

ATARI

COMPUTING

Issue 12 • February 1999

£3.50

Hardware

Centurbo II
Jam PRO/FAD

Features

Virtual Reality
ACC 98 Report
Digital Cameras

Music

EasyBeat
Steinberg Pro 24 III
Digital Home Studio

Software

NVDI 5
CD Writer
ObjectGEN
Joe HTML Editor

Plus: Extender Gold, CD/DAT clock, RSCView, Finder, GhostScript, HTML-Export

Veloce+

STe system
upgrade from
T.U.S. Developments



Bring your STe
up-to-date with
Veloce+ from T.U.S.
Developments,
processor upgrade to
68020 32 Bit at 16Mhz,

additional 2 or 4Mb FastRAM and TOS 2.06
all on board. Load NYDII into 32 Bit
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Compatible with most high end STe software
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Available for DIY installation (soldering
required) with full manuals or fitted by
THE UPGRADE SHOP.

- ✓ 68020 Processor running at 16Mhz
- ✓ 0, 2 or 4Mb FastRAM
- ✓ TOS 2.06 on board
- ✓ FastRAM and TOS full 32 Bit
zero wait state
- ✓ Switchable between existing 68010 and
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- ✓ Compatible with IDEal
Hard Drive Interface
- ✓ Fits inside a standard STe case

Veloce+	(0Mb FastRAM)	£ 99.00
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The IDEal hard drive system from T.U.S.
Developments uses the latest 2.5" IDE hard
drives found in computers such as the
Falcon and PC Notebooks.

The entire hard drive fits inside the
standard STe case and is extremely quiet in
operation. All kits are complete with fitting
instructions, cables and software.

IDEal Interface only	£ 59.00
IDEal Interface and 170Mb Drive	£109.00
IDEal Interface and 340Mb Drive	£139.00

Other sizes available - please call

T.U.S. Developments
01625 503448

<http://www.tusdev.demon.co.uk>
Email: dave@tusdev.demon.co.uk

- ✓ Fully Atari compatible design
- ✓ "New" 2 drive systems - please call
- ✓ Works alongside SCSI-based systems
- ✓ Complete with formatting/partitioning
software
- ✓ Very quiet in operation

Veloce+ & IDEal Drives

Veloce+2 c/w IDEal 170	£249.00	Veloce+4 c/w IDEal 170	£289.00
Veloce+2 c/w IDEal 340	£279.00	Veloce+4 c/w IDEal 340	£319.00

Other options available

CHEETAH EXTERNAL HARD DRIVES

The Cheetah external hard drive from T.U.S. Developments brings affordability and style to any Atari system.

- Complete with Host Adapter and cable
- Formatting and partitioning software included
- Serial-atae dimensions
- Built-in power supply and cooling fan
- Dual SCSI external connectors for daisy-chaining extra devices
- ID selector

A fully featured system that can be used on more than Atari computers. All systems are supplied pre-formatted and partitioned ready for immediate use.

160Mb	£149.00
200Mb	£179.00
540Mb	£222.00

HI RESOLUTION 14" MONO MONITORS

Improve your clarity with T.U.S.'s 14" mono monitor for the Atari ST series. High resolution screen ideal for Cobas, Plantron and many other programs. All monitors include appropriate connecting leads and a tilt and swivel stand.

Without sound	£14.00
With sound	£18.00
(prices on Site)	

ATARI MEMORY

SEaHuge STs	
1 G meg	£18.00
2 meg	£25.00
4 meg	£49.00
STFM Harpen	
1 G meg	£36.00
2 meg	£51.00
4 meg	£75.00

All kits are supplied with comprehensive fitting instructions, testing software and a free disk of useful PC/Shareware utilities.

TOS 2.06

- Enhanced operating system from Atari
 - Improved desktop
 - Full keyboard control of windows
 - Place programs on desktop for easy launching
 - Assign function keys to launch programs
 - Switchers give access to old TOS systems for complete compatibility
 - All kits supplied with full fitting instructions and TOS manual
- | | |
|--|--------|
| STs Version 2 kit | £47.00 |
| (TOS 1.62/3.06 supplied) Simple solderless installation. | |
| STX/STFM fitted free | £54.00 |

HIGH DENSITY DRIVES

- Easy exchange of data with other platforms.
- Year 27 reads and writes high-density (1.44Mb) discs
- Fully automatic switching controlled by type of disk placed in the drive

Complete with software drivers and high density formatting software	
High Density Module	£25.00
High Density Module and 2PM disc drive	£49.00
Note: TOS 2.06 drivers required for high density support	

TOS 2.06 & HIGH DENSITY DRIVE PACKAGE

STs TOS 2.06 with HD Drive & Controller	£95.00
STFM TOS 2.06 with HD Drive & Controller	£100.00

MODEMS

Do you want to send emails, browse the world wide web and join in the online revolution with your Atari? Using one of our modems, and suitable software you can do just that.

T.U.S. 35,680 Voice, Data, Fax Modem £29.00

T.U.S. 97,480 Voice, Data, Fax Modem £74.00

BAAT approved with 'CE' markings, complete with cables and software for Bulletin Board access.

SERIAL PORT UPGRADE

Use a fast modem with any ST machine by installing a T.U.S. 97,480 baud serial port upgrade kit.

DTY fitting with full instructions	£22.00
If supplied with any of above modems	£15.00

REPAIRS AND FITTING SERVICE

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We can fix any of the advertised products to your machine for a one off fitting charge of £15.00. This means that if you require an upgrade and a high density drive fitted then the charge is only £15.00.

Please telephone for an appointment before bringing your machine or call if courier collection is required. Please ensure all periods collected are adequately packaged.

Replacement internal drive kit

For any ST with internal drive. High quality mechanism, with stand-off for old ST's if required. 1PM or 2PM drive supplied £29.00

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Repaired and supplied (call for availability)

★ Veloce Falcon? ★

Call for details

The Upgrade Shop

37 Crossall Street, Macclesfield, Cheshire, SK11 6GF

Telephone 01625 503448

Monday - Friday 9:00AM - 6:00PM Saturday 9:00AM - 12:10PM

ACCESS DELTA MASTERCARD VISA SWITCH

Delivery Charges

Small items under £50.00 please add £3.00 P&P.

Large items and orders over £50.00 please add £7.00 courier charge. Courier Package for upgrades and repairs £3.00.

All prices include V.A.T. @ 0.5% but exclude delivery (unless otherwise stated), please see panel above. Orders can be placed by telephone quoting credit card details or by Mail Order, please make cheques and postal orders payable to "The Upgrade Shop".

1 year warranty on all products (unless otherwise stated), 4 months on repairs. Prices subject to change without notice. ©2002

ATARI

COMPUTING

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We will do our best to help you through the pages of the magazine but cannot accept any personal correspondence.

It would be very helpful if editorial, subscription and general enquiries are sent on separate sheets of paper or separate A5C5 format files or disk.

Subscriptions

"Hot Computing" subscription: 12 issues £10.00, Airpost: £15.00

Publishing and Marketing

Atari Computing is published by Hotgate Publishing Limited, 41 Mill Road, COVENTRY CV3 9BB, ENGLAND, a company registered in England number 1491336.

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Digital Home Studio

26

Steinberg Pro 24

19

14

Centurbo. II

ABOUT THE COVER

Top Tip

This image was based on a photograph of a "tent" camp I was involved with in British Columbia, at the Canadian Forces Base of Muskeg Bay, leading us to call it the Pioneer Commemorative Campsite (PCC) - apparently still going strong.
<http://www.pioneer.ca/mcg/00000000>

The tip is a tip I and my daughter's mother made in Alaska. I had to cut down the "tugboat" poles in the foothills of the Rocky Mountains and strip the bark from them, leaving them to dry in the prairie sun. The cut and around the canvas cover and pole tops - although we ended up doing this together.

This tip is not in its native environment, it was created for the hot summer and snow, cold winters of the prairies, not the mild, damp west coast of Canada so it has probably ended away by now.

The photo was scanned using a Minolta



ScanMaster and the Home Scan software (<http://www.minolta.co.uk/~scans>) at 600dpi process. The image was manipulated using Adobe Photoshop 4, and the top tip/side added using Corel Draw 7.

When I scanned this photo, it brought to mind the sense of a tent, both the tribal I belonged to back then and the one I belong to now. That's how I feel about my tribe. And now I think it's a feeling shared by many Atarians around the world. The tip has - we are the top tribe!

Ken Macdonald

Email: ken.macdonald@atari.co.uk

FEATURES

- 12 AOC'98 Show Report
- 26 MagCal: 66 Year
- 28 Digital Cameras
- 30 Virtual Reality
- 38 CyberStrider files
- 46 Site seeing
- 56 Magge



PD/SHAREWARE

- 48 News
- 48 Finder
- 48 BeeView
- 50 Joe v1.42
- 52 HTML-Expert
- 55 GhostScript



REVIEWS

- 14 Centurio II
- 17 Easybeat
- 18 Steinberg Pro 24.0 II
- 21 CD Writer
- 22 ExtendOS Gold
- 24 Digital Home Studio
- 24 MYDC 5
- 26 Softjee external clock
- 28 Linux in a Nutshell



REGULARS

- 6 News
- 9 Reader offers
- 10 Subscriptions
- 11 Letters
- 41 Suggestive Remarks
- 47 Reader Desk
- 50 Q&A



TUTORIALS

- 57 Object GEM
- 60 HIBO's BASIC
- 62 Papyrus
- 64 Jan PRO/PAD
- 64 DTP with DA's Layout



Prime Time

It feels good to finally get another issue out the door, looking back it's been far too long from the News show last October past AOC'98 in November and into the New Year a lot has happened on the Atari scene. Our contributors have been busy - so busy we ended up with more stories than we had space for! Rather than hold them over until the next issue we've upped the page count for this issue to 64 pages - but we'll have to pay for this by paying for producing ACP13 with 16 pages. Thanks to everyone who attended AOC'98 and made the event a great day out for both exhibitors and visitors - check out our show diary on p.62. AOC'98 turned part of the massive All Human Show (AMS) which is in its 15th year. The AMS shows are held twice a year and the next one will take place in Scotland on Sunday April 18th. Atari Computing will be there along with other Atari vendors to promote the Atari platform as make a note in your diary - more details next issue. With a successful AOC'98 behind us and, for the first time since ACP1, a slight increase in subscription levels we can look forward to another million issues! As it happens on December 31st 1999 our three year old machines will click exactly past midnight while if we believe the pundits stock markets will fall and planes will be falling out of the sky - time to start stocking second hand Atari machines alongside those tin of talent barrel against this apocalyptic background we were surprised and saddened to hear Ruggles had decided to leave out of the Atari scene but we'll like to thank Steve, Jane and Shere for supporting Atari Computing from ACP1 and wish them all the best for the future.

Joe Connor

News...



Networking for all?

SmartNet96, produced by Adyton Systems in Germany, offers a new way to network computers without requiring a network card. SmartNet96 works via the parallel port. Adyton claims a maximum transfer rate of 39K per second which is faster than many network cards can achieve and many times faster than other serial-parallel direct connections.

SmartNet96 was designed for PC laptop users wanting to exchange files with a workstation and includes a five metre cable, user manual, MDOS driver for Windows 3.11/MS-DOS but as a spin off there are TULIP TCP/IP drivers available for the Atari platform.

Because SmartNet96 is a complete network solution it offers much more than simple data transfer. Using SmartNet96 Atari users can access the resources of PC - use its hard disk, printers, modems and other networks.

The price for SmartNet96, five cable, MDOS driver for Windows, driver for Atari and AMRGA, manual and cover costs 134 DM (around £65), additional cables cost 144 DM (around £52).

Adyton Systems GmbH, Reichenbachstrasse 35, 89089-Berndorf, Germany
Tel: +49 89 47 470016
Fax: +49 89 47 470017
http://www.adyton.com

Pagestream 2.2

SoftLogik have released a repackaged version (2.15C) with a completely new 100 page manual. It is the complete version of the package at the new price of \$28 (around £12) plus \$10 (around £5) delivery to Europe.

SoftLogik,
199 Hunter Drive, Mariettaville MO
63057, USA
Tel: 314 628 9111
Fax: 314 628 5123
Email: sales@softlogik.com
http://www.softlogik.com

Diamond bounces Back!

Michael White has acquired the rights to Diamond Back and recently announced there will be a new version after he's familiarised himself with the source code. His ideas were announced but the features planned include:

- Support of Plus and VMEC file systems
 - Restructuring the tape backup to make it more robust (I've lost too many big files to v1.3)
 - Support of Tar format tapes
 - (Maybe) CD-ROM support
- The look and feel will remain the same, except as needed to expand functionality or to bugs and Michael has asked for feedback from current Diamond Back users reporting:
- Any bugs you've seen (please include your system info)
 - Any new features you'd like - be realistic!

And yes, I do plan on keeping it a commercial product.

Michael is also the new owner of Diamond Edge but decided it would be prudent to have a way to restore a file system before starting experimenting with optimizing and repairing it so don't expect a new release for a while just if there's sufficient interest. Michael may consider re-releasing the current version but cannot offer proper support.
Email: michael@diamond.net

Journal Update

One door closes...

Le Temps du Minus, publisher of the ST magazine, the last remaining French Atari computer magazine closed last last year.

Another door opens

ACC magazine produced by the Association Promathée in France has just published its first issue. It's a 40 page A4 black and white magazine. A copy of the launch issue costs 38 FF (around £2) with a six issue subscription costing 158 FF. Association members get a discount. Issue 1 contains:

- News
- Microsoft's Blackbird
- ST emulators on PCs
- Data compression
- CDT Falcon Video Boards, VGA monitor for ST
- Programming: 8 corners of the TT, 3D in GEM, ergonomics under GEM.

Drop&Drop, Hides triple cartridge port.

- Console game news (Lynx/Agony)

For more details contact:
Email: arc_mag@worldlink.fr
<http://www.worldlink.fr/apomail>

BIT BOPPER 1.6 Video Synthesizer for Falcon



From the web page "Today's audiences expect live graphics for music and dance and BIT BOPPER delivers high-energy graphics and text that turn any video display into a kaleidoscope of multi-synchronized living colour - the most eye-catching interactive advertising medium ever devised." There's plenty more hype where that came from including a 1-800 feature list and options from customers.

© BITBOPPER University Avenue, Palo Alto, California 94301, USA
Email: bitbopper@earthlink.com
<http://www.bitbopper.com/s/14/94/>

Floppypshop bow out



Sadly, we have to report Floppypshop, one of the longest established UK PC/DOSware libraries and Atari supporting dealers have now closed. Mike's a few snippets from their press release:

"It is with deep regret we announce the closure of Floppypshop on 10th January 1998. Despite tremendous support from a small portion of our customer base, it became apparent that we simply lacked enough active customers for us to continue providing a service as we feel towards the millennium. It was not out

intention to vanish without trace and we would like to thank both our customers and friends (many of you fall into both categories), for their support over the years. We have posted messages paying tribute to those who continue to fly the flag and we set out our thoughts for the long term future (and there is a definite future) of the Atari community along with messages to our customers on our web pages. Goodbye and good luck for the future.

Steve Delaney and Irene Lumb
Tel: 01204 312754
Email: Roggechip@cyberstrider.org
<http://www.roggechip.cyberstrider.org>

Falcon's Nest bows in

Roggechip have sold their Public Domain Library (but not their commercial products or CDs) to Andrew Phipps who commenced trading on 1st February 1999. Customers can order using the original Roggechip catalogue numbers and Andrew intends continuing sending out regular printed updates. Despite the trading name Falcon's Nest caters for all Atari users.

Falcon's Nest, 881 Road, Ryalpale Highway, Ryalpale, Cambridgeshire, PE14 7DP, England. Tel: 01955 780201

Internet Guide 2nd Edition

Roy Gelling's *USER'S GUIDE TO THE INTERNET FOR ATARI* publication which was last revised in ACPP has now been revised and expanded and released in Edition 2. The guide features set-up details on most of the currently available internet applications such as C&I v1.x, MFWar v1.70, Winshare, Infero, POPWatch and qn's and utilities used by Atari users along with much background detail on the world of 'internet'. There's a large glossary and also sections on most of the things you can do using a modem and an Atari such as FTP, IRC, Telnet and straightforward emailing and web surfing.

One important improvement is that the guide is now laser printed, but it retains the cards binding method ideal for this type of publication.

The guide costs £9.99 including UK postage. You can also buy the guide with a set of disks which will allow you to get a basic internet suite up and running for £12.99 including UK postage. More details can be obtained from:

Roy Gelling, 81 Wychford Farm Road, Ashford, Kent, TN20 9BA, England
Tel/Fax: 01322 421171
Email: rgelling@shetel.co.uk

More news on page 8...

1998 Atari Times Awards

Following on from last year's inaugural awards here are the winners of the 1998 Atari Times Awards. Congratulations to ST+Falcon who picked Atari Computing for the best paper based magazine by a single vote. Thanks to all our readers that took the time to register their support for their favourite magazine.

Best Programmer of 1998:

Alexander Clausen

Other Nominations: Anthony Jacques, Gary McKean, Deane, Douglas Link, Orl Peacock, Christian Synch, Oliver Selma, Rainer Hantschel, Ted of Avois, Thomas Fleck, Tim Horn, Tony Greenwood, Uwe Schmitt

Best Commercial release of 1998:

C&I

Other Nominations: HD Drive, Homepage Penguin Pro, Imagecopy 4, Jones, HagC, HINT'98, NWGL, Operation, Papyrus, Smart, Substation

Best Shareware release of 1998:

Thing

Other Nominations: Aniplayer, Currency Converter, Everset, Freedom, Infero, Joe HTML editor, Localize, Ultrastor, Lottery Companion 1, M_Player, Protection, The Running, ST Bridge

Best PC/Freesware release of 1998:

Aniplayer

Other Nominations: Applina, Diamond Ice, Disk Plug Construction Kit, Freedom, FreeHINT 1.1.5.1, Ultrastor, Logbuch, Playstation, Muesli's Playtime, POPGuns, Q&D, Sulfuride, TTF-GDGS

Best game of 1998:

Crown of Creation

Other Nominations: Bookstamen, Bubble Bobble, Crackdown, E, Muesli's Playtime, Pathless 2, The Running, Substation, Swap 99, Treasure Island Drop, Vroom

Best hardware add-on of 1998:

Nemesis

Other Nominations: Alterburner, Centurio II, EE-Riser 115, Falcon SAM Board, Milan, Nemesis, Star Trek DSP Card, Wavec +, Zip Drive

Best Atari supporting company of 1998:

Milan Computer GmbH
Other Nominations: M32, AGH, Floppypop, Homa Systems, STODDER, Terra de Milan, Titan, TUI

Best non-profit making Atari organisation of 1998:

Interactive
Other Nominations: Atari Web Ring, CHS, French Falcon Club, Hallowin Atari Launchpad, Silly Software, ST+, STODDER, ThreadAction, UITS

Best Disk Magazine of 1998:

Atari Times

Other Nominations: ATOL, Flagg, Flagg, ST News, Toxic, Undercover

Best paper based magazine of 1998:

ST+ Falcon

Other Nominations: Atari Computing, Atari Times Special Edition, ST Computer, ST Format, STHOTS

Best Atari supporting web page:

Dead Hackers Society

<http://mls.atari.org>
Other Nominations: Atari Hyperlink Launchpad, Chronage, System, 5000star.org, Little Green Desktop, HagC Support Page, Milan, Monkey House, Natural Born Programmers, OM Reservoir Gods page, Silly Software, ST+, ST News, The Zone

Best Internet Service Provider for the Atari range:

Internet

Other Nominations: C&I, Club Internet, Compuserve, Demon, Phoenix Online, X-Stream Network

Special award for services to the Atari community:

Mike Goodwin



STODS and AMOS (STODS for Amiga) sold an amazing 450,000 copies over six years. The publisher, Clickteam, has recently released the AMOS source code for all STODS and AMOS products as a contribution to the remaining Atari and Amiga community. Clickteam are also willing to answer questions through their discussion forums. We'd like to see other former Atari developers follow their example. <http://www.clickteam.com/stos/amos/> www.hm

System Solutions

MagiC 6 made it just in time for ACC '98. Visitors had a chance to speak to Wilfred Belton in person, as he was demonstrating both MIDI 5 and MagiC 6 on a GENturbo 8 accelerated Falcon. (Ed: There's a full review on p.14 in this issue).



Also at ACC '98 was the SoundPool DeMaster, the latest addition to its DSP-powered audio mastering suite for Falcon and Hades (with Soundtrack DSP card)-computers. It is already being used in professional UK studios. Paul Mox of Mox One recordings said, "I considered cut material in major mastering houses in the west and with top engineers and have witnessed these guys clean material up using highly sophisticated and expensive equipment, not to mention the expertise they exercise in finding the frequency in the first place. I can now do a similar budget job with my Falcon and the DeMaster program automatically - it's a bit like having a pro mastering engineer with you. I often have to archive old demo recordings from cassette that are extremely noisy - as a result this program is an invaluable tool."

A demo CD featuring SoundPool demo software and an audio version showing the Native DSP Mastering Suite in action is available for £5.00, which can be redeemed against a full purchase from System Solutions. Prices, including VAT: DeMaster: £129.00/MagiC 6: £49.95, upgrade from 4.5: £28.95, return original disks and manuals to mail order branch at System Solutions, 119 Ather Road, Windsor, Berkshire, SL8 1RG.
Tel: +44 (0)1753 632202
Fax: +44 (0)1753 634665
Email: sales@system-solutions.co.uk
www.system-solutions.co.uk/cds/

Tavern 888 closes

Following catastrophic equipment failure, the stop of one of London's longest serving 888 systems has been forced to close. Any ex-pat systems who would like to rejoin the 888 scene will be made cordially welcome at the Portman 888. Dial 0181 344 9825 from your terminal and leave an email for Steve Sweet.

RO100 888 who will work with the stop Kevin Osborne to get you up and running again as quickly as possible.

Sighting!

Break dancing beat artist Norman Cook aka Fatboy Slim (previously of The Housemartins, Bizarre International and others) recently had a number one in the UK singles chart. The track

of the CD sleeve shows a photograph of his studio and looking in the corner there's an Atari ST! Signed reported by Jim jim@studios.demon.co.uk

ST News International Christmas Coding Convention 2000

Richard Karmalius of ST News and UNIC first is organising this millennium event to be held somewhere in The Netherlands, probably in a hotel from Friday afternoon (December 15th) 2000 to Sunday afternoon (December 17th) 2000. For more details contact:
PO Box 67, NL-3580 AB, Utrecht, The Netherlands
http://www.stn.nl.org/stnews2000
Email: karim@pans.nl

STOP PRESS STOP PRESS

GENturbo 8 tested!

Penetration 8 boards are now in production and test results with the new fast RAM controller show a significant improvement:
Numbers: FACT ROM ACCESS: 10
READ MB/SE
Srv A 33.5 MB/s 24 MB/s
Srv B 32.5 MB/s 30 MB/s

STOP PRESS STOP PRESS

GEMTrade2

Don't struggle with German documentation. GEMTrade 2!



Attractive GEM interface
CAB module to translate web pages on the fly
Instant BubbleGEM help
On-line ST-Guide help
Clipboard Cut and Paste
Look-up dictionary

GEMTrade has been under extensive development contributing to GEMT 2.0 which is available now and offers the following new features:

- * Better case handling
- * HTML improvements
- * GEMScript compatible
- * Redesigned interface
- * Extended help system
- * English < > German
- * User dictionary added
- * Viewable Dictionary



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4 Parnpark Close, Napthorn Road,
Exeter, Devon, EX2 6AA, England
http://www.plc.co.uk/~mark_wherry

Don't forget to check out the Shareware and PD news on page 48 in this issue!

ATARI COMPUTING

Offers...

Essential accessories for you and your machine - subject to availability. Stocks for some offers are LOW, hesitate and you could miss out!

READER DISKS

Individual Reader Disks are available separately from the magazine. Each disk includes software exclusive to Atari Computing which is not available anywhere else.

We also have a Specialist HiSoft 68000 Reader Disk compiled by Paul Jones, to accompany the tutorials.

All issues are available and cost £2.50 each including UK delivery.



BACK ISSUES

Atari Computing issues 1, 2, 3 and 4 are now sold out but we do have a small stock of other back issues - so get them while you can! Each back magazine costs £3.50 including UK delivery.



EDITH PRO



Following the inclusion of Edith Pro, the environmental and fully featured text editor, on our Reader Disk we can now supply the official 70 page combi bound A4 manual and labelled Reader disk for just £72.99 including UK delivery. Read all about this excellent program in the Giant text editor review in AC#4 where it received a sparkling review.

MOVING PIXELS CD



An exciting compilation of ready-to-run software programmed by Tony Butler. The source code for all the programs (except A4 for the Disk) is included and programmers are invited to further develop the software.

- Atari Space shoot 'em up (ST)
 - Bratmanian: Full paint package (TT)
 - Chambers: Bratmanian style game (ST)
 - Chambers: Space fight game (ST)
 - Fantasy: 3D demo (ST)
 - Hades: TGA cast database (Falcon)
 - MIDI Battle: Incredible game (ST)
 - Official Falcon demo - used by Atari
 - Time: Amazing 784K demo (Falcon)
 - TT Wars: Classic 16K demo (TT)
 - 3D's Thing: Bouncing ball demo (ST)
 - Plus: unreleased, unfinished projects
- And the price for this classic CD is just £70.99 including UK delivery.

Order form overleaf!



Steinberg PRO 24 III

Steinberg PRO 24 is a MIDI recording and editing application which offers (along the compatibility with Cubase). For many years PRO 24 was the preferred choice of artists such as Midge Ure, Dire Straits, Iron, PAV, who all produced hit records using PRO 24.

- 24 Track music system
- Record, playback and edit any MIDI keyboard
- Display and print music notation
- Real-time performance control
- Fully menu driven interface
- Supports standard MIDI files
- Song files compatible with Cubase

For just £18.99, including UK delivery, you can get in on the action!



Desktop Solitaire

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LeftTers



Floppy Shocker!

As the last year of the 20th century begins we have suffered two blows to our platform, the closure of Floppypop and AOL buying out Compuserve. The closure leaves the FCT Club as the only active PC/Shareware library in the UK.

Happily the FCT Club have made their entire PC/Shareware library available on CD-ROMs which is good news! but for newcomers the only source of new software will be on floppy from the FCT Club or via the internet, which leads me on to my next topic.

With AOL buying out Compuserve it seems likely the old AOL3 interface will be killed off making it impossible for Atarians to login using terminal software. With large companies gobbling up the smaller ones, it won't be long before we're into a monopoly situation and small independent ISPs like Zenet which support the Atari platform will be under threat. Write to your local FFP and the department of Trade and Industry and ask for the Monopoly and Mergers Commission to look into this blatant empire building - before it's too late!

Warren Howard Naylor, Huddersfield

We've naturally said Floppypop has closed but not especially worried about the availability of software to anyone obtaining an Atari ST for the first time. Most people will or pass their machines on complete with software and other extras - hopefully including a copy of Atari Computing.

We would urge anyone selling Atari hardware and software to make special the most as we can continue to provide the forum between Atarians and suppliers. We are considering compiling our own selection of essential PC/Shareware disks and we'd be pleased to hear whether readers think this is something we should get involved in... There are already several large ISPs dominating the market - AOL are running TV advertisements now so we can expect to see the percentage of households online in the UK rise rapidly. Whether this is a good thing for Atarians only time will tell. There are still plenty of small and medium sized ISPs around to cater for niche markets and it seems unlikely they will all disappear or be bought out in the near future. If you're really

missing the Compuserve forums why not do your bit to keep the large ISPs at bay by joining over 200 other Atarians on CIX which offers both internet and conferencing services. Atari Computing are now official resellers of CIX products - check out the boxset for more details.

International Rescue

Thank you for your letter regarding my latest subscription, I kept mistaking it when it - I hadn't realised just how much time had lapsed. I do enjoy Atari Computing even though sometimes the contents are way over my head! I mainly use my Atari for DTP work - I publish a quarterly magazine for the Coldwater Cat Rescue which brings in funds for the charity so that's the main thing. I recently purchased a CD-ROM called the Electronic Spinner Graphics Collection - the graphics were impressive and useful for my magazine as I am off to the USA for a colleague to work sitting through the 8000 hours. I never received a reply so after four months I telephoned the Atari Office and they informed me the company that had rented the PO-Box had moved away with no forwarding address. I lost twenty dollars plus the cost of two phone calls to the states - perhaps a word of warning in AC for the benefit of others who might do the same. As a matter of interest can PC CD-ROMs be read using a CD-ROM connected to my Atari - there are so few CDs for the Atari. Keep up the good work.

George Spinks, Essex

Thanks for re-subscribing - I've really do need each and every reader so we can publish that Millennium issue! I'm looking forward too! I'm sorry some of the AC contents are over your head - some of it is over mine! Maybe it's time for another reader survey - what do readers think? Before sending money in the post we recommend getting in touch with the recipient by email, telephone or letter before sending payment - it's not a guarantee but it's the next best thing. To answer your final point, CDs intended for use on PCs can usually be read on other platforms including suitably equipped Atari machines. How useful the contents will be depends on the individual CD. Generally speaking CDs containing Clip art, fonts, MIDI

CIX

CIX (Computer Information eXchange and pronounced like) is a subscriber based computer conferencing system which also provides full Internet access with all accounts.

Advantages of CIX

- No sign up fee.
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The Standard User Tariff is designed for people who use CIX Conferencing, Internet Mail, News and the Web a lot. This option gives unlimited access to CIX Conferencing and CIX Internet for a monthly flat fee of £14.99 plus VAT @17.61%.
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The Occasional User Tariff is aimed at subscribers who primarily use the conferencing system but may occasionally browse the Internet. Connection rates: 4p per minute cheap rate, 8p per minute standard rate with a monthly maximum of 24.25 plus VAT @17.61%.

To sign up on-line at you need a secure terminal software such as Connect and have a credit card (Visa/Master/Amex) EuroCard, Discover Club, American Express) handy. Dial 0181 796 1255 and follow the on-screen instructions. Remember to enter our CIX reader code: 000818 when prompted.

In AC#6 p10/11 we covered CIX in detail including our SwitchCIX offer which includes a disk and manual containing everything Atarians need to get online for just £4.99. If you'd like to order this or a copy of AC#6 please complete the Reader Offers form on page 18.

Files and documentation in ASCII or HTML format can all be read - it's just the executable files which will only run on their native platforms. ©

ACC '98

ACC'98 was held on 14th September 1998 at Bingley Hall in the South Yorkshire town of Sheffield, England. As organisers our objectives were:

- To encourage all Atari supporting companies and users groups to take stands - and stay fit!
- To encourage Atarians to travel to Sheffield from far flung locations - airway aid, including some from across the channel.
- To offer both exhibitors and visitors a mutually beneficial and enjoyable experience and see it all.
- To demonstrate to a wider audience the Atari platform is alive and kicking. We would like to thank all the exhibitors and visitors for making ACC'98 the best supported UK Atari show for years. The user groups and individuals who organised our shows and our hosts also deserve a special mention - it proved Londoners will travel north of Watford for the right cause!

Ahead of all the UK based Atari supporting companies attended - more than at any of the previous Birmingham and London shows which was especially satisfying bearing in mind the market has contracted since the last UK Atari show. Those that attended were: Atari Computing, System Solutions, Titan Design, NAT Club, The Upgrade Shop, Hammer Core, Atari Fanfile Club UK, Birmingham Synthesis Project (ASP), M23 Systems, Ropyshop, CyberTrider, InterActive, TransAction, Paul Jones/Helena Ransom-Eckstein, H&M B&C, Magazine Videoclips, Andy Taylor B&B stores, Muggs, Arpanox Ltd, Mr Leonard, John Pancher, Roy Golding, Atari Whirlwind Club, Synapse & InterWhirlwind Atari Group (SIAAG), The Tyle & Wear Atari User Group (CWAAU), Coventry Atari User Group (CAUG).

It's been years since we saw so many fully Atari stands and they were a busy welcome to the afternoon. Sherrard reported around 2000 visitors in total and the number of Atari visitors certainly made their presence felt giving us the all-important enthusiasm we need to look positively towards the future.

The day was over all a real success but Atari Computing magazine had had an "Oh! our error" where exhibitors, magazine contributors and invited guests couldn't see and share their experiences.

The Atari Computing stand had loads of software on offer alongside our Reader Offers with above prices on everything. The help videos were not as successful as we had anticipated mainly because we didn't have the manpower to man the machines. However, Robert Goddard-deserves a special mention - he brought along his own Palace and spent the entire day chatting with people about all aspects of getting on-line.

What the exhibitors said

Mike Karvonen, Atari Computing: "The Atari Computing stand was busy right up to the last hour of the show and we gained some new subscribers which is great. We wouldn't get new subscribers at a show organised exclusively by us) and happily quite a few loyalists returned to the list."

Joe Conway, InterActive: "The InterActive stand was adjacent to Mr Leonard's stand and at one point it was standing between Mr Leonard and Andrew Wright - definitely a mutual phone opportunity! Looking back on the day proved to be a nightmare!"

David Smith, Titan Design: "We've taken three Milan orders this week, as a direct result of the show, and in PR terms it provided us with the opportunity to demonstrate the Eclipse hardware for the first time and everyone seemed very impressed - it proved the hardware was working. Everything was well prepared and the after-show trip was good too."

Karl Brandy, System Solutions: "For a while there it was just like the good old days - we couldn't wait the morning and fast enough."

Paul Storey, IT Club: "What fun for us - some stands at the end of the day and taking well up on the last show. Congratulations and thanks to everyone who had a hand in organising the show."

Chris Crowding, Abington Synthesis

Projects (ASP): "I've rarely done too many and I've more people now know I'm here and what I'm doing, over 4 three days of no sleep, less less than-oh-oh-oh! There was a very wide range of stuff on show - if I'd have been a bit more awake then I'd have probably been in stands today! Thanks - next time!"

Gordon Stiles, SHAG user group: "We were certainly busy on the M23 stand, with the user group and ST & Future. Hopefully we also encouraged some people to join the SHAG or their local user groups or visit their user group. ST & Future was well received and we picked up quite a few new orders there. It felt like the one-day user group party. Everyone was having a good time and it was nice to put faces to people you'd only ever talked on online. Overall the atmosphere was excellent with people gathering around the ACC'98 stands staying in chat - which is what's so good about the Atari scene. I thought the PC side of the show might overwhelm the Atari side but it didn't - great stuff. We're all looking forward to the next one."

Mike Naylor, Coventry Atari User Group (CAUG): "Just to say thanks for a great show - I wasn't could have attended - rather than work!"

Andy Taylor: "For me it was the attending a festival - I hope it was not the same for others and I'm sure it won't. I really wanted those B&B systems to stay at the expense of commercial conferencing systems, although it would seem both have run out to cheap internet connections. Congratulations on a job well done and please bear in mind my comments and absolute feeling is tempered by the fact I will attend the show as a visitor in future."

Roy Golding, Atari Whirlwind Club: "Thanks to the ACC team for putting on a good show for the Atari community. It gave PC users a chance to see the Atari platform as far from dead judging by the abundance of software - perhaps it may just give our platform another injection of new users."

Steve Delaney, Ropyshop: "I had my doubts about an 'Atari Village' in a predominantly PC

Show and about staging a one day event instead of the traditional double headed event, but everyone I thought had worried. The Atari Computing stand had everything well covered and had everyone's face covered as heard as usual. From a financial point of view, we had a good day making the long trip from Abington worthwhile."

As much as we enjoy attending Atari Shows, Ellen and myself do us to find the two day show a hassle rather than a joy. We found ACC'98 much more relaxed and we enjoyed meeting up for a leisurely drink afterwards. It was also an opportunity to say good-bye to the Atari Community after nearly 15 years and more or less persons now in the region it was a sad day - but a memorable one. At least my beloved Palace has given to a good home thanks to Chris Halden of the Muggs Team.

There's plenty of life in the Atari scene and things could remain vibrant for years to come provided the Atari community continue to support Atari Computing, the diskmag, the user groups and the remaining companies. If you go these shows, they'll show themselves. It's been fun, at that there's no denying."

What the visitors said

Pearl Wain: "I enjoyed the show a lot. Glad to see my local Atari community would be supported by PCs didn't matter. It was nice to meet Wilfred Bello and the show NWOL. It was well worth while attending and I hope the show did OK financially as there will be another one next year!"

Mark Wherry: "The show was great although it seemed to be more as long - the evening was great for me."

Andrew Wright: "It was nice to meet up with everyone - sorry I didn't meet more CIBAn. I enjoyed the show - I only popped in to say hello and expect few friends."

William Laid: "I've got a good chance from talking! That was a good show! The most fun was a good show - there are many things in general atmosphere of reference to Atari enthusiasts."

Tim Ransom: "I am a regular at M23 shows and although I'm not happy at the show I have been in, the day was by far the best I could Atari stuff at under one week!"

So what's next?

ACC'98 was held in conjunction with the main yearly All format H&M Press (M23) organised by Sherrard Promotions. Atari Computing will be joining them again on Sunday April 19th and we'll be delighted if other Atari exhibitors and visitors join us again to maintain an Atari presence at this major show - make it one to see there next time!

We're considering holding another meeting away from this show at a suitable nearby venue which would be an informal day-long conference open to exhibitors, writers, programmers and anyone else who has something to contribute to the Atari scene. If you have any suggestions we'd be pleased to hear them. More details on the show and conference in the next issue. ☺

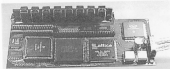
- A - Visitors queue up outside Bingley Hall
- B - Steve and Alison Delaney of Playthings
- C - Richard Spawart (left) of the Muggie team
- D - Mark Morris
- E - The Portfolio Club team
- F - Karl Brandt of System Solutions helps another customer
- G - Left's all hang out of the 2000 stand
- H - Staff of the Atari Computing stand
- I - Danny McKeen and his Electronic Zoo look on as some serious deals are struck
- J - Attack of the AC Squirrels - Brian Stanton and Mike Marshall look happy!
- K - Ray Gombis (left) and Graham Bottoms (right) of Starward Promotions, with Joe Connor (centre)

*All photos courtesy of
Brian Stanton and Bob Paton*



CENTurbo II

Blink and miss it. Shiuming Lai tests a new Falcon accelerator from French hardware specialist, CENTEK...



Afterburner will go down in history as one of the most desired items on every Falcon owner's shopping list, and a milestone in Falcon acceleration itself. There are two main ways to accelerate a computer: feed a faster clock signal into the synchronous parts (powerlocking, which has limited potential) or over-ride the original processor with something altogether more efficient and powerful, maybe with some extras like supplementary RAM attached. Afterburner belongs to the latter group, so when news broke that supplies had dried up, and so more would be built unless there was sufficient demand, the future looked bleak. Not any more. After a long development period, the successor to CENTurbo I has arrived.

Welcome back to real Falcon acceleration.

CENTurbo II is a compact board (fitting snugly into a standard case as shown in our photograph) housing a replacement 68000 CPU running at 50MHz, socket for a 68881 FPU at 50MHz, option patches, extra clocks for 33MHz system bus and 50MHz DSP 71-pin 68791 socket for 33MHz fast RAM, and a back ROM for easy firmware updates. This ROM contains a boot parameter configuration program, much like the BIOS chip found in PCs, only not quite as complicated. It doesn't tell you how many RAMs your cooling fan is doing - I told you that! From here it's possible to set the boot device (floppy, order, IDE and DSP wait states, memory test, video mode, hard disk driver and select an operating system).

The mysteriously-named Dolmen is not yet finished so we'll cover that when more details are available. The remaining choices are plain TOS 4.0a from the original ROM and TOS 3.04 - a patched version of 4.0a which makes fast RAM available to the system.

To remind you which TOS you're booting, the patched one turns the screen colours to a striking, Swedish police-on-file. If you hold down the [Control] key as the machine boots, the CENTEK AUTO-manager kicks in, and rather than shipping all programs, it gives a choice to run or skip each program in turn - invaluable for trouble shooting.

CENTEK's software disk includes a neat bunch of utilities for tweaking the system, and demo versions of its other software, like Sandisk, a scanner from and. There are more affectionate names to come, like Cable, which, if from Germany would efficiently be called HD-Drive. The names are nicely confusing, as is the small degree of functional duplication between some programs, but they serve to allow things to be done in several ways and are reworked with unmistakable French flair and humour - check out the wildest patch at British leaf!

Extra marks for the effort of including programming resources, a sign of care and attention.

Two of the most immediately useful programs are: CENTScreen, an AUTO killer patch to replace the Atari Set Video... dialog with a much better control panel, adding to the existing modes with new ones specified in a VIDEO.DAT file (screen sizes) and virtual screen modes with these cleverly-named modes of

scrolling, Edge, only scrolls when the cursor reaches the edge of the screen, Focus keeps the cursor in or near the centre while Proportional gives an idea of its virtual co-ordinates by scaling them to the physical - simple but brilliant. CENTYDIL is a screen manager allowing custom resolutions to be defined and saved in the VIDEO.DAT file, ready for selection in CENTScreen.



▲ Good design soon becomes apparent.



▲ Take particular care with these utilities if the monitor doesn't have auto-range/thermal protection.



Graphics

Using standard Falcon VGA 155-colour GEM is like wading through mud. CENTurbo II makes it a more productive mode, allowing programs like Pixel4 to show their colours, literally, and will be responsive enough to work with

comfortably. Alternatively, a higher resolution is sometimes more useful and CENTurbo II can do this, just like the old BlayUp2X.

16-bit colour animation on (Douglas) Limb's Falcon PUC movie player runs along with fluidity and vigour, in fact, some of the files on Team Computer's Moon Graphics CD made me feel a little dizzy after a few loops. Apple (Pixel) Cyberdials come hurtling from the screen like missiles, and it also works nicely in 640x480-bit-designed "TrueColor" thanks to the increased bus bandwidth and faster video clock. Smooth, smooth strokes and superior overall definition.

Games

Reservoir "Guns" early God Ray releases such as Super Mario Land receive a healthy injection of zip, improving playability by a large margin, while the new improved God Ray X sports an even better. While hard, play hard! The only problem I came across was mangled music, hopefully it's a simple problem with an easy fix. 3D games powered by the DSP are in for a treat, give Running a go and see.

Those using an elderly VGA display with their Falcon might be in for a shock. Notice how the image is shifted when low resolution programs, like many games, are run? This is caused by the different video timings, and if that wasn't a good enough reason to invest in a modern digital monitor, CENTurbo II will change your mind. If the monitor can't handle it, you'll know I'm really managed to design a custom mode that shot past even the 128k limit of my early new floppy floater.

Audio test

The music mixer represents a major proportion of the Falcon user base, therefore an important assessment of an accelerator's value is its impact and stability with software in this area. Every Falcon motherboard is different enough in terms of timing characteristics to show signs of incoherence when pushed beyond its original specification. The audio sub-system is particularly susceptible to developing crackling and popping noises during play if the system is overloaded. CENTurbo was well aware of this "SCDMA bug" and it took six months of brainstorming to resolve. Does it work? You can stop holding your breath now, I'm pleased to report it passed the Colossus Audio-test.

General compatibility is very good, and as it should be, using the same model of processor. Things which do fall down tend to be extremely hard-coded in weird and wonderful ways to leave no doubt cycle speed. Any programs that crash are caught by the new exception handler, giving a choice to terminate the program

System: 10MHz fast RAM, 16MHz ST 68000, VME 3, 640x480, 16 colours, Image Modelling Pro 4020 3.5" Ultra ATA hard disk (IDE bus) 1M and 65P wait states on.

Notes: 65P wait states made no difference in any of these operations or benchmark tests, but MPEG playing was clearly faster without.

Timings in M:SS:SS

Turbo off Turbo on

Test 1: 0:00

Test file: 16-bit stereo ADIF sample (8,750,752 bytes)

Operation: DSP Deinterleave (value 55, result to stereo)

00:01:02 00:00:15

Operation: DSP BCPU MPF

00:02:14 00:00:04

Image copy 4

Test file: 1136x760 128-compressed 16-bit chunky TIFF

Operation: Load and reduce to 4-bit planar

00:03:42 00:00:27

Operation: Convert to 75% quality JPEG

00:03:37 00:00:50

or reboot. This is usually a trivial matter of changing the program loader flags.

Hardware programmers, make sure your register/delay routines are based on real-time rather than coupled to the CPU instruction clock...

Afterburner is CENTurbo II, the inevitable question I've got an Afterburner gathering dust somewhere, it's not fixed for several reasons:

- It doesn't accelerate the DSP
- It doesn't provide new screen modes
- There is no support to 68000-for compatibility.

Don't get me wrong, Afterburner is still the king in a sense, but it did cost twice as much. The 680040 version's floating point performance knocks spots off the 68000 but for many purposes the CENTurbo II can't be bettered, and compares well bang-for-buck. On linear 32-bit memory access it actually surpasses Afterburner. Based on Handbuilt Falcon relative figures, FWC (Read/Write/Copy) operations in ST RAM are at least twice as high as Afterburner and those in fast RAM will have a greater average. Benchmark figures should not be taken at the face word though, it all depends on dynamic conditions - how often these operations actually occur in running a program.

Many complex factors are involved in choosing an accelerator. For example, the power of Afterburner should be matched to an equally capable replacement video system, that is, yet another, dedicated peripheral on the AG000 expansion bus. CENTurbo II is a fully integrated solution, the luxury mini main system to the uncompromising hi-fi separator.

At the other end of the scale, CENTurbo II offers more value for money than less expensive, purely over-clocking-type accelerators such as Memory, Power Up 2 or indeed its own forerunner, CENTurbo I. It leapfrogs the barriers of that technique by starting out with components of a higher rating in the first place, then exceeds that with over-clocking.

After all, it's sold as a rock and deserves serious consideration. Verdict: It's a spanner in the works for the Miles.

More photos and test results ☞

FITTING

CENTurbo's printed installation manual is quite clear and concise, although the claimed fitting time of 20 minutes is unrealistic. Even experienced electronics engineers should exercise caution, we think 3-4 hours is more appropriate. System Solutions should have produced a new, improved manual by the time you read this.

There is a general misconception that fitting hardly with a soldering iron is a qualification for accelerator installation involving PCB track cuts and SMT component modification. While there is little of that to be done with the CENTurbo II, be warned, computer motherboards are complex multi-layer affairs and replacements for the Falcon don't grow on trees. It takes electronics experience AND familiarity with the board layout and components. Our advice is, as always, if in doubt leave it to the experts.

CENTurbo II versus Atari TT030

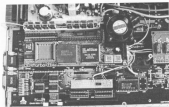
Using Benchmark v2.1 (pretorian CPU/PU profiler)

OPERATION	CENTurbo II		TT030	
Integer multiply 32-bit/13	->	0.821 Mops	0-31393	0.826 Mops 1-10115
Integer divide 32-bit/13	->	0.135 Mops	0-31331	0.730 Mops 1-10115
Linear (int) integer	->	24.875 Mops	0-31331	18.862 Mops 1-10115
Interleaved (igned) integer	->	24.875 Mops	0-31331	18.862 Mops 1-10115
32-bit read (1000 bits)	->	24.800 MB/sec	0-31393	18.873 MB/sec 1-10073
32-bit write (1000 bits)	->	12.584 MB/sec	0-20961	8.159 MB/sec 1-13321
32-bit read (1000 bits)	->	45.140 MB/sec	0-31331	31.896 MB/sec 1-10081
32-bit write (1000 bits)	->	25.125 MB/sec	0-31601	16.539 MB/sec 1-14581
Linear 32-bit read (157-Km)	->	30.708 MB/sec	0-18281	7.868 MB/sec 0-14721
Linear 32-bit write (157-Km)	->	31.887 MB/sec	0-17781	7.868 MB/sec 0-1721
Linear 32-bit copy (157-Km)	->	6.738 MB/sec	1-17781	3.947 MB/sec 0-1721
Linear 32-bit read (FastRAM)	->	31.578 MB/sec	1-18821	12.808 MB/sec 0-17781
Linear 32-bit write (FastRAM)	->	24.227 MB/sec	1-17581	15.763 MB/sec 0-14481
Linear 32-bit copy (FastRAM)	->	18.952 MB/sec	1-14981	7.812 MB/sec 0-14381

Using BSBench v1.0 (pretorian BIP profiler)

BIP (32bit F:Int F:Int)	->	25.800 Mops	0-16481
BIP (32bit F:Ext F:Ext)	->	12.500 Mops	0-16481
BIP (32bit F:Ext F:Ext)	->	8.333 Mops	0-16481

1000 is a standard falcon. CENTurbo II beats the TT on all counts, especially fast RAM access. It doesn't take any benchmark figures to work that one out though.



▲ 3.3MHz fast RAM support is under investigation for Revision B - the problem is price and availability of suitable ECC SDRAMs. Having two sockets for fast 3.3MHz modules also prevents it from fitting in a standard Falcon case.



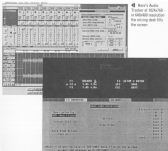
▲ Choice of SDRAM is important, if they're too high the case won't close properly.

CENTurbo II TECHNICAL

Prototypes of the CENTurbo II were tested with a stock of 25MHz, using official 68040s (designed in ceramic PGA form (Pin Grid Array) a flat-pack with pins underneath). These are the premium extension from the good yield of a fabrication run, packaged in the more expensive chip carrier material favoured for high-performance designs due to its thermal properties (doesn't melt like plastic).

Unfortunately, getting hold of PGA 68040s proved difficult, and their price prohibitive - not only to purchase, but in terms of added complexity in the PCB routing, since pin holes would have to be covered for. These final production units are much smaller, thanks in part to the use of surface-mounted PDS chips, even checked to 68040s. During development, the CPU-to-bus RAM and Falcon motherboard interface was 25MHz, now it's always running at a full 68040, with run states for slower hardware like the Falcon motherboard, rather than switching the CPU down to 15MHz for every access. This improved the transfer rate from 25MHz to 15MHz. The 68030 processor direct expansion bus through connections on our Revision A board are to be dropped from the new Revision B unit. CENTurbo II, claims a will will be possible to connect CENTurbo II unit and expansion cards with some small adjustments.

Standard Falcon CPUs rated at 15MHz need to be removed - CENTurbo II requires a chip with 15MHz minimum rating to work reliably at 25MHz.



4 Ben's Audio Tracker at 1024x768 in 16-bit/32-bit resolution, the mixing desk fills the screen.

CENTurbo II

Manufacturer

CENTER

UK contact

System Solutions, 17-19 Blackwater Street, Dulwich, London, SE20 8LD Tel: +44 (0)20 851 185

Email: solutionsolutions.co.uk
<http://www.system-solutions.co.uk/uk/>

Cost: £199.00 introductory offer (normally £229.00)

Price

Table and base, disk supporting software, fits in standard Falcon case

Cons

20MB fastRAM limit, CPU cooling fan mechanism isn't very sturdy

52%

4 Set the beat sequence to skip this if you've done one PC repair too many...

Easy Beat

Shuming Lai is impressed by Softjee's virtual drum machine for the Falcon...

Let's face it, when an exciting new toy arrives, diligently reading the instruction manual is probably the last thing on most people's minds. Of course, manuals exist for reasons (which to the supplier or manufacturer indicates protection from liability) but desire for practical inquiry is hard to overcome, and learning by trial and error often proves more effective than wading through pages of documentation like a robot.

Easy Beat, the latest in a range of programs from Softjee over the past year (on the brink of warring a magazine all of its own, I think), was in my good books within a matter of minutes. That's how long it took from loading the first case to creating the drum loop (EASYBEAT.GM) which you can download from the www.computing.org web pages, without having to consult the manual. The program is all quite clearly laid out and its controls readily labelled.

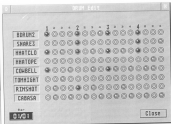
First impressions are pretty obvious: centre-piece of the main screen is the elaborate control cluster for



4 The main screen.

six independent voices, residing beneath a row of self-explanatory buttons. In well, need I say more? Load some sounds, either individually by file, or as a batch by

path, rather like the QuickCreate for compile function in Amiga's CDD Writer. Hit the edit button, conveniently bringing up the pattern editor (Figure 1 - next page).



▲ Figure 1: Svelte in svelte LBD

This 16-beat pattern grid acts as a window to 16 patterns. From here it's simply a matter of placing, or tuning and panning events, in all works in real time so you can get a good feel for the rhythm.

In terms of flexibility this is more than your average hardware beat box. In use he thought of as a sequencer specifically geared towards drum programming, coupled with a modular sample triggering sound engine - so really, it's also perfectly possible to load in sound banks not containing any drums at all! You see, Easy Beat is not an emulation of any particular



▲ No need to distort the truth, but if you fancy like doing it to sound, here is where to do it!

▼ Figure 2: It doesn't have to be a drum sound, and it doesn't have to be a set path. Result, beat box capability



▲ Sounds can be changed from the drum editor or main screen

drum machines, so to get you started, it comes with a library including "classic" Roland TR-808 and TR-909 files.

With a base-line as well? This problem. Load a base sound into an unrolled slot and start tweaking the pitch-shift (Figure 3). Grab a copy of Electronic Cow's Sounds and Tuff CD, where you'll find lots of base sounds from the TR-808 and other famous instruments.

Each instrument can be panned, faded, or processed with real time DSP effects. My favourite is distortion, it adds a lovely bit of grit to some synthesized base instruments. Reverb and echo need some careful adjustment to avoid unpleasant results.

The sequence can be exported in a number of formats for further editing or incorporating into new sequences. There is Easy Beat's own .seq format (which also remembers where the sounds are stored so don't go moving them about), Digital Tracker, MIDI and audio (as per EASTBEAT.AVR demonstration). As the sequence playback and audio export is tied to 45 / 70bpm, I would have expected more options from a Svelte product.

Svelte's interface design, however, has improved considerably, as have the manuals. French origins are apparent here and there but on the whole this is a very

good job (French English is usually better than English French). My criticisms are more on the basic level, for example, it doesn't remember the directory it was started from, so when you go to load some sounds, you have to find the path first. Like its underpinnings, it also doesn't intelligently handle corrupt files, so when it crashes it does so spectacularly. Svelte is normally quick to listen and respond to constructive criticism so let's hope these minor niggles get sorted out soon because overall, Easy Beat is a winner. ☺

CENTURIO II TECHNICAL

Publisher

Svelte
svelte@stardot.fr
<http://www.stardot.fr/svelte/>

UK Distributor

Titan Design
Cost: £14.95

Price

Logical interface, intermediary digital effects, good quality sounds supplied

Comments

A few obvious rough edges in terms of foot-printing

88%

Steinberg Pro24 III

Mark Wherry steps out of the tardis clutching a few copies of this software classic so we've taken another look and made it available as a Reader Offer...

The Atari ST was the computer that launched the MIDI music revolution, its built-in MIDI ports attracted the best software developers and it wasn't hard to see why. Despite the onslaught from other platforms our Atari machines remain a firm favourite with many musicians thanks to its exceptionally stable timing. With new software releases from Electronic Cow, Softjam, and SoundPool, and rediscovered software like Trackman and PROPlan, the legacy looks set to continue - which brings us neatly to Pro24.

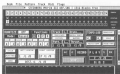
Background

Steinberg's Pro24 was the product that really got the Atari MIDI ball rolling, and also saw Karl Steinberg's company take off. M124 screens running Pro24 became a regular sight on TOTV used by many famous musicians including PAV, Pidge Ure, Dave Douglas, Clive Fish, and so. Bros. The design, based around the traditional 24-track multi-track tape recorder, was inspired. At one point Atari were handing copies of Pro24 and its smaller brother Pro12 with machines and later ST-Format magazines gave away the full Pro 12 version away on cover disk.



The package

Pro24 comes supplied with master disks, the all important copy protection dongle, and a well written and bound manual. The full Pro24 works well on all Atari STs with at least 1Mb memory, including STes, and unusually for MIDI software, Pro24 also runs fine on a colour display. The actual program features 24 MIDI tracks of which 4 can be recorded to simultaneously. Once you've made a recording you can apply many of Pro24's



tricks to it including quantising, which basically makes your recording sit more comfortably in a musical timing grid. As with quantising in other programs, used sparingly it can tidy up not so good timing, but over use can make music sound mechanical.

Three editors are provided to edit pre-recorded music, or to enter notes manually. A grid editor, which laid the foundation for Cubase's list editor; a drum editor, again not dissimilar to the one found in Cubase, and a score editor with basic printout features, which certainly makes life easier for those who can read music. The logical editor, again developed further in Cubase, is also here and allows manipulation of MIDI data based on logic conditions.

Like the earlier C-Lab products, Pro24 offers pattern based arrangements, which can be setup in the arrangement dialog. An editor for the master track is provided for tempo and time signature changes, and it is also possible to record tempo changes. A cycle record option is provided with three

different modes, to repeat a musical section whilst recording and this could be used to get a part just right without stopping the sequences, or perhaps to build up drums or other rhythmic tracks.

Pro24 is also well equipped in terms of synchronisation and supports MIDI clock and SMPTE via external hardware. Pro24 also includes integral support for standard MIDI files without having to resort to external utilities. As always, there are many more features than one

can cover here in detail.

The bottom line
Although Pro24 was superseded by Cubase it remains a classic program ideally suited to anyone interested in learning to use a sequencer for the first time. By today's standards the manual

is a luxury (90 page ring bound effort which lays flat for easy reference). There's an instant Gratification section which steps you through a recording session followed by the main reference sections which detail each and every command and includes lots of highlighted tips and, at the price, offers excellent value for money.

For years Pro24 was the preferred choice of many music professionals and when you consider this is the first fully developed Steinberg Pro24 III it has no doubts, and benefited from, the full development cycle making this a stable and reliable product.

Finally, because it's a Steinberg product there's a clear and logical upgrade path to Cubase which uses much of the same terminology concepts, and even parts of the editors are the same. Songs composed using Pro24 can be loaded directly into Cubase. ☺

PRO 24 III

Publisher: Steinberg
<http://www.steinberg.net> (For latest Cubase details)

Supplier: Atari Computing

Cost: £10.99

Requires: Any Atari STs with 1Mb memory minimum, mono or colour display, and some external MIDI hardware.

Free: Fully developed, commercial software, ideal stepping stone to Cubase, quality manual and excellent value for money.

Does: live fast a little chunky by today's standards, was used by Bros and Phil S.

78%

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CD Writer

Anodyne Software's new CD Writer offers a low-cost alternative to CD Recorder Pro. Danny McAleer reports...



Although there's an almost overwhelming choice of digital mastering formats available for the modern music machine (DAW, ADAT, MiniDisc, DCC and so on), few are as robust as the compact disc.

Certainly, there is no better medium for prepping your musical discoids as everyone (even my technophobic Mom) has a CD player. CD Writer runs on most Atari machines so long as the following prerequisites are met:

- TOS 1.04 and above required.
- ICD host adapter required for IT machines.
- Compatible CD-R/W model.
- Hard drive, bigger is better, a CD-ROM can hold around 650MB.
- A copy of HardDisk Gold to drive the CD device.

Naturally, you'll also need some way of getting sounds into the hard drive since CD Writer is just a means of compiling discs. Samples can be in AIF, AIFF or WAV format in 16-bit stereo and sampled (or resampled) at 44,100Hz.

Compilations can comprise samples from any drive location, although it is much easier if all the tracks are stored on the same hard disk, and in the same directory. This is because CD Writer has an option called Quick Create that automatically sets all valid files from a single directory path into the track list. However, it's worth noting that CD Writer compiles the tracks in the order in which they were either created or copied to the drive, and not alphabetically. After loading all the files, a dialog appears that asks if you'd like to proceed with writing the CD immediately, or if you'd prefer to edit the listing first.

Editing a compilation is so interactive that the manual seems completely redundant. New songs are added by double-clicking on the desired track, and can be re-ordered by dragging the filename to another track location which forces all subsequent tracks up or down the play list. Tracks may also be copied to another CD compilation completely using the clipboard function, or deleted by dragging to the rubbish bin. Next is such file entry is the time of the track in minutes and seconds, and a space large enough to write the full title to better describe the song than the infelicitous eight-letter file name. In addition to being able to name tracks, the entire CD can be given a title and artist, though none of this is strictly necessary. Where it does



CD Writer, the only thing on the planet that can "simulate" work and get away with it!

become imperative to fill in these sections is when the prior option is selected.

A maximum of twenty-nine tracks can be added (up to either 63 or 74 minutes in length, depending on the CD-R used; the total time used is displayed underneath the track listing), although there are no limitations for creating index points within each track. In fairness, few domestic CD players actually support the index feature, so this isn't incredibly important. However, it is possible to enable pre-emphasis on each track individually. This is a standard feature on compact discs that, when enabled, activates some sort of de-emphasis circuitry in the CD player to compensate for any boosting of the high frequency content of the original signal. This mostly occurs with analogue tape recording, and checking the box not only returns the high frequency content to its normal level, but also improves the signal-to-noise ratio.

Once all the tracks are compiled then it's time for the usually annoying process of creating (or mastering) a CD-R. Before writing, CD Writer always performs a check on the files in the CD list to ensure they're valid, and indeed still there (the verification can also be performed) independently of CD writing using another (main option). Before committing yourself however, CD Writer also allows you to perform a test run, which goes through the motions of writing a CD without actually physically affecting the disc. This is actually quite a necessary feature, since things can go awry when hard drives are badly fragmented, or if the record speed is set too high for the CD-R, hard drive, or computer, which always results in a nice



McAleer individually plans the layout of his next top-toe setting album

they're too complex. (The manual suggests you might like to use the published disc as a template, but this just sounds dangerous.)

Once checked, CD-Writer then proceeds to record for real. During order of these processes, the operations can be aborted by pressing the [Esc] key and a bar graphic keeps you apprised of CD-Writer's progress. When writing to disc, CD-Writer automatically creates a pause between tracks, which is crucially essential for backwards compatibility with older CD players. This is now set to 10 seconds (the lowest value available) and seems to work fine, but can be any whole number, up to a maximum of nine seconds.



▲ Without warning, the CD-R suddenly probes middle of the next track menu, making it read Paul's single mix of Beat's Symphony No. 5.

There isn't a great deal to fiddle with in CD-Writer's elements that can be tempered with: all appear in the preferences window. Here it is possible to set the default directories for audio samples and compilations; the CD-R/W device to use should you be rich enough to own more than one, and to set the default speed for writing CDs. Currently, up to eight-speed recording is supported, although whether you can write a CD at this speed depends wholly on the CD-R/W and the type of Atari you use. While the TI, Falcon, and other accelerated machines may manage to plough along at full steam, you may find that a slower speed is necessary for error-free writes on standard 52X.

CD-Writer isn't a fully-featured as CD-Recorder Pro, but consequently it is simple to use and you're more likely to be

CD WRITER

Publisher

Asotek Software
Email: asotek@aol.com
http://www.asotek.co.uk/~asotek

UK Distributor

System Solutions
Tel: +44 (0)1474 690 000
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www.system.solutions.co.uk/sales
Cost: £29.95 (£29.95 if purchased with Windows Gold) including VAT plus P&P

Pros

Works on all Atari, inexpensive alternative to CD-Recorder Pro, really simple to use

Cons

Can't write CD-ROMs (obviously), unable to deactivate pauses, no control over PQ Encoding

80%

successfully pressing CDs that create, indeed! At the price the package should attract both enthusiasts and professionals. It's difficult to fault a program that does exactly what it's supposed to do. CD-Writer is one such program. ☐

ExtendOS Gold

Danny McAleer goes prospecting for gold and reports back with his findings...

Thanks to the ingenuity of some particularly clever driver software writers (or equally clever people, Atari have been able to sample from the same calve as PC users, plugging in hard drives, scanners, digital cameras, and CD-ROMs with the same degree of dexterity as the plug-and-play people on other platforms.

ExtendOS has, from a personal perspective, long since established itself as the best choice for driving CD-ROMs, and just recently it's been upgraded to add yet more features, and devices to it already bulging repositories, now even including support for CD-Rs and CD-RWs.

As with previous versions, the new version has its own installation program that makes the transition from no CD-ROM, to happy Atari with working CD-ROM straightforward compared to other CD-ROM drivers. In this respect, ExtendOS Gold yields no pay for those with a sceptic penchant for manually editing configuration files with an ASCII editor. Rather, it takes all the obnoxious SCSI jargon behind a set of understandable options, leaving the owner to enjoy the whole CD-ROM experience.

On running the installation program, it is possible to opt for either a complete installation, or to customise the driver (the



▲ I think he said the best shopping for SCSI drives is something...

later, for making changes to the driver once installed) is then chosen through the SCSI box, logging all the connected drives it recognises. ExtendOS Gold allows multiple CD-ROM drives to be attached, and each of these devices has a group of parameters which can be set independently of one another. The device listing is the drive letter, but it is also possible to set different cache settings to speed up disc access times for each drive, too.

In addition to drive-specific options, there's also a window full of global settings



⚠️ Please don't take away the message! [Join the 50](#)

is critical with, of greatest importance here is the memory versus performance balance setting. This determines how much memory ExtendedOS patches to use as a buffer which can greatly improve disc reads on single and double-speed CD-ROM drives. (However, the difference in memory consumption between a minimum and maximum speed setting is as much as 150K, so if memory is a premium it's advisable to set a small buffer.) Clearly, ExtendedOS can also be made to install an intermediate memory buffer for Atari that can alternate or use RAM, which the software will take advantage of, if found. This can help alleviate problems

desktop accessory), for playing audio CDs. As you'd expect, it works much the same as a state-of-the-art CD player, with controls for play, pause, stop, track skip, and search, as well as repeat and volume (although the latter two aren't supported by all CD-ROM drives). It also has basic programming functions in the form of shuffle, repeat, and scan (where the last ten seconds of each track are played). Repeat will force the CD to continuously replay a selected portion of a track, which is not using a set of user-configurable marker notes.

But perhaps the most impressive part of CD-Access is its ability to digitally copy portions of, or entire audio CDs, to a hard disk. This is an incredibly powerful feature, and exceptionally useful and only way of backing up your precious CDs or shared effects libraries, since it avoids all the signal degradation normally associated in

sampling via the analog-to-digital (A/D) converter.

Clacker's left and right locations give you complete control over the size of the audio segment to be copied, down to the last one hundredth of a second, and the program even supports a broad range of sample formats: WAV, AIFF, or WAVex, 16-bit or 8-bit, or 32-bit, or a compressed or stereo sample, and in 38, 50, or the more industry-standard 44,100 Hz sampling rate, all at selectable 16-bit or 24-bit sample format. Or, a small text box lets you stipulate the amount of hard disk the operation is likely to require.

The audio-recording facility is a much-improved feature in this version of ExpressCD®. Guid is now done in a conversational

Multi-session or Phase CDs depends entirely on the actual CD-ROM drive, and the manual has a comprehensive list of tried and tested mechanisms to cross-reference for this reason.

Handled with the client software is CDaudio, a CDF program (which can also run on a

But during USB sample transfer moves, is it possible to better guess whether this is an appropriate time to scratch an itch, make a sandwich, or take a trip to the corner shop for supplies. Unfortunately, a small number of CD-ROMs drives don't initially have the necessary firmware to allow audio transfers via USB, and as if that weren't a reason for choosing the software over Media2000 or equivalents, it's hard to check for.

After succumbing where HardDOS failed, in getting a CD-R and Afterburner working harmoniously in my Falcon, I have little doubt that ExtendedDOS Gold is the best, most reliable, CD-ROM driver my Atari could have. The improvements to the driver are numerous (the most significant difference being the additional support for driving CD-R and CD-RW devices), and the substantial vendor in the CDClassic program have transformed the little utility into an available aid for simple CD-users. But perhaps the best part of ExtendedDOS Gold is how little you see of it once working; it's so transparent in operation, it's almost as if it's part of TOS itself. **4/5**

[illegible]

EXTENDING FROM 17

Publisher
Analytica Software
(Email: analytica@system.co.uk)
<http://www.system.co.uk/analytica>

UK Distributor
System Solutions
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Cons
You need a CD-ROM to use it
Occasional problems with AOL-customer
list (I'm having really minor)

10



▲ "You have a 'P' please, Bob..." "You'll have an 'M' and bump it, Mr. Security-20-2000. Thanks, man!"

with DMA access via the AART, which also results in less read errors. Once these options are set, and in such they probably don't even need to be tampered with for the majority of systems (since the default options serve to well), the installation program then copies all the necessary files to the appropriate places. After relocating the AART, you need only install an icon on the desktop, and the CD-ROM drive can then be accessed like any other drive.

InterDOC Gold supports all of the PC-compatable types CD-ROM formats, including ones with mixed case file names, ISO9660 level 1 and 2 (long file names), Joliet CD, multi-session, and Photo CDs, but not Hightower HFS format. Naturally, neither InterDOC will recognize.

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The MagiCal MacOS guided tour!

Still reeling from the excitement of Mac OS8 which let him put a picture on his desktop Joe Connor has been reading about MacOS 8.5...

Every now and then I get the nagging feeling the grass must be greener on the other side - I usually snap out of it after reading a couple of Mac/PC magazines but since Apple invited us to "think different" it will.

Mac OS8.5

After the pre-launch hype, previews and keynote speeches the most exciting new feature in MacOS 8.5 turns out to be... wait for it... Starlock - a brand new Find utility I've seen enthusiastic postings from posters citing "Starlock alone is worth the upgrade fee". I'll admit I haven't tried Starlock first hand but it's hard to believe - this phrase kept out at me "it's now possible to search for text inside files instead of just by filename and size".



I remember being impressed by a similar feature in Parafin, an Atari utility based in 1987! Sally Parafin is no longer developed but it has recently been surpassed by Holger Wiese's Finder which can not only search for text inside files but even inside archives!

With a growing sense of déjà vu, I read on "Mac OS 8.5's Super Scrolling means your documents will automatically scroll as you drag the window's scroll bar. The scroll bar will also grow/shrink in proportion to length of the document so you can tell what portion of the document you're seeing at any given time." Nice idea guys, no doubt that's why Atarians have been enjoying proportional scrolling for over a decade and real-time scrolling for years!

It gets worse, there's a new file selector called the "Navigation Services" dialog. It will remember your most recently accessed files and folders as well as a list of your favourite folders you can customise yourself. The new selector will be non-modal, movable and resizable which means you'll be able to switch between applications while the window is on-screen. Surely that's innovative? Well it's pretty much a feature list for Freedom which bounded onto the Atari scene some five years ago!



There's even more to look forward to in OS X, the Mac OS8.5 replacement, due for release late this year - of course it won't be compatible with any of the pre 680 processor-equipped machines but hey, that's the price of progress!

OSX

Pre-emptive multitasking

Currently the Mac OS uses co-operative multitasking. With pre-emptive multitasking (like MacGIC) the OS acts as supervisor doing out scores to the CPU and you'll no longer have to stare at your screen while the background application takes your processing power away from you (a sad fate).

Virtual memory

Mac applications have to be allocated with a fixed amount of memory. If you've ever had an application quit on you because it doesn't have enough

RAM allocated to it you'll be pleased to hear Mac OS X will intelligently allocate as much memory as these apps need to run (like MacGIC, Geneva, PMPT and so on)...

Strong closed Windows users might prefer to skip this paragraph otherwise they'll be less than thrilled to learn Windows pre-emptive multitasking uses a crude timer based pre-emption technique and nearly all the windows, kernel routines are not re-entrant which means if one application GUI is running, all others are blocked until it is done. It's much the same for IO access. Given these limitations a descent co-operative multitasking system like Geneva would probably perform just as well.

I'm feeling better already so I'll admit I do enjoy using Mac machines and some of the applications are truly superb. There are some features expected for Mac OS8 I'm genuinely looking forward to:

- **Customisable appearance changes** (themes and cursors this won't now be included). This allows the user to customise the scroll bars, window gadgets, windows etc, much like Windows 95 desktop themes and, to a lesser extent, MacGIC.
- **Anti-alias text** Systemwide - nice.
- **Keychain**. This is a database which keeps track of your IDs and passwords so all you have to remember is your Keychain password. It will store login information for web sites, ftp and file servers in a file that's password protected. When unlocked Keychain stores apps will be able to lift these details automatically.
- **Bigger-better icons**. A 32 bit palette and icons upped from 32 pixels to 48 pixels square. TOS Desktops like Thing have supported any size icons for years but are limited to a 256 colour palette (I think).

Empower New Clothes?

It seems to me Microsoft and Apple are teasing users with features Atarians have been enjoying for years. Maybe there's a parallel universe out there where Atari is king of the hill and everyone browses the web using C&B. ☺

Make Music!

The French are renowned for their wine and cheese, but what about their home music studio software? Danny McAleer decides to taste the latest sample...



The set of transport buttons are mostly self-explanatory with play, stop, fast-forward, rewind, and record (generating real-time recording of all making a predictable appearance. But in addition there are a few other interesting features: the play loop button (this plays only the currently selected pattern), play stop (and this plays just one step), and step input button. This last button must be enabled if notes are to be inputted into

Digital Home Studio (DHS) is designed to offer an all-in-one studio for your Falcon, and with integrated MIDI and sample sequencing, coupled with real-time DSP effects, direct-to-disk recording, and sample editing and synthesis, is certainly shaping up well in theory.

In practice however, there is an incredibly large block to scramble over in interface. Like most trackers on the Atari, it doesn't use GEM, so there's no familiar windows or menu bars for reference points, no desktop accessories, and no readily usable file lists to move easily around your arrangement. But underneath this sprawling mass of buttons, menus of numbers and text, and flashing lights, really is a wealth of tools set for creating professional-sounding music.

In addition, DHS supports an awful lot of variations on the tracker format, and will also happily load most popular sample formats (though it's preferred is WAV), including Windows WAVE, AIFC, SAM, and MP3, amongst others, which features rather well.

Exploration: Interface

Most of the panels in DHS can be changed to reveal yet more sub-menus, but the main panel remains the same, no matter

what mode you are in. In here lies a charming mini-legend LED-style counter displaying the song and pattern position location, a colour-coded volume LED bar graph, sequencer position slider and transport controls for sequence and pattern navigation respectively, and boxes to set the speaker mode and number of tracks. If more than eight tracks are enabled (there is a maximum of thirty-two), a horizontal slider bar appears at the bottom of the track columns, allowing you to scroll through each of the tracks. What would be equally as useful here would be the ability to alter the physical order of tracks, without having to cut and paste parts, but this is farness is a personal preference and likely to be a working stone shared by few others.

In normal trackers, tracks one and four are directed to output one (left), and two and three, to output two (right), but with DHS's speaker mode, it is possible to reconfigure this. With the Logic speaker setting, each track is routed alternately to outputs one and two, as would be more, say, logical. Better still, the Parameters setting routes each track to both the left and right outputs on the Falcon, and used in conjunction with the pan control on each track, allows more flexible positioning of samples within the stereo spectrum.

The track, when it's disabled, playing on the keyboard will only audition the sample which can be really useful nonetheless. Stop error is most definitely the best method to employ when inputting notes, real-time recording was at best very often out by a step or two, and at worst, dreadfully inaccurate.

Un-composed composers

For someone who was made to believe that musical notes are those little black dots with notes on their ends, the concept of numerical composition is computer alien. However, after a little experimentation (and frustration, calculating in use of the piano roll with view for complex structures), DHS finally started to yield some promising results. It must be noted that, like other music software, DHS does rather tend itself to a limited genre of music, and that doesn't include baroque or classical tunes. But with its array of sequencing tools (making it shamefully simple to cut and paste ideas between parts and patterns), and quickly build up a whole arrangement), and a 4/4 rigour so vehemently adhered to, it makes light work of pop and/or dance music.

One thing that lends itself to the method of composition is the effect, and DHS has these in abundance. Everything

from tremolos and vibratos, through arpeggios and auto-panning effects, to those cheap pitch slides that characterize so many MCD tunes in the public domain, are easily integrated into the streams of notes.

Each track has its own mixer panel that sets the initial conditions of various performance attributes (more dynamic control can be achieved by programming in effects messages). These include main volume, panning, and the track's polyphony. In most trackers, this is limited to one: when the next sample is triggered, the one before is cut. But with DMS it is possible to have polyphonic tracks, and so notes can overlap which can be potentially useful for creating things like arpeggiated chords using just one track, or just for ensuring that the booming bass drum isn't robotically interrupted by some fluttering hi-hats. Up to 64-notes can be played simultaneously by DMS, and so even if all the available tracks are used, each track can be at the very least diaphanous.

Additionally, a real-time effect can be applied (either pre- or post-fader) to any track, and with varying intensities. With most of the effects, the effects used controls the level of effect for that part, but with the filters it controls the cut-off point, and so some amazing real-time frequency sweeps are possible.

Tracks can be quickly muted or solo'ed by clicking upon the track number at the top of the column with the left or right mouse button respectively. Supplementary track parameters can be set in a pop-up menu accessible by clicking on the effects LED with the right mouse button. Here, you can choose to view volume or effects controller data alongside the note list, and up for either audio or MIDI for its output (with yet another hierarchical menu that selects the channel for MIDI tracks).

Clicking with the right mouse button in the middle of the track panel calls a completely different pop-up menu, which we initially over-to rightly assuming. This one holds all the options for global viewing of the track panel. For example, it is possible to change all the track columns into mixer panels, or to use a Piano roll edit (similar to the Key Edit page in Cubase) to enter notes into the currently selected track. This is infinitely easier to do, than trying to remember your right mouse click when all you're trying to do is be creative.

Extra bits

And yet, DMS has far more than the comprehensive sequencing features, with a January-size cache of sample editing options, including effects, sampling

capabilities (either direct to disk or to memory), and re-synthesis tools. The basic editing tools can be applied to a sound in whole or part, and comprise things such as fade in/out, reverse, phase invert, delete (and close up gap), clear, normalize (in addition to a separate pitch-normalize tool), and insert zero.

As well as all of this, DMS also has a graphics-based, amplitude envelope shaper that can have up to an astonishing thirty-eight points in fact, this selection is only masked by a very obfuscating system of copy and paste; one that is still somewhat of an enigma after months of fiddling with the software. That, and the Undo feature, which actually undoes every last edit performed on the sample, as opposed to just the very last one (you may as well re-load the sample!).

The synthesis functions, although currently basic, can be used to good effect to embellish an existing sound. Of course, it is also possible to create a waveform from scratch too, since as there are enough sound properties to edit, quite interesting samples can be achieved. Four different oscillators can be chosen from, although in the review copy only the square wave worked satisfactorily (the others produced quite various sounding garbage). DMS will even let you layer multiples of these, enveloping them with a combination of various modulators, including ring modulators (which is great), and a four-pole amplitude envelope shaper.

Conclusion

Like *Memento*, DMS is probably one of those programs that are either loved or



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Price: £69.95

Requirements

Palmos with at least 4MB RAM, VLSI/ROM processor

Pros

An inexpensive solution to audio and MIDI integration. Excellent EQ features, and re-synthesis functions for samples. A Piano roll edit

Cons

Not entirely happy with accelerator cards. Non-GEM interface makes it very unstable on-tronically. Odd clipboard and Undo functions

75%

hated. The only real concern I have for DMS (apart from the fact that it simply hasn't got *Afterburner*!), is whether it is a studio tool for professional musicians (in which case, it ought to be far more musically-inclined), or a nice bit of software to mess about at home with. However, perhaps this doesn't matter.

Conclusively, once you get over the initially befuddling modes of operation, DMS can do wonders with your MCD files, elevating their status to more than just demo quality. And that really does matter. **G**



Digital Photography

Dave Barkin crosses the pond, and language barrier, and clicks away...

There is a firm conviction out there that serious professional work is not possible with Atari Computers. Among the many weaknesses cited are the lack of support for digital photography - which is simply wrong. Almost all of the new wave of consumer and professional level digital cameras work happily with our machines and this series will explain how to do just that and do-mysterily digital technology along the way. Keep in mind this article has already been translated twice - first from my native Brooklynese into New York English and finally into British English. Obviously my girlfriend and the editor are responsible for any errors in the article.

We're talking digital information processed by your computer is handled in the form of numbers. This includes images and photographs, hence the term "digital." Programs automatically translate the digital numbers into the information you are processing: words, speech/text or whatever the information or data which the program is using.

A digital camera is a device which uses conventional lenses to focus the image onto light sensitive receptors instead of light sensitive film. A processor in the camera converts this received light into digital information and stores it in the camera.

The storage medium varies tremendously, but various standards are slowly emerging - currently the majority of today's devices store information on removable "cards" which may be called Flash Cards or Smart Media Cards and other grandiose names - but they're all effectively makeshift sized removable memory chips.

Generation gaps

The first generation of consumer digital camera's took only poor quality black and white images, were of dubious mechanical quality, and came with a small amount of internal memory good for 8 blurry images. After acquiring such a gadget you stood in awe of the fact that you had just spent nearly two months income on a device which was not even of a stable enough design to be used as a paper weight. For the same amount of money you could have purchased a usable 35mm SLR camera but...

The next generation which emerged in the early 90's were a great improvement - the images were on a par with those produced by Polaroid cameras. In computer jargon they typically offered 24-bit color at resolutions around 640x480 pixels. Although they were of limited quality they could be used for "professional" work - estate agents in particular adapted these with the same relief as they took to electronic measure tapes. Although the number of images which could be stored internally was limited they were fun and fun first!

As the market really heated towards the millennium we've seen more memory, better optics and extra features bolted on to the same basic design. I remember dreaming about digital photography when I was around ten years old which, without revealing my age, was

long before computers could do such work. I bought my first digital camera in 1988 and it occurred to me at the time that I lacked sufficient cash, that I would always lack sufficient cash and that I would never get a girlfriend. Thus when I purchased my Apple QuickTake 190 in 1993, I also went out on my first date.

CONNECTIONS

Connecting an Atari to a PCMCIA card reader

The following procedure was performed using a Phoenix PCMCIA SCSI card reader with the Smart Media adapter card. Although the adapter is a Phoenix badge it's actually manufactured by Phoenix who sell the exact same device under their own name. Smart Media removable memory cards were used exclusively.

I've successfully tested this procedure on both TT and Hades M68000 machines so it should work on other Atari models (BUT before you rush out and buy similar kit, please note neither myself nor Atari Computing accept any liability if it doesn't work!)

1. Connect the SCSI card reader into your SCSI chain.
2. Install a copy of HD-Driver v7 (all also works).
3. Run HDGACHG.TOS (part of HD-Driver package) from the desktop.

You should now be able to transfer data from the memory card. In fact, you should also be able to transfer data TO the memory card!

Notes:

The CCD hard disk software also worked on the TT (but doesn't run on the Hades). On my Hades I could also access the card by running SIC SCSI the Auto Folder instead of HDGACHG.TOS but this didn't seem to work on the TT - this may work on your machine or other models.





A year in computer terms, much like dog years, seems stuck at around seven in the real world so even though this camera has long since been deemed obsolete it still comes in handy. The colors are rich and saturated. Admittedly to capturing power (its ability to reflect detail in the images) is weak but it's still more than adequate for quite a few tasks. My girlfriend still uses it to create images which serve as templates for her paintings - we're not talking 25 mm or even 110 quality but it's still exciting and fun. [od Now you're confusing girlfriends and cameras!]

Today's Generation

As of late 1997 consumer level digital cameras made a big leap forward. The internal memory was replaced by removable memory. Optics improved and best of all the size of the resulting shot became much larger. The Olympus 400L, which I purchased last spring, has a maximum resolution of 1280x1024 in 24-bit color, which equates to a 4Mb TIFF file for each image, and the image quality is certainly comparable to the output from a 110 camera.

The real advantage offered by digital images is the ease with which results can be edited using image processing software. Furthermore because there's no film you can delete your mistakes and select which images to retain or output for printing.

Although you no longer need film there's no such thing as a free lunch and you'll need batteries - lots of them, and it's interesting to note Kodak also sell batteries! It's worth making an investment in rechargeable batteries otherwise you'll spend more on batteries than you were did on film.

Then there's the removable memory, the Olympus comes with one 4Mb Smart Media memory chip. Since the Olympus stores its files in JPEG format, this card is greater than others. Not much, so be prepared to spend money on these as well. I now own six 8Mb cards (the maximum size of these cards

has recently increased to 16Mb) which gives me 48 high resolution images. Since the Olympus includes the ability to take lower resolution 640x480 images, I can still shoot my landscape pictures without running out of "film."

Where do Atari Computers fit in?

When I purchased my Apple QuickTake camera the only way to access the images was via a serial cable from a Mac or PC. The images could have been downloaded to an Atari if someone had written some suitable software but it didn't happen. However almost all the current generation of digital camera's can be used with Atari machines - so what's changed?

After purchasing the Olympus I discovered that it took a whopping 20 minutes to download the images from one 8Mb memory card to my Mac which I found unacceptable long. There's also a gadget which houses your memory card and plugs into the floppy drive of your computer. This cuts the download time to five minutes but at the time of my purchase was unavailable so I looked for an alternative.

My solution was to use a PCHOA Card Reader. This is a device which plugs into the Mac SCSI chain of a Mac (parallel versions of this device also exist for PCs) and all sorts of gadgets can in turn be plugged into a PCHOA reader including CD-ROM drives, modems and memory chips.

The card reader cost \$275 (around £145) and the smart media adapter cost \$45 (around £25). After installing the software, I was able to read the JPEG's written by the camera to the card (see below) and then I discovered I could also plug this device into the SCSI chain of my Atari computer!

Is this the reader works far more efficiently on my Atari than it does on the Mac. It takes just 10 seconds to download the eight images, and in addition I can even upload images to the memory chip! There must be a catch mustn't there? Well, it there is I haven't encountered it!

Coming Up...

Next time I'll cover some photographic issues and their meaning along with a feature guide to help you decide which camera is right for your needs.

I'm happy to continue covering the Atari as a serious machine as long as you encourage me with feedback, so write to me via the editorial address or send me email at:

dave@atari.computing.com



▲ The above images were cropped to show the resolving power of a 1280x1024 compared with a MicroHD image. The top two images were taken with an Olympus 400L, and the bottom two with an Apple QuickTake 100. Magazine reproduction (the image is included on the magazine CD) you can actually read the text in the top two images even at extreme magnification, whereas the Apple QuickTake images have seriously degraded.

Calling the shots

Movies need not run in one direction - Guillaume Tello and Shiuming Lai explain...

An object can be presented as an image, or, even better, with animation. The next best thing before a true real-time 3D virtual environment is a QuickTime VR 1 animation where the user, moving the mouse, can determine their point of view from the pre-rendered frames and examine every detail. This file format has become a standard and can be viewed on Atari machines using suitable software.

This tutorial will guide you step-by-step through the creation of a VR 1 file (VR in Virtual Reality).

The tools

Apple Macintosh and PC owners have it easy because the VR format is a component of QuickTime. However, Atarians can generate them using M1 Player/M1 Player 5/6 and EasyBAT to facilitate the script editing. To replay VR animations you have a choice between:

- M1 Player 5/6 (38000 running ST low or ST high)
- M1 Player (38000 and 116, 33X or 66X colours)
- Amplayer (38000)

Our VR example

Thanks go to Francis Huetten for his PCVR script, which is the basis for the images we've used in this article, i.e. a wooden die standing on a reflective surface. We've shot 36 images in total around the die at three different levels:

- 12 images with the camera at ground level
- 12 images at half height
- 12 images with the camera looking down on the die.

The user can view the die from any of the three heights vertically and horizontally from 12 positions around the die.

The images are named from DE_000.TGA to DE_355.TGA and should be located in the same folder. From DE_001 to DE_013 is the first level, from DE_014 to DE_026 is the second and from DE_027 to DE_355 the upper level. You can download an archive of these images from the M1 Player web site at: <http://pers.warwick.ac.uk/la/la/vr1/die.zip>

Figure 1 (on the opposite page) shows, using Frederic Bayle's DIAPY viewer, the first four frames of each different level. You can already see, the frame advancing of this animation takes place in a 2D array (exclusively an array, i.e. no diagonals are allowed), which in this case happens to correspond to vertical and horizontal movement. There is no a-buffers in the frame index data structure so each view has only one zoom factor.

Writing the script with EasyBAT

Launch EasyBAT v1.01, skip the first box and in the second one select TGA as the image type. The third box summarises the images' statistics (Figure 1). Click on Read from a file, go to the folder where your TGA files are and type DE*.TGA as the file name.

EasyBAT extracts the dimensions and file size from every TGA file. It then computes the largest file size and writes this into the script so M1 Player can reserve appropriate frame buffer size.

In the fourth box select a number for the quality; higher numbers equate to higher quality and, larger file size. Choose 4 for now, then click on Output Headers... and type DE.MOV for the animation to be generated.

In the fifth box, shown in figure 2, type 16 for the time of one frame (30/200 second produces 4 images per second) and forces every image to be a key frame with 1 as the parameter. Because the non-linear nature of VR video sequences is not suitable for Delta compression. In this case, you can arrive at a frame from four possible directions (up, down, left or right). To avoid clipping errors, each frame would need four encodings, losing the benefits of compression. As VR1 has no sound (at click on OK).

In the sixth box, we'll enter the names of the images (Figure 3). Click on Fileselector and select DE_001.TGA as the first image. Click on Increment and type 31 times (yes, if DE_001 is incremented 35 times, all the images are



Figure 1



Figure 2



Figure 3



Figure 4



Figure 1

Included up to 20% off with a few clicks! Confirm with Validate this and then click on find - since there's only one set.

The seventh box (figure 4) offers to convert a binary animation into a GIF comp which is exactly what you want. You indicate 12 columns (number of horizontal views per frame), 3 lines (number of views), start X=0 and last X=1 for the first image to be displayed. The number of images per row is 1 in every case (a tiled image, not an animated one). Validate Horizontal loop to turn around the side and then all of slides on. Save into GIF.

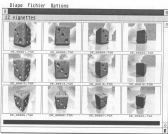
The global repository folder must stay empty even as DEBART shows spin. If any BART doesn't create the animation but it does generate a small script file called DEBART which is used by MPlayer to do the hard work. Incidentally, DEBART is a text file which can be viewed using any ASCII text editor.

QUICKTUNE VE

Graphics environments squander demands enormous processing power to create a believable level of realism. As graphics hardware becomes more powerful the algorithms to generate even more realistic environments always seem to remain one step ahead.

Even today, apart from funded research projects, computers are struggling to execute these algorithms fast enough for practical real-time applications.

QuickTime VR stores images separately rather than computing them from an object data set, and what it loses in movement freedom and storage efficiency it gains in image quality. The upper limit is bound by display dimension and color depth.



1000

1000 1000 1000 1000

Launches H-Player or H-Player S76. If you're using the demo version, everything works but is displayed in grayscale instead of colour - which is reserved for registered users.

Load **DE.BAT** and you'll get the box as shown in figure 4—displaying the characteristics of **DE.BAT**. Use the combination **[Alt+F5]** + **Go** to generate **DE.PSW**. After a short while, the QuickTime movie is ready to be used on the disk.

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Don't quit M Player/5 yet, load CELMON. Selecting Go involves a specific click for VR animations and you can choose movements with the keyboard or with the mouse, displaying as a VR (interaction) or as a basic animation (no interaction). Once this is done our director is on the scene.

By moving around the object, you can accelerate by pressing [Shift] on the keyboard or using the left mouse button.

1000

The VRML format is useful and also supports moving objects: each view can be a little animation instead of a fixed image. This is supported by H-Player and H-Player 2.0 in input as well as in output. There's a more powerful format called VRML2.

In this format, you're in the centre of a plane in which your eye moves with a continuous deformation of the space due to the perspective. For example,

Imagine you're in front of two vertical lines, when you look up, their tops appear closer than their bottoms, when you look in front of you, the lines appear parallel and when you look down, their bottoms appear closer than their tops.

There are currently no editors to create VRG on Atari, although both Amflyer and H-Player can display them. H-Player more generates a perspective effect that's impressive - if not totally accurate. The main obstacle is not assembling the file - H-Player could do it, but creating the images. This is more a problem of expressing and projecting their concepts to be in the device. (P)

Solutions

Henry Burt is
interviewed with
John MacArthur
Crisis



Included on the Reference CD:

Easy B&W and color images can be downloaded from:
<http://www.cornell.edu/education/education/education/>

Abstract The purpose of this study was to determine the effect of a 12-week training program on the physical fitness of 10-year-old children. The study was conducted in a primary school in the city of Ankara, Turkey. The study group consisted of 20 children (10 boys and 10 girls) who were randomly selected from the 10-year-old children in the school. The children were divided into two groups: a control group and an experimental group. The control group did not participate in any physical education program, while the experimental group participated in a 12-week training program. The physical fitness of the children was measured at the beginning and at the end of the 12-week period. The measurements included heart rate, blood pressure, and body mass index. The results of the study showed that the experimental group had significantly higher heart rates and blood pressures at the end of the 12-week period compared to the control group. There was no significant difference in body mass index between the two groups. The study suggests that a 12-week training program can improve the physical fitness of 10-year-old children.

[illegible]

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NVDI 5

NVDI has established itself as a firm favourite with Atarians. NVDI 5 is the first new release since 1996 so what's new? Mark Wherry reports...

NVDI (New Virtual Device Interface) is a replacement for the Atari GDCOS (Graphic Device Operating System) system extension which added extra graphical abilities to TOS. NVDI replaces part of TOS known as the VDI, hence the name, which handles visual output to devices including the screen and printer.

NVDI was hand-coded in assembler so it ran much faster than the code it replaced making any system running NVDI feel faster and more responsive - screen redraws in particular were really accelerated.

Atari continued to develop GDCOS and temporarily stole the limelight with the release of SpeedyGDCOS which offered built-in vector font support but it wasn't long before Steve and Wilfried Behro, the NVDI developers, rose to the challenge and released NVDI 3 which not only supported Speedy fonts but added TrueType support for good measure.

NVDI 4 consolidated with improved font handling, much better colour output, support for a fast parallel port driver for Magic and the PostName utility. PostName enables fonts to be previewed and installed/removed on-the-fly without rebooting. Support for the UNICODE font format, which enables up to 65,000 characters to be stored within one font file, was also added.

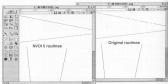
NVDI 4 was sold as NVDI for Atari, NVDI-Magic PC, NVDI-MagicMac along with an optional PostScript font module and optional extra-drivers to support graphic cards such as the EV-4000.

NVDI 5 for the price of 17

NVDI 5 has done away with the separate versions, leaving the installation utility to determine which components to install - hurray!

Features

Reinstating what NVDI has lost of new tricks up its sleeve. Background printing has been available to Mac and Windows users for years and thanks to NVDI 5 we've on even terms again. There's also a new Printer Monitor utility which supports spooling and requires Magic 5 or later.



▲ Due to a VDI bug since TOS 3.8 lines in graphics programs could become distorted after scrolling. NVDI 5 now features precise line drawing routines. Screenshot courtesy of *4100* magazine

As we've already mentioned support for PostScript type 1 fonts has been integrated which is of particular benefit to MagicMac and Magic PC users who already use this format 'on the other side' and these fonts are now available within the Magic environment too.

MagicMac users will be especially pleased NVDI 5 supports the MacOS QuickDraw acceleration routines, giving a major speed increase, particularly for systems running graphics accelerators. This is especially significant as QuickDraw itself has been accelerated in the latest 8.5 release of the MacOS.

Programmers get over 60 new VDI calls which offer better solutions for colour management and dithering. German documentation and programmer's examples are provided. Programs such as Papillon and Papyrus already take advantage of this in the latest releases.

NVDI 5 supports most modern printers, refer to the boxset for more details. I was delighted to find the 1144 dpi output and micro-managing abilities of my Epson printer were supported.

Conclusion

Many of the changes in this release are 'technical niceties' and whether you need NVDI 5 is a tough question. If you don't already own a copy of NVDI and you want to use and output vector fonts, especially in a colour printer, NVDI 5 is a must have purchase which offers excellent

value for money. The integrated release means upgrades and optional modules are a thing of the past which should appeal to anyone who has recently watched platforms. For other existing users the upgrade price makes the decision less clear cut, but if you're using an application which can take advantage of the new features or you want to take full advantage of your colour printer there's reason enough. At this point I usually mean about the manual but the NVDI manual is the best a users point of view. However as usual, there is no English programming documentation covering the new calls which makes it hard to support them! NVDI is a comprehensive package but, licensing permitting, integrated support for Adobe's Portable Document Format (PDF), which is widely used on the net and other systems, would be top of my wishlist. The bottom line is NVDI 5 is a great product which keeps our platform in the game and as more products take advantage of NVDI 5 features it will become increasingly indispensable. ☺



▲ The display of many TrueType fonts has been optimised. Take a close look at the Arial font and you should be able to see the text on the right looks sharper. Screenshot courtesy of *4100* magazine

SUPPORTED PRINTERS:

[illegible]

1000

PublicKey: 30
UK Distributors:
System Solutions
Tel: +44 (0)1454 626 222
Fax: +44 (0)1454 626 223
<http://info.systemsolutions.co.uk>
www.systemsolutions.co.uk/psds/
Cost: £19.95 new, £29.95 upgrade.
plus £3.95 LIC (UK)

[illegible]

4GB hard disk space, 40GB free memory (plus free cache), 1MB to 100MB for colour printing, depending on printer, resolution, colour depth, etc.

1999

Is your release, recording process

100

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 111–118

100

RMVH 5 - 3800 VIEW

1

Screenprint setup dialog, many new print drivers, new version for sampling, background printing, 50 new API functions, new updates, also

1000

Multi-touch displays (x100) and tablets are used for various devices.

100

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

1999

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Why should you buy NVDI 5?



 **NOTE:** Mac OS X has a new Print dialog with lots of new options which can be displayed as a Control Panel, or directly from applications supporting Mac OS X. Under Mac OS X, if you have elected to use the Mac OS X printer drivers, the Mac OS X Print dialog appears instead.

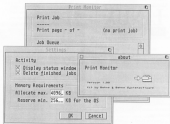
It seems HWD is about as fast as it could possibly get, it already supports GEM drawing, Windows and Mac TrueType, Speedo Distances, and (optionally), Postscript fonts so what more could you want? (Mooh Silas)

For starters, many more printers have appeared, and with NVPI 5, you get the drivers to use them. If you use MacPC on a Mac or PC, NVPI 5 is much faster than NVPI-4 because the Mac version can use QuickDraw Drivers, and the PC version has native BIOS code. Best of all are versions takes care of Mac, Atari, PC, and graphics cards - the individual drivers are

installed by the setup program if you are on a Mac or PC. If you're using an Atari, you are presented with a dialog to choose which graphics card, if any, you have.

HiVOD 3 has added 38, yes, 38! new VCL functions for developers to use along with some pre-compiled and Pure C source code examples. It's about time

There are also a number of other minor improvements. NVDR 5 includes several new utilities including SHOWHTL, which is a small text efficient HTML viewer. NVDR 5 no longer lists every single item as it goes through them all at boot time - which for people like me with several hundred files installed is a little annoying.



■ **SVGN** I can now point to the background and there's a new Print Monitor utility. It's not what the call boxes, but it is functional!

Softjee Falcon sample clock

After a dual CD/DAT clock module on a small budget? Shuming Lai has an answer...

Modern digital audio processing gear needs to offer CD and DAT sample rate provision, at 44.1kHz and 48kHz respectively. The Falcon derives its internal sample rates by integer division of a master clock running at 25.175MHz. Spot the problem?

That's right, neither ratio is a denominator of the source. One could use the Falcon's DSP chip to resample on the fly, but this is a waste of good power, and for optimum quality it's still best to use a proper clock with the correct frequency. The Cobase and Jan external clock modules are either 44.1kHz or 48kHz, if you want both in one unit your previous choice was limited to the SoundPact FCL. However, though it is, the inclusion of SPDIF keeps it at a price not everyone can justify, especially if you just want to hear music pulled off a CD.

Here we have the latest hardware development from Softjee, providing a solution to both of these shortcomings. It's effectively a FCL without SPDIF, therefore a compatible with professional software such as Cobase Audio and Zero-X. Only the demo versions of SoundPact's software didn't seem to recognise an external clock, and for the really stubborn programs there is a switching CPU on the disk, along with some example programming source code.

NEWCLOCK plugs into the DSP port and a pair of built-in LEDs indicate which clock is selected. Not much use if your Falcon is in a rack - perhaps you could see them by running some optical fibre in the rear! Good value, buy one today.



Without looking at the manual, which indicator is which frequency?

NEWCLOCK

Manufacturer: Softjee
sell@softjee.com.hk
<http://www.softjee.com.hk/softjee>
UK Distributor: Teton Design
Cost: £19.95
Requires: Falcon

Pros: No nonsense, complements existing sample rates

Cons: Slightly crude build and finish

80%



Linux is a free/open operating system, which is based on UNIX and available for most platforms, including our own. Linux is a full multi-user pre-emptive multitasking environment - it's very powerful, but difficult to set up and maintain unless you have prior UNIX knowledge.

Linux is a Nutshell doesn't provide an installation guide, but offers a "desktop reference" to almost every command the average Linux user will encounter. As well

If you have a Falcon or TT, you might have been tempted at some time or other to experiment with Linux. Frank Chabot was...

as explaining the commands used for basic tasks like file management, the book delves into the more esoteric stuff which might cause problems without some sort of reference. The standard UNIX editors vi and emacs are very well documented too, so you're unlikely to get stuck editing a file in vi without knowing how to actually save and quit.

As well as the common commands, the book also documents the three common UNIX/Linux shells - bash, csh and sh. However again will you get stuck trying to change the default prompt, and advanced shell programming is covered very well, too. If you're installing Linux to take advantage of its excellent networking properties, like an on Internet connection, Linux is a Nutshell won't help set up the system itself - but it will provide a superb reference source for when you do have it connected and running.

If you're using a full multi-user MINIX comp-involving MINIX and MINICD, the book applies equally well. With a full-blown MINIX distribution you'll get

almost everything that is covered here, and the information provided is applicable to MINIX and a shell like csh about 90% of the time.

It's not a book for the beginner who has no idea how to get Linux or MINIX installed - but it is a great volume to keep next to the computer as you learn to explore this alien method of working, and it's much cheaper than the average Linux book - and without the useless PC CD-ROMs provided by most, too. Well worth a look although you may prefer to wait for the 2nd edition scheduled for release this February. **D**

LINUX IN A NUTSHELL

Publisher: O'Reilly & Associates
<http://www.ore.com/>
RRP: £15
Pros: Excellent reference, comprehensive, well indexed
Cons: Not for beginners, no installation help

81%

Inside ObjectGEM

Mark Wherry looks at this undiscovered jewel for GEM based software development...

FEATURE

WHERRY'S WIDGETS:

ATARI COMPUTING ISSUE 12

37

Programmers write programs to communicate with the operating system using the Application Program Interface (API) layer. Most APIs are written from the perspective of a procedural language such as C, Pascal, or BASIC (with the notable exception of the BeOS API).

Calling the API directly within the program usually means that you have to use every project more or less from scratch. Object oriented programming (OOP), developed at Xerox's famous Palo Alto Research Center (PARC) during the seventies, addressed the problem of re-using code and this led to "application frameworks", sometimes referred to as "tool APIs".

Application frameworks differ from libraries - both include pre-written time saving routines but an application framework also handles the running of the program. This means you don't have to write long event loops or write your own handlers for common user actions.

ObjectGEM is an application framework developed by Thomas Mach since 1992 with a need to program the "Next" spreadsheet application.

Thomas originally released ObjectGEM as a shareware but became disheartened and disillusioned by the lack of support so he's generously released it as freeware in order to generate some interest.

The main reason ObjectGEM hasn't gained wider support is probably because ObjectGEM is written for Pure Pascal - an object oriented version of Pascal published by AGI. Programmers with

preconceived ideas about Pascal should take into account Pure Pascal is based upon Borland's best selling PC based Turbo Pascal and is the only commercial object oriented language available for the Atari platform.

WhoOps!

It turns out that while most of us are comfortable starting with a procedural language, programming with objects is far more natural because we tend to think of tasks at a higher level than we would program them in C, BASIC, or Pascal. Objects are instances of classes, which are merely a data type that encapsulates data and the functions that manipulate that data. For example, if you're writing a program to manage bank accounts, "bank account" would be the class, and "Mark's bank account" would be the object.

The bank account class can contain many items of data such as the name, address and balance of the account holder. It can also contain many functions or procedures, referred to as methods, that can be applied to that data, such as "new account", "set balance" and so on. Instead of using variables globally within the program, they are encapsulated within the appropriate class which immediately offers two benefits. Firstly, managing values is never much easier and cleaner, and secondly if all the attributes are self contained we can re-use this object in other programs.

Back in ObjectGEM a typical class would be a window which contains all the handling routines needed for windows

management including redrawing, moving, resizing and so on. When we tell ObjectGEM we are using a new window, we are creating an instance of the window class which contains, or inherits, all of the necessary code. ObjectGEM also enables programmers to override selected functions with our own code and this ability is essential for the framework to work correctly. For example, although a window class provides a redraw routine it doesn't provide any code because it doesn't know what we want to draw in the window. By replacing the redraw code with our own routine ObjectGEM calls this automatically. Think of ObjectGEM as a skeleton (the framework) onto which you put the flesh (your code) and the body becomes your unique application.

Application frameworks are essentially a collection of classes. ObjectGEM includes pre-written classes which include handling for windows, menu modal buttons, buttons, check boxes, radio buttons, edit fields - including special password edit fields, toolbars, text windows, string collections, and much more. ObjectGEM even includes a selection of useful procedures and functions for animated mouse pointing, IME file management, pointers, error handling, and so on.

Closing the deal

I'm so impressed with ObjectGEM and this method of programming I've completely rewritten GEMTrade using ObjectGEM and Pure Pascal and despite only a passing acquaintance with Pascal it took less than a week!

Using ObjectGEM has put the fun back into my Atari programming - I can concentrate on the main challenge and leave ObjectGEM to add a sparkling finish and save valuable development time in the process.

Email: mark@starcompiling.com

WHERE TO GET IT

The current ObjectGEM release is v1.5, although in early 1999 version 2.0 should be released complete with English hypertext - courtesy of the ThinkActive Crew. For more information keep an eye on Thomas's and my own web pages at <http://www.starcompiling.com> (http://www.starcompiling.com/~mark_wherry/) For more information about Pure Pascal check out the APH web pages at <http://members.aii.com/~aph/>



▲ Test is an excellent showcase for ObjectGEM which provided the buttons, labels, titled dialogs, list boxes and much more



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creative
with...

Electronic Cow



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Midi-MIDI sequencing utility for all Atari...
now up to v4.0, new features include: auto-scale
transposing, auto-arpeggiator, and independent note and
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featuring more than 30 different
editing tools, such as filters,
modulators, sample accurate editing,
special effects, and unique
processors...

Snippet Synth.....£16



Granular synthesizer for all Atari...
now up to v1.4, including STIM playback, and a
vastly improved synthesis engine, use this
program to create a wealth of exciting new
sounds for use in your compositions...

Sound Chip Synth...£10

FM sound-chip synthesizer for all Atari...
now up to v2.3, with additional MIDI performance
controllers added, true real-time bleeps, buzzes
and squiggles, analogue-style...

Scribble Synth.....£16

Additive synthesizer for all Atari...
now up to v1.6, new features include STIM playback, new slice
cut, copy, paste, and re-editing facilities, plus the ability to use a
choice of sine, square, sawtooth, or triangle waveforms to
synthesize with... all of this, coupled with the easiest, most fun
way to generate amazing samples for your music...

EC-909.....£25

Analogue drum machine emulator for ST/TT, Falcon...
(featuring 16 drum sounds from the Roland TR-909 which can be
replaced with your own samples), MIDI file export, sample export
(to disk or MIDI sampler), synthesis parameters for drum sounds,
and simple, real-time editing...

Electronic Cow



356 Broadwater Crescent,
Stevenage, Hertfordshire,
SG2 8EZ, UK.



0411 344 133 or
01438 381340 (messages only)



electronic_cow@diol.pipes.com



[http://diopex.diol.pipes.com/
electronic_cow/cownet.shtml](http://diopex.diol.pipes.com/electronic_cow/cownet.shtml)

1An STFM-compatible version with many new features will be out later this year...

Feature-splattered audio and MIDI software

FILES

Cybes recently sold his Falcon and has been in mourning since...

The Falcon had been sitting here for months without being switched on so to stop it gathering any more dust I've now sold it to someone who will be enjoying using it.

While clearing the hard drive - which took me the best part of three days, I caught a bad case of nostalgia! I ran some programs I hadn't used for a while, played some of my favourite Falcon games (Spine and Fastlane) and watched some demos. This was when I rediscovered The Last Blade demo. I remember giving it an excellent review in Atari World (APR) and think it remains the definitive Falcon demo - with the baroque of discordant tones and the baroque of discordant tones and a basic border it was a very trying experience.



☛ The Last Blade demo - every Falcon owner should have it

The demo/scene group five minutes and features stunning music and graphics featuring a woman dancing and performing various moves against a variety of backgrounds - a music video scene it occupies 7MB of hard disk space and needs 1MBs of memory and a VGA monitor to run but, if you have the resources, to check it out!

I'll say selling my old Falcon off to someone - it took a huge chunk of

my Atari life with it. Re-reading Jon's PRM article in AC#111 summed my memories a little - guess what's top of my wants list?

At least my TT could get a new lease of life soon thanks to Ceebe, the company that developed the Conquest II Falcon accelerator. They're developing a similar product for the TT. The upgrade will boost the CPU to 64MHz and allow up to 64MB memory with an estimated retail price under £200. The only snag Ceebe seem at least 20 orders "up-front".

Gullmeat's letter, who wants the upgrade himself, is maintaining a list of people who want to buy the upgrade so if you're interested do so both a favour and get in touch with Gullmeat at: timat.gullmeat@btinternet.co.uk

Test Computers, once the biggest dealer in the UK Atari marketplace, have recently sold the domain names atari.net

and ataricentral.com which have been taken up by Multimedia I.O. (<http://www.multimedia10.com>). Multimedia I.O. plan to provide references to Atari resources and a strictly Atari search engine. Happily this <http://www.ataricentre.com> Luxury domain will retain the message boards for general Atari messages and they're planning some other nice surprises apparently. Currently no plans have been announced for

<http://www.atarinet.net> but watch this space.

As self-appointed arch-advocate of getting on the Internet I'm always happy to report tangible evidence. Colin Polakowski, publisher of the Atari Times disk magazine for the last two years, has decided to discontinue the disk magazine (just) and resume Atari Times, in a different format, on-line (journal). The Atari Times web site should be on-line by

the time you read this, so curl over and make encouraging noises at: <http://atariweb.org>

The web site can be updated quicker and much more easily than in the old format. The web site will contain the contents of articles and news that made the disk magazine successful. Colin still intends to release occasional printed Atari Times Special Editions which will contain selections of the best articles from the web site along with some exclusive articles.

IPRM

Times of slow printouts from your supposedly fast super or laser printer? Author Peter Haxel and Danish Blahnik recommend you try IPRM...

IPRM has been available for over two years and users have been experiencing up to ten-fold increases in print speed. The author's own print data rate benchmark shows the ST increases from 3 to 44 Kbits and the Falcon from 3 to over 120 Kbits. Additionally there is no trade off in reliability for speed due to the way IPRM's images are fully assembled by the printer.

A recent joint effort between the authors of HVDI and IPRM has resulted in an optimised printing environment for MagC. While HVDI v4 introduces background printing, it's still up to the operating system to feed the data to your printer. This is where IPRM for MagC comes in. It adds buffered background printing specially optimised for HVDI v4, and makes full use of MagC's optimisation to save every microsecond of your machine's precious computing power, letting you continue to work while the print job is completed.

There are currently two separate IPRM versions - one for TOS and one for MagC Atari/PC. For more details and downloads visit the cyberstrider.co.uk site at: <http://www.cyberstrider.org/computing/finst/area/>

Until next time, I remain, your friendly neighbourhood CyberStrider
Derek Blahnik

IPRM Special Offer

For two months from the publication of AC#112 IPRM is available for just £10 (instead of £15). To take advantage of this special offer:

- Quote the reference "AC112"
- Include registration fee
- If you require a master disk please add £1 (UK) or £1.50 (ROW)
- Clearly state which version you require (TOS/MagC)

Post to: CyberStrider, PO Box 3023, Wokingham, RG40 3WU, England

Suggestive Remarks

Mike Kerslake with some suggestions for better Atari computing and some ideas for programmers...

In ACPS, I voiced the idea of an A to Z writer, and by ACPS Hamblin (asp in Germany) had come up with A-Z which does the job admirably. Happily Hamblin has continued development and A-Z v1.0 is now available so we've included it on the Reader Disk.



A-Z v1.0



A-Z is a GEM utility which can sort ASCII text files from A to Z or vice versa. Version 1.0 offers the following useful extra features including:

- Block sorting ideal for sorting address lists
- Variable sorting, using a user definable separator character
- Statistics summary
- Printed to PostScript and compiled using Laser 1.1
- More GEM-style commands supported
- A-Z can play XDG sound files

Taking stock

How to a program suggestion - after all that's what this column is all about! John Felt in Peterborough, England recently sent in the letter:

"I have been using a interesting, stock control and cashflow program called SYSTEM 3 for about five years. I recently discovered it's not compatible with the year 2000, so I wrote, statements and so on issued after the December 1999 will show the date as 00 - when the program was first written. I contacted DICO INTERNATIONAL who published the original program, but they informed me it's no longer supported and no upgrade is available.

SYSTEM 3 is a very versatile program. Each customer is given an account number along with their details. All goods and services supplied are then entered into the stock control file, each item given a code number along with a description, quantity, purchase price and selling price. It then can

invoice you type in an account number along with the customer name, date and a line to enter their order number is displayed. The code number for goods supplied is then typed in, and the

description relating to the item is then entered, quantity sold and the total price is automatically calculated for you, along with any VAT payable, which is shown separately. The printed invoice shows your contact details along with customers details and items supplied.

Sadly I'm not aware of any other similar supported software so it seems likely jobs will be stuck in less than a year's time unless we can come up with something.

I'm wondering if it would be possible to develop an Auto folder utility, TOS patch or some combination of both which could take over date handling at the system level and offer a global fix for programs like SYSTEM 3.

Maybe there's already a suitable program or an alternative stock control and invoicing application that will work beyond 2000 - if you know of anything which may help John please do let me know.

If there's a programmer reading this who has an idea how SYSTEM 3 could be patched, come up with a global fix or is interested in developing an alternative stock control and invoicing system Atari Computing would be interested in sponsoring the project - much like we have with GEMTrade, again please do get in touch if you can help.

Good manners

Monique of GEMTrade reminds me that there's been a lot of an interesting discussion recently in the CIX

about comparing conference between GEMTrade author Mark Wherry and Andy Giddings about GEM and new protocols and call features for MINT, Magic, MVR and support for machine specific features of the Falcon, TT and other machines.

Mark mentioned he found out that you can't really use too many of the newer features offered by PlugCOMPAT as people start missing it you. Mark used WDAU6 in GEMTrade v1.0 and got complaints!

Programmers might like to bear in mind that although many people do have quite well specified systems, many others don't, so any programs they write should perhaps not rely too heavily on other programs to take care of the basic tasks. It might be asides for new stand-alone programs to take advantage of extra facilities offered by other programs or at least co-exist with them. A good example is the Eventer text editor which can quite happily do its job without MVR being installed, but if it detects MVR it allows you to use that program's font and print systems.

Just my thoughts anyway, but please do feel free to submit your suggestions and ideas via the usual editorial address or direct to me at: info@atari.computing.com

Finally my other promised info!

Directory will make an appearance soon, but it will be incorporated in a new section in the magazine which will provide help and contact details and details of local user groups etc as well. We hope the new section will be of use to all readers, and the more offers of help and input from readers we get the more useful it will be!

Mike Kerslake



Sticky Labels!

papyrus

Michael High offers tips for avoiding getting stuck with Papyrus label printing...

Papyrus is very good at creating labels, once you understand how it does it. However, the manuals give little guidance, and it can take hours of experimentation to reach the mysteries of this secret art. If you have not yet played with the "label" technique then read on. It can create more than just things to stick on envelopes. Examples include business cards, place names for a formal meal, even serial numbered slips for the office swappetake. The process has become more sophisticated with later versions of Papyrus, so I am giving version 5 examples to cover all the possibilities.

Setting up



There are three dialogs involved in the process, and they all interact. The easiest way to explain it is to read this article with your Atari turned on and Papyrus running. Seeing the changes is better than several pages of screen dumps.

It will help if you use the Document > Screen display command to show the object frames and to display according to paper format.



Figure 1

The two main dialogs

Create a new document and use the Document > Paper format... command to select the 0.5" stick label large. The dot beside the name means that it is one of the defaults.

layout that is always available. Adjust the settings if necessary to those shown in figure 1. Close this dialog and try typing in some text.

At first, the label layout is probably trying to force all of the text into a small square in the middle, shown by the dashed line (see figure 2). The reason is that the wide text margins inherited from

your default template settings are too generous for labels. To use the Document > Page layout... command to open the second of the label design dialogs, let the text area margin be a small figure, such as 1 line, and the area available for text on your label layout will open up. The label layout probably will display one or more dashed lines. These are the margins set by the printer. This becomes more obvious when more than one label is displayed. Enter a couple of page breaks so that a complete row of three labels is displayed. Their combined width is 21 lines, the same as an A4 sheet. The layout settings have no margins



Figure 2

it goes out. However, my printer can not go within three of the edge of an A4 page. As a result, the printer can not reach its left hand and top lines in the first label. Similarly the top line is cut off inside in the second label, and so on.

Papyrus wants you of the problem on every label, since label design normally only uses the one Master Page Layout. With some label layouts, you may not be stated line excluding text from the bottom of the label. The reason for this is the Papyrus calculates the amount of text that can be physically printed on the last row of labels before a form feed is sent to start a new sheet. It takes into account the number of rows of labels, their dimensions and spacings.

In our example, there may be no problem, since the four labels used 20 rows, which is 23 rows less than an A4 backing sheet. However, if the number of rows is increased to 5 or a new page introduced, we are immediately shown to have a problem. The important points to remember are:

- The limitations indicated by the dashed line are those designed in by the settings in Page Layout dialog.
- The limitations indicated by the dashed line are mechanically imposed by the printer. They are controlled by the Paper Format dialog.

Bringing the main area shown by this dashed line does not extend outside the possible area shown by the dashed line there is no problem. If it does, Papyrus will display the next but will not be able to pass it. It gives no warning of the problem. If you need to print right up to the edge of the labels, then the top and left margins in the Paper Format dialog have to be increased until they exceed the mechanical margins set by the printer. In the example of the 30mm wide labels, it is not possible with my printer to print right to the edge of three labels across a page. It would have to reduce the label settings to 2 columns.

The third dialog



The Print Document dialog has a strong influence on the label layout long before you actually think of printing. The printer margins are set by the type of printer selected. For example, you printer's often give a choice of sheet feed and continuous (or tractor) feed. My old pin printer had a business printer margin of 20mm in sheet feed mode. But there was no margin margin for continuous feed. So if you have a choice, remember to select the appropriate printer definition before beginning label layout design. The undocumented trick that Papyrus has up its sleeve is to be found when the Copies quantity is increased above 1. Papyrus does not use the code used by some page printers to print multiple sheets. Selecting multiple copies simply causes the program to calculate and transmit the data to the printer several times. However, with label printing, Papyrus gets clever. In the disk label example, it knows it can fit 13 labels on the one sheet. So when asked for 12 copies of a single label, it will print them all on the one sheet. There is no need to create multiple copies of the label before printing. Similarly, if you have created 4 labels, but want 2 copies, Papyrus will print the first set in the first two rows, and then the second set in rows three and four.

If you want to create business cards, bookmarks, invitations or any small item needing multiple copies, design it as a single label and set the number of copies used in the Print Document dialog. Papyrus will work out how many can be cut from each sheet.

Saving the settings

Having designed a particular label, you should always save a copy in a template. As well as saving rulers and styles, templates also store the name of the chosen paper format. So the setting-up process only has to be done once. To do this, create your label and save it as an ordinary file. The delete any text that you do not require again, change the

Document Type to Template, and save the file again in your template folder. Your layout design will already have a paper format name, such as 3.5" disk label large, and this is saved in the template. When you call up this template in future, it will automatically call up the Paper Format settings associated with the paper format name.

Saving the actual Paper Format settings is not as straight forward. This is because not all the buttons in the Paper Format dialog work as expected. Create new format

does what it says it does, giving a blank set of settings to edit. Delete format only deletes the selected format from memory. Unless you use the Options > Save options command, the deleted format will reappear next time you load Papyrus. Similarly the Save format... command only works on memory. You have to Save options to save your previous work to disk. They are kept in the Papyrus.mfd file.

The Load format... button has stubbornly no effect whatsoever. I can only assume that the name and load part of the Paper Format dialog were designed for functionality that has yet to be coded into the actual program. However, if you use Avery or Avery-compatible labels, the Gary Bainbridge entry comes to the rescue. Autolab 3 was included as a free release on the AC/II 10 Reader Disk. It works by modifying the Papyrus settings file. Run the program, select the label or labels you use, hit the Modify label button, and the settings are made.



The only hint, on my system, why this is a beta release comes when you load Papyrus. Up comes a nasty looking dialog warning of five things because of a CRC checksum error. Fear not. Save your settings again, and next time you load Papyrus all will be well. Your Avery labels will be available in the Paper Format dialog.

How the fun begins

Label design can use the whole armory of Papyrus features. They can have headers and footers, multiple columns, background pictures in master pages, and so on. Here are a few ideas to play with:

- Use either headers or footers together with the Page number found in front special character dialog. Each label is treated as a "page". So twelve labels would be numbered one to twelve, even though they appeared on the one sheet from the printer. Since page numbers can be offset, this feature could be used to give disk labels a serial number, beginning at any number.
- Use the Object attributes dialog to place short thin lines right at the corner of the label in its Master Page. These will show prior to cut marks. This is handy for printing business cards and the like.

Next time...

We will have a go at mail merging some addresses onto our labels. ☺

Adventures in hi-fi

Tired of "multimedia" sound quality? Shuming Lai examines the problem and recommends a solution to make that Falcon really sing...

8-bit stereo audio was a sensible choice for the STe. At the time, the cost of RAM and disk storage needed to handle the application scope of 16-bit was too prohibitive for a home computer. In terms of quality it was streets ahead of the STFM, but still some way short of high fidelity.

So what about the Falcon, with its eight 16-bit channels? The point is in the listening, and even a reasonably competent amp and speakers really reveal its hi-fi-like performance. The input and output are set for direct connection of microphones and headphones, the bass swamps the overall sonic image, headroom is retained, working background noise...

Why? Isn't it 16-bit?

The answer is as simple as that: to why does one CD player sound better than another, even if they're playing the same disc. Forget the numbers for a moment, we're concerned about what comes out at the end, analogue. Television, video, hi-fi and computer they are all demonstrations of a collection of electronic components, which can vary in quality (being a product for the highly competitive and cost-conscious consumer market, the Falcon's components had to be chosen accordingly. In the case of its audio I/O, a cheap CODEC chip was put in with only functional testing. When it comes to recording and playback quality there is a large tolerance band.

CODEC stands for enCODE/DeCODE, in the same implies it contains the circuitry for A/D and D/A in one package. Such integrated devices are generally used in low-cost applications or where PCB real estate is limited. Tip-and-spreaders tends to keep the two sections

separate where possible.

For argument's sake consider another type of CODEC you'll have learnt to use at school, a ruler. When you use one to measure something you're performing A/D, and when you set it to construct something from a specification, you're performing D/A. Naturally, the higher its resolution the better its theoretical capability, as a device calibrated in mm has ten times the precision of one in cm. It's important to know the difference between precision and accuracy: suppose you're trying to draw a line of 40mm, but you have a blunt pencil, the table is vibrating, loud noise is distracting you, and the ruler itself isn't correctly dimensioned (say, after 20mm the markings are spaced randomly). Despite the digital information, 40, being precise, you have little chance of drawing this line accurately! That is, translating a logical value to something of true proportion in the real world. You should now see, the numbers are a significant part of but by no means the whole story.

In much the same way it's not of exclusive importance that the Falcon's CODEC processes 16-bit resolution audio. Physical factors, both internal and external, have a marked bearing on its performance. To make things worse, Acap piped it through a hand-wired bass boost in the analogue output stage, to compensate for speakers with weak bass reproduction.

Besides tackling a problem not its responsibility away from the wrong end, partner this with modern trendy active-sub computer speaker systems and there you have a recipe for sonic nausea. It's a fallacy to believe the Falcon, or any other so-called multimedia computer, is a serious digital recording machine in its



▲ IAD is a popular choice among home recording enthusiasts

unadulterated state. Some companies recognized the Falcon's potential in pro audio and carried out modifications to remove the bass boost and adjust the I/O to line level. C-LAB in Germany made these standard in its badge-engineered Falcons, created for the music market. None of these, however, got to the heart of the problem: the CODEC chip is simply

JAM TECHNICAL

Output frequency response:

10-20,000Hz ± 1 , 0.1dB

1/1% THD

A-weighted THD: 0.004%

Channel separation: over 80dB

For more information:

<http://www.livesonic.at>

UK: System Solutions

According to Nigel Johnson of Live Audio, "Jam PRO will soon be available in a new version with 24-bit converters. These new converters lower the noise even further, by about 4dB. The S/N ratio will be about 90dB A-weighted (close to 10dB non-weighted). It's impossible to get lower noise out of a 16-bit system and it gets very, very quiet, with these new converters!" That's not to say the current Jam PRO is at all noisy for that. It can't wait to hear the new version.

COMPATIBILITY

All the major professional audio software will automatically use external DACs in the DSP path, including Cubase-AK, Zero-K, the Electronic Cow, Softlab and SoundPool ranges. It's easy to do, so I hope more programmers will realize the advantages.



▲ The data and sync lines are filtered to reduce effects of clock jitter, although Jam's converters are much less sensitive to this than the Falcon's are internal this anyway.

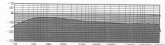
it means to an end, Atari's engineers knew the on/off an upgrade path open. Since the infrastructure to manage 16-bit was already there, it would have been self-defeating to keep that closed in. They wisely incorporated a signal routing matrix in the Falcon (figure 1), allowing audio to pass in and out digitally, through the DSP expansion port, an external ADCs and DACs could be used. External converters a better isolated from the noisy Falcon motherboard, and a wide range of more refined converters can be used - money being the only obstacle, and of course we have the possibility to give each channel its own output socket.



▲ Figure 1: This style of interconnect topology is also known as a matrix.

The sound's saviour

Like Atari's Falcon audio I/O expanders have made a good name for themselves in studio across Europe. Each is hand-built and individually tested to guarantee the patchwork perfection. Various configurations are available, all are based



▲ Figure 2: Frequency response of a Jam DSP compared to a stock Falcon. The lower graph signifies poorer S/N ratio and the large bump dominating the sub-5000 range is caused by the Falcon's base boarder.

on the same core of high speed 1-bit converters with 18-bit resolution. It started with Jam, a family of professional input and output units with balanced connections, essential for preventing ground loop hum in studio environments containing a lot of equipment. Jam PRO IN and OUT came as individual boxes, or you can get Jam PRO OUT in a smart 1P I/O card-mount case and add Jam PRO IN 2 or fit it as an upgrade. Derived from Jam are the PAD (Falcon Audio Digital) unit, simply without the balanced connections. How does it sound?

Imagine smelling your favourite food again after a long hiatus of it. My first reaction to Jam was one of absolute joy. It lives in a sparkling performance with its extreme linearity of frequency response and ultra low noise (figure 2), music from a Falcon never sounded so pure. In A/B-testing

tests, the sound stage immediately opened up showing an articulation and cohesion mix, delivering an authoritative drum value required yet still revealing subtle detail hitherto lost by the Falcon's CODEC. This does mean bad recordings will be shown for what they are, remember: Garbage in, Garbage Out. Run an 8-bit sample through the piece of kit and the noise floor is revealed in horrifying detail, even some sample CDs are really laid out worse and all - you have been warned!

Playing decent material, the investment is handsomely rewarded. Every breath of a singer every pluck and twang of acoustic guitar and the awesome impact of an orchestra are all beautifully and convincingly rendered. Bass presence is strong but not intrusive and mid-range is not forgotten either. Treble has bite and sting with control, yet doesn't lose control with complex electric guitar modelling or energetic violin passages.

Klaus Heyn's CD Reader program will allow Jam to work similar wonders for the even more round of CD-ROM drives (maybe I'm being harsh, since they don't try to pretend their analogue side are anything but an afterthought), as it will read an audio CD over the SCSI bus and route the data to the Falcon's DSP port.

If you really must use your computer for playing CDs then this is the way to do it, so avoiding the master and slave master that affects even premium-priced writing drives.

Jam seems on recording as well, producing crisp, faithful copies of NICAM television broadcasts (from a Panasonic NVH-D40 with deck) and other quality sources.

This is real 16-bit sound and I love it, so watch that I'm going to finish here and leave to some more. ☺



SITE SEEING

Mark's Web Pages

82%

http://www.cis.co.uk/~mark_wherry


Mark Wherry is the erstwhile programmer of that old and GEMTab, the GEM based program which lets you translate German text files into fairly understandable English ones. This is an available tool for those of us who like to try out the non-commercial software available, many which are in German.

Although noted for GEMTab, Mark has some other useful applications up his sleeve. Simple Script helps you create scripts for use with GEMSurge, which lets

you automate procedures such as logging on to a web site, downloading the home page, printing the page and then logging off. Install it is a generic install program. Finally there's HTML-Export [it has review in the PC/Shareware page] which not only converts HTML files into ASCII but does it with style - optionally as a CAM module with display in the window of your choice. The site itself is clean and fast loading.

There are screenshots

and brief explanations of the software along with links to other sites. It has a UDDO look and feel, which isn't surprising because Mark makes a point about using UDDO on the front page! I feel a blazer plug coming along - go register UDDO. He also talks us to real-Asan Computing (another blazer plug). Mark also shows us a little peek in to his personal life by telling us about his music interests. All in all a definite thumbs up.

Derek Blakely

Magic Online

95%

<http://benry.atari.org>


These pages, maintained by Benry Cullen, are aimed at Magic users. The main page is stylish, easy to use and packed with information which is as impressive as the site. At first glance the page looks like a standard forum based but closer inspection reveals everything is contained within a single table which means these pages display fine in C&B v1.3 and other browsers which don't support frames. The graphic graphics undoubtedly add impact but if your phone bill or hardware groans under the strain you can turn them off and you'll find the site can be navigated perfectly in text only mode which shows attention to detail. Closer screen there's a guest book followed by a group column - it just some of the numbers being put to use here I'll be happy! The outer columns include links to other, mostly local, pages including:

- Over 75 Magic related downloads
 - Snapshots of Magic related programs
 - Frequently Asked Questions (FAQ)
 - Tips and Tricks
 - Links to other pages of interest to Magicians
 - Vote for your favorite OS
 - Online Reviews - links directly to Mark Silver's review pages at <http://www.stcs.drexel.edu/~evalife/reviews/english.html>
- Joe Cannon

SITE NEWS

Mountain in English

In ACP 10 we reported there would eventually be an English release of this exciting video editing package. We're pleased to report progress has already been made towards an English release. Check out the latest beta version at: <http://www.mpegle.org/111/11navig/>

TabIt v2.0



This release is a spin off from Home Page Pegasus 3 rather than an updated version of TabIt v1.3, which should make it more intuitive for users of both programs. TabIt converts ASCII tables to HTML format and offers features to add a caption and use the table attributes. Each individual table cell can be edited to set the background/text colour, font attributes/size/alignment and can even assign the table cell as a link. TabIt is just one of many utilities and applications programmed by Matthias Jasp and available for download via these pages. Email: matthias.jasp@atari.de www.pegasus.atari.de

AtariSoft

AtariSoft, publishers of the commercial ScoreTracker GEM Plus music editor have recently released it as shareware along with DeskTracker, the desktop mod player. The shareware versions can be downloaded from this site, and registered on-line by following the links from the site, or via links included in the archives. Postal registration details are also on the site and in the archive. ScoreTracker costs £10 with DeskTracker priced at £5. Both products work on all models of Atari ST/UE/TT/plus and most PC emulators. Graham Harrison, AtariSoft Email: graham@atariSoft.atari.org <http://www.atariSoft.atari.org>

The Ultimate TOS Index

If you're looking for a specific item of Atari software this is one of the best sites to visit. The pages include details of over 1000 items divided into categories - we'll take a closer look in a future issue. <http://pangel.jung.de/duplicating/drifter/PAG-IND.HTM>



Annual half-year subscribers take the Reader Disk. The combination of material files, listings, PD/Shareware and exclusive software is *unobtainable* and not available anywhere else. Individual back-issue copies of the Reader Disk are still available. Please refer to page 9 for ordering details.



ENHanced HiSoft Application
ENCHANT, Demo version
© 1995 Matthias Razon and
Paul Jones

The demo includes executable versions of the sample programs supplied with the complete ENCHANT package along with fully commented source code. ENCHANT includes a new GEM Toolkit providing support for non-modal dialogs, modal dialogs and alerts, modern modal boxes and checkboxes, popup menus, etc. on. All you need to do is request the routine from within your own HiSoft BASIC source code and all the complicated stuff is done for you! ENCHANT brings GEM development bang up to date and includes HYDII support, access to the SubfileGEM and IT-Code protocols and much more.

HTML-Export v1.0
Atari Computing Premier Release
Freeware Mark Wherry
HTML-Export can convert HTML documents into ASCII format and display the resulting file in the viewer/editor of your choice. Most tags and special

characters are handled intelligently which means nice formatting is usually preserved even in tables. Although there are several other HTML to ASCII converters around HTML-Export is currently the only converter which can run as a GEM module or a stand-alone application.

Joe v1.42b
PostCardware, Pierre Testhal
Joe is a HTML test editor with extensive macro capabilities designed to re-size web page creation, especially when used together with the C&B web browser and CUGA protocol which offers semi-WYSIWYG editing. Joe also supports external plug-ins, which can be used to create tables, rules, embed images, movies etc. Includes documentation in ASCII and HTML format. Read the full review and view the screenshots on pages 50 & 51 of this issue.

Finder v1.12b
Shareware, Holger Weitz
Finder is a find utility which includes powerful features including: File and string search utility, comparing, archive searching, long filename support, background search, Alt protocol support and much more. English IT-Guide hypertext help included.

A-Z v2
Freeware, Matthias Jaap
A-Z is a GEM utility program to sort a text file from A to Z (or vice versa). Supports: CDFing, SubfileGEM, CUGA (ClientServer), IT-Guide and WA, TDMT. Bilingual release (German/English).
RecView v1.12b Shareware Holger Weitz
Resource file viewer which is much faster than a dedicated RSC file editor. Registered users can also use RecView to edit RSC files. English IT-Guide hypertext help included.

Easy BAT for M-Player and MP-3It v1.0b
Freeware, Guillaume Tello
Easy BAT makes it easy to construct batch files which can be used by M-Player to create playlists.
Accompanies the Virtual Reality feature.

HiSoft BASIC tutorial
EXCLUSIVE
© Paul Jones/Atari Computing
1995
Source code to accompany the HiSoft BASIC tutorial in AC#12.



CD-ROM Subscribers!

Although there has still been no official confirmation concerning the future of the *ATARIOS* magazine we have now decided to close our STvTOS-CD-ROM subscription offer. If future issues of STvTOS do appear we can make them available in separate Reader Offers. This means existing CD-ROM subscribers have a choice to make from the options below.
Please indicate your preference then complete, sign, and return the form and we'll do the rest.

- ☐ Please send me a copy of the **renegade** CD now and refund or invoice me for the difference.
I agree to pay any outstanding balance on receipt of invoice.
- ☐ Please send me the AC12 Reader Disk now and send me Reader Disks instead of CDs from now on.
- ☐ Please send me a refund.
I do not wish to receive either Reader Disks or the **renegade** CD.

Please send completed form to:

renegade CD Offer
Atari Computing
73 Bontick Drive
TROON
Aberdeen
KA6 5HX
SCOTLAND

SIGNATURE.....

NAME.....

ADDRESS.....

.....

.....

.....

.....

POSTCODE.....

Finder v1.12e

Utility Shareware, all Atari.
Email: Halger_Peets@ol.msu.de
http://www.ck.su.se/~inactive/
AnyBBS connected to the FAMILIES
distribution network.

As your hard drive fills with applications and data files a search utility becomes more of a necessity and less of a luxury. Particularly impressive with Finder which has recently been translated into English! Peer View of the Transaction menu. There's long filename (LFN) and ASCII support and single TOG look are tailored for so long as the ROMANCE/PRO system extension is installed. Your auto folder to enable the pop-up menu system (RSC/OL/PRO) is, however, bundled with MV2 and other apps, and available online and from ROManceware sources. Finder offers many features which require an ASCII/OL/PRO system (Finder, Jones & MagOle) for long as Alexander (later, ASCII/OL/PRO) extension is installed) get the most benefit. Almost any operation you can perform on a file from a pop-up desktop directory window can

also be performed using Finder's "to-text" of found items. Searches can be for files using a range of wildcard options, for text contained within a file, and, uniquely, for filenames contained within one of the popular archives such as ZIP and LHA. Look in a single folder or all of your partitions. Finder has all found items in a scrollable window with full keyboard navigation. Double-click on any program to run it, or to open a data file using its installed application. Drag a bunch of RSC files to the trash can or open a directory window onto that item - all in a day's work for Finder.

My favorite feature is the catalog - one every CD-ROM owner will appreciate. Catalog the contents of your CDs and you'll have a ready reference which Finder can use to quickly locate any file or application and launch it - after double-clicking-on it you'll be prompted to install the relevant CD.



The Parallel search option also works under single TOG

But don't take my word for it, it's my belief you buy to grab a copy and try it for yourself. There's ST-Guide and BulletinBoard help, GEM/OL/PRO and Simple Script support (at almost guarantee you'll be reaching for your cheque book to send InterActive the extremely reasonable shareware fee of \$5, it's what every desktop has been waiting for - mustn't it?

Price: You've read them!
Come The "Insert media" message can become tedious, no search for file size or time/elapsed.

Derryck Croker

RSCView v1.02e

Utility Shareware, all Atari.
ROM/OL needed under TOG
Author: Halger Peets
Email: Halger_Peets@ol.msu.de (file
mailto:peets@ol.msu.de)
http://www.ck.su.se/~inactive/
AnyBBS connected to the FAMILIES
distribution network, CIL
dist.at/OL/OL

Resource files, in RSC format, are the files used by GEM applications to communicate between the program and the user. RSC files are created using a RSC file editor. It contains all the drop down menus, dialog and alert boxes which make up the user interface of most GEM applications.

RSCView joins GEMView, forGEM and Look'n'File in its ability to view RSC files without running the associated application. The registered version can create RSC files - which offers an alternative to full featured RSC file editors such as Resource or ResourceMaster for some tasks.

There's a lot of fun to be had adding color to boring and monochrome RSC files and changing text strings, but it's well worth reading the IT-Guide hyperlink too - some changes cannot be reversed without recourse to a full blown RSC file editor. Always work on a backup copy - you have been warned!



Users of MagIC or other supporting Operating Systems can also alter the look of some buttons as well as adding keyboard shortcuts using the flags editor section.

My attempt to add keyboard shortcuts to Personal Finance Manager Plus looked promising but sadly, after I'd used the shortcut once the underline denoting the shortcut vanished and I was back using the mouse. No doubt this was due to a combination of the age of the ROM and my level of expertise - certainly not a reflection on RSCView itself!

Grab yourself a copy and try it for yourself - while it won't turn you into a programmer it's far cheaper than a



Adding a keyboard shortcut with the flags editor

fully-fledged editor, and the extremely reasonable shareware registration fee of \$5 via InterActive certainly won't break the bank!

Price: Quick and easy RSC file conversion! Alternative, DragNDrop support.

Come: The browser framework for resource files not supported by all systems, can't display alert boxes.

Derryck Croker

Just a modular Joe!

Although Joe itself is Freeware the Joe modules, which also run as stand-alone applications, are shareware.



▲ **JOL_0001 1.1 ->IMG** tag generator. Image tag in a flash. File imported via Drag&Drop and text is automatic converted to HTML, based on the ALT attribute. For example:
 50 is converted to ALT="50(100:50)";



▲ **JOL_0002 1.0 ->VIDEO** tag generator. Embed movies the easy way. This module accepts filenames via Drag&Drop and, with a suitable movie player installed (JetPlayer in this case), movies can be produced.



▲ **JOL_0003 1.1 ->HTML** tag generator. Automatic text to HTML, for <TITLE> tag. Can enter text via Drag&Drop (only the first 60 characters), for the editable objects "Chain to", "Link" and "Web". Double click on the editable objects "Chain to" and "Link" displays the browser and the resulting browser is inserted in the editable object and converted to a relative link if the module was called by file.



▲ **JOL_0004 1.0 ->AUDIO** tag generator which supports the Netscape and Microsoft methods. Filenames can be received via Drag&Drop.



▲ **JOL_0005 1.0 ->TABLE** tag generator. This is a table which surpasses other table generators. For trial - no new graph paper required! Tables up to 10x10 cells can be created and each cell can be assigned its own horizontal/vertical alignment, width and background color - simply complete the colour selector.



Each cell contents can be displayed by Substring, which also looks after the formatting - see that's impressive.

▲ Cells can be merged to create ROWSPAN and COLSPAN attributes by left clicking the top left cell then [Shift]+left clicking the bottom right file to select the desired cells then using the Paste button to complete the action. Each table cell can be assigned text via Drag&Drop or by pressing the Insert which displays the file selector. With Substring installed it's even possible to view the file contents - very cool!

Ghostscript v5.10

With manufacturers abandoning paper manuals in favour of the Adobe Acrobat PDF (Portable Document Format) where does that leave Atarians? Derryck Croker checks out this rejuvenated Ghostscript release which supports PDF printing and viewing...

Ghostscript has been one of the few options available to Atarians to print and display Postscript and Encapsulated Postscript files but it has always been tricky to install and configure which has limited its appeal.

This release put together by Christian Heib, the original developer, has taken Tim Weller's original Atari port of the publicly available GNU Postscript viewer sources, added the latest widgets and used the very latest sources, which includes a slew of new printer drivers, resulting in a much more user friendly package.

Installation

Ghostscript uses modules to handle various aspects of its operation and uninstalls those from the PS file extender which is normally reserved for PostScript files to fit recommended saving the device Resource files into a folder of their own, the making more the path in the GHOST.CFG file reflect the actual location of the modules and from folders - edit them to suit using an ASCII text editor. Further options to set the font and size of the Console window can be set within the program and saved back to this file.

Users of previous releases may miss the ability to set the default output device, which now has to be set each time the program is run, but I'm sure most people wouldn't miss the help files - which are no longer needed because the program is so easy to use.

New version PostScript files from different sources often have similar but different fontnames (different type family, non-commercial versions of commercial fonts etc). To handle these differences the FONTMAP file can be configured to also fontnames to font files. The supplied FONTMAP file will get you up and running but most users will want to configure this to their own requirements.

Ghostscript is supplied as a GTP (GEM Task/Personalizer) application and I have had my copy installed as a viewer for PS, EPS and PDF files in C&B. Being a GTP program can cause problems with some desktops. For example, Play2Disk users could require the executable with an APPender - which then loses the ability where options set in the command line.



▲ Whilst it's possible to program Ghostscript by typing commands at the DOS prompt, it's much easier to use the GEM front-end

Cameras, lights, action!

Ghostscript is divided into Viewer or Output sessions, select Open... from the File menu brings the Viewer session into play. Files are displayed in a GEM window while a separate Console window displays which font is being loaded and reports any errors encountered.

Ghostscript displayed all the PS and EPS files I tried without problems but I did experience some PDF files which reported wildly inaccurate page counts in the Console window - one such file, which I knew contained 317 pages, reported just ten pages and flatly refused to display any more! Happily there's a work-around using the more up-to-date Output module.

The Output dialog was prompt to select the source file, printer driver or output file format, and the resolution. Amongst the supported output file formats is "pwrite" and selecting this option with my problem PDF file as the source resulted in a Postscript file containing all the pages - I recommend ticking the No pause menu item and leaving the computer to its own devices while the document is processed!

The resulting document can be viewed in the Viewer session with no apparent memory problems even if the file is huge. I would caution against using the graphics file format drivers because the destination file is overwritten on loading the next page.

► Another 1000 font file at an extra printing from a PostScript file is the result



However PDF files can be output directly using one of the many built-in printer drivers.

Conclusion

Despite problems with the PDF viewer module which will persist until a more up-to-date source file is released and incorporated into Ghostscript, its range of input and output file formats, supporting anything previously available on the Atari platform including former commercial options like Compuserver, bearing in mind Ghostscript is free and features a Drag&Drop front end, non-blocking windows and popups and you're onto a winner. ☺

GHOSTSCRIPT v5.10

Status: Freeware

System: All Atari, 2Mb memory minimum and ST-high (640x400) resolution or higher, hard drive recommended.

Availability: English documentation and RSC files for both the ST and TT versions of Ghostscript available from: <http://www.dcs.zi.zi/~derryck/software.htm>

The full package can be downloaded from the author's web site at:

<http://www.fur.kuberg.de/~and/585/>

Ghostscript is also available from any BBS connected to the PANfles network.

Contact: Christian_Heib@tht.mun.de (In email: prefer that 'tht')

Price: Modern interface, free!

Comments: Workaround may be needed for viewing some PDF files, most options have to be reset each time the program is run.



Fed up with plain graphics? Get that solid look! David Encill explains more.

Extrusion

We finished the last article dealing with the creation of Vector Net Transforms. This feature can be taken further by introducing 3D Extrusion to the vector object.

3D Extrusion Tool

The 3D Extrusion Tool is an extremely versatile option for DA's Layout which opens up all sorts of design possibilities. Apart from creating depth to a standard vector object, other parameters are included which permit the 3D illusion to be expanded further.

Perhaps the best way to demonstrate the 3D Extrude Tool is to start with a simple vector object, such as a square or circle. After creating this select the 3D Extrude module. You will now be presented with X, Y & Z vertical sliders which control the angle and location of the vector object. Moving the sliders immediately shows the effect they have on the object. By updating the 3D representation in the



dialog as well as on-screen. The light source is positioned, by default, in the top-left corner of the 3D representation but can be dragged to any position using the mouse. The light level is then adjusted automatically on the visible sides of the simple 3D box.

Below the sliders are two fields: (E) to control the depth of extrusion, and (D) the perspective. Used together these two fields can create some extremely useful effects by providing a feeling of true depth to the object.

Simple 3D Transforms

For the first example we will produce an extruded cylinder from a single circle vector. Using the defaults offered when opening the 3D Extrude module, simply move the X & Y sliders to, say, a value of 140 and click the 'Calculate' icon (top-centre). Voila! Simple stuff but hardly earth-shattering, so let's try changing a few parameters.

While still in the 3D Extrude module enter a value of 90 into the (E) field and a value of 10 into (D). After pressing the Calculate icon the effect will be more pronounced than before, giving a highly-explained perspective feel to the object. Decreasing the value of D emphasises the perspective further, but values below 5 can be too extreme causing DA's Layout



Example 1: A simple cylinder

to 'over-calculate' the effect and produce a very strange inversion of the vector. Experiment with the extruded colour (top-right icon), and the light source, to produce the classical shaded effect — particularly useful if the original vector object was shaded as well.

Serious Stuff

Now let's get down to the nitty-gritty and experiment with a graphic text object. In the example following the word 'Extrude' was created using a circular text path. The parameters set up in the Extrude module to achieve the effect were: X:140 Y:0 Z:0 T:50 D:7, with the light source positioned bottom-centre. The light level used was a grey tint of 12%.

In practice any colour would do although in Atari Computing magazine is printed in monochrome there is little point in complicating the text by using colour. However when producing the document for colour output, this opens up all sorts of possibilities when the shade can be set to any CMYK value.

Left: The 3D-Extrude Toolbox.



The third example emphasises the use of perspective, using plain graphic text but with 8.340 Y:526 Z:8 T:50 D:7. The light source is positioned as shown in the screen snapshot.

Example 2

Depth!

Example 3

Unlimited Variety

The type of vector objects that can use 3D extrusion applied to them is unlimited — this can include graphic primitives applied to circular and angular paths with outlines and shading as well, or even those with a Bézier flat transform applied. You can still draw, rotate or move the completed objects as well, so complete control over the object is still available. In addition some interesting objects can be created from Digital fonts where an ornamental ligature which normally includes a variety of bullets and even mini diagrams. This can lead to the creation of interesting shapes that could be used for logos.

There is a downside. The more complex the object then the longer DPA's Layout will take to calculate the resultant 3D object. This becomes more pronounced when a lot of graphic text is being transformed, particularly a serif font where the calculation of the serif curves can take longer. However this will apply to any other application which uses the same principle to produce 3D extrusions.

The good news for Miles, Haden and Atkinson users is this becomes far less of a problem and the screen redraws are extremely rapid in all cases.

The Colour Mixer

Associated with all aspects of DTP design, the Colour Mixer dialog within DPA's Layout provides incredible control for the main elements. Within the dialog exists the facility to select any of eight different spot colours, or CMYK and CMYK colour mixing. Below the CMYK sliders a more conventional method for picking colours is available. This allows individual colours to be dragged to the swatch to update the CMYK sliders accordingly.



Always: The Colour Mixer dialog is standard throughout DPA's Layout offering true mixing of CMYK values.

For most purposes this is fine except when the a Pantone colour is required. DPA's Layout covers this with a further dialog to present the user with a Pantone style system.

Lastly, colours can be picked directly from the document using the [Select Colour] option.

Left: A selection of Dingbats transformed from the bland to the extraordinary.

PRINT TERMS (G to K)

Gatefold. An oversized page where both sides fold into the gutter in overlapping layers.

Globalisation. In DPA's Layout, a method of colour correcting images or globally controlling the exposure of files.

Gradient. A smooth blending of one colour into another — as seen with this current article.

Greyscale image. A graphic that displays shades of grey by containing more than one bit of information per pixel.

Gutter. Blank area between text columns.

Halfline. Line measuring 1 point in width.

Halfline screen. A photograph of a graphic shot through a screen in conventional pre-press terminology. The resulting image is composed of many small dots or other elements.

Hanging indent. Created when the first line of a paragraph extends to the left of all other lines in a paragraph.

Hyphenation. Dividing a word into syllables at the end of a line of text.

Invisible characters. Special non-printing characters or symbols that you can view in the text editor. Examples used in DPA's Layout include hard returns, tabs, etc.

Justification. Text with even left and right margins. See also Text Formatting.

Kerning. The adjustment of space between characters. DPA's Layout can use both Pair Kerning as well as Step Kerning. See also Tracking.

Knockout. An area that appears as a blank shape in a colour. An element of a different colour eventually fills the knockout space.

DA'S LAYOUT V8.1

3D Extrude Module:

Available for upgrading DPA's Layout Pro at a cost of £60.00, including VAT.

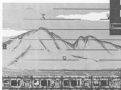
If you have any queries feel free to contact me — David Dwell.

david@dwell-lab.co.uk

A complete demo (including the Plug-in modules) is freely downloadable from our web site — <http://dwell-lab.co.uk>.



A "Cymvention" 24 hour game
Bunions Canyon by Reservoir Gods
Falcon 030 only
Entertainment - Freeware
Overall: 75%



This game probably stretches the definition of "24 hour game" beyond any reasonable breaking point. Not only does it stay the same time limit, it also manages to be a year late, and is in fact a game that should have appeared from the previous years Cymvention! Still, there are even later ones than that, such as Atari's "Warner" game from about two or three years ago... I blame the AGC3 Am



And here we are again, fairly fresh from the Stafford Show, this time bringing you a twenty-four hour game review, which was a year over the twenty-four hour limit! Also there is a review of a rather good modfile player, formerly shareware, but now the fully featured version is freeware.

Maggie #37 should have his shoe streets by now, go and pick up a copy from the Reservoir Gods site if you haven't already done so. Until next time.

OH

<http://iq.atari.org>

Richard Spawert and Chris Holwood
are The Maggie Team, Inc.



"jazzlab" demo recall! Bunions Canyon is a very simple concept immediately familiar to those people who hung around with Buns Atari's a lot. The very simple objective of the game is to get to the top of the screen

before any of the other four players. In your way is a series of lines blocking your way, small gaps immediately appear from time to time allowing you to jump up to the next level. That is basically the main part of the game.

Of course, being the Reservoir Gods, there are several enhancements to the basic jump-em-up concept. The four personalities can be any combination of computer or human players, even going to the extreme of allowing for synthetic mode, or four computer players at once! There are several power-ups which appear from time to time in egg-shaped containers, which give the lucky players certain powers over the others, including knocking them down a level, or just plain knocking them out (temporarily).

There is also an added incentive to

move quickly in the form of a walking hammer that chases the players around the level, again to try to stun them, but there is a power-up which can temporarily defeat this problem.

For a twenty-four hour game, this has had a lot of effort put into the presentation side, indeed it was suggested

that release of this game was delayed as none of the FG artists wanted to draw a logo for a game with such a stupid name! The game is notable for a contribution from one of the PC members of Reservoir Gods, some very nice rendered title graphics. The rest of the game lives up to the high standard of current FG productions, with a bunch of Raymanque sprites and status panels on the main game itself. As for that problematic logo, it was suggested that someone of better taste and Liverpoolian characteristics got involved (For a small fee!)

The music is almost instantly recognizable as one of P52's, thus confirming his continued participation on the Atari scene, and denying rumors of his departure.

As you might expect, it is a simple game, it is also infernally playable, especially against computer opposition. Against human (Wetware Atari group) players, I managed to salvage some credibility by thinking first for part of the time. (The all-powerful computer players did for the rest of the time!)

Although this game is a year late, it has been worth the wait, the time spent is storage not doing is any harm at all.



Megaplayer v1.15
Falcon 030 only
Music - Freeware
(formerly shareware)
Overall: 81%

This useful music player has not really received a lot of attention from us before for a number of reasons, which I'll try to explain shortly. It was created as a play-only extension to the Mega Tracker

computer program. Both of these seemed to go through a development process typical of the French Atari scene, that is that no-one was really sure whether there was still any development process going on or not until it was too late!

Both Mega Tracker and Mega Player were shareware, and in both cases, it looked like the shareware registrations were defunct and that the author, Simplex of Pixel Design, had mostly jumped ship and possibly moved to South America at

the same time. Shame really, as initial versions of Mega Tracker give me my first taste of (mostly) working Screenshotter multichannel modfiles, and Mega Player was a promising GEM-friendly interpretation of the theme, and potentially the most capable Atari desktop modfile player there was.

As it happened, the full registered version of the Mega Player was released as freeware earlier this year, albeit without any new work on it, since the last updates in '90-'91. Still, we gratefully receive what may marce there are, and this is now the place where we come in to review it.

Mega Player can be run as a program within a multi-tasking environment, or as a desktop accessory from a single-tasking TOS desktop. Mega Player has the now universal Audio CD player style interface, aligned for the GEM desktop, which can take on a more 3D look on more advanced desktops. Modfiles are loaded through the file selector and start playing immediately.



You don't have to look too far for other options, as well as the standard Pause/Play/Forward type controls on the front panel, a little judicious clicking around produces a menu to control the volume and sound quality, as you can select any of the normal replay rates of the Pulse Audio, from the default or maximum 50 MHz, right down to the lower replay rates possible on the Falcon sound-chip. This is potentially useful for giving some CPU time back to the Falcon if you're running Mega Player in combination with another desktop or GEM application.

There is a Repeat option, where you can pre-select several modfiles to be played, and in a particular order to be played too, Mega Player acting as a digital jukebox, so you don't have to keep breaking off from the task in hand to re-select another tune. There are some GEM-like touches too, with both spectrum

analyzers and an oscilloscope which can be put on screen in their own gem windows. This form of window dressing is standard to practically all desktop-modfile players produced after the spurious Super the GSP player.

In terms of what it can handle, Mega Player works all over the opposition, certainly in the world of desktop players, and even giving most full tracker/composer programs a formidable challenge.

Mega Player handles standard four-channel Tracker-style modfiles easily enough, it also can deal with various 8-channel formats such as early Fast Tracker and Octalyzer tunes. After that, it replays Screenshotter multi-channel tunes more or less correctly, certainly good enough for 95% of the time, and even has a workaround stub at more recent formats such as the 11 channel XM format, of which, only one other tracker is able to replay on the Falcon to any extent (the increasing side issue is that certain

XM tunes seem to be Screenshotter modfiles converted to XM headers, according to the Mega Player information dialogues! There are other multi-channel formats it

will play including one unique to Mega Player, the JPGT format, which is apparently the most efficient CPU-wise for this player. One rarity which probably hasn't been implemented on ANY other Atari-based tracker or modfile player, is the ability to play Screenshotter four-channel modfiles with panning commands, a very rarely encountered effect in the normal course of things. I just happen to have one such modfile that does that!

The hard work is done via a combination of CPU and GEM and a Namco or Centurio type accelerator is useful in printing that little extra "punch" for the bigger modfiles. Replay on some of the more esoteric formats is pretty good, only really let down by Screenshot Tracker. However, Mega Player is easily accessible from a GEM environment.

In general use, Mega Tracker seems to be pretty reliable. Personally, I tend to be careful with it around, as my Falcon has

suffered the odd inexplicable stoppage in mid-play. This is more than likely due to an aging computer with an early series GSP which sometimes decides to please itself whether it wants to work properly or not. Accelerating via Namco at higher clock speeds is more likely to put some strain on the hardware as well. The other question mark is with MagiC, a lovely OS, but not exactly a by-word for universal software compatibility. I've got a feeling that Mega Tracker OUGHT to work under MagiC, but whether a GEM work under MagiC seems to depend on the individual users' configuration, and I'm just one of the unlucky ones!

In conclusion, Mega Tracker is a big hit on this desktop, and as it has been re-released as freeware, an absolute bargain!

Pro's

- GEM Compatible and desktop friendly
- Very wide range of modfile file formats supported
- Even non-commercially supported multi-channel formats on other trackers!
- Playlist option on hand
- Universal and intuitive CD-Player style interface
- Good (and adjustable) replay quality
- It's never freeware!

Con's

- Tends to find out weaknesses in older less stable hardware
- Not sure if MagiC compatible, can anyone else enlighten us?
- Not being supported by author, no future versions on the cards

Richard's Free Beer Token



Collect 1000 and get a free pint!

**Download Maggie
and check out the
new Maggie pages at...**
<http://rg.atari.org>



Q&A

"We always have more answers than questions"

More colours in high res?

Q In ACPI II Stephen Browne asked if there were any other 16m emulators available. There's a shareware program called Double 3 programmed by Lars Erik Gornall in Norway which allows a double height standard screen on STs, but it doesn't work under Magic. However, despite the fact, it does run in any resolution from ST-low to ST-high giving new resolutions of 320x400, 640x400 and 640x800 - check it out! **Matt Burton, Dorsetshire**

Regarding Stephen Browne's thought last issue about a program to allow four or seven colours on screen at once at high res... The limitation on the number of colours and resolution in the ST video modes has nothing to do with software - so it cannot be improved using software. Additional hardware is the solution and coincidentally I'm currently working on a board that would replace the ST's graphics with much better SVGA, true colour graphics capabilities! **Mario Sacchi, New Zealand**

Catastrophic Catastrophy

In the Catastrophe '98 review in ACPI I (Ed) McElwaine mentioned it's no longer possible to clear a line using the [Esc] key. The problem usually lies with the keyboard master's - delete the master which uses the [Esc] key and it will work again. **Dave Barkin, via Email**

Pretty in Pink?

Q Has anyone painted a Falcon or ST or any plastic computer cases? I love the computer but I really can NOT stand the colour of the case much longer. Any suggestions? I was thinking of painting it purple cos it would go rather nicely with my MacX. Anyway, what kind of paint would I use this time? cmr@vodafone.co.uk JCM@big.hey.net

A I've seen quite a few painted Avigons, especially among the demo crowd and they look quite cool in my opinion. I've already painted

plastic, so here is how to get a pretty good result using car spray paints.

- Sand the case all over with sandpaper to give the surface something the paint can lay onto. Wipe the case to remove the plastic dust and leave to dry thoroughly.
- Spray with primer then sand again using 600 grade wet and dry paper - aim for a smooth wet finish but you don't want to rub through the primer - if you do, spray more primer and repeat this step.
- Finally select your chosen colour from the thousands available, and spray over the primer and sand back to achieve your new case!

Always follow the directions on the spray cans and work in a warm but well-ventilated area and make sure you shake the spray cans thoroughly before using them. Handle your new machine carefully, the surface colour will be prone to chipping.

Nicholas Bates, bates@mggate.org

The Atari ST Quick Fix!
<http://rapidfix.sterix.org>

Magic PRINT.TIP

Feel up pressing the Form Feed button on your printer to output the last page when using PRINTHTTP from the MagicC distribution as the installed application for printing? Follow these easy steps:



- Create a text file containing the formatted character. Using a text editor type the form feed character - depending on your text editor this can be entered from a pop-up or using **Insert** by holding down the **Alt** (Alternate) key and typing **12** to enter the FF character. Save the single character to a file PRINT in your GEMDOS/EMULATED folder.
- From your desktop, install PRINTHTTP as an application.
- Set the last directory to Application or Program.
- Enable parameter passing, to do this in Thing make sure the Pass always checkbox is crossed.
- Enter the following parameters in the line underneath (assuming your

MagicC GEMDOS folder is on C:\):
ST: C:\GEMDOS\EMULATED\PRINT.TIP
(Alternatively using Thing you can Drag&Drop the PRINT file onto the parameters line). That's it! **Paul Harnden, Chino, USA**

Making your mark

Q The NEWWiz emulator allows a signature file to be added to my email automatically which saves lots of typing because I send a lot of postings! However, I post to lots of different newsgroups and to different individuals and my generic sig file is not always relevant or even suitable.

NEWWiz author John Rupperts explained: "Currently, sigs are added when the article/email is actually sent to the server. This means that if you want a sig on one, but not another, you must connect and send that single one. This was done to reduce the amount of disk space required to store the sig on each and every outbound realisation. As for a different sig for each newsgroup, that is something nobody else has asked for, and would require additional parameters to be attached to each newsgroup, probably via another edit dialog, and another file, etc."

I really need to be able to choose different sig files to attach where I am posting to and wondered if there's a better workstation?

Thanks the Dark Engine, site of Sator

A Thankfully there's a very simple solution which only requires some initial setting up and an extra mouse click! Make a folder called SIGS, create your various sig files as separate files, start NEWWiz and uncheck the signatures

Option in the Preferences menu and save your NEWWiz preferences. To add the appropriate sig file to your email or newsgroup posting go through the usual steps and before saving your message, merge or import (depending on your editor) the desired sig file and save and exit your text editor as normal.

Mike Karvonen, Ronald G Hall, The DarkForce! BBS

Correct '97 problems?

A Thanks to Roger-Cat on MacT there's a workaround for the problem with this version complaining of errors. Delete the CONECTRUM file and create a zero length file of the same name - from the desktop, via Freedom or other utilities.



The docs mean the cost logging won't work but with the fourfold range of call charges I guess not many people make use of this feature's anyway.
Derryn Craker, via CIX

Post formats

Q Without having anyone too much can someone explain to me the difference between TrueType and Postscript fonts? I have WYSI 4 and a few fonts set up, how do I import them into programs such as Timesworks and so on?
James Adams
CIX starcomping conference

A Postscript fonts type 1 are vector fonts that use a format devised by Adobe, they render curves using the point-quadratic bezier curves and the font file format is a bit like a Postscript print test file/program with a big escaped binary blob in the middle which when you decompile and unpack it is also like a Postscript printer file/program. TrueType fonts are vector fonts that use a format devised by Apple, they render curves using three point cubic bezier curves and the file format is a bit like that of Apple Macintosh Resource files - binary tables with pointers to binary

tables of binary data. In both sorts a zero winding algorithm is used to set inside bits of paths on or off.
Matthew Carey,
CIX starcomping conference

To use vector fonts with Timesworks you need the vL04 release - the one given away with Atari World magazine (WIP). Drag the new fonts from the source disk into WYSI's BTFONTS folder, open the FNVDI Fonts and Carbons CFX, click on New, then, then OK. Next double-click on FONTWID.APP in your PUBLISH folder, ignore Underline Printer and the FSGHCH messages and click on SCARY, and that's it - a doublet Local Timesworks 1.04 and a CDP document and look under STYLE - FONTWID and they should be listed together with the Franklin Gothic and Baskerville collection (bundled with WYSI).

Paul Fawcett,
CIX starcomping conference

What type of modem do I need to connect to my Atari ST?

Q I have borrowed a PC external 14k modem (US robotic) from a friend of mine, but it doesn't respond to any AT commands I send it via my dial-up software - I am using STXIT, I suspect this may be due to the fact that this modem is configured for a base-port address corresponding to CDP2 on a PC, but I have no idea what this means in terms of an Atari ST.
Peter Swann

A It's more likely to be a problem with the ST's serial port or the cable rather than the US Robotics modem. There's a quirk on my Courier that it won't run after a change in port speed until I've received the defaults, even if nothing else has changed, but that's all. The bit about CDP2 ports is a definite red herring. On my Falcon (but not my ST) I can't address the modem unless I have HSHOCHI installed so that's worth a try. Modems can be set to be dumb and not to send any responses, something like ATXQ might make them show up again.

Keith Jackson,
CIX starcomping conference

A It's also worth trying to reset the modem to its factory defaults - try ATZAP then ATZAPV to store these settings - check for AT commands in the manual - usual disclaimer applied!
Jon Connor

Program problems!

Q I have a 520 ST upgraded to 4Mb and a 137Mb hard drive which I use for word processing, CDP2 and spreadsheets. My questions are about problems with the programs I use.
1) I use Timesworks Publisher 2 for CDP2 and I bought some additional GDI fonts from the PAIT club. I have unpacked them, put them in the GDIFFTS folder, added their names to my ASCII.CHX file, released, re-run the font with program, but TW2 doesn't know they are there. I have tried changing the font file extensions from RMT to VGA and GDI for screen and printer fonts respectively (HP CPT20) and it made no difference. Help, please.
2) Finally I recently bought a second-hand mouse which is rather better than my old Atari one. I use MACCOLL as an accelerator, and with the new mouse the pointer occasionally and quite randomly goes drifting off all over the screen. Sometimes it refuses to go up and down but will go sideways, after a minute or two, or if I press [Esc], it's OK again! I much prefer the new mouse but I don't want to do without the accelerator. Any ideas?
Bill Blain

A Help from readers required for question 1 please. For your resident problems there were some nice (logical?) known to exhibit erratic mouse pointer behaviour - the mouse cabling were not tight proof and in direct sunlight they were prone to go wild/out!
If your mouse behaves correctly in a darkened room it's a vampire not a demon and you should get the mouse shade out.

3) Barry via CIX starcomping conference and Jon Connor

Shorthand fonts

Shorthand substitutes a default font if it encounters a font it cannot find in its fonts folder which isn't an ideal situation. However, assuming you have the required font available, you can enter its details in the FONTNAME file. The FONTNAME file does illustrate the required syntax but it isn't very clear. In this extract I've added a Shorthand font from CompuLink's font collection) as an example:
(Century-Schoolbook-Italic1383a____.pfb):
(Century-Schoolbook-Italic1383a____.pfb):
(Century-Schoolbook-Italic1383a____.pfb):
(Century-Schoolbook-Italic1383a____.pfb):
(Century-Schoolbook-Italic1383a____.pfb):
\$fill\$

(NewCenturySchlbk-RomanCentury-Schoolbook-SB):
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The filename which corresponds to each fontname has to be specified (the filenames are shown in brackets). After the \$fill\$ flag you can list any other fontnames the font may also be known as - or use this feature to substitute any desired font.

For example, if a document requires a font called NewCenturySchlbk-Roman, Ghostscript will notice this fontname is an alias for Century-Schoolbook-SB1A and load the file \$fill\$.pfb from disk.

To find out the fontname for a specific font file load the font into a file editor such as Egle or pdf and all will be revealed.

Derryn Craker



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Software Sale

Falcon AudioTracker Direct-to-Disk recording software which is currently retailing at £199. My copy is unused due to severe lack of time, but is a really excellent piece of kit. I'll accept offers in the region of £75 plus insured postage.

OTHER SOFTWARE

All are complete with proper disks and official manuals
Easy Test Professional - earlier version which uses
Speedo fonts £5.00, Horse Accounts 1 £5.00, Oxford
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Mike Kerslake

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STANDARD FITTING

Eclipse is an adapter that accepts standard PCI cards and can be used within a standard Falcon case! This is achieved with a freepart design - the main interface plugs in via the Falcon expansion connector, and the PCI graphic card is used in an external case. Because Falcon may not require the case providing there is sufficient room inside to house the PCI card.

NEW DIMENSIONS

Rather than be constrained to a 640x480 resolution, Eclipse can offer up to a massive 1600x1200 graphic card permitting high refresh rates. With the custom software and advanced chipset of the graphic card, Eclipse offers the best performance of any graphic adapter, and permits the full 1MB memory to be fitted.

GRAPHICS

The graphic card supplied is the excellent ATI Charger, featuring the Rage II SD chipset. Future support could include Virge DS cards. Maximum colours is 16.7 million at 600x600, or up to 1600x1200 with 15k colours (6MB VRAM required).

tempest

Under development

An ultra-powerful hardware processor expansion which will either use either the latest Motorola Coldfire 68040 compatible, 40MB processor, or a Motorola 200MHz Power PC.

FEATURES

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- 32/64MB support for expansion to 256MB TT-RAM.
- Through port expansion allowing Eclipse to interface, using the PCI slot for other devices - Ultra-Wide SCSI, Network, Sound, etc.
- Switchable to the Falcon 030 for 100% compatibility with any software running on the Falcon.
- Easy install¹ - no soldering!
- Fitting to a standard², unmodified Falcon case!

NOTES

1. Tempest can be installed with no soldering, however some programs may have to use the BIOS or DSP. For improved compatibility across a wider range of software, a few wires will need soldering to the Falcon mother board.
2. The top metal shielding will need to be removed. If Eclipse is also fitted cooling is definitely required.

AVAILABILITY

Hopely, Tempest prototypes will be ready before the end of January 1999, with production commencing Q1 of 1999. Price is expected to be around £199.

eclipse £199!

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