it uses naughty words like "sex" and "pervert" which, we are told, sell magazines? Or was it merely a vicarious thrill for the features editor?

You say that you have no time to reply to subscribers privately and can only do so through your editorial columns. I'm sure you are all very busy, but I suggest that one morning when you are having your regular get-together discussing lay-

out and features you ask yourselves how a reader feels when his contribution is "ignored," particularly when you say that you want our programs and feedback. Finally a big thank you for some excellent disks even if this month my *Little Green Selector* made me see red, but I am convinced that it is a code problem and not a faulty disk, so I shall await the patch.

JP Turnbull, Norwich

stf: Phew! One or two crossed wires here, methinks. First off, you can get hold of *Leisure Suit Larry* for the *ST* - it's just recently been re-released for £12.99 by Kixx XL (☎ 021 625 3311). Second, if our features editor was so desperate for vicarious thrills that he insisted on

typing out long cheats for computer games just so he could use the words "sex" and "pervert" I think we would see far more of these apparently thrilling words. After all, Andy was writing around 25 pages a month.

Third, we took your advice and at one of our meetings we thought about how people who contribute feel when they don't get a response. Unfortunately, however, doing that didn't create any more time in which we were able to reply. We empathise with you, we do want your feedback but if we replied to everyone who contacted us we simply wouldn't have time to write the magazine. I do read every single letter that comes into the magazine, we look carefully at every Cover Disk submission and then

we pick those that are most interesting and relevant for publication. Sorry, but that's the way it is.

And finally there is no problem at all with *Little Green Selector*. It's a great program which has been around for years and certainly doesn't have a code problem. Send your disk back to the disk returns address on page 9 if you don't want to hang around waiting for the patch.

■ Look! a naughty picture! Perhaps we'll sell a few more copies of this issue 'cos of this pic.



to them they would send a replacement. On 24 March I finally received a replacement, which was exactly the same version as the faulty one, v1.

I telephoned Kixx Customer Service (?) department to be told that v1 was the only one available and that *Monkey Island* would never work with memory

upgrades. When I mentioned your magazine's statement that a fixed version was being arranged, I was told that this was incorrect and that they would never respond to pressure from the computer press.

I then asked why, if this was the case, that the package did not carry a warning that the software would be incompatible with certain

STs. The reply was non-committal, but I suspect that Kixx's reluctance to do so may be due to potential loss of sales. Upon being told that I would publicise this matter, the response of the man at the other end of the 'phone was, "that's fine by us, go ahead."

I am sure you will agree that companies with Kixx's attitude towards customer relations do not deserve success in the present economic climate. I for one will never buy any of their products again and I am sure they must have a great many other dissatisfied customers.

Nick Tucker, Stoke on Trent

stf: I got in touch with Kixx XL on your behalf to see what they had to say about this matter and this is what Bridgett Hirst, the PR manager for US Gold, had to say:

"Further to your fax and our subsequent telephone conversation, have spoken to Craig Johnson, the Kixx Brand Manager, as well as our helpline staff. Firstly, please pass on my apologies to Nick Tucker for the inconvenience caused; his comments have been taken seriously.

"To clarify the situation regarding *The Secret of Monkey Island*, it is apparent that there are occasions where the product is not compatible with memory upgrades. The incompatibility appears to be completely random rather than linked to any specific upgrade and so no fix is available.

"It is no comfort to Nick, but our records show that only one in several hundred games players have experienced a similar type of software failure."

Best regards, Bridgett Hirst

Puke virus problems



I have just returned my copy of *ST FORMAT* Cover Disk 57 which seems to be infected by the Puke Virus.

I have had previous experience with this virus which seems not to be spotted by virus killers if the disk has been immunised. Using the "Display Boot Sector" option of the *Professional Virus Killer* I have been able to identify my infected disks and virus kill them all. The virus seems to hide behind the immunisation code which could be the reason why some virus killers don't spot it. Unfortunately one result of using your Cover Disk was the wiping of another disk containing my other virus killer programs, the virus did not come from my system because I always keep my disks write protected.

I look forward to receiving a "clean" copy of the Cover Disk from you.

Chris Eddington, Melton Mowbray

stf: We tested the Cover Disk you sent us using the *Ultimate Virus Killer* and found that it registered as "100 per cent safe, immunised using the new method." We examined the boot sector of the Cover Disk and discovered that the words "PUKE 88" are included in the boot sector of our Cover Disk, but this does not mean the disk is actually infected with the Puke Virus.

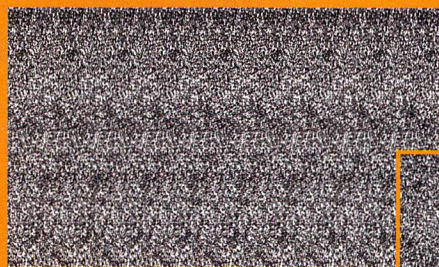
In fact, every disk immunised using UVK has PUKE 88 written in the boot sector because this is part of its protection against that specific virus. The Puke Virus looks for its own name at that address in the

PIXEL PAINTING

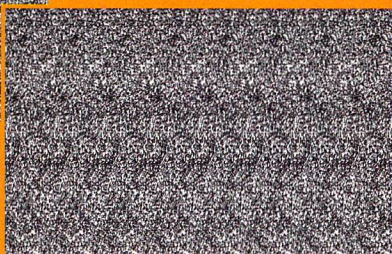
A slightly off-beat Pixel Painting this month with a couple of auto-stereograms from Paul Jonathan of South Wales and a Christmas greeting. To see the images in the auto-stereograms Paul explains that you can see the 3D effect by not focussing your eyes on the actual plane of the picture but relaxing them to look beyond it. This is best achieved by viewing it on a monitor and looking at the reflection of light that's behind it on the screen.



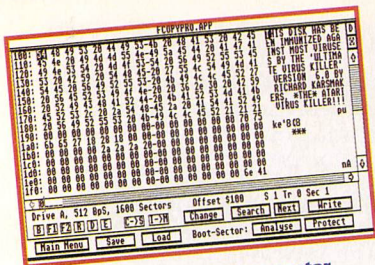
■ Gavin Langley of Suffolk sent us this pic explaining "I was trying to get this finished last year just before Christmas but things got busy and now it's your early '94 greeting." And Happy Christmas you, too Gavin.



■ This is a picture of something that would reaffirm JP Turnbull of Norwich's belief that we try and sell magazines via so-called "naughtiness." Apparently. Though Clive Parker is the only person in the STF office who can see it.



■ This stereogram's not as interesting as the other one (again going by Clive's cross-eyed vision). If you can tell us any more about these things then please write and let us know.



■ If your Cover Disk boot sector looks like this then there's no need to worry, it just means that UVK is on the case eradicating viruses everywhere.

boot sector, if it spots it then it ignores the disk because it thinks that it is already infected. We have confirmed all this with the author of UVK, Richard Karsmakers, who assures us that you have nothing to worry about if you use UVK to immunise your disks.

We don't understand why you have lost data on any of your

disks because the Cover Disk you returned to us is 100 per cent clear of all known viruses, so it's clearly not to blame. If anyone has been getting reports of viruses from ST FORMAT Cover Disk 57 then we suggest that you invest in the latest version of UVK, turn to page 94 to get it at a special price.

Incidentally, please ensure you return your faulty disks to the returns address on page 9.

■ So that's it for this month from this hotbed of frantic ST and Atari activity. If you want to get involved in any of the debates in Feedback or any other section of the magazine, drop a line to the relevant section at ST FORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW. We look forward to hearing from you.

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ST FORMAT'S GUIDE TO BUYING BY MAIL ORDER

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

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

- 4 By far the best method of payment is by credit card. If you're ordering goods which come to more than £100 in total value remember that you are legally entitled to claim compensation from some credit companies if the retailer goes bust. Check your credit card company's policy. You can also try to get extra insurance in advance.
- 5 If you're not paying by credit card, pay by cheque. Never send cash, and avoid using postal orders.
- 6 Always keep a record and keep it somewhere safe. If you are buying by credit card keep a note of the time of the order and ask for an order number. When ordering anything over the telephone, always double-check the price before you part with your money.

- 7 If you are sending a cheque keep a note of the cheque number, the date and the exact value. Make sure you know the name and some details of the mail order company.
- 8 When you receive your goods, check them carefully. If anything is missing or faulty, contact the supplier immediately.
- 9 Always order from the most recent issue of ST FORMAT.
- 10 If a problem does arise, contact the supplier in the first instance. Calmly and politely tell them your problem. Most problems turn out to be minor hitches or misunderstandings that can easily be resolved. If you think you have a genuine grievance, contact your local Trading Standards Officer. The number is in the 'phone book.

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



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• **WORKBENCH 2/3 GUI**
• **PRINTER KIT** With Seikosha dot matrix printers



Every Seikosha dot matrix printer from Silica comes with a FREE Printer Kit, worth £29.38 inc VAT.
• **3 1/2" Disk with Amiga & ST Printer Drivers**
• **1.8 Metre Printer Cable**
• **200 Sheets of Quality Continuous Paper**
• **50 Continuous Tractor Feed Address Labels**
• **50 Continuous Tractor Feed Disk Labels**

ACCESSORIES

CODE	DESCRIPTION	PRICE
SHEET FEEDERS		
PRA 8771	ASF for SpeedJet 200 - 70 sheets	£38.13
PRA 9020	Cut Sheet Feeder - SP2000/2400/1900+	£86.35
PRA 9092	Cut Sheet Feeder - SL90/92/95	£86.35
RIBBONS		
RIB 8018	Black Fabric Ribbon - SP1900 Plus	£5.46
RIB 8025	Black Carbon Ribbon - SP1900 Plus	£8.64
RIB 8292	Black Carbon Ribbon - SL90/92/95/96	£8.99
RIB 8294	Black Carbon Ribbon - SL90/92/95/96	£4.13
RIB 8298	Colour Ribbon - SL95/96	£11.25
INKJET CARTRIDGES		
RIB 1182	Inkjet Head - Speedjet 200 (inc 2 cartridges)	£25.00
RIB 1193	Inkjet Pack - Speedjet 200 (2 cartridges)	£6.69
RIB 1205	Inkjet Cartridge - Speedjet 300	£44.35

SPECIAL OFFER



PRINTER STAND FOR SEIKOSHA 80 COLUMN DOT MATRIX PRINTERS

- Adjustable two piece printer stand
- Helps keep pace with Seikosha printer's powerful paper handling
- Saves space and protects continuous stationery from dust and damage
- Compatible with bottom and rear feed printers

LESS THAN HALF PRICE!
When purchased with a Seikosha Printer

NORMAL RRP £29.38
£4
+VAT=£4.70 PRA8700

FAST! LOW COST COLOUR 24 PIN 240 CPS 80 COLUMN



ON-SITE WARRANTY
1 YR - ONLY £10.00 - POS 8515

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

RRP £249 **SAVE £80**
PRINTER RRP £249
PRINTER KIT... £25
TOTAL VALUE: £274
SAVING: £105
SILICA PRICE: £169
£169
+ VAT = £198.58 PRI 8311

180 CPS SPECIAL VALUE INKJETS 30 CPS



ON-SITE WARRANTY
1 YR - ONLY £10.00 - POS 8515

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

NEW LOW PRICE!
RRP £295 **SAVE £76**
PRINTER RRP £235
TOTAL VALUE: £235
SAVING: £76
SILICA PRICE: £159
£159
+VAT=£186.83

IDEAL STARTER MODEL 9 PIN 192 CPS 80 COLUMN



ON-SITE WARRANTY
1 YR - ONLY £10.00 - POS 8515

- Seikosha SP-1900 Plus
- 9-Pin Dot Matrix
- 80 Column
- 192cps Draft, 48cps NLQ
- 1K Printer Buffer + 2 Fonts
- Parallel Interface
- Graphics Resolution: 144 x 72dpi
- Epson and IBM Emulation (Windows compatible using Epson/HP drivers included as standard in Windows 3.1.)
- Automatic Sheet Feeder Option
- Auto Paper Load, Paper Parking
- FREE Silica Printer Starter Kit

RRP £149 **SAVE £40**
PRINTER RRP £149
PRINTER KIT... £25
TOTAL VALUE: £174
SAVING: £65
SILICA PRICE: £109
£109
+ VAT = £128.08 PRI 8195

24 PIN 240 CPS 80 COLUMN



ON-SITE WARRANTY
1 YR - ONLY £10.00 - POS 8515

- Seikosha SL-90PLUS
- 24-Pin Dot Matrix
- 80 Column
- 240cps SD, 192cps D, 84cps LQ
- 20K Buffer + 9 Fonts
- Parallel Interface
- Graphics Resolution: 360 x 360dpi
- Epson LQ850 Emulation
- Windows Driver as Standard
- Semi-Automatic Sheet Feeder, Paper Parking, Optional Automatic CSF
- FREE Silica Printer Starter Kit

NEW LOW PRICE!
RRP £288 **SAVE £75**
PRINTER RRP £213
TOTAL VALUE: £213
SAVING: £75
SILICA PRICE: £139
£139
+VAT=£163.33 - PRI 8293



THE SILICA SERVICE

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

- **FREE OVERNIGHT DELIVERY:** On all hardware orders shipped in the UK mainland.
- **TECHNICAL SUPPORT HELPLINE:** A team of technical experts will be at your service.
- **PRICE MATCH:** We match competitors on a "Same product - Same price" basis.
- **ESTABLISHED 15 YEARS:** We have a proven track record in professional computer sales.
- **PART OF A £50M COMPANY (with over 200 staff):** We are solid, reliable and profitable.
- **CORPORATE & EDUCATION DIVISION:** Volume discounts are available. Tel: 081-308 0888.

- **SHOWROOMS:** We have demonstration and training facilities at all our stores.
- **THE FULL STOCK RANGE:** All of our requirements are available from one supplier.
- **FREE CATALOGUES:** Will be mailed to you with special offers and full details of hardware, peripherals and software.
- **PAYMENT:** We accept most major credit cards, cash, cheque or monthly terms (APR 29.8% - written quotes on request).



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CROYDON SHOP: Debenhams (2nd Floor), 11-31 North End, Croydon, Surrey, CR9 1RQ Tel: 081-688 4455
GLASGOW SHOP: Debenhams (5th Floor), 97 Argyle St, Glasgow, Strathclyde, G2 8AR Tel: 041-248 3896
IPSWICH SHOP: Debenhams (2nd Floor), Waterloo House, Westgate St, Ipswich, IP1 3EH Tel: 0473 287092
LONDON SHOPS: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
Selfridges (Basement Area), Oxford Street, London, W1A 1AB Tel: 071-629 1234
MANCHESTER SHOP: Debenhams (3rd Floor), Market St, Manchester, Lancashire, M60 1TA Tel: 061-839 3654
SIDCUP SHOP: 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
SOUTHEND SHOP: Keddies (2nd Floor), High Street, Southend-on-Sea, Essex, SS1 1LA Tel: 0702 468039

To: Silica, STFOR-0694-84, 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
PLEASE SEND A BROCHURE ON THE SEIKOSHA RANGE
Mr/Mrs/Miss/Ms: Initials: Surname:
Company Name (if applicable):
Address:
Postcode:
Tel (Home): Tel (Work):
Which computer(s), if any, do you own? 84T
E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.

On this month's...

ST
FORMAT

**GUARANTEE
OF QUALITY**

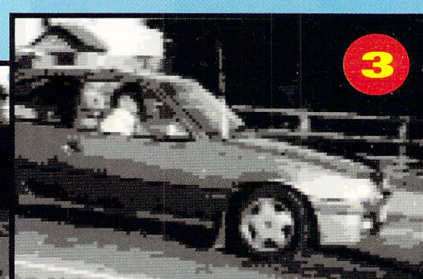
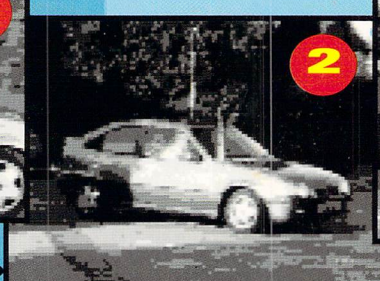
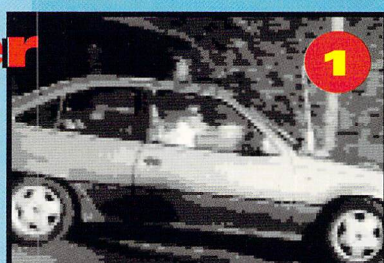
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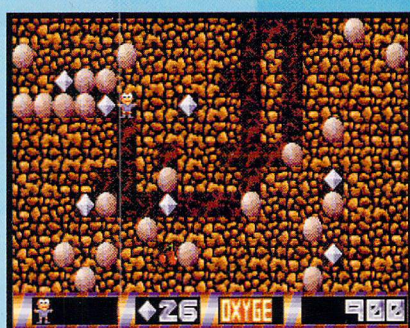
Videomaster

Create and star in
amazing animations
with this program
from Microdeal



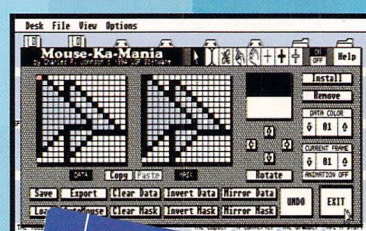
Pothole 2

Fast and addictive
collecting-the-
diamonds-and-
avoiding-the-
boulders game



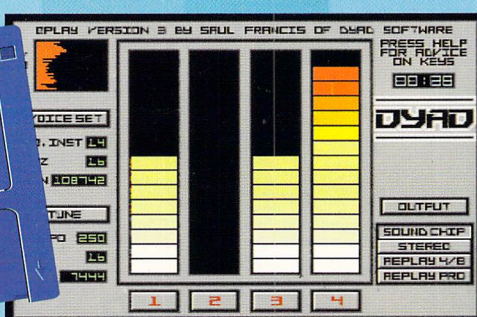
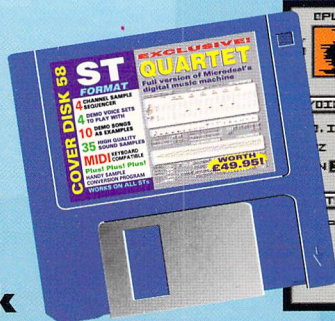
Mouse-ka-mania 2

Customise
your mouse
pointers and
make them
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Show off your
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with your
creations from
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