

ST APPLICATIONS

Price: £1.50

The Magazine for Users of Atari ST, STE and TT Computers

Issue No. 16 April 1992

THIS MONTH

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PD Update

Supplement on the latest PD and Licenceware disks starts on Page 28

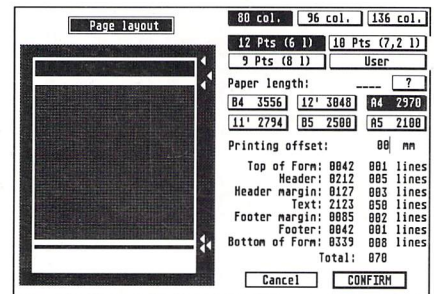
Outline fonts have two main advantages over their bit-mapped cousins: full scalability within an application and far less storage space. Until FSM GDOS arrives, for those of us who use standard GEM fonts a good compromise would be a font converter that produces GEM fonts of any size without loss of quality. Cue entry for Jeremy Hughes' "C-Font", a utility that converts Calamus (outline) fonts into GEM fonts at any user-defined size and resolution.

C-Font

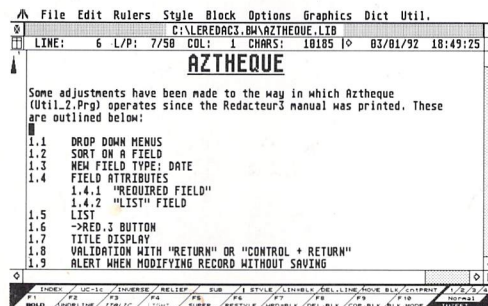
Redacteur 3

Following on from the preview in issue 14, this month we have a fully-fledged review of the English version of Redacteur 3, a powerful and extremely fast word processor that has built up a large and loyal user-base in France over the past few years.

Graphics handling, paragraph analysis, varied import and



styles, choice of fonts, text export options, spell-check, mailmerge with the database provided, creation of maths formulae, a huge array of printer drivers, and a high degree of personalization for individual users' needs... Dr. Steve Henderson is impressed!



LOOKIT & POPIT

Yet another 'clever little system patch' from Codehead Software, this is a package comprising a file viewer and an accessory hot-key utility described by the suppliers as "Two powerful utilities for the price of one". Michael Baxter takes a look and pops a few questions...

HARLEKIN 2

- your dreams can come true

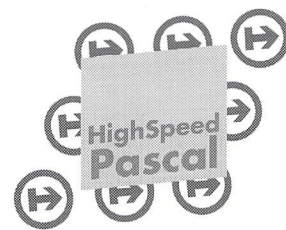
Harlekin 2 is a unique collection of utilities and applications for your Atari ST and TT computers. All programs are available from a single desk accessory, providing maximum convenience while taking up only one slot on the Desk menu:



- complete editor with search and replace, block-marking with the mouse, external clipboard with cut copy and paste, full page setup options for printing, word wrap and more.

- extremely powerful appointment diary/calendar/ideas organiser called the Manager. This allows you to make notes of any size and assign dates, times, priorities, icons and alarms to them. Then print out your notes by day, month, year etc. for a complete time management system.
- dynamic printer spooler that takes just as much memory as it needs, comprehensive printer filter.
- full macro processor allowing keyboard shortcuts for Harlekin's modules and extensive keyboard macros, all totally under your control.
- communications package allowing X-Modem and Y-Modem protocols plus full modem set up and an extensive dial directory.
- many, many more utilities too numerous to mention in this small space, plus a 150-page, wire-bound manual.

Harlekin 2 is available now at a price of £59.95 inclusive. Upgrades from version 1 cost £24.95; just send your master disk back to HiSoft, together with your remittance.



HighSpeed Pascal 1.5

Version 1.5 of this immensely popular compiler is now available. Additional features over 1.1 are:

- inline assembler
- help desk accessory
- i/o-mapped maths co-processor support
- faster, improved editor; more compact libraries
- structured constants - an invaluable addition
- absolute-address variables

Upgrades from earlier versions cost £7.50 inclusive including new documentation.

For those not in the know, HighSpeed Pascal comes from Denmark, is extremely fast and friendly to use and is very closely compatible to the immensely popular Turbo Pascal on the PC, even including the graphics unit from the PC.

Compilation speed is roughly 20,000 lines per minute with excellent code generation for the ST and the TT.

ProFlight 1.2

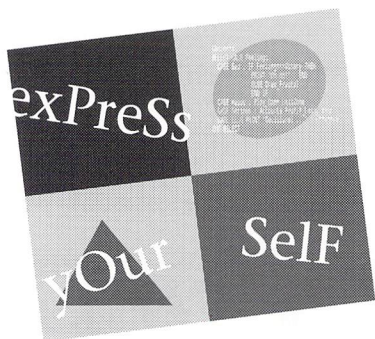
We are pleased to announce the release of version 1.2 of ProFlight, our immensely popular Tornado flight simulator, loved by reviewers and users alike.

This new version of our Tornado flight simulator includes improved colour graphics, the ability to save your cockpit set-up, a pause key, more control over the view angle and more ... it even works on the TT!

Registered users can upgrade by sending their master disk back, together with £2.50.



HiSoft BASIC 2



HiSoft BASIC 2 is here at last:-

- New, multi-window editor with lots of features
- Extremely fast development thanks to pre-tokenising
- Many more language features inc. static arrays
- Full support for the STE, MegaSTE and TT
- Completely new high level GEM toolbox
- Linking with Lattice C & DevpacST assembler files
- Resource construction set and debugger included
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HiSoft C

The ideal way to learn the difficult C language is with an interpreter and HiSoft C for the ST has all you need:

- try out your new C programs quickly and easily
- interactive editor with on-line help
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HiSoft C is already widely used and has received many reviews



So take the hassle out of learning the C and language everybody's talking about.

When you're ready, move up to Lattice C 5.

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Diamond Back is the hard disk backup utility that you have all been waiting for. Packed full of features and with an extensive manual, it is the fastest and friendliest package available:

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Read Me 1st

Subscription Expired? If you received this copy of ST Applications through the post, check the first line of your address label carefully: if it reads STA16, then either your subscription has expired with this issue or you have been sent a free evaluation copy of ST Applications. Either way, you must take out a new subscription in order to receive further issues.

Information

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New Address:

Mail sent to our old Stoney Street address will be forwarded and our telephone number is unchanged.

Owing to lease restrictions, we are no longer able to make retail sales from our offices. Callers by appointment only, please.

"Home Studio" will appear in a later issue of ST Applications.

Advertising

There is a limited amount of space for commercial advertising in each issue of ST Applications. Contact Nicky Wilson on 0602-410241 for further details and to request a media-pack. Subscribers can place free classified advertisements - see page 57 for details.

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United Kingdom:

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Air Mail to Europe:

12 issues : £18.00
 12 issues plus six Disk Mags : £26.50

Subscription and Order form will be found on page 57.

Overseas Distribution

Distribution overseas is dealt with via our agents:

Worldwide Magazines

Contact us for details of your nearest ST Applications stockist.

Disk Mags

These are bi-monthly compilations of the best PD software to come to our attention in the preceding couple of months - not magazines on disk. The next Disk Mag, DMG.28 will be dispatched a few days after this issue is sent out.

CREDITS

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Paul Sutherland	Sandra Vogel

Contributions

The articles in ST Applications are written by users for users. Everyone reading this magazine will have something to contribute; even if you do not feel able to do a full-length review or article there is the Forum section for short hints, tips and questions. If you are interested in writing for ST Applications - regularly or irregularly - please write for a copy of our terms and conditions. We always do our best to reward quality work with appropriate remuneration.

Atari News

The year has got off to a quiet start as far as Atari UK are concerned. All they seem to be talking about is the Lynx. However, it's what they're not talking about that really interests us, it's what they are keeping quiet about (see the next news item)! Returning to the Lynx, sales were much better than predicted with around 80,000 units sold in the last quarter of 1991. This brings the total UK sales to 150,000 as opposed to 453,000 Gameboys and 125,000 Game Gears.

The Lynx is currently being advertised on the video of "Robin Hood: Prince of Thieves" with 50 units being given away in a competition. Other promotions are planned for the coming months. Thirteen Lynx titles including Xybots, Lemmings and Pitfighter are due for release before the end of March with countless others, including film licences, to be released later in the year.

Revolutionary New ST

ST Applications can exclusively reveal that Atari Corporation are set to release the successor to the STE! The new machine is to be called the STE Plus and will come with 1 Meg of memory fitted as standard. Specifications are a little sketchy but we do know that it will have a 320x200 pixel mode with 256 colours on

screen at once! This is technically better than the Amiga which can only display 32 colours (or 64 if using half brights). I know the Amiga can display 4096 colours in HAM mode but this is only available through software, in a similar way to Spectrum 512 and Quantum Paint on the ST. This new graphic mode is equivalent to what is available on the PC.

All standard features of the STE will be retained and the machine will be downwardly compatible. It is not clear at this stage whether the 256 colour mode will be a fourth resolution or if it will directly replace the existing 16 colour low resolution. There are rumours about CD-ROM. Will the new machine merely be able to support a new low cost CD-ROM drive or will it have one built in? The former seems the more likely option at the moment. Rumours of built in IBM '386 emulation are also circulating, although I expect this to be an option rather than the standard. Atari confirmed last year that they had been working on an ST/PC hybrid and perhaps this is the machine in question. The STE Plus may be released at the end of this year, although a 1993 release is probably a little more realistic.

(On the other hand, this could all be a smoke screen! - Ed.)

Another Virtual Screen Emulator For STE

Jonathan Lawrence, author of the popular Shareware package, Mouse Tricks 2, is now including a large screen emulator for the STE along with the registered version of Mouse Tricks. BIG_STE uses the STE's built in hardware scrolling to achieve smoother scrolling and can be set to any user defined size.

BIG_STE and Mouse Tricks v2.05 complement each other in many ways. One such example is that the active part of the screen is always displayed. In other words, if a dialogue box appears in a part of the screen which is not in view, the display moves to show the dialogue box and returns to the original position when you've finished with it.

BIG_STE allows the virtual screen size to be user defined, resolution to be changed whilst in emulation and an adjustable mouse scrolling speed. Saving and printing from virtual screens can be done using Imagecopy by Jeremy Hughes, which is to be released by The ST Club. BIG_STE is included with the registered version of Mouse Tricks 2 for the £10 Shareware fee or for £2.50 to those who have already registered Mouse Tricks 2. Send a cheque for the appropriate amount or an SAE for further information to:

Jonathan Lawrence
76 Sistova Road
London SW12 9QS

Migraph OCR

Migraph OCR (optical character recognition) is now available. It allows you to scan a page of text and re-save it as an ASCII file. The Migraph, AlphaData and Golden Image hand scanners are directly supported but images can also be imported from other scanners in TIFF or IMG format. The basis on which OCR programs work is that you 'train' them. In other words each time a character appears, you type in the character on your ST. The next time it is encountered, it will 'remember' it from the last time. Once the whole typeface has been learned, the definitions can be saved for future use. The process then becomes pretty much automatic, bearing in mind that the above process must be gone through for each new typeface encountered.

Migraph OCR scores over inferior offerings in many ways. It

uses an Omnifont Engine which is generally regarded as the leading technology in this field. This enables it to recognise a wide variety of typefaces at different point sizes. The result of this is that over 20 of the most common typefaces are instantly recognisable. When unknown characters are encountered, the program intelligently guesses them after analysing the linguistic content of the text. This cuts down the time spent on training.

As with any other OCR program, newly learned characters are saved to disk so that they can be recognised instantly in future sessions. If you have a need for an 'intelligent' OCR program, this one may well fit the bill.

Migraph OCR costs £249 and is available exclusively from Gas-teiner Technologies. Call 081 3651151 for further details.

Mirrorsoft Rises From The Ashes

Following the announcement in last month's ST Applications that Mirrorsoft was up for sale, we can confirm that Acclaim (a software publisher on games consoles) have acquired the company complete with existing products and the rights to those currently under development. Mirrorsoft's offices in Central London have been closed down and all business transferred to Acclaim's Winchester base.

Mirrorsoft's entire staff were given redundancy notices on 31st December and only a handful have been re-employed by the new company. A number of Acclaim's console titles are expected to be converted to home computer formats in the near future as a result of the takeover.

Software Publisher Spectrum Holobyte have switched allegiance to Microprose. The company were not owned directly

by Mirrorsoft, despite the Maxwell Empire having a stake in the firm. Instead, Maxwell's interest has been bought over by simulation specialists Microprose. Whilst Acclaim hold the rights to Spectrum Holobyte's back catalogue, Microprose will handle all future releases starting with Falcon 3 in the middle of the year.

Top management figures at Mirrorsoft, Jon Norledge and Sean Brennan, have both gone to Virgin in preference to Acclaim. Norledge was instrumental in the development of Fleet Street Publisher (all versions) and Teenage Mutant Heroes amongst others. Brennan has moved from Sales and Marketing Director at Mirrorsoft to the same position in Virgin. There has been no news on Mirrorsoft's Managing Director Peter Bilotta since his proposed management buyout failed.

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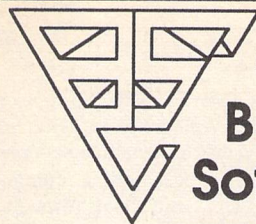
Do you wish to record your creations direct onto a video recorder?

Do you wish to create video titling or presentations?

If the answer is YES to any of the above then this unit is for you. No software to run, just plug one cable into your Atari's monitor socket and the other to your TV's UHF aerial socket. There is also a composite video output for direct connection to a video recorder. Use your creative talents, record your game play, animations and explore full sound and colour.

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MISCELLANEOUS

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News In Brief

The Battle Of The Mags

Once again it's the time of the year when the computer magazines boast about their sales figures. The July to December figures have recently been compiled and should all be out within the next month or so. Future Publishing have just published their figures and sales of ST Format have fallen by 7% to 65,202. Europress Publications are keeping theirs under wraps until the last minute as usual but reliable sources indicate that they

have risen from 40,093 to around 44,000. Amiga Format is expected to overtake Computer Shopper as Britain's best selling computer magazines as it shoots through the 130,000 barrier.

Europress Releases

Following the success of the Fun School series, Europress Software are to launch a new educational label called ADI. It is to be aimed at the 11-14 year olds, not catered for by existing titles. Releases will cover English, Maths, Science and French and will all feature a robot called ADI, hence the name. The first release on the ADI label should be available in the next month or two.

The long awaited 3D extension to STOS Basic is now available. It needs to be used in conjunction with the original STOS Basic package and adds more than 30 new commands to the language. These

allow complex 3D objects to be created from simple building blocks without the need for complex mathematical formulae. The objects can then be stretched, rotated and glued together. Up to 20 objects may be displayed on screen at once and can be used alongside conventional sprites and backgrounds. STOS 3D is available now for £34.99.

Educational User Group

The Association of Atari Users in Schools and Colleges (AAUSAC) are a new group set up to bring together teachers and lecturers who use the Atari ST at work. Many educational programs are written by teachers to assist themselves and/or their students in their work. One of the aims of the group is for copyright-free software to be swapped between members, thus lessening the tendency to re-invent the wheel.

Readers who are interested in finding out more should send an SAE to Terry Freedman, 16 Hall Rise, Witham, Essex, CM8 1DH. You will be sent a questionnaire along with some more information and asked to send in a blank disk. The information from the questionnaire will be put onto a database and your disk will be returned in due course with a copy of the database and a newsletter on disk.

Shopper Show Breaks New Ground

The Christmas Computer Shopper Show at Wembley succeeded in breaking all records for attendance at this type of event. It rose to a staggering 51,655, an increase of 37% on the previous year's event. The Spring show takes place from 28th to 31st May and is expecting to attract around 40,000 visitors.

PD Libraries Raided

Two well known PD libraries were recently raided in completely unconnected incidents. The libraries involved were L.A.P.D. and The South West Software Library.

Leigh Caldwell of L.A.P.D. confirmed that they were subject to investigation as a result of allegations that they were distributing pornographic material. The complaint was made in relation to the X-rated section in their catalogue. He claimed that the disks in question contained material which was no more offensive than that seen on Page 3 of certain newspapers. He added that the company have been completely exonerated as a result of the investigation.

The raid on The South West Software Library involved demo disks which apparently breached copyright. I spoke to Martyn Dryden of SWSL and he confirmed that their premises had been raided by Trading Standards Officers and the Police accompanied by an observer from FAST (Federation Against Software Theft). The FAST observer was present purely as an advisor to the Trading Standards Officers who were not familiar with computers. It was NOT a raid by FAST and there was no question whatsoever of software piracy. The police left shortly after arriving, being satisfied that the investigation would be allowed to proceed without incident.

They arrived with a copy of an old SWSL catalogue and asked Mrs Dryden if she would be prepared to supply them with the 35 disks on their list. When she confirmed that these were available and would be supplied, they confiscated the master disks along with ready copied stock of these disks. Most of the disks in question were sampled sound demos, although some were demo versions of commercial products. This seems absurd to say the least, as these are issued by the copyright holder in order to promote their products. I can only assume that those involved in the raid have little understanding of the PD/Shareware market and how it operates.

The problem with sampled sound demos seems to be that they infringe the artist's copyright. No-one has ever objected to the existence of these in the past because they were regarded as advertisements for the 'real thing'. They are usually very short and are always of a lesser quality than the original. For these reasons they were never regarded as a threat. However, it appears that copyright owners are clamping down on all infringements of their copyright. The situation is of concern not only to Public Domain libraries but also to software authors, who may be guilty of breaching copyright by creating these demos.

New Releases From Titan

Titan Designs have recently announced a major breakthrough in computer based music editing. Either Virtuoso or CuBase (whichever sequencer is your preference) is used to provide multi-tasking, allowing Take Control's Music DTP to be run alongside it. In conjunction with Titan's Reflex Graphic Card, it is possible to for Music DTP to be displayed on the high resolution of the Reflex Card with the sequencer running alongside it on another screen. This enables a sequencer and score writing software to be combined successfully in a multi-tasking environment. The Reflex Graphic Card cost £249, Virtuoso is £260 and Music DTP costs £260. All are available direct from Titan Designs.

GUCK v2.0 is described as the ultimate file viewer. It can display ASCII text, graphic files (Degas, Neo, IMG, GEM and 32k screendumps) and any GEM font. GUCK converts graphics between resolutions and formats and runs either as a program or an accessory. Scrolling through all types of files is supported as well as printing and saving. GUCK costs £25.50. For details on GUCK and other products from Titan Designs, contact Titan Designs Ltd, Institute of Research and Development, University of Birmingham Research Park, Vincent Drive, Birmingham, B15 2SQ, Tel: 021 415 4155.

Gollner Quits!

Flamboyant whizz-kid Hugh Gollner has finally decided to call it a day and throw in the towel at Europress. Hugh started up ST World magazine (although it was called ST User at that time) in his late teens. Gollner publishing expanded and split the publication into ST Action for games and ST World for serious users. Amiga Action soon followed. In a dramatic twist to the tale, Gollner Publishing were bought over by arch rivals Database Publications two years ago. Hugh became managing director of the newly formed Interactive Publishing and ST World went into decline. Last year his position within what had now become Europress Publications had diminished somewhat. From there on it was rumoured that he was not entirely happy with his role. His last success was the launch of the weekly title, Games-X. Hugh is undecided as to what he will do with his time now but will retain his links with Europress in a consultancy capacity. Love him or hate him, his absence from the ST scene will not go unnoticed.

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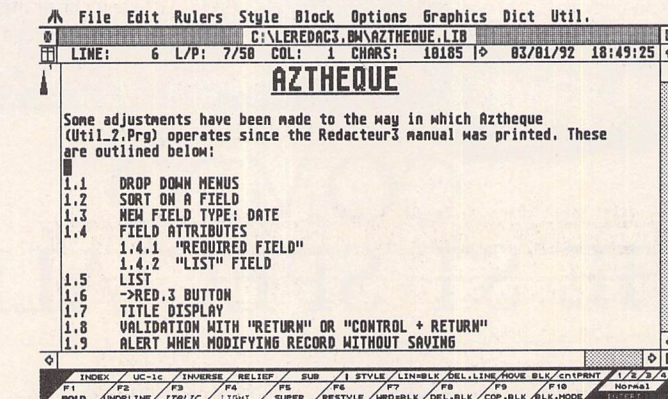
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Redacteur 3

English Version

If you look at the Contents page of ST Applications, you will see that text preparation is by Le Rédacteur 3. Have you, like me, ever wondered why they use what is certainly not a mainstream word processor? From its name, it is obviously French. France is not normally a country I associate with serious ST software. It does, however, have an enthusiastic support for the ST, and their favourite word processor has for some time been Le Rédacteur. It is widely used by journalists working for Libération, Ouest-France and La Voix du Nord. It has also sold over 7000 copies which represents a serious user base. The first time I noticed it was when David Smith mentioned v3 in the old Newsletter issue 29. A brief review then appeared in issue 2 of ST Applications. The earliest versions of V3 were rather buggy and only ran in monochrome. I salute David's linguistic ability as the whole program, including the spelling checker, was in French!! How on earth did he cope with the manual? The latest version (3.15) is now fully converted to English and is distributed in the UK by the ST Club for £119. In deference to the English language, the name no longer contains the definite article (le) or the acute accent over the first e. I assume that it is still pronounced as if the acute were present.

I have mentioned in previous reviews that word processors fall into two distinct categories. The first type uses the fonts resident in your printer while those in the second utilise GDOS or G+PLUS to produce multiple font outputs. The latter type tend to be more impressive but considerably slower in output. First Word Plus (FWP) is the standard for the first type and, in my opinion, Calligrapher for the second. While FWP can only use printer fonts, many of the graphic type programs can also operate in text mode which makes them more attractive. The emergence of a version of Protex (v5) which made use of GEM type menus made us all realise how aged FWP was looking. Protex,



Dr. Steve Henderson gives an in-depth review of the English version 3.15 of the French word processor Redacteur 3, now available from the ST Club.

however, is purely a text-based processor. What I felt was needed was a word processor which was principally text-based for speed but had a good graphics capability available. A sort of First Word Professional if you like. Had I been told that Redacteur 3 was that program, I would have believed it! The similarities, both in appearance and many of their operations, are quite remarkable.

The Package

Down to basics. The package arrives as a large expanded polystyrene box which contains the four double-sided master discs, a registration card and a massive manual which runs to 656 pages! It really is a magnum opus. (The front cover is a reproduction of a painting based on the theme of the author - if you can work out what it means you are one up on me.) It is divided into four main sections. The first is a users' guide of 200 pages which describes the installation of the program and its basic

operations. There is a tutorial section half way through this introduction which uses a supplied file to help you get to grips with the basics. The second part is the mandatory reference manual which is a guided tour of all the menu entries in great detail and is essential reading if you want to get the maximum out of the program. Part three describes the associated programs supplied with the package - a lot more on these later. The final part is the appendices which describe such things as personalising the program, lists of error messages and details of printer configuration files. Difficult as it may be to believe, I don't think this manual could have been condensed in size. The explanations are concise and the size is merely a reflection of the enormous scope of the package. Personally, I prefer ring bound manuals but I suspect that the number of pages makes this option impractical.

Redacteur requires a minimum configuration of 1MB RAM and a double-sided floppy.

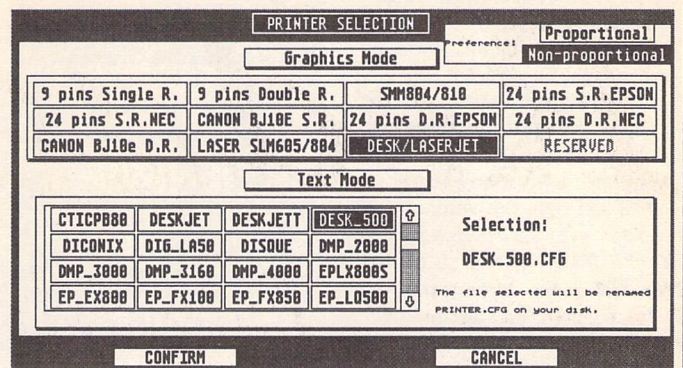
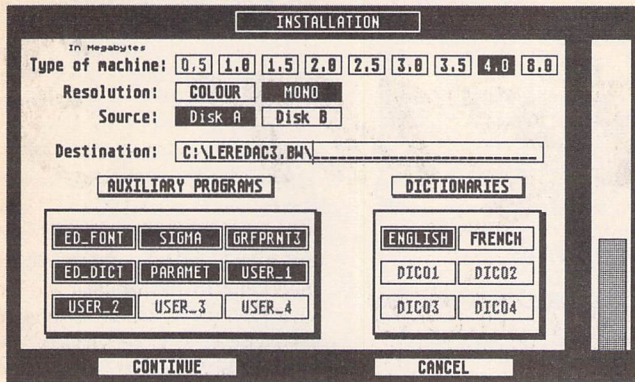
According to the manual it will run on a TT if you are lucky enough to own one. As usual, a second drive (preferably a hard drive) and some extra memory will make life easier. Although the program can be run in colour (medium resolution), you have to use a different installation program, and once installed the program can only operate in the resolution it was installed in. The master discs are not copy protected and the manual strongly advises you to make backups. Protection against piracy is achieved by a password mechanism in the form of a request for a word from a position in the manual in connection with a SAVE operation. The manual claims that the frequency of these requests is less than 1% of all saves and as such does not cause excessive irritation.

Installation

The installation procedure is rather time-consuming but is fully GEM'd and utilises however many drives you have. There is very little disc swapping involved with each disc being used sequentially and the first disc being the only one used twice. Do have a cup of coffee handy as you are in for quite a wait. The first dialogue box shows the memory of your machine and allows you to choose where Redacteur will live if you have a hard drive.

The matrix of auxiliary programs on the left allows choice of which will be available from within Redacteur. Be warned that with a 1040 you cannot have many resident. This does not preclude their use as they will be installed and can be run from the desktop. Note that Sigma the formula editor can only be run in high resolution. The right side of the display allows choice of which dictionaries will be resident. The slider bar on the far right shows how your memory is being consumed as you select more options. Once this is set up you move on to the printer selection - and what a selection it is!

The upper selection is to define graphic output type while

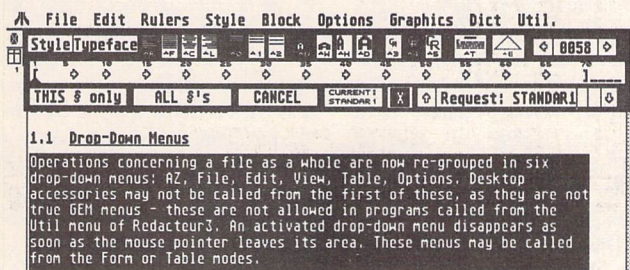


Left: the computer's RAM, the source and destination drives and paths, and the allotment of memory-resident applications and dictionaries are dealt with.

Right, the vast range of printer choices, both for graphic mode and for text mode printing.

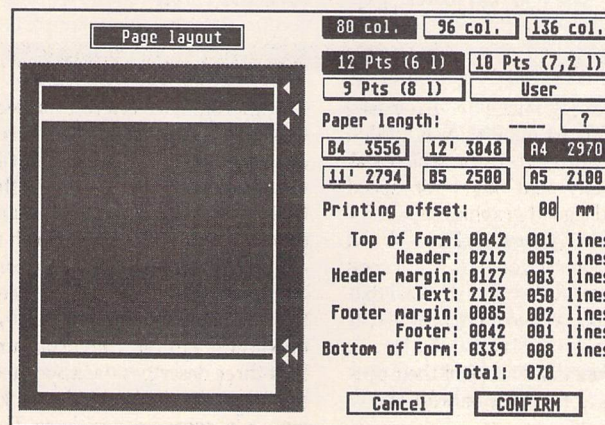
Two screenshots showing the installation options

the lower section is the selection of text mode drivers. In the unlikely event of your printer not being covered you can edit an existing driver by using a supplied program to convert a driver to an ASCII text file. Once modified, this in converted back to a driver using the supplied program. This procedure is similar to the conversion of HEX files in FWP to give .CFG files. Once you are happy with your driver selection the installation procedure gets going. The only problem I encountered was with memory on a 1040 with a hard drive cache in the ST's RAM and a few memory-hungry accessories installed. There was insufficient memory left to decompress the main Redacteur program and the stupid installation program was prepared to allow the installation to continue. Try running the program after this. In all fairness, the manual does warn you about memory usage on a 1040. The end result of all this is a set of three or four floppies (depending on what you have installed) or a hard drive folder which contains everything.



Above: The Ruler box gives as many options as any user would reasonably expect... probably more.

Below: The Page Layout screen is very versatile and easy to use.



In Use

Running the program results in the display of a time set box if you haven't got a clock installed (this can be suppressed), and provided there is no virus lurking (Redacteur detects most known viruses and alerts you to their presence), the file selector is then displayed.

This is a delight when you are used to the TOS 1.4 selector. Drive is selected from the row of icons while the suffix buttons below vary depending on what operation the selector is offering. They will represent the most commonly used suffix types for the operation in-

voked. Dragging a file name onto the eye (information) icon displays size, date, etc., for the file. The same information can be obtained by single clicking on the file name with the right mouse button. Redacteur makes considerable use of this neglected button. The next icon down is the archiver and is dual purpose. Text archives are placed at the beginning of a text file and can be regarded as a précis of the file contents. These archives are not printed with the file but are displayed by the archiver. The second use is when you want to

load a graphic file. Drag the file name onto the archiver and it will be displayed in the directory window. Both of these facilities are useful when you are not certain which name you gave to a text or graphic file. The final three icons are used for file copying, folder creation and file deletion respectively. The model button is an interesting facility. Single clicking a file name and then selecting Model creates a new file which has all the format and paragraph settings of the selected file. An intelligent selector - whatever next? The

only better selector I've seen is UIS III.

The main edit screen is a standard GEM box which can be resized, scrolled, etc., in the usual manner.

Rulers & Layout

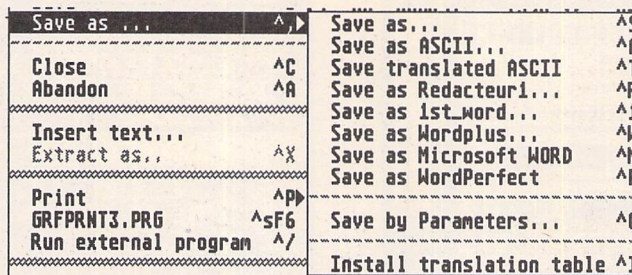
Unlike FWP, the ruler is not shown by default. Instead there is an information line which gives cursor position, number of characters and date. A clock is displayed at the top right hand corner. Redacteur uses a system of paragraph-based rulers to control text format and there is no limit on the number of rulers which can be placed in a document. Rulers can be viewed by pressing CTRL 2, by double-clicking in the information line. The paragraph is highlighted in inverse video and the ruler is displayed.

Each ruler that you define can be assigned a name by clicking on the box marked X and then used in subsequent paragraphs. This displays the font used in the paragraph and also lists the other rulers used in the document. Selecting the desired paragraph displays its font and ruler, etc. Line length and indents are altered by dragging the appropriate symbol around the ruler. Any changes made can then be applied either to the current paragraph alone or to all paragraphs sharing the same ruler name. Although this system is different from the other word processors I have used I have grown to like the degree of control and ease of document layout which it imparts to Redacteur. The main ruler display has a row of icons along the top which are used to control justification (left, right,

centred or full), line spacing, text height and width and inter-paragraph spacing. Tabs are inserted by clicking at the desired point on the ruler. Further clicks on the tab will cycle through the different types of tabs available. The options are left, centred, right, decimal and right tab with a lead line. You can't really fault a selection like that. Clicking on a tab using the right mouse button deletes it. My only regret about the rulers features is that there is no method for producing multiple columns of text - a great pity.

Setting up the page layout is simplicity itself in Redacteur. Selecting Page Layout from the graphics menu invokes a comprehensive display.

The page size can be set to an accuracy of 0.1 of a millimetre! The layout can be altered by dragging the triangular markers up and down the page or by entering the desired values on the right of the display. Moving around a Redacteur document is a revelation. The usual keyboard shortcuts are implemented for moving by the word, line, sentence, paragraph, page or to the top or bottom of the document. It is, however, when you use the cursor keys to move about that you are in for a surprise. The scrolling speed is exceptionally fast. Using the down cursor, it took 38.2 seconds to move from top to bottom of a document. Exactly the same document loaded into FWP took 208.9 seconds for the same operation!! I was by this stage beginning to see why the French journalists like this processor. Headers and footers are available in a fairly conventional manner but have the advantage that page numbering can be either Arabic or Roman numerals. The latter is particularly useful for an introduction preceding the main body of text. Below the edit area of the screen is a row of icons representing the ten function keys. These are used in the same manner as in FWP and their effects can either be accessed by clicking on the icon or by pressing the function key itself. Each key has two effects associated with it depending on whether the key is used in isolation or with the Shift key pressed. Thank heaven that sub- and superscripts can be obtained in this manner - Calligrapher drives me mad in having to access these effects via a menu. The effects Inverse and Relief may not be supported by all makes of printer and in such cases you will require printing in graphics mode



A cascade menu showing the choice of 'Save as...' options.

to use them. They may, in any case, be used for mixing fonts in the same paragraph: a right click on either of these activates a pop-up menu listing the installed screen fonts, and once one is chosen its name overwrites the original Relief or Inverse in the icon strip. The numbers 1-4 on this strip represent the four markers which you can place in your document as an aid to moving quickly to a given point. These may also be accessed via the EDIT menu. Resizing the text window displays another similarity to FWP.

This is the character table which allows you to place non-keyboard characters into your document by clicking on the desired character. The difference here is that by clicking on the font selector box above the table, you cycle through the fonts which were installed with Redacteur. Most of these fonts are only available in graphics printing mode but some will be supported by your printer - give it a try to find out which.

Menus

Moving on to the drop down menus we find another interesting feature - cascade menus.

Move down a menu until you encounter an entry which has an

arrow at the right hand side where the others have the keyboard alternative and move the cursor along towards this arrow. A secondary menu drops down leaving the primary menu still displayed. The cascade menu is used as per normal. Without these cascade menus, the main menus would have to be excessively cluttered to accommodate the number of entries in Redacteur. The so called hot zone is the distance you have to move along a normal entry to invoke the cascade and this can be altered and the result stored as the new default value.

I've already suggested that Redacteur can read FWP files but the story doesn't end there. In total, twelve different word processor formats can be read by Redacteur! The mandatory "load text to cursor" option is supported as Merge Text. The loading of text from another word processor is not new but the range is rather impressive. The variety of save text options is even more impressive. The 'Save as...' option drops down a cascade menu which is impressive in the extreme.

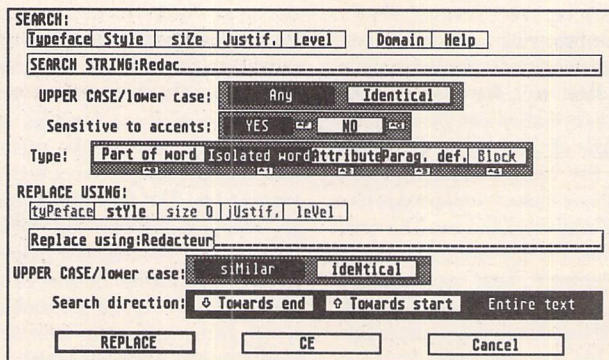
Here is one of the answers to the question I posed at the beginning of the article - why do ST Applications use Redacteur? Answer - write your article in Redacteur, save it as an FWP file

and then pour it into Timeworks DTP. Incidentally, the new version of Timeworks (Publisher 2) allows for direct importing of Redacteur files. Saving a file as ASCII can be as straight ASCII or what is described as 'translated ASCII'. This means that codes outside the normal range of hex 20 to 7F are rendered harmless and will not cause problems when loaded into a machine other than an ST.

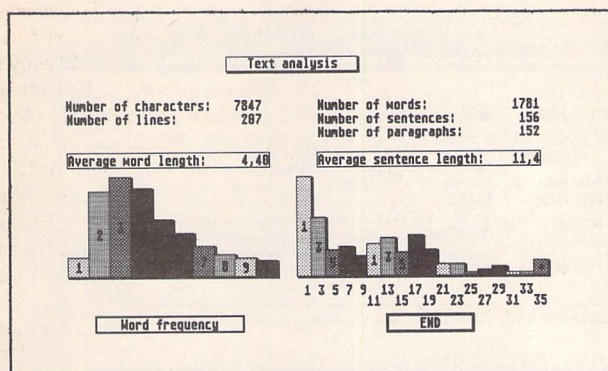
The Edit menu provides access to a whole host of goodies including the ability to format a disc from inside Redacteur. The disc is formatted to 80 tracks, 9 sectors. The 'Choose suffixes' option allows you to alter the default suffixes used by Redacteur. I don't think it is a good idea to use this option as the different suffixes used by different word processors allow you to tell at a glance which processor a file originated on. If you decide to change the suffixes these can be saved into a configuration file and will become the new defaults. Search and Replace is a favourite item for most word processor users and the choices offered by Redacteur are second to none.

The search option allows you to locate not only words, phrases, etc., but also different typefaces, styles, sizes, justification types, etc., etc. The usual case sensitivity options are provided and you can stipulate part of a word, isolated word(s), paragraph definitions, etc. In addition to the normal search up or down from the cursor, the option to search the entire text, irrespective of cursor location, is provided. Now why didn't this option exist before now - it is really very handy. The search and replace option covers all of the above features on the search side and contains some very interesting replace features.

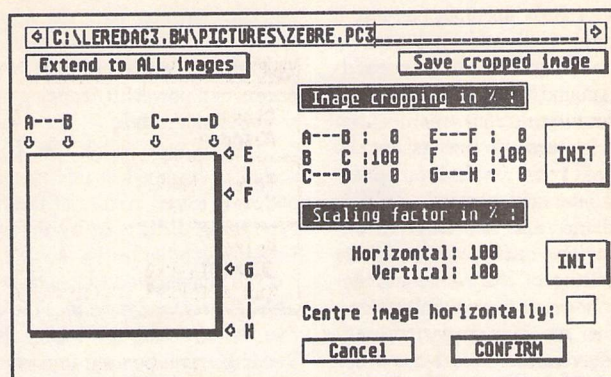
You can stipulate a style for the replace string but such attributes as typeface, size and justification are only active if you opt for replacement of paragraph definition. Global and selective replacement options are offered and selection of the latter invokes a dialogue box which offers replace, replace all, continue without replacement and end. The menu item Search again... allows you to restart an interrupted search and replace from the cursor position in the same direction as before. Overall I think these search and replace features are as good as any I have seen. Two related items are found in the Edit menu - Go to page... and Go to



A wealth of features in the Search & Replace box.



Whole documents or blocks of text may be analysed in the blink of an eye: very useful for a quick word count.



The image cropping and scaling dialogue. This may also be used for converting images in other formats to either IMG or P13 files.

line... and need no further explanation. The comment option allows you to place a note within your document which can't be printed. The purpose of these is to allow you to annotate, reference or simply place a prompt to yourself that the work needs further alteration. A delete comment entry is provided to remove these once they are no longer needed. Footnotes are also well covered but I suspect that this a facility which the majority of users will find little use for. This also applies to the Note facility. A note is very similar to a footnote except that it appears at the end of the document rather than the end of a page. The Markers option duplicates the icon option below the edit screen but these menu options allow you to move to a specified marker. Markers are saved with a document unless it is saved as ASCII.

The Rulers menu largely duplicates the operations which are carried out on the ruler itself and which I described earlier. The facilities pertaining to libraries are not available elsewhere. A library is a term used to designate a collection of paragraph definitions. This means that if you have a series of different document types, you can save the library of paragraph definitions for each type and reuse them in subsequent works. Although simple in concept, this is actually a powerful feature.

As you would by now expect, Blocks are well handled by Redacteur. A block can be defined either by defining its start and end points from the menu or by dragging the mouse downwards with the left mouse button depressed. Like Calligrapher, when you reach the bottom of the screen, the page scrolls downwards allowing blocks larger than one screenful of text to be defined by dragging. All the usual features of block manipulation are

covered including the option to print or save a block. What is radically different is the ability to define a block of columns.

The block of columns is defined by dragging downwards with BOTH mouse buttons depressed. Once defined, the usual operations can be applied to the block. This facility is one which I have long wished to see implemented on a word processor and one which I make a great deal of use. The Block menu also contains the entries required for table generation. I mentioned in the Calligrapher review that the ability to generate tables within the program, including the boxing and lines, was an enormous boon to a lot of users. Redacteur uses a similar system. The table contents are typed in with columns separated by semi colons, the whole lot is blocked and Make table selected. A dialogue box then allows you to define the table's appearance.

Individual lines within the table can be altered to double or removed simply by clicking on them. The option to total columns is on offer and this facility was not present in Calligrapher. Once the layout is to your liking it will be displayed in your text. Tables are printed in text mode and this results in rapid text output. If you are unhappy with some facet of your table, block it and select Unmake table to restore the data to

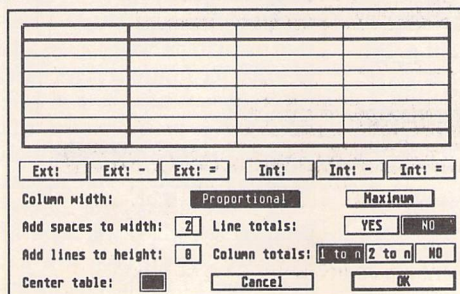
its original form for editing. Individual line of the formed table can be deleted using Shift + f8. I find the table facility to be almost indispensable and expect that any future good word processors will offer this facility.

Options

All of the features I have described so far are directly related to the creation and manipulation of text. Those items contained in the Options menu are not concerned with either of these but contribute to turning this program into a tool for professional writing. Glossary allows you to assign a combination of Alternate + any of the numerical and alphabetic keys to a text string or a macro. The assigned text string can be up to 80 characters long and even this limit can be extended by stringing (no pun intended) two or more glossary definitions together. The assigned string can contain styling by using the function key to define the style when assigning the glossary. Macros are also defined from the glossary dialogue and consist of a string of keyboard commands which will be implemented when the chosen keypresses are made. Both of these glossaries and macros can be saved into the configuration file which makes them available every time the program is run. The keyboard option allows

assignment of a non-keyboard character to an unassigned key combination or to review the assignments already made. Again these can be saved and retained. The next menu option - Parameters - is concerned with the alteration to the configuration file which defines Redacteur on boot up. It is a cascade menu and displays a wide range of options. The inbuilt screen saver (blacks the screen after a specified period to safeguard your monitor) is controlled from the general item. Be warned that to use the screen saver you must have 33K of free memory. This general menu allows control of such features as 80/136 columns, alert level (expert mode suppresses alert boxes), manner in which the spell checker alerts when in continuous check, and whether you want to set time and date at the beginning of each session. Pressing HELP followed by either Backspace or delete will display a help box with information on the various delete options. Backspace plus cursor up or down displays a help box with the various methods of moving around the document. Both of these facilities can be suppressed from within the general menu - why on earth you would want to is completely beyond me. The files parameters sub menu allows access to several useful features, the most important of which is the Autosave facility.

This feature is very well implemented and includes an option to save the files in a compressed format. Having got used to an autosave feature as a Calligrapher PAK, I now find it irritating that FWP does not implement this most useful of features. Typefaces are controlled from within the parameters sub menu and I'll have more to say on fonts in a short time. The Environment entry



Redacteur handles the automatic creation of tables very well: a monospaced font ('Razor') is provided to give vertical alignment.

allows you to install and de-install auxiliary programs. The desktop can be customised as regards background pattern (or colour in medium resolution) and the hot zone for cascade menus can be adjusted from the desktop option. Horizontal and vertical scrolling speeds are also altered from this option. The display option allows the setting of the remaining display parameters including whether graphics are permanently displayed or are unloaded in order to speed up vertical scrolling. Redacteur can display up to four documents at a time and an option is provided to alter the relative orientation of these four on the screen - this really is fine detail! The options to analyse both text and blocks of text are, I believe, unique to Redacteur. These allow you to make a complete analysis of a document (or block) in the active window giving a complete statistical breakdown of its composition.

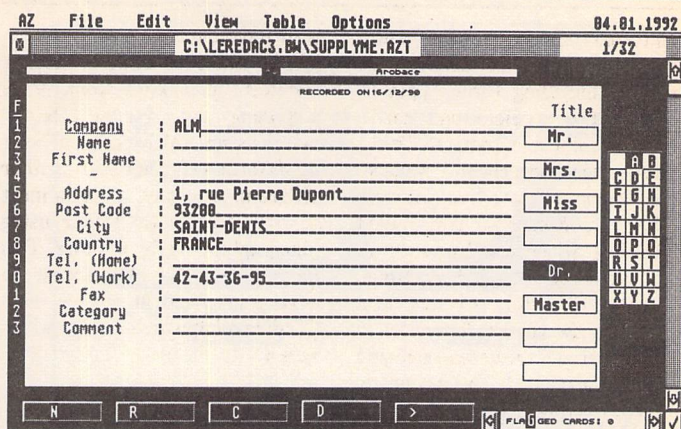
The feature is self explanatory and selecting the word frequency option will list all the words used in the document and show how often each was used. The index options allow simple creation and manipulation of an index for your document. Although powerful, this feature is very simple to use. Powerful mail merge facilities are accessed from this menu and cover all the eventualities I could think of. Hyphenation is provided both as automatic and manual facilities. Dehyphenation is also provided.

The graphics menu allows for the insertion of the widest range of graphics formats I have seen on any processor. 18 different graphics formats can be incorporated into your text and these cover all the types I could remember see-

ing. Once inserted into text, a graphic can be moved and modified. The Modify graphic option gives access to a powerful cropping and scaling dialogue box.

An image which has been scaled or cropped in this manner and then saved results in the file type being .IMG type by default. Using any other suffix results in the file being saved twice, once in .IMG format and once in .PI3 format. As an aside, this means that Redacteur can be used to convert other graphics formats to .IMG or .PI3 format. This is a very handy little utility in its own right. The remaining options in the Graphics menu are concerned with the creation and manipulation of mainly mathematical formulae which I'll deal with when I describe Sigma.

Spelling checkers are a feature by which I have seen word processors compared - though why I don't know. On such a comparison basis, Redacteur takes some beating. Spelling check operations are handled from the Dictionary menu. As supplied, you have the option of English or French dictionaries (or both if you like). The standard continuous check is provided as Verification on entry - rather verbose I thought. Various other verify... options are provided. These cover the whole text, from the cursor position to the end, paragraphs or a block may be checked if defined. According to the manual, with the English dictionary installed, the spelling checker looks for errors at a rate of 800 words per second. Obviously I had no way to verify this figure but I have no reason to doubt it as it is by far the fastest checker I have ever encountered. If the figure is correct, it makes it the fastest checker available on



The main screen of the database 'Aztheque' which may be used as a separate application, if wished, or as an integral part of Redacteur's Mail Merge function.

any micro! When an unknown word is encountered, a dialogue box is displayed with the usual skip and replace options. Additional options allow you to view neighbouring and similar words. If the unknown word is correctly spelt, you can add it to the word list which can be saved and later loaded or integrated into the main dictionary. The correct/consult and conjugate verb options can be used in English but are really more intended for French. The latter option could be of enormous use to someone studying French at school or in the office. The manner in which this module handles such tricky items as capital letters, apostrophes, compound words, etc., may be defined from the Verification parameters option. Although there is an entry for a thesaurus, selecting it invokes an error message as the English thesaurus is not yet available. I believe that the ST club are working on this at the moment and it will soon be added to Redacteur's repertoire.

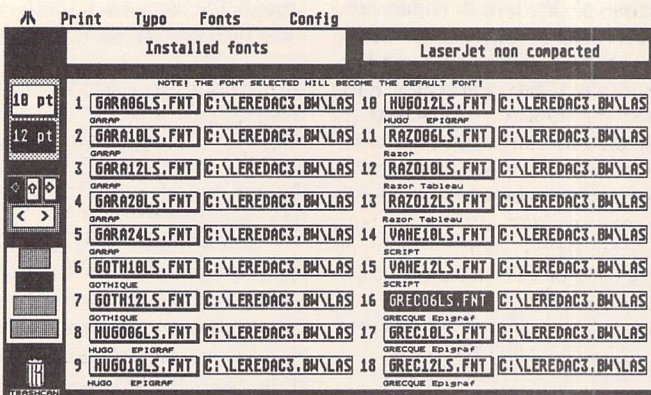
on this version at this time. Two utility programs are supplied with the package. The first consists of a disc cataloguer and a search/index unit. The former allows you to save as a file a complete catalogue of the contents of a given disc or partition. The latter allows you to find a given character string(s) among the files found on a given search pathway. This is intended more for hard drive users, as it is often difficult to remember which document contains a particular reference, address etc.

The second utility is a file management and database module called Aztheque which can be integrated with Redacteur. Information can be exchanged between the two programs if they are integrated but Aztheque can also be run as a free-standing program from the desktop. It is used, amongst a lot of other things, as the source of data for the mail merge facility. This program could easily be sold as a separate package and I would expect to see a price tag of at least £60. The standard structure of cards subdivided into fields is used by the program. Each of the available 13 text fields may contain up to 520 characters and each may be subdivided into 13 subheadings containing up to 40 characters each. The maximum theoretical size of a file is 32,767 cards but realistically, the limitation will be available memory and patience required to input that colossal amount of data! The normal work area of the program is very straightforward and remarkably intuitive to use.

A small sample base is provided but all the entries are French - quite irrelevant as it merely serves to let you see how simple Aztheque is to set up

Utilities

The final menu is the Utilities menu. It could equally accurately have been called the User menu as it can contain utilities written by the user and functioning as separate modules within the main program. You can have up to nine auxiliary modules sharing nineteen menu items which gives a lot of scope for future enhancements either by yourself or, I suspect, third-party programmers who may see in these a potentially lucrative market. The manual talks about a Redacteur Developers' version which will allow integration of such programs into Redacteur. I have no information



Graphic mode printing is handled by the separate Graphprint3 programme, which, memory permitting (2MB+) may be co-resident alongside Redacteur, thus allowing almost instantaneous switching between the two.

and manipulate. All the usual database features are implemented including three types of display (Form, field and card), markers, cut and paste of fields, merge, sort, search and replace, etc. Import of data from sources other than Redacteur is provided including Superbase, Emulcom 3, Microsoft Works and Portfolio. Keyboard equivalents are generally the same as those used in Redacteur and are useful once you are familiar with the program. Used on its own, this is a respectable database. Integrated with Redacteur, you have a very powerful combination indeed.

Maths Formulae

Using a word processor to write a scientific work is not a simple task but the problems are elegantly handled by the mathematical formula editor Sigma. This program only runs in high resolution owing to the nature of mathematical formulae. It can be integrated with Redacteur or it can function as a stand-alone program from the desktop. Until fairly recently the only way to deal with formulae was to use Signum2 and I refer you to Dr Graham McMaster's excellent article on this topic in STA issue 13. Calligrapher offers formula handling capability and the soon-to-be-released Interactive Formula Editor PAK that I described in STA 15 offers another excellent solution. That Sigma is supplied with the Redacteur package is remarkable. It could easily be sold as a separate package and I would strongly advise that there is a significant market awaiting just such a product. To my mind, the combined value of Aztheque and Sigma exceeds the £119 price tag for the whole Redacteur package.

The main edit screen is very simple to use. The function keys are preconfigured for certain mathematical functions but you can assign any function you like to them. The vertical menu allows access to the symbols and alphabets which you will require. The keyboard can be configured to allow direct access to symbols using combination keypresses and pressing the HELP key will display these assignments. Sigma is compatible with the font editor (coming next) allowing import of user defined symbols. All scientific and mathematical symbols I could think of are covered by Sigma including a comprehensive range of matrix facilities. Having created

your formula, it can then be transferred back to the Redacteur document you were working on (assuming they are integrated) or saved as an .IMG, .PI3, .PC3 or .DOO format file for use in another program. Any such formula must be output from Redacteur using the graphics mode printing. This module will be of interest to anyone involved in science from GCSE level upwards - personally I love it.

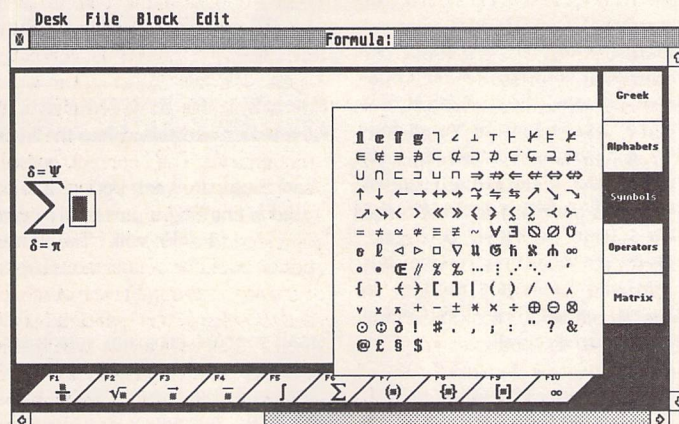
Fonts

A comprehensive Font Editor is also supplied allowing you to create or modify existing fonts for use in graphic output mode. The manual informs you that the font editor is scheduled for further development and I wonder if that version may be sold as a stand

alone program - pure conjecture on my part. I don't propose to go into a great deal of detail about the editor. Suffice to say that is very simple to use and has a lot of powerful features. It is no match for Fontkit Plus 3 but as an included extra it is very useful indeed.

Dictionaries

The final auxiliary program is the dictionary editor which I mentioned earlier. This allows you to create your own specialised dictionaries which contain words gleaned from the word lists formed during spelling checks. Although powerful, the editor



Sigma is a fully-featured editor of mathematical formulae, only working in high resolution. The formulae and structures created with this may be imported directly into Redacteur documents.

alone program - pure conjecture on my part. I don't propose to go into a great deal of detail about the editor. Suffice to say that is very simple to use and has a lot of powerful features. It is no match for Fontkit Plus 3 but as an included extra it is very useful indeed.

The graphics printing program, Graphprint 3, is designed to allow graphic mode printing of your text using proportional fonts and incorporating graphics and formulae. If you own a 1040, you must carry out graphics mode printing from the desktop owing to lack of memory. This in no way impairs the performance or operation of the program. The main display details your printer type and resolution and eighteen slots for the selection of fonts and their pathways.

Printer fonts, like screen

fonts, have a specific order of installation. The order of screen fonts must match the order of printer fonts but once you have set these they can be saved. The program is straightforward to use and, as usual, the manual is very clear in its description. The quality of graphic mode output on my Deskjet 500 is very good and considerably faster than from Calligrapher (but not quite as good quality).

betrays its French origins by asking for information regarding the gender of words. Do you really care whether a fount is masculine or feminine? Dictionaries can be printed out once created and I am sure that someone will have a use for this facility - I haven't! As Redacteur can support up to six dictionaries, there is plenty of scope for creating several different specialist dictionaries. Such dictionaries can be merged together or with the main dictionary if desired.

Extras

In addition to these auxiliary programs, the Redacteur package contains several other smaller programs, none of which works from inside the main program. These include a RAM disc, a font compac-

ter/decompressor, virus killer, and a couple of programs used to dump the screen to disc. The final offering is a gem (no pun intended) of a program called Cliché. This is an accessory which is like Snapshot but offers a choice of formats for the saved file and can be operated by pressing Alt/Help. This displays crosshairs which you use to define the area to be grabbed. This means that you can grab even if you have a menu pulled down. Ever wondered how we got that type of picture? Be warned, if installed it steals over 60K of memory.

As you've probably guessed by now, I'm more than a little enthusiastic about Redacteur. Its price puts it in competition with Calligrapher Professional (£139), Protex 5.5 (£152.75) and Signum2 (£186). Although the cheapest of the four, it is in very powerful company. It is primarily a text-based processor with powerful graphics whereas Calligrapher is primarily graphic-based with text features. Protex is purely text-based and Signum is purely graphic-based. I now own both Calligrapher Professional and Redacteur 3 and this is, I think, the ideal combination. If I had to choose one or the other, I would have to do a lot of head scratching. Once the English thesaurus is functional my only criticism will be the inability to have multiple columns of text. The power of the integrated database and formula editor make Redacteur an exciting newcomer to the ST word processor market. The cost is high but in terms of features per pound it is absolutely unbeatable. The combination of its text and graphics power is going to make this a very hard program to beat and if you own FWP I have no reservations in recommending Redacteur 3 as the final step up the word processing ladder.

Product:Redacteur 3
Version:3.15
Supplier:The ST Club
2 Broadway
Nottingham
NG1 1PS
Tel:0602 410241
Price:£119
Manifest:4 d/s discs,
656-page manual
System:1 MB memory,
high or medium
resolution; STE
and TT
compatible.

Lookit & Popit

Review by Michael Baxter

Codehead have an enviable reputation for producing very clever little system patches and utilities. With the likes of Maxifile, LGS, Hotwire, Multidesk, Codekeys, Pinhead, G+Plus and Topdown already under their belts, there isn't a lot of TOS code that they haven't hacked, cut into or replaced. The latest addition to their range, Lookit and Popit, is a curious mix of a file viewer, and an accessory hot-key utility. Michael Baxter takes a look...

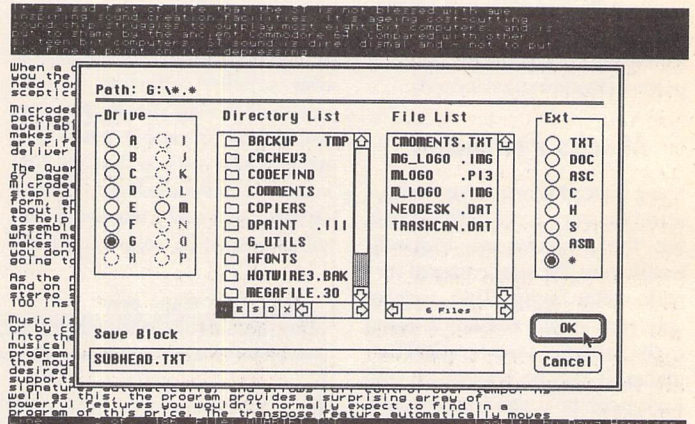
Two powerful utilities for the price of one? That's what Codehead claim of their latest baby. The combination of a file viewer and an accessory hot key caller is a strange one, though - they have as much in common as an assembler has with a spreadsheet, and you don't often see those bundled together in one package. Nevertheless, both are useful utilities which any serious ST user should be able to find a use for...

Lookit and Popit follows Codehead's usual packaging trend, i.e. an A5-size manual, which in this case runs to fifty pages, and a single sided disk. It's also nice to see that Codehead are continuing to fill the blank space on their disks with the latest versions of their Public Domain and Shareware titles - the Little Green File selector and Pinhead 1.8 are lurking in a shareware folder waiting to be

dragged onto your boot disk. Also in keeping with most other Codehead releases, the manual is of a high standard, both in design quality and written content. It's also nice to see a fair smattering of often very subtle humour. From a user's point of view, both programs are relatively simple, but Codehead have left nothing to chance, exhaustively explaining each feature in detail.

Installation

This is one of the few commercial Codehead packages which does not require user registration via an installation program. Instead, getting Lookit and Popit up and running is a simple matter of dragging the necessary files into the required parts of your boot disk. Popit runs as a standard desk accessory, but requires that a



Lookit can save any part of a text or binary file as a standard Ascii file. Block marking is particularly good, with mouse-based click and drag facilities which put some full-blown editors to shame.

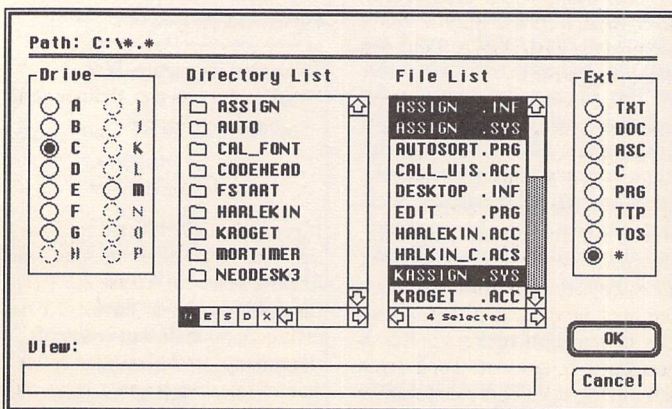
small support program is present in the auto folder for it to work. Strangely, the manual states that this little accessory registration program - Regacc - is also essential to the operation of Lookit - I can't see how, since Lookit is an entirely separate application which has no interest in installed accessories whatsoever. Lookit can be installed as an application, or more usefully, it can exploit a slight quirk in the GEM "Desktop.Inf" file. By altering your existing .INF file with a text editor, Lookit can entirely replace the show file function, by automatically loading itself whenever a non-executable file is clicked on. An example Desktop.Inf file is included if you don't feel happy messing around with your existing setup. NeoDesk III users fare even better, since Gribnif have built in direct support for alternative file viewers.

dual text/binary viewing mode, its ability to handle up to 32 files simultaneously, exceptionally fast scrolling, extended printing control, a clever user interface (more on that later) and quite powerful search facilities. It can also mark blocks with the mouse and save them to disk as a separate Ascii file. If you're a cynic, you might argue that the above description would fittingly describe a text editor, albeit without editing facilities. Well, I am a cynic, and to my mind, that's exactly what Lookit is - an editor cut short in its prime.

It is this point that may well lead to Lookit's downfall. While I have no complaint with the quality of Lookit, I have to question the value of having to load a 150k program file - which is an awkward chore with floppy based systems - simply to view a text file. Why not simply install something like Tempus 2, which weighs in at around 80k, scrolls equally as fast, has very powerful search functions etc, etc, and has editing facilities should you need them? Or, for that matter, why not invest in something like Mortimer (see review in STA 11) which costs around £3 more, gives the likes of Harlekin a real run for its money,

Lookit

Right, so Lookit views files. What makes it stand out from the competition, which at the moment consists of various cheaper-than-cheap PD variants, most notable of which is Quick View? Well, Lookit's main claims to fame are its



The InterLib file selector certainly isn't the most feature-packed of replacement selectors, but it does the job well enough. Most notable of its features is the ability to select several files at once, using click and drag block marking if necessary.

and allows its impressive text editor to be used as an automatic text and graphic file viewer?

Purely in terms of functionality, though, Lookit is very slick at what it does. The scrolling is possibly the fastest you will ever see on an unexpanded 8Mhz ST, definitely in the Tempus league, probably even faster. Its printing facilities are well above average, and its search facilities are surprisingly good. It just seems that Lookit has lost its way somewhere along the line - take the binary file viewer, for example. These are normally the domain of dedicated disk and file utilities, yet the designers have thought it a good idea to incorporate a simplistic one into the program. Yes, admittedly it is quite good, but is light years behind what you would expect to find in dedicated software such as Knife ST, and to be honest, if I were wanting to muck around with files at source level, I would want to use a program that went all the way with available functions.

Bearing all this in mind, it's even more astonishing to find that Lookit can't do one of the more simple things usually associated with the very type of program it purports to be. Want to have a quick peek at a Degas file? You can't. Want to examine an .IMG file without having to load a paint program? You can't. Ho Hum.

Command Line

Lookit can be run from any shell, including Codehead's own Hotwire. The command line options allow Lookit to be loaded and set to simply use Lookit as a printing engine for files, exiting immediately when the print job is done.

InterLib Interface

Lookit is the first Codehead program to use their new user interface system, InterLib. To all intents and purposes, it is a Windows 3/Apple Mac front end derivative running under a familiar GEM façade. The most obvious improvement is that despite the fact InterLib is a WIMP interface, it can be controlled entirely from the keyboard, something that cannot be said for the vast majority of GEM applications. Pull down menus can be "dropped" via an Alternate key combination, and menu entries can be selected with the cursor keys, à la Windows.

The image shows three screenshots of the Popit utility. The top left shows the 'File' menu with options: Open... (O), Open Text... (T), Open Binary... (B), Print... (F5), and Quit (Q). The top middle shows the 'View' menu with options: HARLEKIN.TXT (C), Next (N), Previous (P), and File List... (F). The top right shows the 'Options' menu with options: File... (F), Printer... (P), Screen... (S), Load... (L), Save... (S), and Save Path... (P). The middle left screenshot shows the 'Popit!' main window with a 'Desk Menu' listing various accessories like About RegSnap, Harlekin, K-Roget, MaxiFile, Popit!, and Universal III, each with a keyboard shortcut. The middle right screenshot shows the 'File List' window displaying a table of files with columns for File, Type, and RAM Used. The bottom text block explains that the main menu display doubles as a tearaway 'Desk' menu, allowing accessories to be called up by double-clicking on their names, and that hot keys can be temporarily switched off.

Visually, InterLib resembles an Apple Mac (®, ®, ™) - all buttons are rounded, and radio buttons can be easily differentiated from selectable buttons. Keyboard handling and dialog box editing control has been vastly improved - users of Dan Wilga's excellent PD GEM dialog utility, FormDolt, will feel at home with the new interface, but InterLib goes even further with extended mouse operations, field panning, and scrollable lists. The latter feature is reminiscent of the click and drag block marking found in the better wordprocessors - files can be selected with the mouse, automatically scrolling the list up or down if the mouse strays over the window border.

Hardly surprising then to find that Lookit also has its own custom file selector. I'm not going to compare it to UIS III, because I'm sick to death of saying that the competition can't hold a candle to it.... Nevertheless, it is very good, sporting multiple file masks, drive buttons, and those scrollable lists that I've just mentioned. It is unusual in that it has separate windows for folders and files, which is a marked departure from ST conventions, and an often confusing one at that. Should you decide that you can't live without your own personal file selector preference however, Lookit's offering can be disabled.

The Menus

File	Type	RAM Used
HARLEKIN.TXT	Text	3K
QUARTET.TXT	Text	10K
HARLEKIN.TXT	Text	NA
UIE_III.PRG	Bin	16K
FS_INIT3.S	Text	37K
FS_CONF2.C	Text	35K
BLT_REM.C	Text	1K
FSFART.C	Text	NA
ST_DATA.C	Text	NA
UPLOAD.C	Text	NA
NEOUSMAN.TXT	Text	5K

Lookit can handle up to 32 text or binary files simultaneously. All files can be held in memory assuming there is enough available, allowing rapid movement through files.

Popit

Superficially at least, Popit is a simple little program which overcomes a hitherto overlooked but cumbersome system glitch, that is the ability to call up a desk accessory with a hot key combination. Hot keys seem to be where it's at on the ST at the moment - everyone is falling over themselves to produce vaguely similar incarnations, which with a single key click will do everything from running a program to designing, writing, compiling and debugging one... Ok, so maybe that's going a little bit too far, but bearing this in mind, it seems strange that Popit is the only utility I can think of that does what it does. Maybe that's because the job it does isn't quite as simple as it seems.

As I mentioned earlier, Popit runs as a desk accessory, but for it to function correctly, a small program called Regacc.Prg must be present in the auto folder at boot time. As its name suggests, "Regacc" registers every desk accessory which is installed during the boot process, and then passes this information to Popit. This is necessary to prevent Popit from attempting to call desk accessories which may not be installed during a given work session, and so avoiding a spectacular crash.

Selecting Popit from the Desk menu produces a scrollable

window showing all the current accessories installed in the system, as well as the definitions and combinations for absent accessories. Assigning a hot-key combination is simply a case of selecting the accessory's name, and pressing the required key combination - voilà, one hot accessory! As you might expect from the integrationally-minded chaps at Codehead, Popit can even call up accessories installed in Multidesk 2: it can even call up Multidesk itself.

Multiple configuration files can be created which can contain the hot-key combinations for up to fifty accessories each (!?), and the main Popit window doubles as a tear-away desk menu, in that an accessory may be called up simply by double-clicking on its name.

So there you go. If you've ever had the burning desire to access your desk accessories via a key combination, then you need look no further than Popit. Any bugs? Not as far as I can tell, but the manual does point out that early TOS 1.0 machines may have problems with accessories which use timer events, in the form of "sleep forever" crashes. The problem, however, is said to be minimal, occurring only when the conditions are exactly right. Bit like a nuclear chain reaction, really...

Summary

Points For:

- ✓ Can hold and view up to 32 files simultaneously
- ✓ Blindingly fast scrolling, even on a standard ST
- ✓ Powerful search options
- ✓ Impressive user interface
- ✓ Binary editor allows low level file editing if you need it
- ✓ Popit does everything it claims to do

Points Against:

- ✗ Can't show picture files
- ✗ 150k file means tedious load times from floppy

Conclusion

It really is a bit difficult to draw a definite conclusion on this one. Codehead never release sub-standard software, and Lookit & Popit is no exception. What it does do, it does very well, but the overall mix of features seems a little confused. As a text file viewer, it has no equal on the ST, being fast, friendly and intuitive. Nevertheless, such programs are supposed to offer a quick and convenient

way to view text files without having to load a full application. Weighing in at 150k, Lookit is longer than most text editing programs anyway, so why not load a dedicated editor and have those extra facilities at your disposal should you require them?

If you have: (i) a hard disk (and/or bags of memory for a ramdisk), (ii) a spare thirty quid burning a hole in your pocket, and (iii) you don't already own one of Codehead's more impressive utilities, such as Multidesk or Maxifile, then Lookit & Popit is worth a look. But until Codehead do something about the missing picture viewer and compress the file size, I will remain largely unconvinced. Having said that, this is only version 1.0...

Alternatives

PD Quick View, Mortimer, Tempus... in fact any text editor which can handle installed applications could be used in a similar manner to Lookit. Popit, on the other hand, is pretty much out on its own if you need a facility to call up accessories via a key combination.

Lookit's screen options. Note the scroll rate box - the "slow" option is primarily for TT owners who may actually wish to make sense of the resulting blur on their monitor screens. Since Lookit's scrolling is blisteringly fast on a standard ST, it needs to have its engine clamped on accelerated machines. Also, the custom graphics option refers not to the new-style interface as you might expect, but to the scrolling routines mentioned above which will not work with non-standard screen modes.

File printing is competently handled, allowing sequences of printer control codes to be sent to the printer, both before and after printing. The "More" button give access to a further dialog, which controls page margins and output quality.

Product:Lookit and Popit
 Version: 1.0
 Supplier:Codehead Software
 c/o The Atari Workshop CSS
 Windsor Business Centre
 Vansittart Estate
 Windsor SL4 1SE
 Tel: 0753 832 212
 Fax: 0753 830 344
 Price: £29.95
 Manifest: 1 single-sided disk, 50-page manual
 System: All Atari ST/STE/TT computers,
 medium/high resolution

Imagecopy

- ☛ Copy images from screen and save them in IMG, Degas or RSC format. Images may be copied by pressing Alternate-Help, allowing you to capture images when the Accessory menu is not available.
- ☛ Flexible rubber-banding system which allows images to be selected with a fine degree of accuracy.
- ☛ Copies images from both standard and large screens (including virtual large screens such as MonSTer) in any of the normal ST/TT resolutions except TT low resolution.
- ☛ Convert images to different formats. Imagecopy reads images in IMG, Degas, NEOchrome, Art Director, and Tiny format, and writes images in IMG or Degas format.
- ☛ View images on a monochrome or colour monitor (colour images are dithered on monochrome screens). Up to four images may be displayed simultaneously.
- ☛ Print images and screen dumps in a variety of resolutions on a range of different printers, including:
 - 9-pin or 24-pin Epson-compatible dot-matrix printers
 - Bubblejet printers (with IBM or Epson emulation)
 - Deskjet and Laserjet printers
- ☛ Print speed is much faster than normal GDOS output.

Imagecopy is supplied as a desk accessory and as a stand-alone program. A fully illustrated manual is included.

Price: £9.95
 Available from 14th February 1992
 Order form on page 57

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 Latvian Lithuanian Malay-
 sian Manipuri Marathi Mizo
 Moldavian Mongolian Naga
 Nepali Norwegian Old Cyrillic
 Oromo Polish Portuguese
 Punjabi Pushto Rajasthani
 Russian Sanskrit Serbian
 Serbo-Croat Sindhi Slovene
 Slovak Spanish Swedish Tajik
 Tamil Tibetan Tigrinia
 Turkmen Uighur Ukranian
 Urdu Uzbek Vedic and more

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Oblique Bold Bold Oblique EFF
 Swiss 2 £19-95 Light *Light*
Oblique Black Black Oblique
 EFF Swiss Condensed 1 £19-95
 Condensed *Condensed Oblique*
 Condensed **Bold Condensed Bold**
Oblique EFF Swiss Condensed 2
 £19-95 Condensed Light *Condensed Light*
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Black Oblique EFF Swiss Inserrat
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Ultra Ultra Italic

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 ... And More
 ... And More

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OUTLINE fonts are in. A number of ST programs now offer the luxury of being able to choose precisely what size of type you want: for example, Calamus, Pagestream, Calligrapher and Fleet Street Publisher 3. Once tried, it's hard to go back to standard GDOS, which fills disks with multiple sizes of the same font, and produces ugly jagged edges when fonts are scaled up. Does that mean there's no future for software like Timeworks DTP, That's Write, EZ Text, or Degas Elite (to name just a few) which all use standard GEM fonts?

In the absence of FSM GDOS (Atari's long-promised outline font version), a good compromise is a font converter which will produce GEM fonts of any size, without loss of quality. C-Font aims to do just that. Written by Jeremy Hughes (of Fontkit fame) in collaboration with Compo's Ralf Becker, it will convert Calamus fonts (recognised by their .CFN extender) into standard GEM fonts; and makes the whole process as straightforward as possible. In the ST world, Calamus is the most common format for outline or vector fonts, so a wide range of typefaces, both PD and commercial, is immediately available. In fact, even software like Calligrapher has to convert fonts to bitmaps for screen display and printing, so if you use (for example) Timeworks Publisher with C-Font, you are simply using another, slightly more laborious method to arrive at exactly the same place.

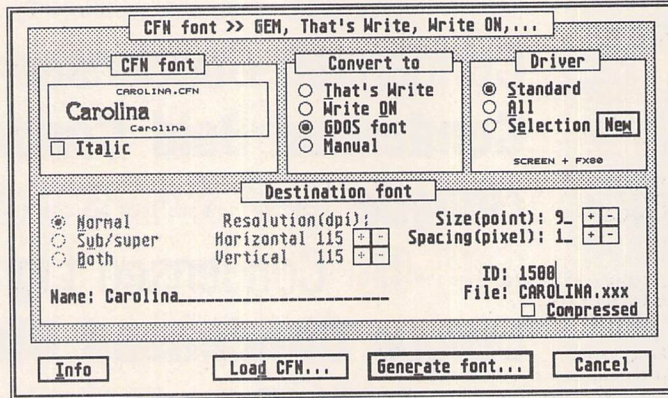
So how does it work in practice? C-Font is supplied on one single-sided disk with a small 16 page manual. The program itself can be run as a standalone program or (by renaming it with an .ACC extension) as a desk accessory. When loaded, the first thing to do is to load a .CFN font file; in most cases, a small image giving a rough impression of what the font is like will appear in the "CFN Font" window (see illustration). Next, you specify what sort of font is required, the options being:

- ☞ **That's Write.** C-Font will look at your That's Write set up (inspecting the file called TWRITE.INF) to determine the resolution required by your default printer driver.
- ☞ **Write On.** Works the same way at That's Write, except that it looks for a Write On set up.
- ☞ **GDOS Font.** C-Font will inspect your current ASSIGN.SYS

C-Font

OUTLINE FONTS FOR ALL?

Review by Richard Lane

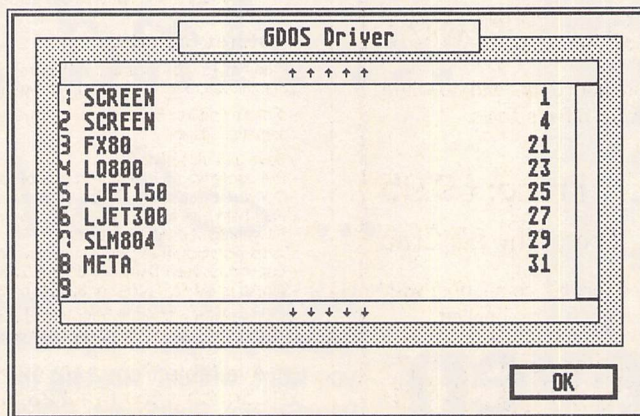


The main C-Font screen

file and GDOS printer driver to determine the correct resolution for printer and screen fonts. ☞ **Manual.** You specify the resolution of the font to be generated.

It is really these conversion buttons that make C-Font so easy to use. Instead of having to remember (for example) that That's Write requires screen fonts of 90 x 108 dpi, C-Font works it all out for you. If you have several drivers installed (whether for That's Write or for GDOS), you can use the "Driver" buttons to select several drivers, and C-Font will generate fonts for each of them.

Before you choose "Generate Font" there are some other options to consider. One is the all-important size: you may enter any figure between 1 and 99 points. Another is the spacing control: some Calamus fonts may convert with the characters too close together, so C-Font allows you to add or subtract small amounts to compensate. The ID number can and should be specified (for GDOS fonts): if you forget to do this, C-Font will assign a random number which may be different for the screen and printer versions, thus confusing GDOS. Finally, C-Font can save in compressed format if required, which saves hugely on



The Drivers dialog box

disk space, especially with larger point sizes or high resolutions. Most GDOS programs can accept compressed fonts when used in conjunction with the Fontkit accessory Fontxpander - highly recommended. The forthcoming That's Write 2 will be able to load compressed fonts directly, but unfortunately That's Write 1.5 and Write On 1.0 users will have to be content with uncompressed fonts.

The options for "italic" and "sub/super" are for That's Write/Write On users only. They enable you to produce correctly named fonts for a font family. The "italic" option is misleading, in that it does not convert .CFN fonts into italic; it simply informs C-Font that the Calamus font loaded is an italic one, which should have the .IT or .SIT extender.

Results are excellent. Comparing output from Calamus itself (I used the demo version) proved that C-Font works correctly, as the font characters are identical. In That's Write 2, C-Font is a joy, as it may be run as a Desk Accessory to produce fonts of any size while you are working on a document. Effectively, it gives That's Write 2 scalable fonts; when combined with font compression, this is a very powerful combination. The situation for users of programs such as Timeworks Publisher is slightly less easy, since you have to edit the ASSIGN.SYS file, reboot, run FONTWID.APP, etc, just as you do when installing any other new font. Even so, it is a great deal easier than scaling a GEM font using Fontkit, and touching it up by hand.

C-Font & Fontkit Plus

Is C-Font any use to owners of CAL2GEM, the accessory supplied with Fontkit Plus 3.4? It is really a matter of convenience. CAL2GEM, when combined with the new That's Write character table option in 3.4, will do everything C-Font will do. Then again, C-Font is a lot easier to use if you are not very technically minded, and don't want to think about such things as font resolutions. C-Font displays the descriptive CFN font image, which is useful; and That's Write 2 users will certainly want to take advantage of C-Font as a desk accessory. I can imagine a lot of Timeworks, EZ Text, Calligrapher, That's Write and Write On users finding C-Font valuable, even if Fontkit Plus itself is too daunting for them. And at £9.99, it is certainly excellent value.

Problems

I tried C-Font with a wide variety of PD.CFN fonts, and it performed very reliably. One font (Export Bold), which has a cut-down caps only character set, caused C-Font to crash when in That's Write mode, although it would produce a standard GEM font without problems. The early release of C-Font sometimes created screen fonts slightly too large for the printer font, when in That's Write mode

only. This caused the printed output to be slightly "loose" - small extra spaces are introduced between letters. This has been fixed in a free update, sent to all registered users. If your README file is dated January, then you already have the fixed version.

Another point to note is that C-Font will not run as a desk accessory with versions of That's Write before 2.0. The only other hassle is the size of large fonts on disk, especially when un-

File Block Type Style Layout Edit Options
1: fon_den.tm P1 A1 page 1 line 12 column 49

C-Font and That's Write

That's Write and Write On users will find C-Font particularly useful. Equipped with C-Font and a good collection of CFN files, it gives That's Write and Write On users almost the flexibility over fonts that Calligrapher has, but with That's Writes advantages of fast text scrolling, more usable paragraph tagging, and better handling of long documents.

The font used for the heading is Modern Bold, on ST Club disk FON 38. The body text is Carolina, on disk FON 37. Below are some other sample fonts:

Old English (St Club disk FON 38)
Toulouse (downloaded from (IX))
Casual Loose (this one's on ST Club disk FON 37)

Desk File Edit Find Font Format Insert Tags Miscs Idea Box Art
OAKVILLE.CAL

C-Font and Calligrapher

This is Oakville, successfully imported into Calligrapher using C-Font. Editing Assign.sys in Calligrapher is relatively painless, since there is a utility supplied with does the job of adding or deleting fonts.

While Calligrapher will happily use GEM fonts, you won't be able to scale them as you can with the special outline font format. In fact, I found Calligrapher simply printed the actual size stored on disk. If you tried to scale the font at all, even so, could be useful for creating a font for body text, or for occasional headlines.

compressed, and the need to edit ASSIGN.SYS to get fonts into the likes of Timeworks or Calligrapher - neither of which are C-Font's fault at all. But if you have a floppy-only system, and/or limited RAM, then you will have problems with large fonts, whatever font system you use.

PD libraries and bulletin boards. The ST Club has 4 font disks, including one or two outstanding designs. There are also a wide range of cheap and not-so-cheap Calamus fonts available from several suppliers, notably Gate Seven (071 602 5186), System Solutions (0753 832212), ABC Nottingham (0602 810009) and Polytype (the PCG library) (0229 832807).

Where to get Calamus fonts

Public Domain CFN fonts are available from the usual sources:

The PCG Font Designer program will convert Postscript Type 1 fonts into Calamus format.

'FontPac Plus' Gem Fonts

Derwent Set

The latest set in the FontPac Plus series is now available: the calligraphic typeface "Derwent", based on the 'Foundational' hand.

This set of fonts comes in three different printer resolutions:

- 180dpi - standard resolution 24-pin (12 fonts from 10 to 45 point)
- 360dpi - high resolution 24-pin (10 fonts from 7 to 23 point)
- 300dpi - laser or inkjet (12 fonts from 6 to 28 point)

3D Effect

Each set has associated screen fonts in both high and medium resolution, and there are at least two 'special effects' fonts.

To order, please use the following codes:

- 180dpi - Q1 : B
- 360dpi - Q2 : B
- 300dpi - L2 : B

Price: £9.95
from the ST Club

The fonts are supplied in GST compressed format, compatible with *Font Expander*; a utility to un-compress them is also supplied.

Contour PATTERN

FastCopy Professional

Lightning fast copy program and disk utility

FCOPYPRO.PRG
FastCopy PRO by Martin Backschat / '91 ICP Verlag 3636 KB

Select Option!

Copy Disk	Scan Disk	Format Disk	Streamer	Directory
New Conf	Inspect Disk	Soft Format	Image Copy	Quit

Verify Destination Smart Formatting Format Destination Read Disk Config. Multiple Copy Get Sectors all used

Source Dest. A A B B

Disk Configuration Sides 1 2 Sectors - 09 + Start at - 00 + End at - 79 + Density DD HD

Presets Default Fat DD HD 5.25 HD 3.5 Fat HD

Save Config.

The latest version of the number one ST disk duplicating software takes the concepts and features of FastCopy 3 and pushes them to the limits.

Features include:

- Copy disks: Only formats when required, Only reads those parts of a disk that contain data, Full verification, Intelligent handling of read/write errors.
- Format disks: Format up to 86 tracks and 11 sectors per track; MS DOS compatible disks.
- Save default settings.
- Pre-configure up to 5 default sets of parameters.
- Convert a disk into a file for archiving and comms applications.
- Fast hard disk backup with data-compression.
- Fully fledged disk editor built-in.
- Virus Detector, Killer and Immunisation.
- Support for High Density 3.5" and 5.25" drives.
- Works at 8MHz, 16MHz or 32MHz on ST, STE and TT.

Supplied with a 80-page ring-bound manual, FastCopy PRO is the ultimate disk tool for all ST users. FastCopy PRO is copyrighted and --not-- PD!

- Available from 21/2/92 RRP: £24.95
- Launch price (until 23/3/92) just £18.50
- Order form on page 57.

New

From DTP to REPRESS

Part II

WHEN you have spent years staring at monochrome text displays and the garishly coloured, blocky monstrosities passing for "computer graphics", seeing true photographs on your monitor is a magic experience. Great with black-and-white halftones, unbelievable with colour photos. I can well understand the enthusiasm of the reviewer in MacUser who declared Adobe's PhotoShop the best piece of Mac software he'd ever seen, as I feel much the same about Retouche Professional Colour Design: if there is a more impressive program for Atari computers, I would very much like to see it!

But more about Retouche later. The magic of colour explains why nobody looks at monochrome DTP software any longer, even though most printing is still done in black ink on white paper. It's so nice to have it, even though you may rarely use it. Professional and commercial users, however, demand it because if computers are to fully replace traditional prepress methods, then they have got to be able to handle colour as well as the traditional repro processes could. And that is a tall order indeed, making unprecedented

In the second of his two articles, Günter Minnerup examines the prospects of the new generation of Atari DTP software storming the heights of the professional prepress market. Are Calamus SL, Didot Professional and Retouche Professional Colour Design up to it?

demands on the hardware as explained last month.

In all the excitement about colour, however, it is often forgotten that it is the icing on the cake rather than the daily bread-and-butter for most commercial design studios and printshops. Most of them are so accustomed to subcontracting the fancy colour stuff out to a specialist repro house that the first thing they are going to look at in DTP software is not the undercolour removal and grey component replacement stuff, but its typographical facili-

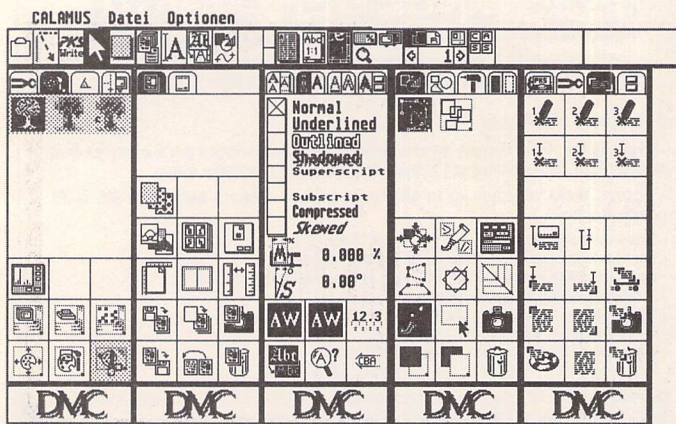
ties, its access to the vast multitude of typefaces, its ability to handle a great variety of different jobs, its speed and ease of use, and its compatibility with established industry standards. In these fields, the new generation of Atari DTP packages has made great stride forwards, and offers features and facilities which even the big-name Mac and PC market leaders are hard pressed to match.

These two pages cannot pretend to offer a full review of such powerful applications, of course.

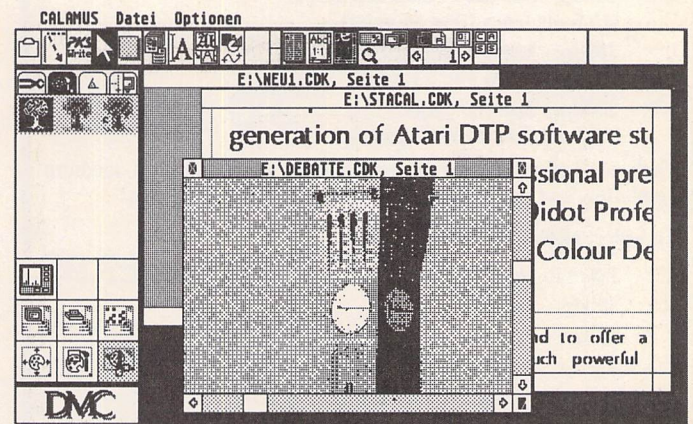
Nobody buys programs such as these on the basis of a review anyway, however glowing. I can only give an overview over their principal features here, and the next step for anybody seriously interested would be to contact the distributors for more details, samples of work done with the software, and a hands-on demonstration. Another pretender to the Atari DTP throne, SoftLogik's PageStream 2, has been omitted precisely because it can only be obtained by mail order in the UK - and you would be ill-advised to build a business around inadequately supported software.

Calamus SL

Calamus SL is the long-awaited new version of what is already the market leader in Atari DTP. Calamus had a slow and buggy start to life, but was then hugely successful mainly because it was the first page lay-out software on any hardware platform to offer true WYSIWYG with its proprietary vector font technology and a way around the stifling PostScript monopoly with its SoftRIPping technology: the vector files are converted into



Calamus, already notorious for its forest of icons, has acquired a lot more in its SL version: you'd be hard-pushed to find a more feature-laden program.

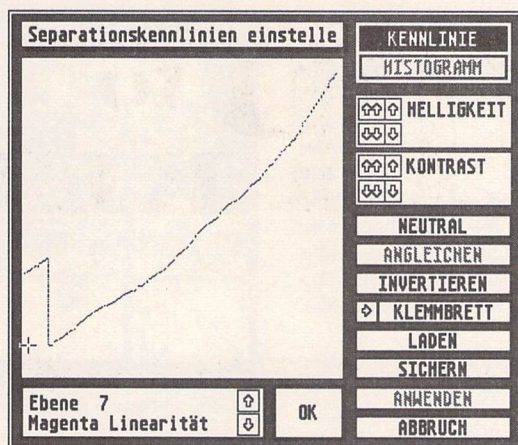


At last, Calamus can load several documents into different windows for simultaneous editing and cutting and pasting between them.

the bitmaps required by the output device before they even leave the computer, thus doing away with the need for a printer equipped with its own, expensive RAM and PostScript interpreter. For users of the cheap, but "dumb" Atari laser in particular, Calamus offered blindingly fast output speeds, and Linotype imagesetters could be fitted with a special interface that was still a lot cheaper and faster than a PostScript RIP (raster image processor).

But Calamus also had some weaknesses, especially in the lack of really accurate and versatile typographical controls (you could not, for example, compress or expand fonts, or vertically justify columns), graphics and text editing. Calamus SL addresses most of these, and must now be the most feature-laden of all desktop publishing programs. And, since the program is modular in design, any additional features demanded by users can easily be provided as "plug-in" add-ons: the current version already offers a vector graphics editor, an autotracer, a fully-featured text editor, and much more. Process and spot colour are fully supported, including the ability to edit colour correction curves, undercolour removal, and user-definable output screens.

Like its predecessor, Calamus SL again shuns PostScript entirely. As DMC point out, PostScript colour processing is rightly regarded with suspicion by most professionals, and they claim that the Calamus alternative is not only better in quality, but also cheaper and faster. This will cut little ice with those for whom



For colour separations, Calamus SL offers correction curves for every colour, and these can, of course, be saved to disk.

PostScript compatibility is an essential requirement, but may well clinch it for many design and print studios, especially smaller ones, who generate their own artwork and are therefore largely independent of outside input. In terms of fonts, the proprietary CFN format now offers several thousand typefaces from reputable catalogues such as Compugraphic, but the inability to use PostScript fonts is still somewhat restrictive.

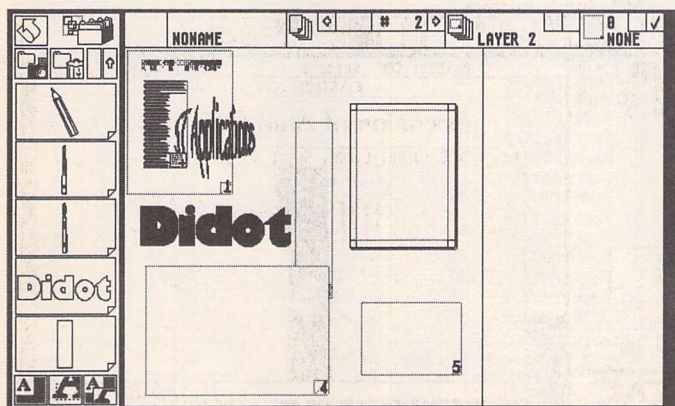
Didot Professional

Didot Professional adopts a more pragmatic approach. Its close affinity to Calamus is obvious from the moment it is loaded, as the icons and many user interface conventions resemble Calamus and it also supports the Calamus

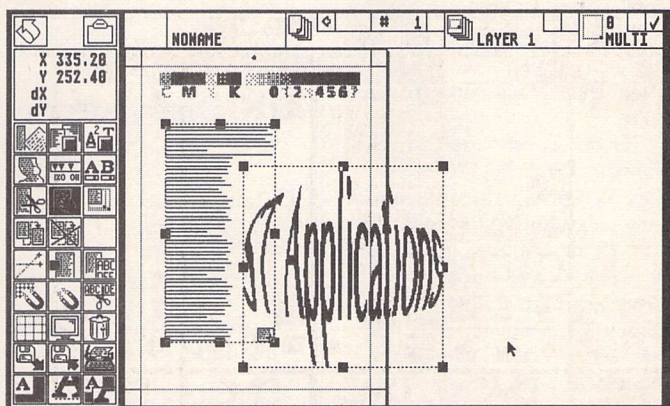
font and graphics formats (CFG, CVG and CRG). However, at both the input and output ends, concessions to PostScript are made: it is possible to use PostScript fonts (these, like Calamus fonts, are converted to its own DFN format "on the fly"), and to export PostScript files as well as output to a PostScript device. In terms of features, Didot is well behind Calamus SL: you may be surprised to learn, for example, that it cannot even number pages, let alone create indexes and lists of contents. But then its design philosophy is rather different: Didot started life as a font editor, then grew into the vector art program Didot LineArt, and in its adulthood now as Didot Professional specialises in short, design-intensive rather than long, text-intensive documents.

But what it does do it does rather well, and arguably better than Calamus SL: the Didot work area resembles a light table, on which a number of pages and objects (text columns, pictures, headings and so on) can be freely moved about. There are multiple clipboards and libraries for every conceivable page element, and each page can have an unlimited number of layers - consider these as transparencies superimposed on each other, each capable of holding text and graphics. Didot is very fast indeed, has a good built-in text editor, and highly versatile typographical controls. Above all, however, its origins as a font editor and vector art program show in its powerful abilities to manipulate just about every element of a page: page sizes can be mixed, columns can be dragged into every conceivable shape, text converted into vector graphics while still being editable as text, and so on. Colour is fully supported (although a second monitor is required to see any of it), but Didot is really designed to be used alongside Retouche Professional CD, from the same (German) 3K-Computerbild stable which offers much more comprehensive colour editing than either Didot or Calamus can on their own.

This gives me the long-awaited cue to return to the subject of my favourite program. I have never used a Mac, PC or ST program with anything like the pleasure and satisfaction, ever. Retouche Professional CD is simply sensational: fast, incredibly powerful (Adobe PhotoShop on the Mac is only just beginning to catch up with its editing



The Didot work area, a flexible environment that can hold different-sized pages and "loose" page elements, faithfully reproducing every layouters' desk clutter.



Crop marks, colour and grey control wedges, text columns editable as objects - Didot can handle anything needed for page design.

capabilities), and above all user-friendly and utterly reliable. Retouche Professional has never crashed on me or behaved in an unexpected fashion, which is more than I could say of Calamus SL or Didot Professional, both of which still show fits of "Version 1 temper" with regular "Fatal error" messages when you least want them. So what does the program do?

Retouche Professional CD

Basically, it edits scanned images, imported in either TIFF (colour or greyscale) format or directly scanned in via a desk accessory scanner driver. The editing tools, apart from the familiar gamma curve and histogram, and a variety of brushes, pens, scalpels, airbrushes, erasers and masks, include the ability to draw (or import from Didot) vector lines and Bezier curves. These vectors can then be used as guides for the other editing tools, giving unbelievably accurate and versatile control over every fine detail of the picture. In conjunction with Didot, Calamus or PostScript fonts and vectorised images from virtually any source can be imported, to allow any combination of words and pictures for collages and entire page-layouts. Up to 16 pictures can be held in memory simultaneously, with free copying and pasting between them, and the hard disk is used as virtual memory when you run out of RAM. Colour pictures can be displayed and individually edited as RGB or CMY separations, or converted to grey halftones. No other software, on the PC or Mac, gives as much control over colour output, with fully editable undercolour removal and grey component replacement as well as calibration facilities, and hand-crafted true lithographic output screens.

Insofar as software can sell hardware, Retouche Professional Colour Design is perhaps the best reason today for buying an Atari ST or TT (it will even give true greyscales and something approaching TrueColour on an ordinary TT monitor), and it will work equally well with Didot Professional and Calamus SL. Between the latter two, it is very much a question of "horses for courses": if most of your work involves books, manuals, and similarly long, text-intensive jobs,

Calamus SL is first choice. On the other hand, for slim brochures, promotional leaflets, advertisements, flyers, and magazine covers, Didot Professional offers more creative flexibility. For my own work, I know that Calamus SL, Didot Professional and Retouche Professional will simply have to coexist on the hard disk, much like Quark XPress, Aldus PageMaker and Adobe PhotoShop do with most Mac publishers.

So where does all this leave the Atari ambitions in the professional prepress market? The software packages described here give you everything that their Mac competitors offer, and much more than the PC offerings are currently capable of. They do it more cheaply, and often much faster, as well as sometimes slightly better. Against that, they are less streamlined in their user interfaces, somewhat buggier in their present incarnations (with the exception of Retouche), and only partially compatible with the PostScript industry standard. My own feeling is that they will have a hard time displacing the Mac where it is already firmly established, but could make some splash in areas that the Mac has not been able to reach so far: particularly small design, print and publishing companies only beginning to think of computerisation. Provided, that is, that they are marketed as a package, with an integrated hardware deal on favourable terms and with consistently reliable support. Over to you, Atari!

UK Distributors:

Calamus SL:

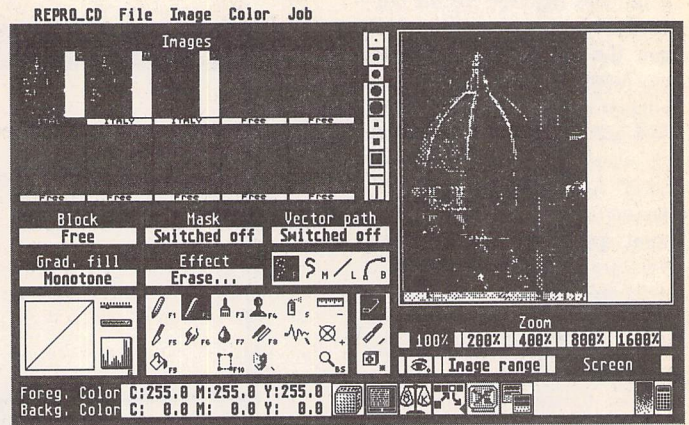
Halco-Sunbury Co. Ltd.

Tel. 0734-441525

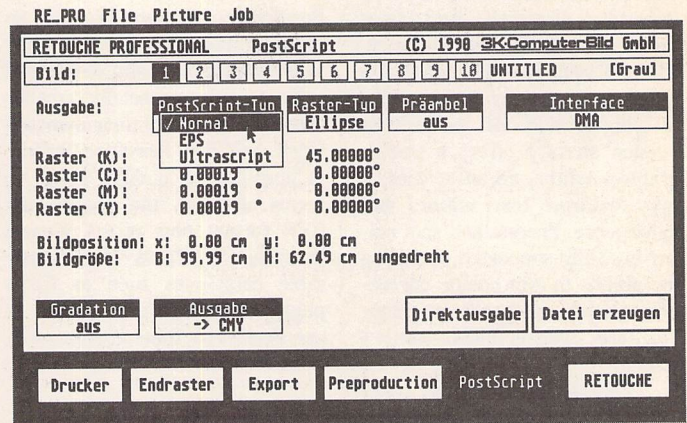
**Didot Professional/
Retouche Professional
CD:**

Copycare Graphics Services

Tel. 081-686 8121



Monochrome Degas screenshots can only give a pale impression of the beauties hidden behind the Retouche Professional CD desktop. Colour pictures are imported as CMY or RGB separations (top left thumbnails).



Retouche uses its own library of lithographic output screens, giving accurate angles and frequencies at every resolution.

RETOUCHE PROFESSIONAL		Rasterwahl	Auflösung: 2400 dpi	
Punktraster	0°	3KCB5010	48.00 1/in	↑
Punktraster	90°	3KCB5012	48.00 1/in	
Punktraster	0°	3KCB4218	57.14 1/in	
Punktraster	90°	3KCB4212	57.14 1/in	↕
Punktraster	0°	3KCB3610	66.66 1/in	
Punktraster	90°	3KCB3612	66.66 1/in	
Punktraster	45°	3KCB5011	67.88 1/in	
Punktraster	135°	3KCB5013	67.88 1/in	
Punktraster	0°	3KCB3210	75.00 1/in	
Punktraster	90°	3KCB3212	75.00 1/in	↔
Punktraster	45°	3KCB4211	80.81 1/in	
Punktraster	135°	3KCB4213	80.81 1/in	
Punktraster	0°	3KCB2910	82.75 1/in	↓
Punktraster	90°	3KCB2912	82.75 1/in	

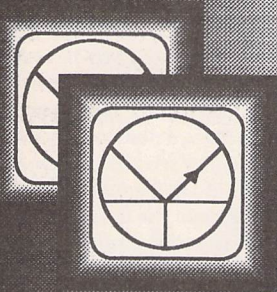
Neue Raster-Bibliothek OK Abbruch

PostScript output? No problem for Retouche. Screen angles and frequencies can be user-defined and are then rounded to values acceptable to PostScript.

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Ladbroke Computing are the longest established Atari dealer in the UK. We have developed an extensive customer service policy which means that we test all Hardware prior to despatch to ensure that goods arrive in working order. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup. This isn't just our opinion, we were voted "Best Dealer 1989" by the readers of ST World magazine, not for "the number of boxes shifted", but for quality service.

All prices are correct at copy date 20/01/92 (while stocks last), and are subject to change without prior notice. Please phone for up to date prices. All prices include VAT & delivery (in mainland UK), there are no hidden extras (WYSIWYG). Next day courier delivery is available for an extra £7 (Mainland UK). All prices available on Mail Order. Shop prices may differ. Shop & Mail order premises: 33 Ormskirk Road, Preston, Lancashire, PR1 2QP. Open Monday to Saturday 9:30am to 5:00pm. Phones answered from 9:00am. Dealer enquiries welcome. Ladbroke Computing International is a trading name of Ladbroke Computing Ltd. All trade marks recognised.

Due to limitations of space we cannot list all our products please phone for Sony branded disks £780 for 10, Bulk disks £5 for 10, Diskboxes from £6.99, Mice from £15, Dustcovers from £3.99, ST Disk drives £59.99. Phone for details of our repair service (ST & Amiga) Repair quote £15. Phone for more details.

Data/Pulse

Quantum Mechanics

The cached Quantum Mechanisms used in the Data-Pulse range of Hard Drives are made to very high American Military standard and are covered by a 2 year manufacturers warranty (from date of manufacture). They are all 3.5" mechanisms with a height of just 1 inch and integrated SCSI controllers. They have a typical, effective access time of 9ms utilising a 64K look ahead disk cache.

All Quantum mechanisms used have a Mean Time Between Failures of 60,000 POH (power on hours) and have sophisticated error checking which handles automatic replacement of defective sectors and automatic retry for disk read errors.

All Mechanisms used are Autoparking reducing the risk of damage during transit. They are also very low power which means they can operate without the need for a fan, thus reducing noise.

Ladbroke's Data-Pulse

- ✓ All drives come formatted/partitioned and tested.
- ✓ DMA device selector and illuminated On/Off switch on front of case.
- ✓ DMA Out port for daisy chaining extra drives/Laser printer.
- ✓ Full metal case providing good shielding, a monitor stand and space for a second mechanism internally.
- ✓ Choice of controller boards (prices differ): ICD board with battery backed clock & the excellent ICD utilities or GEsoft. Both boards have a data transfer rate in excess of 1Mb per second and come with formatting/partitioning software.
- ✓ All drives include Turtle backup software, MCP programme (a shell program that allows the running of programmes from a single key combination or mouse click), Midstudio & Midstudio Master demo's.



New Prices

Data-Pulse Drives

Data-Pulse 52Mb GE	£369.99
Data-Pulse 105Mb GE	£479.99
Data-Pulse 52Mb ICD	£389.99
Data-Pulse 105Mb ICD	£499.99

Special Offer Drives

Special Offer 45Mb GE	£299.99
Special Offer 105Mb GE	£449.99

Special Offer drives are based around an NEC Mechanism which comes with a 2 year replacement warranty.

Aries Upgrades

Ladbroke Computing have been active in the field of ST Memory upgrades for a number of years and can offer upgrade advice and solutions for the entire range of ST's. In that time our engineers have gained experience in the field and have used that experience to research and develop our own range of upgrade boards.

We have developed our own 5/2/4Mb upgrade board using an in house designed, Multi layer circuit board which measures just 52mm x 62mm, smaller than a credit card. We have achieved this miniaturisation by utilising 4 Megabit memory chip technology. The result of this reduction in size is a reduction in cost and more reliable operation, due to the fact that the board resides under the ST's shielding protecting it from interference and reducing Electromagnetic emissions.

The board is manufactured in the UK and hand assembled in our workshops by skilled

technicians. The boards are then thoroughly tested before despatch.

The board now comes in three configurations, .5Mb, 2Mb and 4Mb. By using high density ZPP RAM chips of different capacities it is possible to start with a .5Mb board and to upgrade it to 2Mb and then 4Mb at a later date.

The boards require some soldering, due to the instability of some plug in devices, but are very easy to fit and come complete with full instructions to fit ANY ST including Mega's (except STE's which use SIMM boards). If your shifter chip is not socketed, you will have to desolder it and install a socket which is supplied.

To check your board has been installed correctly we supply you with a disk which has a memory check program. If for any reason your upgrade should refuse to work we have skilled technicians on hand to offer technical support.

Our 1/2Mb upgrade board can now be upgraded to 2Mb and then 4Mb

Aries Upgrades (Any ST(F)(M))

512K Upgrade Board	£39.99
2/2.5Mb Upgrade Board	£99.99
4Mb Upgrade Board	£169.99

Our skilled technicians can install the above upgrade boards for £20 including VAT and return delivery.

Aries Upgrades STE

512K SIMM's upgrade	£24.99
2Mb SIMM's upgrade	£79.99
4Mb Simm's upgrade	£159.99

Please check configuration of your machine with our staff before ordering SIMMs upgrades.

16/4 chip upgrade STFM £29.99

Please check the configuration of your machine before ordering. These chips are not surface mount.

Monitors

Atari SM144 Mono	£ 139.99
Atari SC1435 Colour	£ 249.99
The new colour Atari monitor comes with cable and tilt monitor stand.	
Philips 8833MKII Colour	£ 229.99
The 8833MKII comes complete with cable.	
Philips 15" Cube TV	£ 269.99
A 60 channel, FST, Fastext scart input TV which gives near monitor quality. Includes scart cable.	

Midistudio Master	£99.99
Midistudio Junior	£29.99

Atari STE's

520 STE	£279
1Mb STE (1024K)	£299
2Mb STE (2048K)	£339
1040STE Curriculum (1024K)	£369
2Mb STE Curriculum (2048K)	£399

ST Secure

ST Secure is a security device which uses a combination of hardware and software to prevent unauthorised use of your ST. The "TimeLock" hardware can be installed in your ST in approx 30 minutes with no soldering involved. Then when you switch on your ST you must enter the correct password using the "Key disk" or your ST will reset after 45 seconds. Only £25 inc VAT & Delivery

Printers

Star SJ48 Bubblejet	£239.99
Star LC-20	£149.99
Star LC-200 colour	£199.99
Star LC-24/10	£189.99
Star LC-24/200	£229.99
Star LC-24/200 colour	£289.99

All Star printers include 12 months on site warranty. All printers include ST/Amiga/PC compatible Centronics cable.

Roctec ST 3.5" Drive	£59.99
ST Internal drive	£53.49

Golden Image

Golden Image External 3.5" Drive	£64.99
Includes through port and LED track counter.	
Golden Image Hand Scanner	£149.99
Includes Touch Up and Deluxe Paint Software.	
Golden Image Optical Mouse	£34.99
250 Dpi mouse with mat(ST/Amiga)	
Jintech Mouse	£12.98
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The Natural way to draw.(ST/Amiga)	
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Please state STFM or STE version.	
AT Speed	£ 150
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Includes DR DOS 5, Socket for 80C287 Co-Processor, Norton factor of 8.2	
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Jon Ellis reviews the new Atari DocSupport Developers' Kit

The Word According to Atari

For many years one of the favourite complaints of the ST programmer was the lack of support from Atari. To be sure, Atari have always supported professional developers with software and documentation, but at a price - the package was expensive (ca £350) and required the purchaser to sign a non-disclosure agreement that prevented dissemination of the information in the documentation.

At last Atari have responded with the release of a documentation package for all programmers, DocSupport, with prices starting at £30. Best of all, no secrecy agreement accompanies the documentation.

Introduction

In ST Applications issue 3 Paul Chamberlain started off a thread of discussion bemoaning the lack of technical documentation for the ST available to non-registered developers. Occasional letters on the same subject appeared in STA6, 9 and 11. Well, I do not know if this had anything to do with Atari UK's recent decision to release the DocSupport package, but contributors to that discussion do seem to have had their pleas answered.

DocSupport is the name given by Atari to a five volume collection of assorted ST documentation. With one exception, volumes are available individually direct from Atari. Between them, they cover all areas of ST programming: TOS, GEM and hardware. Table 1 provides a brief at-a-glance summary of their contents.

The volumes share a common presentation style - comb-bound sheets of A4 with a blue cover sheet and a clear acetate front cover. Most volumes contain several parts which rarely refer to each other. The package is very definitely a collection of reprints rather than a coherent attempt to provide programming guidance. For this reason I doubt that beginners will find any of the volumes easy going. The AES and VDI Programming Guides are better than the others in this respect, as they were written as a pair.

DocSupport I: GEMDOS,

BIOS and General

Programming Guide

Perhaps the most varied of the five volumes making up the DocSupport package, this volume

covers topics ranging from GEMDOS to MIDI, from interrupts to hard disks in 8 separate reprints.

The first of these is a rather scrappily formatted document describing the operation of the GEMDOS part of the operating system. In addition to describing all of the GEMDOS (trap #1) functions, it also details their shortcomings and bugs. This information is similar to that available in many compiler manuals. However, the document then goes on to discuss the use of the critical error and related vectors, a topic rarely covered. Later on, specifications are given for the GEMDOS file and disk formats, the layout of directories and file allocation tables (FATs).

The second paper, the 'Pexec Cookbook' is much more recent than most, dated 19 March 1991, and laid out more professionally. As a consequence it is much easier to read. It contains an extremely interesting discussion of the various modes of operation of the GEMDOS Pexec function; their uses and their pitfalls. Such information will be invaluable to those wishing to write shell-type programs, or programs using overlays. Unlike many of the other papers, the Pexec Cookbook also covers changes brought in with newer versions of TOS.

Following this is another ancient paper, the "Hitchhiker's Guide to the BIOS" from 1985. It begins by briefly detailing the BIOS and XBIOS services available under TOS 1.0 before launching into a slightly lower-level discussion of the system variables and interrupt structure of the ST. Once again, this is material which has found its way into the public domain over the years. One point to note is that the system variable list has been updated to reflect the system variables added in TOS 1.2

and TOS 1.4. This section ends with odd bits that may well be useful to some programmers: how the vertical blank queue works; how to start about making a cartridge application; how the BIOS attempts to boot from the DMA port; and an out of date discussion of the Boot ROM contained in STs without TOS in ROM.

Further details of the hard disk layout follow in the document describing version 3.00 of the Atari hard disk driver AHDI. These include exact specifications of the extended partition scheme that allows a hard disk to have more than four partitions, and the big partitions available under TOS 1.4 and above.

The volume continues with a document describing the Line A interface (which we are later warned not to use as later versions of TOS may not support it!). Most of the information is also in standard books on ST programming and compiler manuals.

After this, there is a short but interesting specification for the communication protocol used by the keyboard processor to talk to the BIOS; instructions for operating a disk modification and fixing program (not included!) and the address of the International MIDI Association.

DocSupport II: New

Machine Programming

Guides

This is my favourite of the five manuals - lots of information on the newer versions of TOS and the STE and TT machines. Just like the previous volume, it is made up of a collection of papers, but these are mainly of a modern vintage, and so are presented quite pleasantly. The largest section is described as

'Rainbow TOS Release Notes'. This title disguises the more general nature of the information contained therein. In addition to the comprehensive list of improvements made in the new TOS, there are also corrections and clarifications of earlier GEMDOS, BIOS and AES documentation, such as that contained in the DocSupport I volume. More details are given on new system variables and on the problems of OS memory management that gave rise to the 40folder bug. Clearly documented source code examples are given where appropriate.

The second section reveals the changes that have been made to the programming environment with the introduction of the STE. The new hardware of the STE is described, along with some notes on how to use it and two large assembler source code listings. These were rather poorly reproduced in the review copy. Both the new video and audio facilities are documented.

Following this is a brief document that describes the differences between TOS 1.4 (Rainbow TOS) and TOS 1.6 (STE TOS). Several bug fixes are noted, but the most important feature is the introduction of the Cookie Jar. Full documentation is provided along with associated C and assembler source listings, including details of how a Cookie Jar can be set up on machines running an earlier version of TOS.

The final three sections all deal with support for the TT. Details of both the software (TOS 3.01) and the new hardware are provided. Even for non-TT owners (the majority of readers, I guess), these make interesting reading and enable the development of more TT-friendly programs. The last section provides a specification of the TT/Mega STE VME expansion

bus for potential card designers.

Last but not least, this manual comes with two double sided disks containing even more useful material. Disk 1 contains the Atari hard disk utility suite HDX 4.0; the set of Rainbow TOS utility programs (CACHENNN.PRG, MACCEL34.PRG, TOS-FIX14.PRG and SHIPACC.PRG) that have been available from public domain libraries for a while; a collection of source code and data files for STE programming and a patch program to fix problems with the TT030 TOS serial handling.

The second disk contains a program allowing various flags in program header blocks to be changed (FastLoad and the TT memory management flags) and the Atari Demonstrator program. More importantly though, it also contains the full release of the Extensible Control Panel (see Figure 1), including source files and documentation to allow users to write their own CPX modules. This is an especially welcome part of the package.

DocSupport III: AES and VDI Programming Guides

These two volumes form the largest part of the package: over 500 pages with a combined weight of 1.3 kilograms! They are only available as a two-volume set. The first volume of the pair, the VDI Programming Guide, is a nicely printed document which begins with a thorough table of contents. Section 1 is an overview which explains many of the basics of VDI operation, albeit in technical language. Combined with the glossary and index at the end of this volume, the overview should provide a sound introduction for the developer who has some programming experience but has yet to program with GEM.

Section 2 opens with a sample program that simply draws a filled black ellipse and then goes on to discuss the structure of the application-VDI interface. This information will be useful to those who need to call VDI functions from assembly language. The section also contains paragraphs that are not applicable to the ST: how to load the VDI from a command-line interface operating system. These may be a hangover from an early development type of ST, or a reference to how to operate GEM on the PC.

Sections 3 to 8 provide detail-

led documentation on each of the VDI functions. These are divided into groups: control functions, output functions, attribute functions, raster operations, input functions and inquire functions; one group per section. Each function in the group has a separate entry, but these are often terse. There is enough information to create a full set of VDI bindings if required. The subject of VDI bindings was discussed in Programmers' Forum of ST Applications 7, for those wishing to find out more.

There are no example programs showing how the individual functions might be used in a real-life program. Several of the better compiler systems now come with documentation which does provide such illustrations: the VDI Programming Guide will provide little extra benefit to owners of such packages.

Section 9 describes the VDI escape functions which have been overlooked by some programming books in the past. These functions allow an application to control device-specific features: reverse video on the screen, form-feed on the printer and so on. Many of the documented functions refer to devices that are not supported by the ST such as Polaroid image recorders. Metafile control escapes are also documented.

The VDI Programming Guide concludes with 10 appendices of varying degrees of interest. Appendix B details the layout of the ASSIGN.SYS file, a rather well worn subject, Appendices C and H reveal the metafile format (see also Programmers' Forum STA 7, 8). Appendices G and I describe file formats: the font file (.FNT) and bit image (.IMG) formats respectively. Appendix J contains some information on programming with GDOS and some example C source code for displaying samples from fonts.

The AES Programming Guide is the smaller of the two DocSupport III volumes. It makes frequent references to the VDI guide, so I guess this justifies Atari UK's decision to bundle the two together. The general layout of the Guide is similar to that of its partner: a comprehensive table of contents, some introductory sections, complete specifications of all of the AES functions, and a brief index. There are no appendices.

Section 1 of the AES Guide describes the various parts of the AES and the ways in which they interact with applications. Just like the VDI Guide, it also contains

some inappropriate statements that refer to the loading of the Desktop from a command line shell. The references to desk accessories are also out of date: more than three desk accessory files can be loaded, and they do not have to be called DESK1.ACC, DESK2.ACC and DESK3.ACC. There are also several misleading references to the PC DOS environment. Other erroneous statements concern the Desktop; eg, the mouse speed cannot be set from the 'Set Preferences...' dialogue.

Section 2 contains lots of descriptions of basic AES operations such as loading resource files and displaying menu bars. Although brief, these sketches will probably provide a good starting point for new GEM programmers. There is no discussion of some of the newer GEM techniques such as pop-up menus and flying dialogue boxes.

Section 3 describes the application-AES interface and the application function library (appl_init, appl_exit, etc.). Subsequent sections discuss in turn the event, menu, object, form, graphics, scrap, file selector, window, resource and shell libraries.

Each section begins with an introductory paragraph discussing how the functions in each library are used, the make-up of relevant data structures and typical applications for each. This is then followed by a concise statement of the requisite inputs and outputs for each function, again including information sufficient to create AES bindings for a language system. Just as in the VDI Guide, there are no substantial example listings.

The review copy of the AES manual was missing the pages entered on the Table of Contents as describing the DESKTOP.INF format, and a couple of pages were swapped around.

DocSupport V: Hardware

Data Sheets

This manual will probably have the most limited audience of any in the DocSupport package. The volume is divided into three parts which are completely independent. The first part is a document dated 7th January 1986 that gives an overview of the different hardware subsystems of the Atari ST. Much of the information in this section has already found its way into the public domain, particularly the details of the memory-mapped I/O registers and the pin

assignments for the various ports. Perhaps lesser known but just as useful are the details of some of the electrical characteristics of the ports. Other items of interest are the algorithm used to size the RAM space during a boot and algorithms for direct programming of the floppy disk and hard disk controllers using the DMA chip.

The latter topic is continued in the second of the documents in the volume, a collection of notes on the DMA port interface. This port is normally used for hard disks, but other devices like the Atari Laser and tape streamers can also be attached. The port supports a subset of the SCSI 1 protocol termed ACS1 (Atari Computer System Interface). This document describes the electrical characteristics of the port as well as providing timing diagrams. The software aspects are also covered with a list of commands supported and, perhaps most interestingly, assembler source for a simple hard disk driver.

The final, and by far the largest, section of this volume consists mostly of photocopies of manufacturers' data sheets for some of the non-custom chips in the ST. Information is provided on the 6850 ACIA chips, the 68901 MFP controller, the AY-3-8910 sound generator, and the WDC 1772 floppy disk controller.

The ST actually uses a Yamaha version of the AY-3-8910, the YM2149, but the programming details at least should be the same. The data sheet includes example register settings for some common sounds like explosions and sirens. The documentation on the WDC 1772 contains an addendum with ST specific programming details concerning the manipulations of the DMA registers that are necessary to utilise the 1772. This information is largely the same as that given in the two previous sections of this volume.

The final components in the third section are specifications of the original Atari monitors, SM124, SC1224 and SC1425; the cartridge and main ROM circuit layouts and a programming guide for the Atari Blitter. This last document has been circulating on bulletin boards (probably illegally) for over a year now as an ASCII file. It provides a thorough explanation of all of the hardware registers of the blitter and includes some assembler programming examples.

Conclusions

We have not been sparing in our criticism of Atari for not providing documentation. It would be churlish now not to congratulate Atari UK for these publications. I am sure that this can only be good for the continued survival and growth of the ST range. Better informed programmers produce better software and create a more secure base for future development.

Having said this, the documentation is by no means perfect. The presentation is often basic and extremely variable. One gets the feeling that almost everything one needs to know about is in one of the volumes, somewhere, but who knows where? The inclusion of so much out of date information scattered through the various volumes is annoying and potentially misleading. The bottom line is that these are not useful manuals for learning to program the ST,

but reference works for those already familiar with the fundamentals.

The DocSupport III package, the AES and VDI guides, seem to be the best presented and coherent volumes. These will be the most accessible to readers, but contain little of interest to more experienced programmers who already own a compiler system with decent GEM documentation. Even for the latter group, there are still some nuggets to be picked up, but the £50 price tag makes it a rather uneconomic proposition.

Prospective buyers should consider carefully which volumes are most appropriate. Those with a reasonable collection of information will probably find only DocSupport II and (to a lesser extent I) contain much that is new to them. DocSupport V will be of interest to hardware buffs.

Can it be improved? I think that Atari could radically improve the presentation of the whole

package with a relatively modest expenditure of time and effort. Someone should sit down with all five manuals and edit them into a coherent package, removing the dead wood and making sure that information on like topics was collected together. With the imposition of a uniform style and layout over all the volumes, better reproduction of data sheets, and perhaps a global index, Atari would have a high quality package; more accessible to inexperienced but keen programmers - the developers of tomorrow.

It's good, it could be better, but Atari UK deserve a round of applause anyway. Now can we have some documentation on writing GDOS device drivers, please?

Points For:

- ✓ The official word on Atari programming.
- ✓ Contains information on topics too new for other sources: eg, TT, programming.
- ✓ A step in the right direction!

Points Against

- ✗ Information is unedited and difficult to locate.
- ✗ Occasional mistakes, contradictions and anachronisms.
- ✗ Not particularly cheap, and not for beginners.
- ✗ Poor quality of reproduction obscures some important diagrams.

Table 1 Summary of contents

DocSupport I

- GEMDOS/BIOS and General Programming Guide
- GEMDOS Reference Manual
- Pexec Cookbook
- Hitchhiker's Guide to the BIOS
- AHDI 3.00 Release Notes
- Still Another Line A Document (SALAD)
- Intelligent Keyboard Protocol
- Atari CHKDISK3 Documentation
- MIDI Association address

238pp £29.95

DocSupport II

- New Machine Programming Guides
- Rainbow TOS Release Notes
- STE Developer Addendum
- STE TOS Release Notes
- TT030 TOS Release Notes
- TT030 Hardware Reference Manual
- Atari VME Expansion for TT030 and MegaSTE Products

184pp + 2 disks £29.95

DocSupport III

- GEM Programmer's Guide - VDI
- GEM Programmer's Guide - AES

516pp total £49.95

DocSupport V

- Hardware and Chip Specifications
- Engineering Hardware Specifications
- Application Notes on AC SI
- 6850 ACIA Data Sheet
- 68901 MFP Data Sheet
- AY-3-8910 Data Sheet
- AY-3-8910 Data Manual
- WDC 1772 FDC Data Sheet
- Atari Monitor Specification
- Cartridge Port Schematics
- Blitter Chip Programming Guide

228pp £29.95

Product:..... Atari DocSupport Developer's Kit.
 Version:..... Editions of November 1991
 Supplier:..... Atari Corp UK Ltd.
 Railway Terrace
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 Berkshire
 SL2 5BZ
 Price:..... (including VAT and delivery, correct 01/11/91) as follows:
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 DocSupport II:..... (including 2 disks) £29.99
 DocSupport III:..... £49.99
 DocSupport IV:..... £99.99 (comprises I, II & III)
 DocSupport V:..... £29.99
 System required
 (Software only):..... Any ST/STE.
 Review system:..... 4 Mb STF with TOS 1.4, hard disk and mono monitor with NeoDesk v3.01(UK) resident.

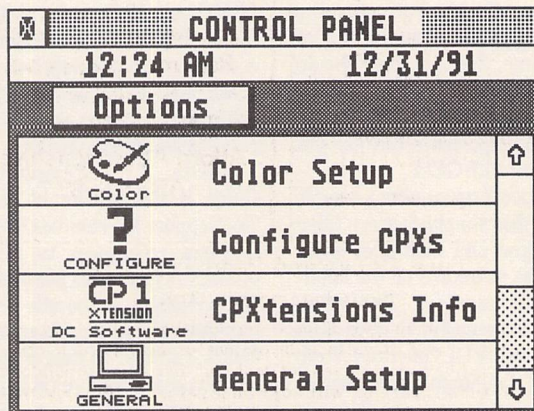


Figure 1

The new control panel from Atari provides for user-written expansions which, in combination with the Cookie Jar, allow AUTO folder programs to be given a GEM control interface.

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Derwent Set GEM Fonts for the ST

The latest set in the FontPac Plus series is now available: the calligraphic typeface "Derwent", based on the 'Foundational' hand.

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PATTERN

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3D Effect Contour

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- ☞ 360dpi - Q2 : B
- ☞ 300dpi - L2 : B

The fonts are widely implemented, and include all of the commonly used European accented characters as well as some ligatures. There are at least two 'special effect' fonts in each set. The overscore gives a fixed space the same width as the monospaced numbers.

The fonts are supplied in GST compressed format, with a utility to un-compress if needed.

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from the ST Club

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UPDATE

ST1.01: ST Informer Magazine Compilation of the Month:

2COL103 - 2_COLUMNS v1.03 will print out text files into 2 columns and save lots of paper. Easily modified for any printer.

AMMOTRAK - This is a very good high speed graphic game where you drive a rocket sled-type vehicle. Shoot at targets then drive through them to gain speed and fuel. Excellent play.

BDB_12 - Tim Early's Book Database version. 1.2. This is a GEM library database. Includes many features for ordering, sorting by author/series, etc. Full report-generating functions. This version is freeware.

DCDRPDTR - DC Drop DTR will drop the computer's RS-232 DTR line for one second, then reassert the line. This should hang up any modem which is connected.

DCHANGUP - DC Hang Up will hang up your modem after a time of no modem activity. So if you are transferring a file and the remote system hangs, or something occurs, DC Hang Up will disconnect you after a configurable time.

DCNOALRT - DC No Alert will keep an alert box from being displayed and will 'fake' the return of the DEFAULT button. So, in an alert that says, "Really Quit?" with the YES button being the default, you'd hear a little 'bing' and that's it. The YES button will be returned as the button selected.

DCPOPBR2 - This is a new version of DC PopBar, the desk accessory that gives you a popup menu of the GEM desktop menubar. This version is much improved. Not for the NewDesk desktop.

DD_DEMO - Data Diet is the Atari REAL-TIME compression program. With this demo of Data Diet you can trim the fat from your data storage system. This Data Diet Demo really works! With this demo you can put your .DOC files on a diet and see for yourself. Don't buy another hard disk! (Floppy disk users will require a RAMdisk.) 100% assembly.

DSX_110 - This is a pretty good and fast program/desk accessory that allows the viewing of disk statistics, such as free space, number of sides, bytes per sector, clusters, etc.

EZS1DEMO - EZ-Score Plus (v1.01) is the first in the MidiScore series of professional composing/scoring/printing programs. EZ-Score allows you to have up to three staves, in

four score formats: solo, piano, piano/vocal, or trio. Over 140 symbols: notes, rests, accidentals, clefs, rehearsal marks, bar lines, dynamics, ornaments, articulations, repeat sign, bowing, etc. Runs in mono (best) or med rez.

KAOS21EG - KAOSDesk v2.01 is a desktop replacement program with many features. This archive contains the program, icon editor, lots of icons, and documentation. All docs and program menus/prompts/etc. are in English.

MDELUXE - This is a demonstration version of MultiDesk Deluxe, a major upgrade to CodeHead Software's desk accessory loader/unloader. A text file is included that will help you get the demo going; the demo has a time limit of ten minutes. MultiDesk Deluxe gives you access to more desk accessories (DAs), while using less memory and booting up faster! The secret is the new "nonresident DA" technique -- but try the demo and see for yourself!

MSPYDEMO - This is a free demo version of CodeHead's MIDI Spy recorder. MIDI Spy is a unique MIDI sequencer that records and plays in the background. It will record at any time no matter what you are doing with your computer. Or you can have it play a list of pre-recorded MIDI files while you use your computer for other things. Docs, songs, and press release included.

STARSAVE - StarSaver ver. 0.50: First public release of this new screen saver. This file contains the screen saver program, a doc file, and a program to temporarily adjust the speed of the stars and the timeout period. (defaults: speed 2, timeout 3 minutes) StarSaver works on any ST, Mega, STE, or TT screen in any rez (doesn't work with add-on cards). It does NOT use up any ACC slots and it works in any TTP, TOS, or PRG programs. It supports "hot corners" for instant-on and temp-disable operations.

STKR3DMO - Eric Rosenquist's STalker 3 is now being sold by Gribnif Software. Several features are disabled in this demo version, and use is limited to about 30 minutes.

STMIDIEX - STMIDIEX v1.63 is a MIDIEX SYSEX librarian for the Atari ST. It allows the exchange of SYSEX files that are stored in the MIDIEX format.

INI.56: Inside Info 56:

The disk Magazine of the Atari Computer Enthusiasts New South Wales. Computer News; Computer Bugs; 68030 Board - Discus-

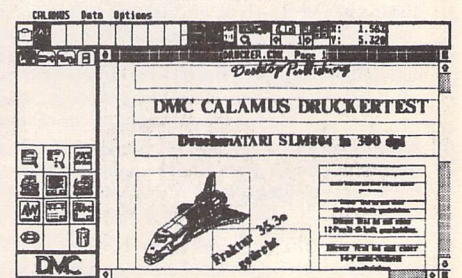
sion of the Turbo 30, a 68030 board; Databases - A comparison of PD and commercial databases; Disk Mag's - STEN Magazines pick of the best and worst Atari club fanzines; IBM vs ST - David slags off Goliath time; Modems - Relatively informative article on mode purchases; STE features - List of enhancements that the STE has to offer; System V - The System V developers kit. Not the kit itself, just an article about it; TOS Upgrade - Details of the new TOS 2.06; Artifex - Feature Article on the Artifex TOS extension card. Allows TOS 2.06 to run on all ST's; BBS tidbits - Online mutterings from the ACE BBS; ST BIOS/HDW - Hi tech texts in the programs folder detailing the ST BIOS and Hardware. WHATS NEW: Arabesque - The New Vector and Bitmap graphics program from Gribnif Software; Genus - Genus, the easy to use Calamus font editor from Codehead; Flash II - Flash II is what's new!; Megapaint - Heavy duty graphics application from Codehead; OCR - Optical Character Recognition from Migraph; Scanlite - Dr Bob's U beaut scanning software for a variety of popular scanners. Silhouette - Announcement of Silhouette 3. REVIEWS: Abbreviator - Abbreviator ST, the text macro program; AMI - Algorithmic Music Composition, try before you buy; STalker 3 - Gary Spiteri waxes lyrical on the latest upgrade to STalker and STeno; Tracker - The latest upgrade to this great database; Multi-desk - Gary does Multidesk deluxe. (DS)

Drawing

DRG.47: CADJA v1.3 PD rolling and interactive demo of this respected CAD package (DS:M)

DTP

WRP.97 and WPR.98: Calamus SL - full working demo version of Calamus SL - does everything except save. Both disks are required. (DS:1Meg:M)



All of the clip art disks in this section have been fully catalogued by Stein Jensen. All images have been categorised: you no longer need to hunt through volumes of disks to find the image you need. To further aid the user we can supply Catalogue Pages on all of these disks. For each disk there is an A5 sheet with Calamus generated print-outs of all of the images on the disk.

Disks with the prefix CAT are double-sided and the images are stored in Degas PI3 format. Disks with the prefix CAD are double-sided and contain all of the images from two CAT disks in TNY format.

- CAT.43: Animals - Cute
- CAT.44: Animals - Tinies
- CAT.45: Ball Games
- CAT.46: Boats 2
- CAT.47: Building 2
- CAT.48: Cars 3
- CAT.49: Cars 4
- CAT.50: Children 1
- CAT.51: Children 2
- CAT.52: Christmas 2
- CAT.53: Christmas 3
- CAT.54: Computers 1
- CAT.55: Computers 2
- CAT.56: Famous Faces 1
- CAT.57: Food 1
- CAT.58: Food 2
- CAT.59: Food 3

Catalogued Clip Art

- CAT.60: Frames 6
- CAT.61: Heads and Faces 1
- CAT.62: Heads and Faces 2
- CAT.63: Heads and Faces 3
- CAT.64: Men
- CAT.65: Music 4
- CAT.66: Music 5
- CAT.67: Pairs of People 1
- CAT.68: Pairs of People 2
- CAT.69: People - Funny 1
- CAT.70: People - Funny 2
- CAT.71: People - Funny 3
- CAT.72: People - Various
- CAT.73: People Working 1
- CAT.74: People Working 2
- CAT.75: Trains 1
- CAT.76: Typographic 4
- CAT.77: Typographic 5
- CAT.78: Winter Sport
- CAT.79: Women 1
- CAT.80: Women 2
- CAD*22: CAT.43 + CAT.44
- CAD*23: CAT.45 + CAT.46
- CAD*24: CAT.47 + CAT.48
- CAD*25: CAT.49 + CAT.50
- CAD*26: CAT.51 + CAT.52

- CAD*27: CAT.53 + CAT.54
- CAD*28: CAT.55 + CAT.56
- CAD*29: CAT.57 + CAT.58
- CAD*30: CAT.59 + CAT.60
- CAD*31: CAT.61 + CAT.62
- CAD*32: CAT.63 + CAT.64
- CAD*33: CAT.65 + CAT.66
- CAD*34: CAT.67 + CAT.68
- CAD*35: CAT.69 + CAT.70
- CAD*36: CAT.71 + CAT.72
- CAD*37: CAT.73 + CAT.74
- CAD*38: CAT.75 + CAT.76
- CAD*39: CAT.77 + CAT.78
- CAD*40: CAT.79 + CAT.80

Catalogue Pages

The 38 catalogue pages for all of the above disk are available for £2.00. Order as "Clip Art Catalogue 2".

Converting Image Files

Tiny (TNY) compressed files may be converted to Degas format using PicSwitch (GRA.34), or to IMG using DegaSnap (DRG.23) or PicSnap and Snapshot (GRA.34).

Clip Art Packs

10 Doubled Up Catalogued Clip Art disks in a Slimpack disk box plus the relevant Catalogue Pages for just £8.95

- Clip Art Pack 1: Disks CAD*21 to CAD*30
- Clip Art Pack 2: Disks CAD*31 to CAD*40

SSM.25: Cartoon scanned clip art: 28 IMG files: 7Nani, Aniamnst, Aristoga, Asino, BEtt-boop, Bookworm, Bue, Bulleman, Candy, Cane, Cavallo, Cignoped, Conchita, Coniglio, Donald, Fisapian, Garfield, Gatto, Jcocteau, La Rana, Mariobro, Maschera, Mouserbn, Muyfragl, Oca, Pecora, Poldoapp, Pulcino. (DS)

SSM.26: Engravings scanned clip art: 17 IMG files: Angelfla, Angiolet, Arlequin, Book, Brighell, Chemistr, Chitrist, Cspavent, Director, Donfrill, Donna, Femmespl, Flutemen, Mandiseg, Mongolfr, Murnebebe, Siren2. (DS)

SSM.27: Music Theme scanned clip art: 18 IMG files: Armonium, Band, Band2, Maestro, Menestr, Music, Orchestr, Pianoman, Poldocac, Porco, Profmus1, Profmus2, Quartet, Quartet2, Spartit1, Spartit2, Violinst, Xylophon. (DS)

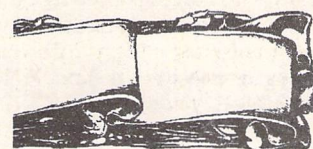
Scanned Clip Art

SSM.28: People and Famous People scanned clip art: 22 IMG files: 2golfers, Artdeco1, Artdeco3, Charlnin, Couples2, France1, Oldwoma2, Paparazz, Sfinge, Sorelle1, Sorelle3, Yves. Famous People: Dali, Da_ponte, Einstein, Lincoln, Mozart, Mozart_2, Regothic, Stanloll, Strvnsky, Superher. (DS)

SSM.29: Performances scanned clip art: 10 IMG files: Attents, Attentsh, Ballet, Cinema, Elephant, Fete02, Jorana, Labanda, Protectn, Ridolini. (DS)

SSM.30: 18 scanned clip art image files on romantic themes (DS).

SSM.31 to SSM.35: Favole Cartoon and Fairy Tale style scanned clip art. 71 images on five double-sided disks.



Wolff: Arnaldo Mozart



KEY

- (M) - Runs in High Resolution Mono.
- (C) - Runs in Medium or Low Resolution Colour.
- (DS) - Double-Sided Disk
- (1Meg) - Needs one megabyte of RAM.
- (Not TOS1.6) - Will not run under TOS 1.6 (STe) or TOS 1.4 (most recent STFM).
- (\$) - source code included.
- (\$C) - C language.
- (\$ASM) Assembler.

Doubled Up: With the exception of a few specially formatted disks, all single-sided disks in this catalogue are now available on double-sided disks. Doubled-Up disks have a disk code in the format: AAA*NN. All PD disks are the same price - there is no surcharge for double-sided disks.

Copyright: To the best of our knowledge everything on the disks in this catalogue may be freely distributed. If you know otherwise please let us know and the offending software will be immediately withdrawn.

This catalogue is originated and copyright the ST Club.

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Ordering Details

Please note that we do not accept orders by credit card. Orders accompanied with a cheque or postal order are dispatched by 1st Class post on the day we receive them.

All PD disks are copied onto high quality disks from known manufacturers. The price you pay us for PD disks covers only the costs of acquisition, duplication, cataloguing and distribution.

Disk Prices

PD Disks: Standard and Doubled-Up disks.

up to 6	£1.45 each
7 to 9	£1.25 each
10 to 24	£1.00 each
25 plus	£0.85 each

Licenseware disks cost £2.95 or £3.95 each.

All prices include VAT, packing and 1st Class post.

The Order Form for these disks is on Page 57

Licenseware

Budgie UK Productivity range:
£3.95

From BPR.20 onwards, all programs in the Budgie PRO series come with a small printed manual.

BPR.22: PRO BINGO CALLER by John Davidson. This program follows all the rules of Bingo and can bring the game within reach of those who might not otherwise get the chance to enjoy it. A printer is required to print the necessary Bingo sheets. This disk comes with a printed manual. (C)

BPR.23: VM FONT DISK. Nineteen fonts in NEO format suitable for use with Video Master, or, through cut and paste, with any other project. Another ten 8*8 fonts are also included in STOS format. Full printed instructions. (DS:C)

Budgie UK Games - £2.95 each

GBU.86: QUATRIS by Stephen Allen. A Tetris variant, based on rotating cubes. Each cube has four patterns which you have to match before it reaches the bottom of the pile. Once the pile reaches the top, the game is lost. **SLIME NEMESIS** by the same author. Stalactytes of slime drop from the cave ceiling. While you attempt to shoot them back, aliens interfere with your efforts. You may gain access to the shop where extra firepower, anti-slime gas, extra lives, slime-eating plants, etc., may be purchased. The full STOS source code to both games is included on disk. 'It all makes the game very interesting' - Shareware Shopper Jan 92. (DS:C)

GBU.87: WHOOPSY by Cy Noble. For younger users. A light-hearted farce where a baby in nappy has to gather all his toys while evading mummy's relentless obsession with cleaning up everything. But he has one weapon to distract her... (C)

GBU.88: ANNIHILATOR by Robert Leong. From the author of Pacman and Space Invaders, another classic, this time a very good variant of Galaxians. The insectoids, as Robert calls them, need to be hit several times before being destroyed. There are ten formations, with a super-nasty to be dealt with at the end. Bonus pills may occasionally be picked up. Lovely music by the Shapeshifters. (C)

GBU.89: HORSE RACING SIMULATOR by Mark Loveday. This top quality simulation took two years to complete and encompasses all aspects of the racing life, from buying horses to entering the big race of the day. There is a thriving betting market, a form book holding information on the last 150 races and many more features. (C)

Update

GBU.90: MATCH IT by Steffen Fischer. A superb 'shanghai' variant from one of Delta Force's most talented coders. Extremely well presented, with original music, great graphics and loads of playability. In addition, the full 68000 source code is on disk! (DS:C)

GBU.91: FLIPPED by Andrew Oakley. A really top-class puzzle game, requiring you to fill a board with one of three patterns. Use your templates to achieve the desired effect. All royalties from this disk go to charity, via MicroCare! (C)

GBU.92: BRIDGE-IT and SNAKES by Donald Campbell. A compendium of board games which will occupy a few winter hours. The GFA 3.5 source code is on disk. (C)

GBU.93: BUG SPRAY by Philip Bishop. Protect your sunflower from the invasion of insects and other creepy creatures. Your weapons are sprays and hard work. (C)

Budgie UK Magazines - £2.95 each

MAG.16: THE LEDGERS vol 4 October 1991 (DS:C)

MAG.17: THE LEDGERS vol 5 November 1991. With new 'Mindbomb' menu system. (DS:1Meg)

MAG 18: THE LEDGERS vol 6 December 1991. Christmas edition. Great music by the Equalizer. Usual articles, reviews, cheats. Universal De-packer by Mug UK. (DS:C)

MAG.19: Maggie Issue 8.2: Edited by Michael Schuessler and Delta Force. All the usual madness, overkill in the bad language department, and Bonus programs include PackIce 2.40 and ProTracker. (DS)

MAG.20: The Ledgers Volume 7A by the Untouchables. January 1992. (DS:C)

XXX.236: Ledgers 7B: this (straight PD disk) accompanies Ledgers 7. Includes: some source code from Tony B, the Mr Music quartet player from Electronic Images and a few Degas-format pictures. (DS)

Please note: With one or two exceptions, these magazines contain some language that may not be suitable for younger children.

In The Public Domain

PD Software reviewed by Sandra Vogel

Calendar

South West Software Library 1989

Most of us feel the need to have a diary. Some of us, and I include myself, maintain two - one at work and one for leisure. This need to record and itemise our lives spills over into the world of computer users, and a wide range of diaries and related software is available.

Calendar, recently released in version 6.0, is one of the best. First, Calendar can be set up as a desk accessory. This means that it is available any time that you are using a programme via GEM. Second, you can set Calendar up in your auto folder, so that when you switch your ST on, you are automatically shown the events for that day (you will need to make sure that your ST's clock is set for the correct date for this to work).

Calendar can handle two kinds of regular events: those that occur at the same day every week or month (birthdays, anniversaries, weekly meetings, etc.), and those that are cyclic (six weekly meetings, full moons, etc). Cyclic events can occur with up to 255 day gaps, and can last up to 100 years!

Several additional features make Calendar stand out from the rest. You can set reminders for events to give you notice a specified number of days ahead. You can give events in your diary a priority rating. This allows you to filter events, to show only the most important ones. Or, if you assign a particular kind of event, say meetings, a particular priority, to select only these for display. There are ten priority levels, so even those people with the most jam-packed schedules should be catered for. Calendar can even ring alarm bells at specified times - just in case you are about to forget something!

The Guru

Wooleysoft

Does anyone remember Hype? It was the first hypermedia product for the ST, and was reviewed in the December issue of ST Applications. The Guru is the next product from the same author. It is a hypertext desk accessory. As was the case with Hype, the PD version of the Guru is a good, working demo of a shareware product. Registration will cost you a mere ten pounds.

Using the Guru is simplicity itself. The Guru is a reader only - you can't create documents with it. But you can create these with any word processor that saves ASCII text. The Guru treats text files as a series of screen sized pages. The on-disk manual tells you how to mark up ASCII files so that the programme can recognise them.

When it loads, the Guru automatically loads its own text file, but you can load any other text file at any time. Then, instead of reading text files sequentially, you can skip about from topic to topic by clicking on highlighted words - that's hypertext!

Mouse Tricks

South West Software Library 1853

Mouse Tricks is probably the most comprehensive mouse-accessory that you will ever come across. It combines the best elements of existing mouse accessories and programmes, and then adds a few more of its own. Just think, Promouse, Speed Mouse, Rattrap, Mouser and Maccess2, all rolled into one, and some extras on top. But this is only the PD version of a revolutionary shareware product. Read on and be amazed.

At the least revolutionary level, Mouse Tricks lets you change the speed and acceleration rates of your mouse; activate either 'drop down' or 'pull down' menus; and double the horizontal speed of movement.

On a slightly more revolutionary note, you can also ascribe a whole host of features to the greatly neglected right hand mouse button. For example, you can make the pointer jump to a pre-set pixel (the author calls this 'hyperspace'). This is most useful if you use a particular icon or menu frequently during a programme. Or you can get the right mouse button to simulate a set of keypresses.

Now for the really revolutionary bit. When you register for the shareware version of Mouse Tricks, the author can, for a small additional fee, supply you with the wherewithal to add up to four extra buttons to your mouse, and to programme them via Mouse Tricks.

If you want to know more about this, get the programme, read the manual, and register. There are only two mousey things Mouse Tricks can't do - let you customise your pointer, and make it hide behind the cooker!

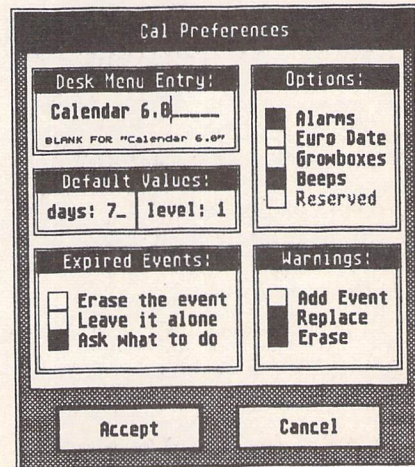
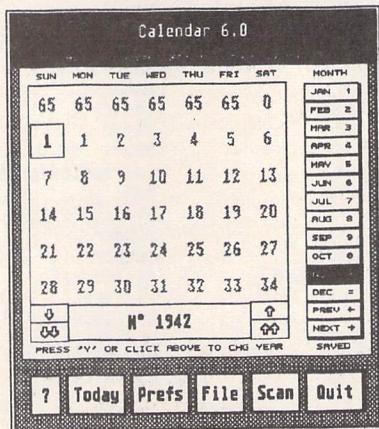
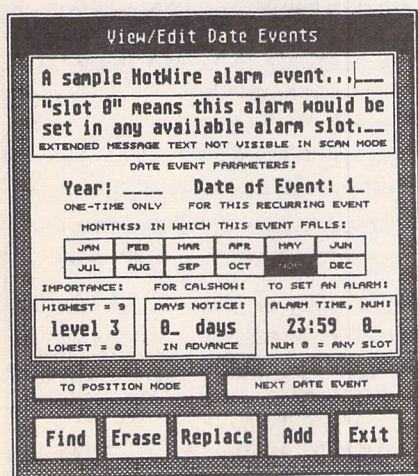
The Accompanist

Public Dominator M15

The Accompanist is a 16-voice sequencer for use on any ST. Even 520 owners can do something with this, and you don't even need a keyboard to get started - you can edit sounds and play them back through the ST sound chip if you want to - though in reality I doubt that this will satisfy many people for long.

Also welcome, because this can be a very complex area for beginners, is the way the author has in effect produced two manuals - a simple tutorial to get you going, and a more detailed full manual. Nice work.

Register for the shareware version and you get 500k of MIDI music, a MIDI conversion utility for samples in different formats, more discs and, of course, support and access to updates. If you have wondered about MIDI or music on the ST in general, and don't want to spend a fortune to find out whether you are interested, a look at the Accompanist is definitely what you need.



CALENDAR v6

Desk File View Options

The Guru

(N)ext (P)revious (F)irst (R)eload (M)oolleySoft

The Guru is a simple yet powerful HyperText desk accessory for the ST. It provides you with easily accessible information anytime from the GEM environment.

The Guru displays information as a series of pages. This is the first page. You can move through the pages by pressing 'N' (next page), 'P' (previous page) or 'F' (first page). Some words are printed in bold script. This means that these words are linked to other pages. If you move the mouse pointer over a word written in bold script and click you will move to the linked page. You can return by pressing 'P', or continue onwards as you wish.

Press 'R' to load a new HyperText file or 'M' for information about WoolleySoft.

This demonstration contains information on the following:

1. More about The Guru and WoolleySoft
2. Constructing your own HyperText documents
3. Uses for The Guru
4. 'C' programmers guide to GEMDOS

GURU

MOUSE TRICKS

Mouse Tricks (demonstration version)

mouse speed: 2 | 4 | 8

accn: 8 | 4 | 2

limit: 3 | 4 | 5

0JL1991

Read Text

LOAD | SAVE | OK | CANCEL

9 rh desk mode | 4 | 8 | mode install

menu style: pull drop invert remind medres Xtra screen saver

REPORTING: normal hide hold

SPECIAL: normal shift dbl keypress hyperspace

JOY BUTTONS

Text Translator

South West Software Library 1853

Germany is the place to be if you are into the ST in a big way - it's an unfortunate fact of life. Because of this, a whole lot of great PD comes out of Germany, but many of us can't get to grips with this software because of the language barrier. After a time, programmes and their manuals get translated, but this takes a while. Enter the text translator.

Computer translation has been tried and tested for a long time, and the days when we can translate the works of Shakespeare acceptably are still a long way off. But a working text translator for the less complex language of ST programme manuals has just emerged. This programme has a huge 290k of German/English dictionary. There is provision for this to be added to by the user.

Of course, you don't get a full translation with all the subtleties of meaning at the press of a button. But, take my word for it, what you get is a usable translation, so that you can get a working knowledge of the document in question. Certainly enough to begin using a programme. One word of warning - run this programme from a ram disk, or be prepared for a long wait!

Atari Phone Voice

South West Software Library 1920

Most users have a version of that old favourite, ST Speech. Well, now, Albert Bagetta has put the basic idea of getting an ST to talk to a novel use - the creation of answer-phone messages. If you have tried to record your own messages, and end up sounding like a complete prat, why not try a computer-generated message instead? You type in the text, and the computer reads it aloud in its simulated voice. Record the results onto cassette tape, and there you are!

The author has also used the voice synthesiser to generate some 'spoken alert boxes' in the programme itself - it's an odd feeling when your ST tells you that it is loading a file! You will have to experiment with the phonetic speech before getting usable messages out, but the end results can be quite stunning.

Desk File Voices Blocks Options Sections

01 hpschd 1	02 hpschd 2	03 bass	04 v4	05 v5	06 v6	07 v7	08 v8
CONDUCTOR							
CHORUS							
01	02	03	04	05	06	07	08

Section

OPERATION: 0035:01:001

HOT DONE: 3/16 70

REDO: 9/16

COMMIT: SYNCHR

PLAY RECORD STOP

0001:01:001

BACH.MID

PUNCH AUTO.PUN AUTO.AUD

AUDITION AUD.CHO AUD.CNT

0001:01:001

0001:01:001

The Accompanist

aal	eel
aarwöhnisch	suspicious
ab	down/off
abart	variety
abbaigen	skin
abberufung	recall
abbilden	figure
abblenden	din/dip
abbruch	abort
abdampf	exhaust
abdanken	abdicate
abdiene	serve
abdrehen	bear
abdruck	impression/print
abdämmen	dam
abend	evening/night
abendessen	supper
abendeßen	supper
abendländisch	occidental
abenteuer	venture
aber	but/though
aberglaube	superstition
aberundet	round
abfahren	depart/start
-More-	

Part of Text Translator's German-English dictionary

Software for these reviews was supplied by:

South West Software Library, PO Box 562, Wimbourne, Dorset BH21 2YD

Public Dominator, PO Box 801, Bishops Stortford, Herts. CM23 3TZ

Woolleysoft, Humblesknove Cottage, Ramoyle, Dunblane, Perthshire FK15 0BA

The software in this article is also available on ST Club discs:

Calendar v6.....	UTI.186
The Guru.....	UTI.186
Mouse Tricks.....	UTI.149
The Accompanist.....	MID.29
Text Translator.....	WPR.97
Atari Phone Voice.....	MUS.86

Atari's Shining Star

A program in the public domain for stargazers is a match for costly offerings for the PC and the Mac. Paul Sutherland turns his eyeglass on it.

I was amazed to read E. A. Symons' letter in STA 14 and the editorial reply regarding the software Atari Planetarium (Forum STA 14). Mr. Symons cannot be writing about the same excellent program I frequently use. And the reply was certainly not referring to Planetarium, but instead to a clever (but quirky) offering from Robtek called Skyplot.

Planetarium, which runs in colour or mono, gives a speedy and accurate representation of the sky from anywhere in the world. The opening screen tells you it is copyright Deltron and Atari, but I understand it to have been released into the public domain with the passing of Halley's Comet. It is certainly widely available from PD libraries.

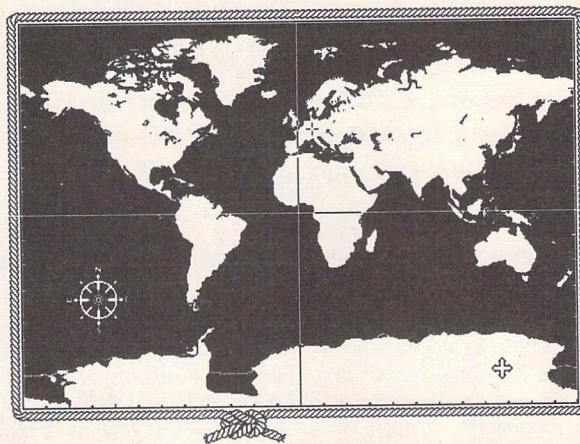
The program is fairly intuitive. The introductory screen clears to present a world map. The mouse and left button are used to indicate the observing location. Clicking on the button marked Sky takes you to a view of a 36 degree-wide window on the sky looking due South. If you have a clock fitted to your ST, the sky is automatically presented for your date and time. Further clicking of the mouse on various items on the right of the screen allow the observing window to be moved around the sky, the time and date to be altered, and the

size of the star images increased.

There is also a menu bar, similar in operation to the usual Gem affair, except that the Find, Settings and Options menus only drop down when they are clicked on.

The Options menu allows you to decide whether planets should be shown realistically as star-like points or as their traditional symbols. As star-like images, they actually brighten and fade just as in the real sky. You can also select whether to show Deep Sky objects such as galaxies and gas clouds. Constellations may be made more recognisable by the addition of lines to form their familiar patterns, and the constellations' names may be switched on or off.

The Settings menu allows the viewing window to be expanded to 72 degrees, or reduced to either 18, 9 or 4.5 degrees. As you zoom down to the smaller viewing angle, fainter objects become visible. From this menu, you can also start the clock running so that the Planetarium sky updates with the real sky or is speeded up by as much as 64 times. If you have the 4.5-degree window on the sky, the stars will appear to speed across your field of view as the Earth rotates. The Find menu, not surprisingly, centres on the planet or constellation of choice (Halley's Comet is included, but is viewable



Planetarium's world map. Pick your observing location with the mouse.

for only a limited time around its 1985-86 apparition). These objects will be found even if actually below the horizon at the time chosen.

A further, extremely useful choice on this menu is Track. This locks the window on to and follows the part of the sky being viewed, like a motorised telescope. This means you can watch a spectacle like an eclipse of the Sun take place, at 64 times real speed perhaps, without having to shift the window constantly to counteract the Earth's rotation.

One point to note is that, for clarity, the Sun and Moon appear larger than life at all viewing angles except for that of 4.5 degrees when they are in correct proportion. Thus, this angle should be selected for the accurate viewing of events such as lunar occultations, when the Moon passes in front of a star, or an eclipse.

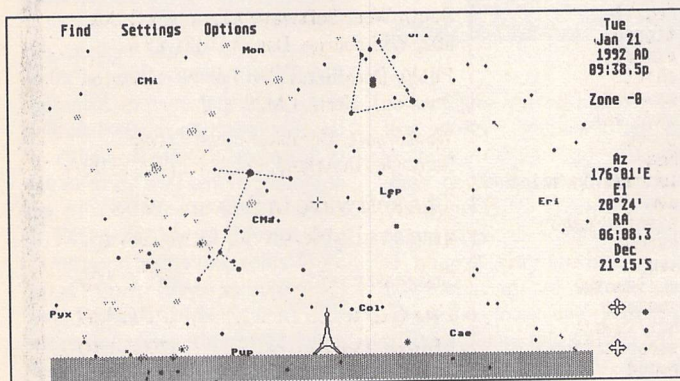
The algorithms used by the program for plotting the positions of the Moon and planets are evidently extremely accurate. Using Planetarium, I have been able to view conjunctions, or planetary groupings, in the past or future, such as one which inspired Van Gogh in Provence, and another which may have been the real Star of Bethlehem. I have watched this January 5th's spectacular solar eclipse from San Diego, when the Moon and Sun together sank into the sea in a unique sunset.

If you do go centuries back or forward in time, the program even adjusts for precession, the gyroscopic-style wobble of the Earth's axis over 26,000 years.

Clicking on an object in the sky and then pressing the right button, causes a line of information about it to scroll across the bottom of the screen. Impressively, this appears instantly; there is no hanging about for the lengthy loading of data files.

Programming novelties include famous landmarks on the southern horizon when a major city is chosen as a location, and if you should view straight down you see your feet! In the colour version, the sky's colour slowly changes from light blue to black as day turns to night. It looks effective. However, I prefer to use Planetarium in mono as an accurate and useful astronomical tool which deserves its place on my hard drive. I have been an amateur astronomer for 25 years or so and now belong to the Royal Astronomical Society - but Planetarium is as much fun to use for a casual stargazer. It does what it sets out to do in a remarkably straightforward and impressive way - even on a 520ST with a single-sided drive.

According to a favourable article "The Cheapest Planetarium In The World" in a recent issue of the British magazine Astronomy Now, Planetarium was programmed by Mark Tripney and Gavin Cameron of the Atari User Group, Edinburgh. If ever a program deserved to be supported and developed, it is this one.



A mid-winter sky as seen from a European city. Here, clusters and galaxies in deep space have been switched on and the constellations of Orion and Canis Major are indicated by dotted lines. The Eiffel Tower shows you're in Paris - part of the fun of the program lies in locating the many cities whose landmarks are included.

Planetarium is available from the ST Club on Disk UT1.185.

POLYFRAME

An exciting new product from C-Lab is PolyFrame, a modular generic synth editor, capable of 'multi-tasking' under Softlink and M.ROS, and for the first time making a C-Lab program interesting to users of Cubase and Cubeat as well as C-Lab's own Notator and Creator 'community'.

Part One of a Review by Ofir Gal

At the heart of the system is the PM-Uni module which allows the building of editor modules for any synthesizer that supports parameter change via sysex messages. Virtually all professional synthesizers support these MIDI messages.

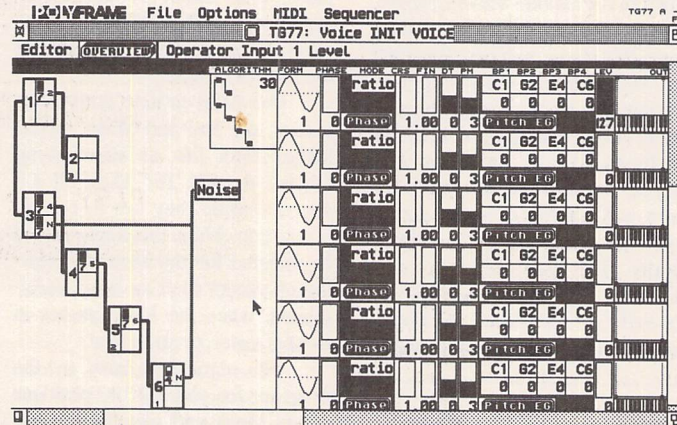
The program comes with ready-made PM-Uni modules for many synthesizers including ones for DX7, D50, D110, Matrix 1000 and more. The review program came with a specially written module for the Yamaha SY77 and TG77 which includes features that cannot be accessed with the regular modules. There were sections of the manual dedicated for similar custom modules for DX7, the Korg T series, the Korg Wavestation and M series of synthesizers, although these were not included with the review package and my review will concentrate on the PM-Uni - the generic module, and the PM-SY - the dedicated module which according to the manual is very similar in operation to the other dedicated modules still to come.

Overview

PolyFrame comes on four floppy disks with a black bound thick manual. None of the disks can be used as is, and there is quite an involved installation process. The program itself is key-protected, and each module can only be installed once, eliminating module swapping between PolyFrame users. C-Lab have come up with such a good idea it makes you wonder why it has not been used until now for copy-protection: the PolyFrame dongle has a replica of the cartridge port at its outer side so that another dongle can be inserted, doing away with the extra expense of a key expander. The program is designed with Softlink

and M.ROS compatibility in mind, and even supports C-Lab and Steinberg hardware units like the Unitor, Midex and SMP-24.

On loading you are presented with the PolyFrame desktop, where all installed modules appear as icons, very much like the standard GEM desktop. Each module can be invoked by double-clicking its icon which opens a window. The program features some unique and useful window handling routines that make you wish they were available in other GEM programs. The other noticeable difference is the custom system font, which I did not like too much, but that is a minor point.



The menu bar is always displayed and is always active. There is no use of GEM forms, dialogue boxes and the like, as all editing is performed within the custom window system. Each window has the usual full, resize and close boxes, and an additional real-time scroll box which triggers a tool C-Lab call the x/y gadget. The scroll bars scroll in real-time: you do not have to wait for the display to update, and this allows for a quick though jerky scrolling. More than one window can be active at any one time and a screen set-up of

assorted windows can be saved and later recalled with one of the function keys, which can be very useful when editing more than one synth at a time.

Editing

Calling one of the modules is done by double-clicking its desktop icon, which loads the module if it is not already memory resident and displays its memory manager window. This window displays the current contents of the synth memory and allows transmitting and receiving voices, patches and the likes. I will concentrate on the SY77 module for demonstrating the way editing is performed with PolyFrame.

The memory manager is where you can decide whether you want to edit a multi-timbral setup (multi), the overall settings, a pan envelope, a micro tuning

istics of the sound and accessing the lower level window by clicking on regions of the overview window, so accessing all the filter parameters, for example, is simply a case of clicking on the filter region of the overview window.

I must stress here that the modular nature of the program limits the way graphic representation of some parameters is handled. The manipulation of an FM algorithm is a little confusing, while other features such as envelopes and filters are well supported so that their parameters can be modified not only by changing their values but also by pointing and clicking on the envelope itself. As a rule, values in PolyFrame can be changed by clicking with the left mouse button to increment or the right button to decrement the value. You can also use the cursor keys and numeric keypad to enter values directly, or the + and - keys to increment/decrement one step at a time. If the control key is held, moving the mouse up will increment the value of a selected item, and vice-versa, as if it was a fader, although the fader is not displayed. Many parameters have their own dedicated faders which can be used to modify their values in addition to the above, and in the PM-Uni you can assign a fader to any parameter, although this is not always desirable. Holding the shift key will allow copying of envelopes and other groups of parameters where applicable.

As you would expect, the PM-SY will allow editing of all of the synths parameters including the effects section and the handling of libraries of sounds, multis or any other items. Two libraries are supplied with the PM-SY to get you started, as well as a DX7 to SY77 voice conversion program.

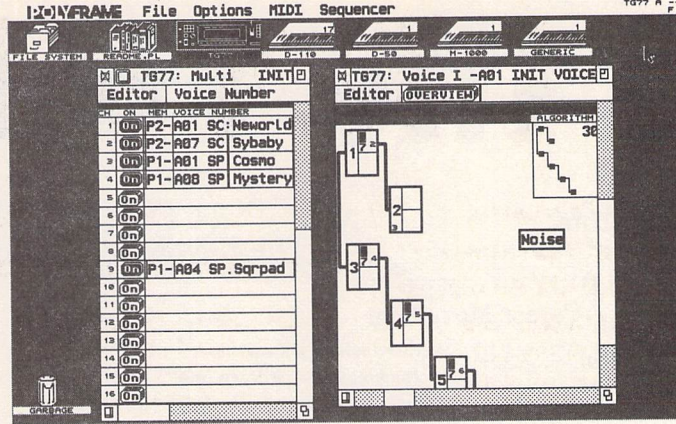
Another useful feature is the scan facility which checks to see which synths are connected to the Atari and sets PolyFrame to their device ID settings. A help facility displays information about the edited parameter while it's being modified, or an explanation why it cannot be changed, as is the case

table, a drum set or a single voice. The multi-window system will open the appropriate window when you double click an item. The windows in PolyFrame are larger than can be displayed on the SM124 and moving around is made possible by the sliders and x/y gadget. You can of course resize the window and simultaneously edit more than one voice or multi or even a combination of both by opening more windows. In the PM-SY, voice edit has two levels. The overview level allows macro-editing, altering the main character-

when trying to create impossible feedback patching in an FM algorithm for example. Many parameters such as algorithm or LFO waveform select are supported with a pop-up menu showing graphical representations of the items rather than meaningless numbers or names. This is typical of the way PolyFrame makes use of menus which seem to pop up everywhere.

The Library

PolyFrame is capable of handling any number of libraries, each containing any number of items, and is limited only by the amount of available RAM. A library can hold items of different types and even from different modules, which means that you can organize one large library containing sounds etc. for all your synths. Clicking a library item automatically sends the sound to the appropriate synth, and an item can be assigned a text comment in addition to its name. The library itself is contained within a PolyFrame window and can be resized, moved, etc., so that you can view just the



names of items or, if you wish, their device name, date, comment and other information. You can also choose one of three font sizes: the smaller the font the more information and items you can view. Library items can be selected for deleting or copying to other libraries or into the device memory manager where they can be edited. The last operation can be done by simply pressing Alt-E or by double-clicking an item. There are also extensive search facilities, where you can for example search for any items con-

taining "bass" in their name, and there is also a clever deviation facility which searches for similar names or comments. A search for "bass" will also find an item like "SynBas2" if you wished. A library can be sorted alphabetically by name, type, date, comment, synth model, and there is a 'delete twins' facility which is very handy. You can also choose to view names only, or any one or more of an item's attributes. These features are similar to the ST desktop and are very easy to understand and use. A library can

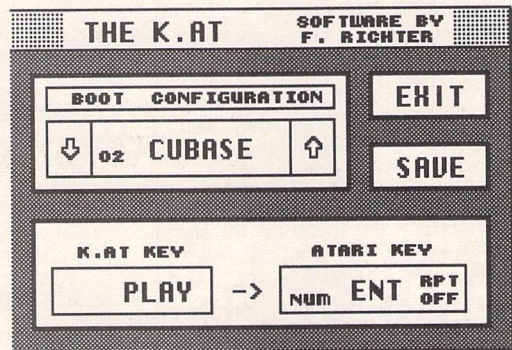
be saved to disk, and if you try to quit PolyFrame without doing so you will be warned. I was disappointed to learn that when editing a multi on the PM-SY, it is only possible to use the presets and internal memory voices; there is no access to the library. Library items must be copied to the memory manager's internal bank, before they can be used as part of a multi. The internal bank can only hold 64 voices, which means that you have to keep jumping between the library, the synth's memory manager and the multi-edit window. The reason for that lies with the memory structure of the SY77 itself, and is explained in the manual. I use a Steinberg Synthworks SY77 editor which does not suffer from this limitation and it would be very interesting to understand how Steinberg got around this one. Next month I will continue the review and examine the PM-Uni, which is to me the most exciting part of the program. I will also put the whole package to the test at the studio where it will be running under M.ROS, and also show how a new module can be created.

The K.AT

Ofir Gal also takes a look at a feline offering from FriendChip in Germany...

Most recording engineers are familiar with FriendChip, a German company that is mainly associated with its synchronizing equipment. The latest offering from FriendChip is the K.AT, a remote control unit for the Atari ST. Aimed at the MIDI user, the K.AT will allow remote control of a sequencer program. The package consists of the K.AT itself, a grey plastic box only a little bigger than a cigarette box, with a 5-meter black lead connected, a floppy disk and a 4-page manual. The K.AT has seven buttons and two shift buttons which can be used to control fourteen different functions of a sequencer, as long as these functions can be accessed by pressing a key on the Atari keyboard. Mouse clicks and macros are not supported but there should be no problem using a program like Keys! to add these facilities.

The K.AT is installed by plugging it into the joystick port and booting the computer with the K.AT accessory and associated files on the boot disk. FriendChip helpfully state that the accessory will only use 17k of RAM. Users of multi-tasking systems such as M.ROS should note that this memory is allocated by each program, so that when running two programs the K.AT accessory will actually use 34k. The accessory can be configured to suit the sequencer you are using so that pressing the play button on the K.AT, for example, will have the same effect as hitting enter on the ST for Cubase, or '0' for Creator/Notator. Up to 16 such configuration can be resident and saved to disk, while one can be set to default. The K.AT comes with ready-made configurations for Cubase and Notator and it is very easy to create your own. In



fact the K.AT is very easy to use, making the short manual almost redundant. When the accessory is loaded, pressing any K.AT button will display its ST keyboard equivalent as set. This can easily be changed by pressing an ST key, or even a combination of shift keys: the awkward Shift-Control-Function key for program switching (Cubase) can now be replaced with a single K.AT button. You are limited to 14 keys per configuration, but there is nothing stopping you from creating more configuration for different situations. The K.AT can also be used with any other programs, such as synth editors or even a word processor, but with a limited degree of usefulness. In practice the K.AT proved

very reliable and easy to use, making you wish there were more buttons to use. I would have also liked to see a macro facility incorporated, and I would think this could be added via software at a later date. In my opinion the K.AT can prove useful in systems incorporating tape control via MIDI such as the Fostex G16 and G24 or the Fostex R8, where the K.AT can control not only the sequencer but also the tape recorder. I expect to see many home studios using such a system in the near future, and for those who are lucky enough to have such a set up I fully recommend the K.AT. For the rest of us it is simply a case of personal preferences; I will stick with the ST keyboard for the time being...

From the Hotline

Hints and tips from Richard Lane
on the Compo Hotline.

Updated Printer Driver for BJ10e

There is an updated driver disk for the Canon BJ10e. The driver costs £4.99, and includes support for the 360 x 360 dpi mode as well as the 360x180 mode. It also fixes problems with the font widths of the proportional fonts. To run in 360 x 360 dpi mode a hard disk is required, owing to the size of the bitmapped font files. Anyone who has previously purchased the driver may upgrade free of charge: just send the original disk with an SAE to the COMPO Hotline, at the address in your documentation.

Keyboard Shortcuts

Since That's Write and Write On are so mouse-orientated in operation, it's easy to forget that virtually anything can also be controlled by the keyboard alone. When combined with the macro facility, they are programs which even mouse-haters (are there any left?) can enjoy. But unfortunately, the current manual has no single list of keyboard shortcuts. I'm therefore taking the opportunity to present a list of the most helpful ones. There is not room in this article to show all the keyboard commands, but the list below (I hope) only excludes those which apply solely within specific dialog boxes or drop-down menus. Usually, those can be worked out by pressing Control with the first letter of the option required in any case. To select a drop-down menu option, first press CTRL-[N], where N is the first letter of the menu required. The menu name is highlighted, although the menu doesn't actually drop down. Then press the key for the option required. Disk subscribers will find a complete list of keyboard commands on DMG.28, in the file KEYCOM.TW (which Write On users can also load directly).

In the following list, keys linked with a hyphen are to be pressed together - that is, press and hold down the first key before pressing the second. Keys separated by a space are to be pressed consecutively. So:

CTRL-D T

means press and hold down Control; press D; release both and press T.

The Keyboard Shortcuts

Cursor Movement

Arrow Key	Move left/right one character or up/down one line
SHIFT-Arrow	Move left/right one word or up/down one screen <tab>CTRL-Arrow Key Move to start/end of line or forward/back to start/end of text
CTRL-SHIFT-Arrow Key (up or down)	Move between main text, header, and footer areas.
CTRL-G F	Move to the beginning of the next page.
CTRL-G B	Move to the beginning of the previous page
CTRL-D W	Move cursor to other window

Deletion of Text

DEL	Delete character to right of cursor
SHIFT-DEL	Delete word
CTRL-DEL	Delete line

Text Markers

CTRL-M n	Place marker no. n (where n is a number from 0 to 9)
CTRL-G n	Move cursor to marker no. n (where n is a number from 0 to 9)

Special Commands

CTRL-A	New paragraph layout
CTRL-P	New page layout
CTRL-Q	Format paragraph
CTRL-C	Check spelling
CTRL-R	Repeat previous search
CTRL-SPACE	Types hard space (space that will not be adjusted or broken)
CTRL-X	Transposes the two letters immediately before the cursor <tab>CTRL-D T Inserts the current time at the cursor position, in the format 11:00
CTRL-D D	Inserts the current date at the cursor position, in the format 31/12/1999
CTRL-D M	Inserts the current date at the cursor position, in the format December 31, 1999
CTRL-D U	Sets word to upper case
CTRL-D L	Sets word to lower case
CTRL-D C	Capitalize first letter of word

CTRL-I I	Show the document information box (including word count and free memory information)
CTRL-I n	Call the accessory in slot number n in the Desk menu (only works with accessories which follow a special protocol. That's Snap and C-Font are examples; Keyshow is not.)
SHIFT-SHIFT	Cancel current operation (eg. printing, search and replace)

Macro Commands

SHIFT-ESC m	Starts recording macro on key m (where m is any key, with the exception of SHIFT, CONTROL and ALTER-NATE).
SHIFT-ESC	Ends macro definition, if a macro recording is in process.

Commands valid in all Dialog Boxes

RETURN	Select OK
UNDO	Select Cancel
ESC	Clear value at cursor
Up/Down Arrow Keys	Move cursor to next/previous input position

File Selector commands

Note: these commands are only valid when the File Selector is on the screen

CTRL-m	Select drive m, where m is a drive letter shown in the file selector
CTRL-n	Select file or folder n, where n is the number of a file or folder shown in the file selector
CTRL-(Show files with extension .TW
CTRL-)	Show files with extension .DOC
CTRL-/	Show files with extension .TXT
CTRL-*	Show files with extension *.*
CTRL-HELP	Re-read file directory
CTRL-BACKSPACE	Close folder

The COMPO Hotline is on 0480 891271 3pm to 8pm Monday to Friday; or send a fax on 0480 890787. Finally, if you have tips for other COMPO users, send them to me c/o ST Applications.

Going On-Line

Part 5: Sysops

This month Mark Baines talks to one of that dedicated and generous breed of computer hobbyists - the Sysop.

Each Bulletin Board needs someone to run it, buying the hardware and software to keep it going, paying large telephone bills and spending a lot of personal time maintaining the system with - more often than not - little thanks or appreciation for his/her efforts. One such Sysop is Ben Van Bokkem of InterNet BBS, a UK and European FNet central hub.

Q: How long have you been a Sysop?

A: Precisely 2 years. I used to have a very large ST area on Compunet but, due to various reasons, felt I could offer others much more by having my own system.

Q: What hardware is the BBS run on?

A: Currently a Mega ST2 with twin hard drives (150Mb), HST Dual Standard modem (14400bps) and NEC 3D monitor. It's extremely suitable for the task although I must admit an extra comms port would be very welcome indeed.

Q: What software do you control the BBS with?

A: Turbo Board is the BBS software. As most things are built into the BBS software, the only external utilities of note are the Fmailer and the Crossnet conferencing software. The Fmailer is an essential part of networking as that's what keeps the mail flowing around the network. It is set up to automatically dial another node and exchange mail. In the European setup, for instance, InterNet connects to a US node and mail is exchanged between the two countries. A number of secondary hubs in Europe then connect to InterNet to exchange mail who in turn are called by a number of end nodes.

The Crossnet conferencing software uses the Fmailer as a vehicle to distribute messages to other nodes who are a part of a particular conference, thus allowing users to communicate on many varied subjects worldwide.

This BBS software is now

without doubt the best available on the ST. The conferencing software is excellent and extremely reliable as is the mailer although the latter can be a little restrictive at times. However, that will be rectified in the near future.

Q: What are the benefits, rewards, or perks of being a Sysop?

A: Not too many, really, as it is a labour of love. The satisfaction of setting up and maintaining your own system and its usefulness for others rates high. As for perks, some manufacturers do give bona fide Sysops very generous discounts on various hardware items.

Q: How do these offset the financial costs?

A: That really varies with the individual but personally I find it well worth it for the sheer pleasure obtained and the knowledge gained.

Q: What are the financial costs?

A: Very hard to put a figure on that as that again is an individual choice. With hardware and software in place, the running costs can be very small, depending on amount of involvement.

Q: What are a Sysop's day-to-day chores?

A: Validating new users on the system, checking out new files uploaded to the system and checks on the system logs to ensure no errors are occurring. He will also need to check on any conferences he moderates to ensure its smooth running. System files will periodically need updating to reflect any changes on the system.

Q: Which conferences do you moderate?

A: I moderate the European Sysops and World Sysops conferences which are basically networking support conferences, as well as support conferences for the shareware software I represent and a few others such as an International technical, Sales and Wants and Hardware/Software Reviews.

The purpose of a moderator is to provide a suitable subject for

discussion (usually one with which that moderator is very well acquainted) and to ensure that topics don't stray too far outside the bounds of the subject. The moderator will also ensure that discussions don't get too heated or that any abusive behaviour is immediately quelled.

Q: What are your personal aims and objectives as a Sysop?

A: Continual improvements and expansion and more useful facilities for the user. Multi-networking is another project in hand and I would like to see that come to fruition in the near future. It never has been too easy to communicate with networks outside FNet but that will soon be changed, I hope...

Q: Describe your ideal user.

A: The ideal user is one who communicates well with others on the network and contributes his knowledge and help for the benefit of others which, in turn, reflects well on the system. He becomes a regular caller to the system and partakes in the furtherance of enhancements to it. I'm fortunate enough to have a few such users.

Q: Describe a normal user.

A: (*big grin*) Can anyone in comms be regarded as normal? I suppose a user who logs on a few time a week, leaves a few responses in the message bases, plays the odd on-line game and downloads a file now and then can be regarded as an average user...

Q: What problems do users sometimes give you? Is there a disruptive or criminal element?

A: Biggest problem are users who never bother to read the system notices or bulletins but simply leave you a message asking you why they've come across a particular problem. It takes time to update those notices for their benefit and takes even more time to answer the same question to each individual and is quite disruptive to the precious little time a Sysop has. No real criminal element though...

Q: Why have you got involved closely with the writing and dis-

tribution of comms software such as MaxiMiser and FzT?

A: There has always been a major problem obtaining and registering shareware software from overseas and in the few cases where it has been available it has not always been ideally suited for the European market. Becoming distributor and support for such software has advantages all round, as the European user has an easy and cost-effective way of registering the software and instant access to upgrades whilst the author is relieved of the burden of overseas support. From a personal point of view, I just enjoy being involved in such projects and influencing to some degree, the end product.

Q: What advice would you give to anyone wanting to be a Sysop?

A: (*grin*) Find something easier to do?

Q: How would they start out? With what software and hardware?

A: The basic requirements would be a 1mb ST, a hard drive, modem (at least 2400 baud) and the BBS software. The best software is certainly Turbo Board and for those wishing to network with others on the FNet network is the only one capable of this. For those on a tight budget, a shareware version of this software exists with an easy upgrade path. Full European support makes this package even more attractive of course.

Q: Do you have any regrets about being a Sysop? Would you do it all again?

A: None whatsoever! I have thoroughly enjoyed it thus far and have made many friends worldwide and would certainly do it all over again...

Q: Thank you very much, Ben, for this look behind the scenes of an FNet Bulletin Board. Any last comments?

A: All in all, the FNet network is a small but friendly worldwide network with just about everyone ready to give their fellow comms user a helping hand. A great way to make friends!

Jeremiah's Journal

Murder, mystery and suspense amongst the pampered and avaricious yachting set. Jeremiah exercises his "little grey cells" in order to tackle the latest masterpiece from Delphine Software, "Cruise for a Corpse".



Splinterbone

Police Inspector Raoul Dusentier was more than a little surprised when he received an invitation to join the fabulously wealthy Niklos Karaboudjan, and his family and friends, for a luxurious cruise aboard their recently renovated and modernised yacht, the Karaboudjan III. These were not the kind of social circles in which he usually moved. He considered, for a brief moment, turning down the offer. But Niklos Karaboudjan was a fascinating enigma - a hugely successful businessman about whom much was publicly speculated but little was actually known. What would it be like to meet this man in the flesh? And then, there was the chance to see the lovely Mrs Karaboudjan, reputed to be one of the world's true beauties! And finally, the yacht itself. Stories said that it had actually once been owned by the notorious pirate One Eyed Jack and had been won from him, during a wild spree of relentless drunkenness and insane gambling, by Niklos' grandfather. Yes, a relaxing cruise in such company was strongly attractive. Inspector Dusentier decided that he would accept.

But that was then, and this was now, and Raoul was beginning to deeply regret his decision. The cruise was hardly a day old and Niklos Karaboudjan had been horribly killed. While hurrying to the scene of the crime, the Inspector himself had been attacked and rendered unconscious. Still groggy from this experience, he found himself faced with one of the most delicate investigations of his career. The murder of Niklos would create a sensation around the globe and, somewhere amongst the prominent socialites crowding the decks of the yacht, the murderer still lurked and could yet strike again.

Essentials and extras

The game comes in the usual large box, which sports a cover illustration that is specifically designed to give the impression that the central character is very much a Poirot clone in the Peter Ustinov mould. The fact that the

The main game character is a vector graphic and not a sprite. He grows smoothly larger and smaller to maintain perspective as he moves forwards and backwards along this scene.



in-game depiction of the character doesn't even come close to resembling this well-known image appears to be something that the publishers have chosen to ignore in order, no doubt, to capitalise on the popularity of Agatha Christie's famous hero. A shameless marketing ploy.

Although it is not a particularly large game in terms of locations and puzzles, it still occupies five double-sided disks (single-sided disks can be obtained direct from U.S. Gold). This is mainly due to the high quality, minutely detailed graphics which, coupled with the short animated sequences, individual character portraits and copious amounts of text, consume disk space at an alarming rate.

Also in the box are two small booklets - one comprising a reference manual for playing and controlling the game, and the other containing background information on the game characters - as well as a codewheel (for copy protection), an addendum sheet to the reference manual, and an A3-size diagrammatic map of the game playing area.

Delphine first introduced their Cinematique game system with the bestselling Future Wars adventure and received immediate critical acclaim. The system was greatly improved and expanded for the follow-up game, Operation Stealth. Now, once again, Cinematique has been radically overhauled to present a first-class user interface in this latest release. The system is totally mouse controlled and operates on a simple point and click principle. Pointing and clicking with the left button will allow you to move your character around the screen, or investigate items pictured on the screen. Clicking with the right button brings up the inventory list of items carried. These items can be used by clicking on them from the inventory list. Finally, clicking both buttons at

once brings up the User Menu which contains the options for loading and saving positions, etc.

The system really is extremely simple to use, it works almost seamlessly, and serves as a smashing example of how a good user interface can actually enhance the pleasure obtained from playing a game. In fact, my biggest criticism of it would have to be that, although it happily recognises a second drive for the purpose of saving and loading in-game positions, it won't recognise it during actual play, thus prompting a lot more disk swaps than should really have been necessary. But this is a small quibble.

The character background information booklet is very superficial and only serves to introduce a few of the in-game characters by means of half a dozen short, news-clipping type stories, and then doesn't tell you much more than their names. There is no really valuable information printed here and, apart from a little scene-setting, I can't understand why this item was included at all.

The copy protection codewheel is also a bit of a pain. Instead of the more usual text responses, which are ascertained by placing the codewheel segments in the correct alignment, this system requires you to correctly identify a series of pictures from a much larger selection on offer. The difficulty arises in that many of the pictures are identical except for the colours used in them, and some of the colour reproduction on the codewheel is of particularly poor quality, the result being that it is often difficult to select the picture which best duplicates the image shown on screen. Just to add insult to injury, the game also expects you to enter the correct sequence not once but twice, and a mistake in either sequence means that you have to do the whole thing all over

again. A case of overkill here, methinks!

The addendum sheet presents some revised loading instructions and a couple of other items of information which got missed out of the reference manual. Unfortunately, the addendum contains a number of errors itself. For instance, it tells you to load the game by clicking on CRUISE.PRG when in fact the game auto-loads as soon as you switch the computer on and CRUISE.PRG is in an AUTO folder and won't load at all by clicking on it. It also says that the game will end at 6.00 pm (game time) when it actually ends at 6.30 pm. A case here for an addendum to the addendum, perhaps?

The final item in the box is an A3-size two colour map of the yacht and its various decks. This map is very similar to the in-game map display except that it contains additional information which allows you to identify easily all the rooms and cabins on board. This is obviously of immense benefit when used in conjunction with the in-game map as it allows you to move quickly and surely to your chosen destination without having to actually wend your tortuous way there.

Clues and conundrums

Obviously, you take on the role of Inspector Dusentier throughout this game and your task is to unravel the various mysteries surrounding the death of Niklos Karaboudjan with a view to correctly identifying and apprehending the guilty party or parties.

It won't take you long to discover that, as in all the best murder mysteries, nearly everybody on board ship had a really great reason to want Niklos dead. His wife is conducting an affair behind his back with his lawyer. His daughter hates his guts because he's trying to marry her off to a rich playboy that she can't stand the sight of. His lawyer's wife hates him too because he ran off her one true love in order to ingratiate himself with her father who didn't approve of the young man. The priest hates him because he lost the church restoration money to him in a poker game. The alcoholic hates Niklos because she suspects that he had a hand in sending one of her good friends to an early grave. The only person who has a good thing to say about Niklos is his butler but, since the pair of them were much closer than would

ordinarily be considered natural between employer and servant, there are rumours that the butler held a sinister threat over Niklos and that they shared some dark secret.

The game progresses in ten minute segments. Each time, you uncover a clue, or a piece of information that takes your investigation one step onward, the game clock moves on ten minutes. The case commences at 8.00 am and it will end at 6.30 pm, so your task is to find the 63 items of evidence which will succeed in moving the clock from its starting position to its end state. When you finally get there, you will need to point out the perpetrator of the dastardly deed so that they may be led away by the local gendarmerie. But, by that time, it should be fairly obvious to you who to accuse. If you identify the murderer correctly, you will be treated to that very rare commodity in the world of adventures - a proper finale and epilogue which brings the game to a very satisfying, well rounded conclusion. This takes the form of the kind of "voice over" device often used at the end of drama-documentary films, along the lines of "A.N. Other was charged with first degree murder. He is currently serving his tenth year of a life sentence. John J. Hero married the pretty girl. They now live in Florida with their four children." I'm sure you've seen and heard the type of thing I mean. It works here suprisingly well.

If you accuse the wrong person, you still get a proper ending but it is much shorter than the correct one, and it leaves you in no doubt that you've made a terrible mistake and an innocent person is going to suffer because of it.

The only drawback with this type of game structure is that it usually makes for a very linear game, and this one is no exception. Certain items can only be found when the clock reaches a certain time, certain actions can only be carried out at the correct hour. This means that you have to complete most of the game in the order that the designers have laid down, and that it will not be possible to complete any one task successfully until you've completed all the predetermined prior tasks successfully first.

The difficulty comes in identifying exactly what it is that is required next. It is rarely obvious, and often extremely tricky. For in-

stance, at one stage, you need to find and pick up a small key, only you don't actually know this. The result being that you have to scour the ship, questioning everybody about everything, searching all nooks and crannies most thoroughly, in order to find that elusive clue which will advance the clock. The key actually appears on the floor in your cabin, but it is very small and difficult to see and you are given no hint as to its appearance. Therefore, it is possible to tear the ship apart and still miss the vital piece of evidence for which you are searching. Then, if you do discover the missing link, it is more than likely that you'll have to repeat the whole process in order to uncover the next item.

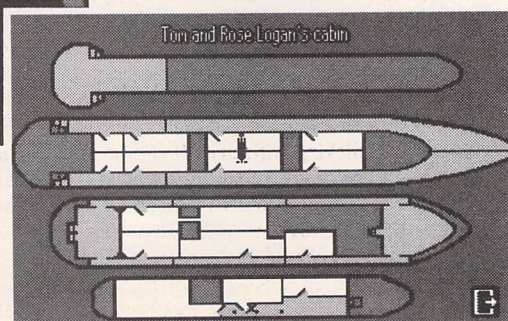
Understandably, this makes the game more than a touch tedious in places and can tend to ruin your enjoyment of an otherwise well put together adventure. In order to combat this, at least to some extent, there is a hint system built into the game. The bad news is that it isn't intelligible to the average player.

It works like this. At the stern of the ship, on the lower deck, there is a large carved representation of a mermaid. If you click on this mermaid and then speak to it, you will be given a code comprising of a number and a letter (e.g. 21a, 14d, etc.). This code doesn't mean very much to the likes of you and me, but, if you ring the U.S. Gold helpline (34p a minute cheap rate, 45p a minute all other times), they have a very smart tape recorder there which will take your code, identify from it where you are stuck, and read out to you the solution to all your troubles! Isn't technology wonderful?

The presentation of this game is truly first class. The graphics are extremely well done and full of atmosphere and detail. The control system is a pleasure to use and adds greatly to the enjoyment to be gained from the game. I am told, by those who know about these things, that the central character in the game is actually a vector graphic and not a sprite as you might suppose. It is this which gives him the ability to remain in perspective by smoothly growing larger and smaller as he moves nearer to, and further away from, the foreground of the screen. I can't think of another game which uses this technique at present, but I'm sure it'll become fairly widespread in no time at all. Despite its drawbacks and flaws, I really enjoyed this game. The satisfaction of finally making progress tends to wipe out all the aggravation you had to endure in order to get there, and I kept coming back for more, time after time, until I had cracked the whole thing. A recommended purchase as long as you have a systematic approach and a modicum of patience.



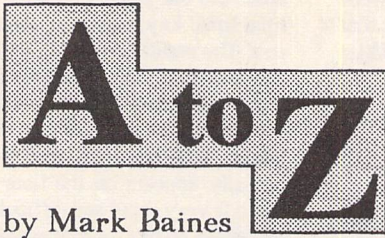
Left: Interviews with characters are conducted by walking up to them selecting the "Speak" option. Initially, the list on the left will be displayed. Click on any of the subjects in this list to begin your questioning.



Right: A simplistic view of the four decks. This diagram can be called up at any time, and Raoul can be sent to any of the areas depicted just by clicking on the appropriate spot.

Product:.....Cruise for a Corpse
Programming and
Design:..... Delphine Software
Publisher:..... U.S. GOLD
Price:..... £25.99

The



of the ST

Compiled by Mark Baines

NAK - *Negative Acknowledge*. Transmission control character sent by receiving station to a sending station indicating that an error has been detected and requesting the retransmission of that message block.

Name: Alphanumeric string (usually the first character is a letter) that identifies a program, file, variable, array, storage location, device, user, etc.

Nano - N: Prefix indicating one billionth (10^{-9}).

Near Letter Quality - NLQ: Applied to dot matrix printers ability to produce type close to typewriter quality.

Needle: Also pin, stylus or wire. An element of a print head that places dots to form dot matrix characters in an impact matrix printer.

Negation: To change a numeric value from positive to negative or vice versa. Also, to change all the 1-bits to 0-bits and vice versa in a binary number.

Negative: A numeric value less than zero. Also, in an electrical circuit, the position from which electrons flow toward the 'positive'.

Nested loop: A program loop that is initiated by an instruction in another loop.

Nesting: Process of including an item of separate identity within another item of the same type. Also, the programming operation of specifying a separately compiled sequence of instructions that will be executed within the main sequence of instructions.

Net: Also network. A data structure that supports multiple access paths and in which the entities need not be in hierarchical relationship, such as a linked list.

Network: An organization of lines, equipment and control structures that provides a data communications service for geographically separated locations. Stations or terminals may be linked directly by cable (Local Area Network) or indirectly via the telephone system (Wide Area Network).

Newline: Movement of printing position or VDU cursor to the start of the next line. Sometimes equivalent to the 'Carriage Return' and/or 'Line Feed' characters.

Nibble: Half a byte.

No-operation instruction - NOP: Instruction that does nothing except cause the next instruction to be executed.

Node: A termination or interchange point in a data network, such as a terminal. In a net data structure, an entity on two or more access paths.

Noise: Any detectable electrical events on a communications link that were not intentionally placed there by the sending station. Such noise may be incorrectly interpreted causing errors in data transmission.

Non-recoverable error: An error that results in loss of data or requires the rebooting of the computer.

Nonresident: Not in main memory.

Normalization: Process of adjusting the representation of the exponent and fractional parts of a floating point number so that the fractional part has a radix point position that is standard to the system. For instance, normalizing 2375 to a single integer as 2.375×10^3 .

NOT: A unary logic operation with an output that is 'true' if the single input is 'false' and vice versa. Also, negation.

NUL: NUL. ASCII character 0 (consisting of 0-

bits in all bit positions) considered to be a control character or format effector, that can be inserted into a sequence of characters without changing the meaning or interpretation. In the C language, strings are expected to be terminated with a NUL character.

Null: Term indicating the absence of signal, element or value. A gap that may have some media-related significance but which can be ignored in the interpretation of data.

Null modem: Cable or dumb device to link two computers together for bidirectional serial communication in place of modems.

Number: A digit or digit string that represents a value, quantity or relationship.

Number crunching: Informal term denoting the processing of numerical data, such as in a spreadsheet.

Numeral: A decimal digit. Also, a single-element or group representation of a number, such as a binary digit or 'K'.

Numeric: Consisting of digits or numbers only, not alphabetic or alphanumeric.

Numeric pad: Group of keys each of which represents a decimal digit, such as a push-button telephone or on computer keyboards.

Numerical order: Numeric items arranged in an ascending or descending order that corresponds to their relative values.

Object: An entity. Also, screen graphic shapes in a WIMP/GUI system such as icons, menus, boxes. Object code: Also machine code. The final result of a language translation.

Object library: A library of object code modules that can be called or included in programs.

OCR: *Optical Character Recognition*. Computer input equipment for identifying printed or handwritten characters by photoelectric sensing and analysis of their patterns.

Octal: Numeration system with radix of 8 using digits 0 - 7.

Off-hook: Status of telephone equipment in which dialling is performed and messages are transmitted and received.

Off-line: Peripheral devices that are not under the control of a computer by being switched off or by the communications link being broken. Also, the state of not being connected to a remote data network.

Offset: A displacement, a difference between a location and a reference location. Also, to compensate or balance.

OK button: Common WIMP/GUI alert or dialogue box button confirming the action to be taken.

OMR: *Optical Mark Recognition*. Computer input equipment for identifying and interpreting marks (short lines, filled-in squares) on documents by means of changes in reflected or transmitted light.

On-hook: Status of telephone equipment in which it can receive an incoming call.

On-line: Peripheral equipment connected and ready to perform its function being accessible to a computer. Also, having a terminal or computer connected to a remote interactive data processing service, data network or information system.

On-line storage: Storage directly accessible to a computer, such as disks.

One-way communications: Communication in one direction only, a simplex system.

Opcode: *Operation CODE*. That part of an object code instruction that consists of the operator. Also, an instruction set.

Open: Operating system function that locates and identifies a file in storage and its access permission.

Operand: A value that is used or manipulated during the execution of an instruction.

Operating system - OS: Set of tested, inter-related programs to exercise management and control functions over processing. It provides storage and processing management, protection of code and data, a human interface and in multi-user systems logging and accounting functions. The standard microcomputer operating system is MS-DOS.

Operation: During execution, that which is performed on or with data.

Operator: That part of an instruction that specifies the operation to be performed on or with the operand(s), such as 'add', 'less-than' or 'NOT'. Also, a person who performs processing related tasks in a mainframe/minicomputer computer installation.

Optical coupler: Also optocoupler and opto-isolator. Sealed device containing an infrared-emitting photodiode and a phototransistor sitting in a circuit thus electrically isolating the two sides and preventing noise and peak pulses from passing to the output circuit. The ST has them fitted to the MIDI lines for safety.

Optical disk: Storage device using laser beams to write (sometimes once only) and read data from a disk. The data is more secure than magnetizable disks and it has far greater capacity.

Optimization: Also, tuning. The improvement of a system or program to improve their speed of operation and/or storage space.

OR: Logic operation with an output that is 'true' if any input is true and 'false' if all are false.

Order code: An instruction set.

Originate: To initiate or to be the source of.

Originate mode: Mode of telephone equipment (such as a modem) in which it is dialling a data station in order to set up a transfer.

Oscillator: Device that generates high-frequency pulses for purposes of synchronization and event timing. Most are crystal oscillators that take advantage of the inherent resonance of a quartz crystal to obtain frequency stability. The ST's 32MHz oscillator provides the master clock frequency for the whole computer which is cut down to lower frequencies by the MMU, Shifter and Glue chips.

Outline: Effect of drawing a black box around an WIMP/GUI object.

Outliner: Program helping to produce outlines (headings and notes) of articles to be written in a word processor.

Output: To produce as a result of processing or that which is produced by a process or device. Also, a transfer to a peripheral device.

Output buffer: In a communications interface storage used to hold data that is awaiting transfer.

Output device: Device used to convert data from its bit pattern representation in storage to a form which can be used outside the computer system, such as a printer.

Output medium: The medium on which output data is represented, such as paper.

Outspacing: Placing extra space between characters in a DTP/document processor program for aesthetic effect.

Overlay program: Program that has been divided into overlay segments and a control segment usually because of memory limitations of the computer.

Overlay segment: Part of an overlay program that is intended to be loaded when it is required during the execution of the program and overwritten when no longer required.

Overwrite: To write new data to a storage location already occupied with data thus destroying it.

Overwrite mode: Program mode enabling the writing of characters over others rather than between them.

STICKS AND STONES

This month, Günter Minnerup turns his attention to the little daily trials which can make ST computing less pleasurable and productive than it should be.

Atari users know all about saving pennies: for most of us, the promise of "power without the price" was the main reason we were lured into buying an ST in the first place, and it must be said that, by and large, it has been a promise fulfilled. The ST range remains the most affordable entry point into serious personal computing, despite the droves of cheap PC clones, the Mac Classic and the Amiga. Retail prices alone are a poor guide, of course, to relative affordability - the cheapo PC clone loses much of its attraction once you give it a decent display card as well as the hard disk space and RAM required to run a graphic user interface offering the same ease of use as GEM, and the Classic will lock you into the expensive Apple Macintosh market. As to the Amiga, just getting a flicker-free high-resolution display suitable for serious work is more bother than it is worth.

Since we ST owners are a generally impecunious, economy-conscious lot, we are prepared to be quite tolerant of cost-cutting on the part of the manufacturers we buy from, cheerfully accepting the tacky plastic boxes, spongy keyboards and the monstrous Atari mouse, for example, as long as we consider that we are getting value for money. When the relationship between cutting corners and economy is less clear, as for example with the substitution of the ACSI DMA for a proper SCSI interface, our patience may get a bit stretched but we still put up with the various kludges needed to ensure trouble-free operation of, say, hard disks (ridiculously short DMA cables and mutually incompatible host adapters). But every elastic has a breaking point, and for me this is reached when confronted with design flaws which are down to straightforward thoughtlessness rather than cost-cutting.

Atari are by no means the only culprits here, but they are not exactly setting a good example to third-party vendors. Take the SLM804 laser printer, for instance. Switching

it off while connected to the ST causes all sorts of trouble, so that its proud owners are driven to wedging its back door open in order to silence the fan racket. (Atari have provided an otherwise useless manual specially for this purpose.) Instead of providing a sheet counter with digits so that you can work out how much longer you have before the toner cartridge or drum need replacement, it has funny little coloured spots that tell you nothing sensible at all. Perhaps this has been rectified with the new laser printer, the SLM605 (which I have never seen except at shows, when I have other things on my mind), but why did we have to put up with such incompetence, which half an hour of testing would have revealed, in the first place?

This tradition is carried forward into the launch of the flagship TT series. A very tiny, but I think indicative, niggle occurs whenever I boot up my TT. The computer now very sensibly waits for the hard drive to come up to full speed, but why does it then wait until enough time has elapsed to start a Citroën 2CV on a frosty morning? And then the boot-up message from Atari's hard disk driver: every run-of-the-mill public domain disk formatting utility is capable of reading the current screen resolution and announcing itself in the correct screen font, so why does AHDI's sign-on look like it was done for a Commodore 64 and colour television in the TT's default medium resolution? Small points, of course, but so unnecessary and the more annoying for it. And worth complaining about, too, as Atari do seem to listen eventually, even if the wheels at Sunnyvale turn ever so slowly: witness the long-awaited, but nonetheless welcome improvement in the location of the mouse port and reset switch in the new range of models.

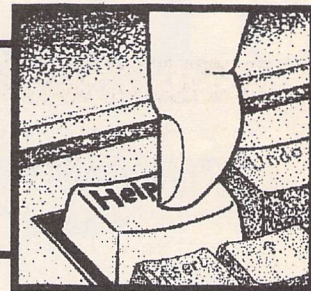
Ah yes, switches. Shouldn't have mentioned them really, because they more than anything else have a tendency to give me fits of rage. No washing machine manufacturer would get away with locating the main

power off/on switch at the back end of the machine, somewhere next to the water inlet perhaps, so why do computer users have to stretch their arms, twist their wrists, and in the process more often than not knock over cups of coffee, ashtrays and a heap of manuals just to cut off the power? I cannot imagine that the price of a few more inches of copper wire has much to do with it - the internal design of a computer may make it slightly tricky to fit the switch into the front panel, but hard disk manufacturers have absolutely no excuse at all, given the cubic feet of empty space in most of their boxes, and the absence of anything other than an LED from their fronts. And talking of hard disks, mine has a DMA through port for daisy-chaining further drives, but no labels to identify which of the two is DMA IN and which is DMA OUT. Cost-cutting or thoughtlessness? And why can't the DIP switches to change the device number be made accessible from outside the box - even the back, if it helps, since this is not a job done very often in the life of the average hard drive - rather than require you to open the case, thus normally invalidating the warranty (or even incur the risk of a nasty shock from the power unit)?

I could go on and on about this subject, which ranks second in my list of favourite moans just behind software houses "appointing" their customers to the thankless position of unpaid beta testers and then calling the first usable version of their program Version 2. Everybody makes mistakes, and there is the old saying that "you get what you pay for", but all too often the apparent thoughtlessness can appear as something more, and something altogether more unpleasant, than mere oversight: the symptom of a persisting immaturity of the low-end computer market where manufacturers still think they can get away with things they would not get away with in other consumer markets.

Günter Minnerup

FORUM



The Forum pages are a regular feature of ST Applications, enabling readers to exchange ideas and help each other out with problems. Whilst we attempt to briefly answer questions here, if you have additional information or ideas please do submit them for publication. What you consider to be trivial information can often be of considerable use to other readers!

Please send your letters on disk if possible. Disks will be returned with a PD of the writer's choice. Longer submissions may appear as articles, in which case you will receive payment at our standard page-rate.

You can now post messages for inclusion in the Forum via the CIX bulletin board on 081-390-1244. All messages posted onto our stapplications conference on CIX are considered to be for publication. Private mail can be sent to us with mail to paglo, but do not expect an instant reply! Messages reprinted in the magazine Forum pages are identified by the CIX stapplications conference message number after the author's name.

CIX is a commercial system with a £15 joining fee and on-line charges of between £2 and £3.10 per hour. For more details see the introduction to CIX in issue 3 of ST Applications.

Key:

The following codes are used for each Forum entry:

J Pringle - Forum 29: Author who first raised the subject, and in which issue. In this case 29 refers to the Forum pages in Issue 29 of The ST Club Newsletter.

Q Question

A Answer

I General information or 'Input', advice, discussion, hints and tips, etc., with or without reference to previous Forum pieces.

● Editorial reply

Timeworks Publisher 2

Ian Braby - Forum STA15

I In response to points raised in the letter by Ian Braby in ST Applications issue 15 I would like to point out the following.

1) The situation of Mr Braby's system is not helped by the excessive number of TSR (and possibly unmentioned ACC) programs existing on his system. These would appear to be occupying quite a large amount of memory.

2) When the installation program was written, the assumption was made that people did not have so much of their system memory tied up by other such programs. It had been intended to handle memory and disk space more sensibly but was dropped in order to release the product within a sensible period.

These assumptions have been revised and thoroughly checked with the maintenance release.

3) The error message used was badly chosen and led to some confusion as to what had actually happened.

4) The screen fonts contain the full Zapf Dingbats character set while the printer fonts contain the smaller 11 character set. This is because of licence agreements relating to the bundling of those fonts with Publisher 2 and are nothing to do with any corruption of the font files etc.

5) Given that extensive work was carried out here to ensure the correct printing of the test-card on a 1040 with twin floppies I can only assume the TSR's on this are taking up excessive amounts of space.

6) The allegation of "sloppy programming brought about the conversion from PC compatible to the ST" based on the extension of the screen fonts is as foolish as comparing smarties and pills and claiming that, because they are the same colour, and look the same, they are the same. In short, it is, to me at least, laughable.

The extension on the fonts were chosen because the naming convention adopted on the PC was more easily understood by most people. Actually there is no reason, or convention for fonts to have a .FNT extension,

although several people have falsely assumed this over the years. The CGA and VGA extensions were chosen because the Medium Res and High Res ST screens match these PC resolutions and for no other reason.

7) The idea of allowing the user to select the range of fonts to be installed has been considered. The major problem with implementing this has simply been the amount of time taken with producing the main program.

In order to supply the range of fonts with this product (about 21 double sided disks) as opposed to Publisher 1 (three single sided disks) we have had to compress them down into an archive format.

8) The increased importance of European markets means that the fonts have increased in size as the character set included in them has been expanded to include those needed for these markets.

As you say, Trimfont does make the entire situation more usable, and the font hiding technology in Publisher 2.00a should allow a far better performance even on systems such as Mr Braby's.

Tony Brown
GST Software

Q I have recently brought the new Timeworks Publisher 2 to run on a 4Mb STE with 2 DS drives. The old problem of being unable to print some or even all the graphics within the document is even worse. Using the method suggested in an earlier edition of ST Applications of directing the slave file to a ram disk has eased this problem, but it hasn't completely solved it. A few pictures are still being missed from the printed document. Other than buying a hard disk, has anyone come up with any other useful ideas?

Mike Miner

STOS

John Megson - Forum STA13
Iain Laskey

A I wrote to the STOS Club about this some time ago, and they said nothing about it. The solution that I use with my Hard Disk uses

SuperBoot and allows me to have a selection for STOS on the menu which will not load GDOS.

D M Buttle

PageStream 2.1

Andrew Wright - STA11

Wendy Durham - Forum STA12

Andrew Harvey, Geoff Caplan - Forum STA13

Chub Pearson, Andrew Lee, HD Smith,

Terry Willimott - Forum STA15

Q I am experiencing a couple of annoying quirks when printing out PageStream 2.1 documents on my Canon BJ10e.

The first is the apparent inability of the bubblejet to print closer than about 14mm to the bottom of an A4 page. I realise that it cannot be expected to print right up to the edge but if this is merely a limitation of the hardware why can it print 'read me' files etc to within 9mm of the bottom edge. In the printer configuration window of PageStream I have the paper size set to the full extent of an A4 sheet (i.e 21 x 29.7 cm), and the page length dip switch on the printer doesn't seem to make any difference (it is currently at the 'on' position - 305mm). There is also no change in performance with or without the bubblejet's sheet feeder.

This may seem like nit-picking for the sake of a few millimetres but if you want, for example, a symmetrical border line around a page they can be a valuable few millimetres.

My second problem is that on completion of a PageStream document being printed, using the sheet feeder, the next blank sheet from the 'bin' is always picked up and partially fed through the printer, so that when the next document is printed it starts halfway down the sheet of paper.

I get round this by switching the printer off immediately after it has finished printing a document so that it cannot grab the next sheet of paper, and then switching it on again to print another document. Hardly a satisfactory way of running a high tech computer system!

With the popularity of both PageStream 2.1 and the BJ10e there must be a lot of people using the same combination of software and hardware as me. If anyone can shed any light on either of these frustrating little problems I would be very grateful.

David Habbin

I A tip for PageStream 2.1 users. To increase the number of fonts that you can use on an ST without a hard disk put some on a ramdisk. When you first boot up the system you can copy the files to the ramdisk. I have a 2 meg STE and have found that CS Times will fit on a 285K ramdisk (Maxidisk) and this still leaves enough room for a fairly large document. For those wanting smaller documents more fonts could be placed on the Ramdisk.

W Hartley

TOS 1.4+ Bugs

Peter T Wilson - Forum STA5

Martin Walsh - Forum STA8

Andrew Watson, Chris Richardson, Henry

Moring - Forum STA12

John Watkins - Forum STA13

Anon - Forum STA15

A I think that you will find the latest version of NeoDesk, i.e. version 3.2, does not have these problems with Multidesk, and it contains fixes to other bugs, all of which are quite minor. The upgrade is available from Electric Distribution, or direct from Gribnif.

Secondly, TOS 1.4 does indeed fix the 40 folder limit, or rather it circumvents it. If my understanding of the problem is correct, on versions of TOS prior to 1.4, memory is only allocated for 40 folders, and when the 41st folder is opened the system hangs. Rainbow TOS solves this problem by flushing all of the buffers in memory periodically, and so a 41st folder is never opened. Unfortunately, this only applies if you are not performing a single operation which uses more than 40 folders, hence the need to use the Folderxxx fix. If any of the above is incorrect, could somebody please point it out? Thanks!

Tomasz Kasperkiewicz

I I have just had TOS 1.4 installed in a TOS 1.0 520 STFM with 1 meg, internal floppy. Two problems have arisen which may be related.

MOUSTRAP.PRG no longer works properly. I found it very useful on two counts; it stopped my mouse from inadvertently dropping menus down and it meant that by clicking when the cursor was at the bottom of the screen it would immediately shoot to the top and then drop a menu. With TOS 1.4 the cursor can go where it will on the screen; there is no longer a barrier there but it will still flick up to the menu bar.

TWInpEAKs.ACC: this is a useful accessory for use with a H-P Desk Jet since allows one to control the setting from the screen e.g. changing a font or from Final to Draft print quality with the ability to program it on eight settings oneself. Now all it will do is force a reset or a form feed. Even more frustratingly when present as an active accessory attempting to open a program forces a cold boot. Southwest Software are now trying to solve the difficulty.

Gordon Stead

- Mouse Tricks will do almost all imaginable tricks with your mouse and is TOS 1.4 compatible.

Colour IMG

John Weller - Forum STA15

A If you have problems porting IMG files to a PC load them into Graphics Work Shop, which has various picture manipulation and

conversion faculties. Most PC PD library have this and it has appeared on a couple of Cover disks. My copy (V6.1) came from the GST BBS (0480 492025).

D M Buttle

DIY Hard Disc

GP Coxhead - Forum STA15

A Your point about whether or not it is worth making a 20 Meg DIY Hard Drive for about £150 when compared to less than £300 for a brand new 40 Meg drive is invalid. What you have completely ignored is the fact that once you have a SCSI Host Adaptor and power supply it is possible to connect a number of additional hard discs to your ST - for example, the ICD AdSCSI and AdSCSI+ host adaptors allow up to 7 hard discs to be connected together, although I doubt the power supply could cope. When, in addition to this, you consider that it is possible to buy a second 20 Meg disc for about £100 new, down to about £30 at a computer auction, it makes it reasonably nonsensical to go for the new 40 Meg drive. Of course, this is all assuming the original 20 Meg hard disc is of the embedded SCSI variety.

Tomasz Kasperkiewicz

- Yes, if you have a source of cheap embedded SCSI drives a DIY drive will be more cost effective than buying a unit off the shelf. Another advantage to building your own drive is that you get more control over case construction and ventilation and sound-proofing design. Some of the latest floppy-drive-size hard disks, including models without fans, make a noise like an electric razor! Far from ideal for a domestic environment. Sensible use of ventilation space, a variable speed fan, and sound proofing materials in a large case should go a long way to reducing the noise nuisance of such units.

Testing DMA Chip

Q Is there a way to test the DMA chip in an STE before committing large sums of money to a hard disk? It was mentioned in Piper's hard disk review that Ladbroke Computing have a simple program to test the chip. Is this available in the PD market? Will this only work with a hard disk attached to the computer?

Mike Miner

- As far as we know there is no method for testing the integrity of the Atari DMA chip. The testing utility supplied with Ladbroke hard drives simply tests for the onset of hard disk corruption.

ICD Software

David Blenkinsopp - Forum STA15

A I currently have V5.3.0 of the ICD software which I downloaded from Foundation BBS (0473 688183).

D M Buttle

A You do not have to phone all the way to the US to obtain the latest ICD software - one of the local London BBS usually has the latest software. I think it's Fortress BBS, but it could be The Tavern BBS. I have version 5.4.2 of ICDBoot, which I downloaded at the beginning of January and I think this is the latest. If you send me your original via the ST Club then I will be happy to copy the new files onto it.

Tomasz Kasperkiewicz

Driving Questions

Q For a few years now I have gained a lot of help and knowledge reading through the pages of your magazine. I hope now to avail myself of your Forum pages and ask some specific questions of my own.

1. Has anyone tried Hartmut Semken's 1.44Mb DIY upgrade (ST Club disk DMG.20) which is basically to double the Floppy Controller chip's clock frequency from 8mhz to 16mhz?
2. Is it possible to "plug-in-and-go" a 1.44mb drive and use it *strictly* as if it were only a 720k drive with no ill effects to the ST, drive or disks?
3. The hard disk mechanism in my Megafile 60 is a 5.25" RLL Microscience unit, the actual type eludes me. If it decides to pack it in and die on me one day (God forbid) can it be replaced with any RLL type and size unit, or what are the guidelines? Hard disk protocol is so difficult to understand.

Dennis Kretzschmar

- 1. The 1.4Meg drive 'upgrades' work by doubling the clock rate of the ST floppy drive controller. The major problem with this is that although the floppy drive controller is only guaranteed to work at 8MHz some have sufficient manufacturing tolerance to run at 12MHz and are happy(ish) running at 16MHz. It is all a bit hit and miss with no sure-fire means of finding out the tolerance of the floppy drive controller fitted to your ST. As far as we know no 1.44MB upgrade kits are being offered for sale in the UK and it would seem that the only safe upgrade would be one which included a replacement 16MHz floppy drive controller. Has anyone any information on how Atari Mega STE/TT 1.44MB upgrades work?
- 2. Not sure. With a 1.44MB upgrade you can still read and write 720K disks. What is the point in fitting an expensive mechanism and only using it at half capacity?
- 3. Yes, any RLL drive should suffice. But as far as we can tell you can only have one hard drive mechanism on an Atari host adaptor.

Indexing Programs

Anthony Curwen - Forum STA15

I When it comes to writing just about any thesis, paper, or other great work the academic world invariably turns to TeX as the only

package worth thinking about. TeX is a Page Description Language (PDL) which allows the use of very complicated macros to perform such tasks as making of indexes, glossaries, contents pages, bibliographies, etc., with a minimum of work. Unfortunately, like most things in life, it comes at a price - several in fact!

Since TeX is a PDL, it cannot be WYSIWIG, like the majority of word processors on the ST and the Mac, and an increasing number for the PC. This means that you type your file(s) into a text editor, and then have to compile them using TeX. The result is a .DVI file (DeVice Independent). This can then be previewed, printed on whatever printer, output as a Post-script file, or even sent straight to a typesetter, such as the Linotronic series.

The other big problem (for some) is that you really do need to have a hard disc if you want to use TeX effectively. This is mainly due to the number of macro files that are generally used to make typesetting a large document relatively painless, and also due to the number of fonts required, although most of these can be created from their mathematical descriptions as needed.

For further information see 'The TeX Book' by Donald E. Knuth, and 'LaTeX - A Document Preparation System' by Leslie Lamport. It might take some time to learn, but the results are easily worth it.

Tomasz Kasperkiewicz

Windows AT Once

Gary V Rawlins - Forum STA15

A I have used AT Once and Windows 3 in 'Standard mode' for over 12 months. My system at the time was a 520 STFM with 2.5Mb of Ram, a Slimline hard disk and a mono monitor. I used MSDOS V4.01 and Windows was configured to run in Olivetti/Toshiba mode to match the Atari hi-res display of 640 x 400. This also has the benefit of allowing 704K of DOS memory whereas VGA/EGA only allows the standard 640K.

I started with software version 1.18 which was very unstable when running Windows in standard mode. Real mode was OK but too slow to be of any practical use. Version 3.5 of the software improved the stability enough to make Windows usable. The program still fell over occasionally with the dreaded UAE's (Unrecoverable Application Error, Windows' way of saying "I have just crashed").

A few thoughts which may or may not help Garry Rawlins:

Windows needs at least 256K of Extended memory to run in standard mode. Atari memory above 1Mb can be configured by ATonce to be Extended memory or Expanded memory. Forget using expanded memory with Windows.

The high memory driver HIMEM.SYS must be installed in order for Windows to access Extended memory. Garry's reports from

PCTOOLS are correct. HIMEM.SYS grabs all of the extended memory available for its own administration.

The disk cache SMARTDRV.SYS will use extended memory if available and obviously must be loaded after the high memory manager.

The first Windows file to run is WIN.COM. This file is created in the Windows setup process from the files WIN.CNF, VGA-LOGO.LGO and VGALOGO.RLE. The VGA files will vary depending on the display selected during setup. WIN.COM checks the system configuration, checks the available memory, selects the mode to run, loads the startup screen and finally loads KERNEL.EXE for Real mode or DOSX.EXE for Standard mode. From here all sorts of files are read or loaded, some from the Windows directory, but mainly from the System directory.

Suggestions:

1. Check the Windows disks - Install on an AT PC if possible.
2. Re-install Windows. Delete the old Windows directory, run DOS CHKDSK and defragment the hard disk, after first backing up the partition.
3. Reduce the CONFIG.SYS and AUTO-EXEC.BAT files to a minimum to remove anything that may be conflicting with Windows.
4. Send me a blank floppy and I will send my exact configuration.
5. Obtain a new version of the ATonce software.
6. Buy the 386SX emulator.

I now have the 16MHz 386SX emulator with 512K of Fast Ram and 4Mb of standard ram. This has made Windows much faster in standard mode, but the 386 Enhanced mode is still disappointingly slow. Fitting is a bit tricky as the emulator board clashes with the Xtra Ram MMU adaptor in my ST, which has the 68000 processor mounted at the front underneath the keyboard. This was overcome by soldering the DIL64 socket onto the 68000 at a slight angle, i.e. higher at the back. This angles the emulator board to clear the MMU adaptor. Also half the metal shielding has to be cut away. The only problem with the emulator so far is an erratic mouse cursor in both DOS and Windows, and it won't boot without pressing the reset button.

I would appreciate any help in fitting Auto-switch Overscan as my circuit board is nothing like the diagrams in the instruction manual and I have had no response for help from Atari Workshop. My circuit board is marked with :- C10388 Rev.3 & C103253 Rev.1.

Keith Walker

A If you are trying to run Windows with a 286 chip you can only access the first two Windows modes. If you have a 386 chip set then you need an extra system driver (EMM386.SYS) installation notes for which are on your Windows master disk.

PC Tools V6 will probably not be looking for XMS and EMS memory, with a combination of DOS 5 and Windows 3 on my PC-AT I get 640k standard memory and 192K EMS and 192k XMS.

Personally I would not recommend running Windows on anything less than a true 386. A colleague installed it on his 486 network server and saw a 25% speed drop on the whole system! It's next to unbearable on a 12MHz 286 so I would not like to try it on an Emulator!

D M Buttle

OPUS 2.2

Huw Williams - Forum STA13

I When I tried to run Assigner.prg it gave an error message complaining that the screen fonts didn't correspond to the printer fonts. This is strange as a) they appeared to when I checked with a text editor, and b) the whole point of the program is to make them correspond!

Fontwid.prg appeared to work but when I ran Opus it said that the opus.wid fonts didn't match the fonts actually loaded. After much experimentation I got it to work by removing the typewriter (attp10???.fnt) font. Fontwid then ran perfectly, and I can now use Swiss and Dutch 10, 12, 18 and 24 pt for my Charts.

Anon

A Huw Williams' letter in STA 13 struck a chord as I can remember being very frustrated by GDOS when I first came across it. It's not so hard, really. I will attempt to explain as much as I have got to know and I hope that you will forgive me if it ends up telling you things you already know.

The first thing to realise is that computers work in two modes - text and graphics. With text mode, a byte is a character and that's all. In my 8-bit days, when I had a Dragon 32k, you poked a byte to a position and a letter appeared on the screen, for example. Graphics mode controls the display pixel by pixel and the built-in GEM system can't do that. The Graphical Device Operating System is an extension which is loaded into memory when this kind of output is required.

The problem is that GDOS-using programmes do not all operate in quite the same way. I came at it via Degas Elite where GDOS is only used to allow multiple fonts on the screen. This is fine because a Degas file is a snapshot of the screen, dumped to the printer without any further changes. You can change the SYS file at will and the changes are immediately apparent in the programme. More complicated programmes, like Opus or Timeworks, also use GDOS for the printer output so they have to use a more complex system.

Coming to Timeworks from Degas, I did not understand the significance of the .WID file to the ASSIGN.SYS and I had some very strange results whenever I tried to modify the set-up.

Opus uses a very similar system.

One thing to put your mind at rest about is why Fontwid shows three fonts - that is what you have. You are confusing font families with font files. GEM requires a font file for each size of font you wish to use for each device you mean to use.

All files which start ATSS are Atari (AT) Swiss fonts (SS) with the numbers being the size in points (one point = 1/72 of an inch). CG is medium and LB is for 9-pin dot-matrix printer fonts. TP is the Typewriter font while TR is the Times Roman style. The peripheral programmes with Opus only look at the high and medium sections because Opus only runs in those modes.

Fontwid does use GDOS and uses the SYS file to select the fonts and drivers to work with - that's the way GDOS works. You can have any number of font files in your folder but it will only load those listed in the SYS file.

GEM was an attempt to avoid problems by standardising the system. Unfortunately, it failed to become a recognized standard, but it was envisaged that GEM systems on any computer would have interchangeable file formats and the coding would be very similar so that programming would be simplified. If this sounds a lot like the Apple Macintosh's System programme - it is. Digital Research were developing GEM as a look-alike and fell foul of Apple's lawyers. Atari ended up with an relatively incomplete system.

As far as a GEM programme is concerned, it is of no consequence whether it is writing to a screen, a plotter or a printer because it controls them indirectly. Data is sent to an area of memory and a driver is used to interpret the data into a form which the output device can understand. This is known as the Virtual Device Interface (the VDI part of GEM). This method has the advantage that only the driver need be written to suit the device in question, and it should be universal for that device. The screen drivers are inbuilt but still have to be called in the SYS file (this is 01p, etc) and the system will crash if the one you want is missing - I know, as that happened only a few weeks ago and it took me several days to twig why!

There is a snag to GEM, though. Printers, for example, have different sizes of font depending on both the type and make. None of these is the same as any of the screens for an ST, but we would like the screen to show us a close approximation of what is to be printed. Width files are a means of achieving this and their purpose is to marry the widths of matching screen and printer fonts so that What You See Is What You Get. In other words, the positioning of a letter on the screen is controlled by the width of its associated printer character and not by its own width.

A foible of GDOS is that it loads fonts into memory when you start the programme. It loads the screen fonts initially, dumps them and loads printer fonts for output and then reloads the screen fonts when it has finished printing. To tell it which fonts it should load, a text file called ASSIGN.SYS is read into

memory at boot-up. This file can be varied to produce effects for different applications and only those fonts listed will be loaded, with any not listed being ignored. Even if you have high, low and medium screen fonts listed in the SYS file, GEM will only load in those suitable for the mode in which it is running.

If you have changed the SYS file or the screen resolution then the width table available to Opus does not match and the system gets in a mess. In Timeworks the available-fonts table is actually read from the width file rather than the SYS file so it thinks it has one set of fonts to play with and you have loaded another into memory. Opus would have the same trouble, and so you must run FONTWID each time you change something so that the SYS and WID files correspond.

ASSIGNER is used to modify existing SYS files to suit Opus but it only works on filenames. Timeworks allows unmatched screen and printer fonts, primarily for use in its various zoom modes. Opus doesn't use zooms and has been written to expect only paired screen and printer fonts and will not run otherwise. I think that Assigner was written to convert Timeworks files to suit Opus. As such it may well be confused by font filenames which don't conform to that specification.

In the end you were right when you said that it could be a font. ATTP10CG.FNT is not actually 10 point but only 9 point and Opus trips over it. If you take all three TP fonts out of the SYS file it will work OK.

Keith Jackson

GDOS Printer Drivers

Q I have been trying to install Microsoft Write on my system but I am having some difficulty finding a suitable printer driver. If I use the one installed for Timeworks DTP or the one installed in That's Write (i.e. an NEC 24-pin driver) I get a dialogue box saying "Cannot initiate the GDOS device".

My printer is a Citizen Prodote Professional 24-pin colour printer and the NEC drivers with Timeworks DTP or That's Write work OK with those programs.

I wrote to Atari (Microsoft Write is published by them), asking if they are able to supply printer drivers for my printer as they bundle a GDOS Distribution disc and GDOS fonts and drivers for the Epson FX80 and one for the Star Micronics NB15.

Atari have replied saying additional printer drivers are available from a list of Public Domain Libraries of which you are named as one.

The Citizen Prodote is capable of emulating NEC, Epson or the IBM proprinter. I normally use the NEC printer drivers if they are included with the package.

Geoffrey Doodson

- With a 24-pin printer there should be no problem with the Star NB15 driver supplied

with Microsoft Write. This will give 180-dpi output. For higher quality output the NEC GDOS installation generated by the Time-works Publisher Install program should give a set up capable of driving your Citizen ProDot at 360-dpi. Having said this, Microsoft Write is a horrid piece of software that was totally unsuited to be bundled with STs; the (Atari) GDOS installation is so pathetic that it needs two drives... You'll make life much simpler by moving on to another word processor.

That's Write does not use GDOS and so its drivers are of no use with GDOS programs.

As far as we know the GDOS copyright situation prohibits the 'PD' distribution of GDOS drivers, and there are no GDOS drivers that will give colour output on colour dot-matrix printers. That Atari GDOS applications such as HyperPaint, HyperDraw and HyperChart cannot (as supplied by Atari) drive popular colour dot-matrix printers, 360-dpi dot-matrix and ink-jet printers, or HP-compatible laser and ink-jet printers, is a major failing on Atari's part. Atari printer support is four years adrift of printer technology.

Desktop Discussions

William Hern - Desktop Discussions STA15

I read your article with interest, and was mildly surprised when you chose ST Zip as the best compression program. However, on closer inspection, I found that you were using version 1.1316 of LHarc, which has been superseded, with the current version being 2.01i, I think. Also, STZip has been upgraded to version 1.0, which will now correctly unzip PC files. I decided to test the two methods, by archiving a number of directories containing 956,204 bytes in 59 files. The results are given in the box below.

I could not find the appropriate switch for 'high' mode on the ZOO archiver, so could not test it - perhaps there is a newer version available. I have not experienced any problems with either LHarc or ZOO, and my belief is that an archived file should be as small as possible, so I will carry on using LHarc. I agree that it is probably worth using STZIP in shrink mode if you want files which are easy to access, and yes, the GEM shell for STZIP is nice, but what is the point of using an archiver if it does not produce the most compact files possible?

I assume from your article that you have not

come across the various LHarc utilities, which including programs to pack executables, to produce self extracting archives, and one which allows normal files to be compressed automatically when being written to, or uncompressed when being read from (haven't tried this, though). There is also a program STUNARJ, which uncompresses files in the up-and-coming PC archive format (ARJ!). I feel that your article was incomplete without mentioning the above utilities, and so leave you with the thought that maybe there is room for a part 3 to the article - I would certainly welcome a description of how the archivers work (as technical as possible)!

Tomasz Kasperkiewicz

Jet Accelerator

Jon Meakin in STA11 Forum under Cannon Bj10e finds that he cannot increase printing speed by using a spooler. I have found that the Ramplus spooler/ramdisk on DMG.23 halves the printing time of GDOS drivers both from Migraph and with the new Timeworks 2. The same is also true for PageStream. I have an Atari STFPM with 4MB ram and a Deskjet 500 printer so I don't know if it would be true for Cannon Bj10e. Without Ramplus this letter took Pagestream 3min 15 sec to print (Print time after the page was created), but with as little as 1K (yes 1K!) of Ramplus it only took 1min and 5 sec. There was no increase in speed by using 500K.

Stuart Skeates

Reltree

I've obtained the commercial Genealogy programme from Mr Kopak and his service is excellent. Having lost money before on sending to the States for Shareware, I wrote first and was very surprised to receive Reltree2 together with the Commercial programmes and a note asking me to send the money. The two programmes are \$35 including postage and are excellent. They include templates for Timeworks DTP and conversion utilities for converting Reltree to Reltree2 and from Reltree2 to the "It's All Relative" programme. I can thoroughly recommend these to anyone doing their Family history.

Roger Woods

- Reltree2 is available on ST Club disk UTI.106.

Railway Tycoon

I bought the much hailed program "Railway Tycoon" from Evesham Micros and was looking forward to hours of fun building a railway empire. But every time I run the program the game crashed after 10 to 15 minutes throwing up 2 bombs. Has anyone else suffered this fate and can anyone suggest why this might happen? Note, Evesham accepted the returned game, which was appreciated.

Mike Miner

To PC, or not to PC

Panic! Issue 13 - so money enclosed for another year. ST Applications is the only ST specific magazine I read nowadays. The rest are rubbish, largely written for children. My Atari is used for serious home office work.

More and more I agree with Günter Minnerup. Of necessity I will soon buy a 386DX machine because it costs less than a TT, the new Megas are hypeware and Atari no longer support us with serious hardware or software. The world is my oyster on a 386DX machine, more's the pity. Atari was the power without the price!

TI Lundegard

Running a TTP from C

I'm trying to write a menu-ing system for some of my PD Disks, namely adventures that have to be run from RUN.TTP, the problem is I don't know how to run the .TTP and pass parameters to it from the calling program, I have had some success running just the TTP and I've run PRG files with this routine, I'm working with Lattice CV5:

```

/* RUNNER.C
 * To run a PRG Executable file
 * D M Buttle 1991
 */

#include <stdio.h>
#include <osbind.h>
long error;
void main(void)
{
    short mode;

    char *path, *commandline,
        *environment;

    mode=0;
    path="a:\*.prg";
    commandline="a:\target.prg";
    environment="";

    chdir (path);
    Pexec(mode, path, commandline,
        environment);
}
    
```

Any suggestions?

D M Buttle



Program	Compression Time	File Size (bytes)	Decompression Time
STZIP 1.0 (Implode)	339	466,356	99
STZIP 1.0 (Shrink)	122	558,084	100
LHarc 2.01i (Quester)	419	410,785	158
LHarc 2.01i (LH1)	652	440,788	179
LHarc 2.01i (Larc)	588	499,681	105
ARC 6.02	361	564,156	148
ZOO 2.01 STe	313	556,065	158

DESKTOP DISCUSSIONS

Tetris: More Than Just a Game?

Forget Elite, Populous II, or Lemmings - the most addictive game in existence is Tetris. William Hern investigates.

This is not going to be a typical Desktop Discussions column as it is a game review. In fact it's not even going to be a typical game review as I haven't played the game in question once. This may seem like a gross dereliction of duty, but unusual measures are demanded for a game such as *Tetris*.

Tetris is easy to describe. Various shaped blocks fall from the top of the screen into a well where they collect in a pile. The player can rotate and direct them as they fall so that they fit into gaps in the pile. When a row in the pit is completely filled, it disappears and all the blocks above it move down a row. As the score increases, so does the rate at which the blocks fall. The game ends when the pile of blocks reaches the top of the screen.

It's certainly a very simple game and to those who haven't tried it, it probably sounds rather dull. Yet judging by the number of people who devote tens of hours to it every week for years on end, *Tetris* can make justified claim to being the most addictive game in existence. Over the past three months I've been trying to discover just what makes it so irresistible.

Tetris' appeal is not based on flash graphics or sound effects. It requires very little in the way of computer resources and thus has been ported to an amazing number of machines. I've seen it being played on systems as diverse as a text-only terminal and a Silicon Graphics workstation in sixteen million colours. Yet regardless of the implementation, the game seems to be able to bewitch any person unfortunate enough to give it a go.

I first encountered the game a couple of years ago when my flat-mate received a PD version of *Tetris* for his Archimedes computer. Within hours he was hooked and over the next couple of weeks spent all his spare time playing it, easily clocking up over forty hours a week on it. What really amazed me, though, was that when he returned home for Christmas he managed to get the rest of his family addicted as well, not one of whom had shown any interest in computer games previously.

Now aware of the game's existence, I noticed more and more people playing it around Edinburgh University. A tutor from within the university estimated to me that fifty per cent of M.Sc time within his department was devoted to playing *Tetris*. I knew then that it could be no ordinary game.

To find out more about the habits of *Tetris* players, I decided to interview some of the players within the university. Talking to both novice and expert players, I found that the average time spent playing was four and a half hours per week, although some put in well over forty hours.

The most interesting result of the survey was that about two

thirds of interviewees said that they thought about *Tetris* even when not playing it. For some this amounted to occasionally imagining falling shapes while others confessed to playing complete *Tetris* games in their head.

The most extreme case occurred to a player during one winter. She had been driving home late one night when suddenly it began to snow. The flakes falling on to windscreen seemed to her just like *Tetris* blocks and she had great difficulty in concentrating on driving and not on trying, futilely, to rotate the flakes as they fell. Indeed as the snow increased in intensity, she had to pull over to the side of road and wait for the snow storm to pass before continuing.

From my interviews, players seem to remain addicted to *Tetris* far longer than for other games (some of the players I interviewed had been playing for over four years). Where players do become bored, it is likely to be the implementation that they have grown weary of, rather than the game itself. Of the ex-players that I spoke to, over half admitted that they would return to the game if they found a new version.

Only one player had made a conscious decision to quit playing. After realising that he was devoting more than fifty hours a week to the game, he threw out every floppy disk containing it, and deleted the game on his departmental workstation. He admits that he has to be careful even now, two years later, not to watch someone playing it, or else the familiar *Tetris* pangs return.

But just what is the secret of *Tetris*' addiction? Well, at its heart, *Tetris* is basically a game

about creating order from chaos - untidy blocks fall from the sky and must be sorted into neat rows so that they disappear. Almost all of us have a subconscious craving for order and feel a sense of satisfaction and achievement when we have tidied up something. As very similar emotions are generated while playing *Tetris*, it's not difficult to see why the game should be attractive to so many people.

Am I over-reacting to what is, after all, merely a computer game? Maybe. *Tetris* is non-violent and provides a great deal of pleasure to its many players. Many find it a great way to relax at the end of a day, much as others might settle down with a newspaper crossword puzzle. And in spite of all that I've written here, I don't think that it is part of a last ditch KGB plot to ensnare the West as has been speculated by some of the more radical members of the US computer press.

However I am concerned for those who play for thirty hours or more a week or who vividly imagine games in their head. This seems to me to be crossing over the line from relaxing pastime to true obsessive addiction, and such people need help.

Wandering around the shops just before Christmas, I noted that Nintendo's Gameboy hand-held games machine included a free *Tetris* cartridge. This is a significant escalation of the *Tetris* threat - whereas *Tetris* used to be tethered to the computer on your desktop, you can now buy a version from which there is no escape. The thought that millions worldwide woke up on Christmas morning to find a Gameboy plus *Tetris* in their stocking is more than a little frightening.

Programmers' Forum

This month, ST Applications' regular programming column continues its review of techniques for inter-program communication with a description of the XAcc protocol advocated by Compo Software.

Inter-program communication - XACC

Over the last two months we have explored the basics of inter-program communication using the AES `appl_read()` and `appl_write()` functions. Having seen how to use these functions, and discussed some of their associated problems, we now come to see how they can be used to implement a realistic communications system. In this month's column, we examine the first of the several competing standards: Compo Software's XAcc protocol.

According to the Compo documentation, the protocol was designed for two distinct purposes:

"Exchanging data of standard types between programs that have no information about each other."

and

"Exchanging data between programs explicitly written for this purpose. The protocol ensures that program combinations from different suppliers do not interfere with each other."

In order to accomplish these objectives, the protocol makes two assumptions about the behaviour of the operating system and programs. The first is to assume that the application identifier of the current main application is 0. The reasons for this were discussed last month. Secondly, programs are expected to ignore all messages that they do not understand. This means that programs that do not know about XAcc should not do anything when they receive an XAcc message. No problems should be caused by this requirement - most programs only respond to a subset of normal GEM messages and ignore the rest.

The XAcc protocol defines three levels of compliance. Level 0 consists of messages that

provide the information required to establish a working link. Level 1 support allows ASCII character data to be transferred between programs. As an example, a word-processor could send a spelling-checker accessory a word or a paragraph for scrutiny, and receive back a corrected version. Level 2 extends this further to include the exchange of graphic data in the two GEM formats - metafile (.GEM) and bit image (IMG).

A further condition of compliance is that support of any given level implies support of all lower levels as well. A DTP package that utilised level 2 messages, would also be expected to understand and respond to level 0 and level 1 messages.

In addition to these sets of standard messages, XAcc also makes provision for special-purpose messages to be sent between programs that need to communicate in ways that XAcc does not support. Obviously, such conversations will only work when both programs are designed to function together.

Message Anatomy

All XAcc messages have a common format which is the same as that used for normal GEM messages. When a message is received, the eight word message buffer (the 'pipe') will have the following contents:

<code>buffer[0]</code>	Message code number
<code>buffer[1]</code>	Application identifier of the sender
<code>buffer[2]</code>	Length of message in bytes - 16
<code>buffer[3-7]</code>	Data specific to the particular message

Note that if `buffer[2]` is set to 0, the entire message is held within the pipe, and there is no need to use `appl_read`.

Conventional AES message numbers have codes between 10 and 41. XAcc defines two

ranges of codes. Numbers between 0x0400 and 0x07FF are reserved for XAcc standard messages. Codes starting from 0x0800 are treated as special application-specific messages.

The complete specification of the XAcc protocol has been published by Compo Software, but the short descriptions below, strongly based on that document, should contain enough information to write XAcc-compliant programs.

Level 0 - The Messages

There are four messages in this group: `ACC_ID`, `ACC_OPEN`, `ACC_CLOSE` and `ACC_ACC`. The code numbers for these (and other XAcc) messages are defined in Listing 1, which is designed as a C header file. Do not get the XAcc messages `ACC_OPEN` and `ACC_CLOSE` mixed up with the normal AES messages `AC_OPEN` and `AC_CLOSE`.

`ACC_OPEN` Accessory is starting up

```
Format: buffer[0] = ACC_OPEN
        buffer[1] = Sender's identifier
        buffer[2] = 0
        buffer[3-7] Undefined
```

This message is sent by an accessory to the main application when the accessory is activated. Usually, accessories are activated by having their entry in the Desk menu selected (`AC_OPEN`) or by having their window topped (`WM_TOPPED`). Upon receipt, a main application has a chance to ensure that the system is in a correct state for the accessory. Compo suggest that this might involve restoration of any system variable values that had been altered. One could imagine an application that used an unusual keyboard repeat rate restoring the default value before the user interacted with the accessory.

`ACC_CLOSE` Accessory is closing down

```
Format: buffer[0] = ACC_CLOSE
        buffer[1] = Sender's identifier
        buffer[2] = 0
        buffer[3-7] Undefined
```

This message should be sent by an accessory to the main application just before it returns to the quiescent state. Using the example above, the application would treat this as permission to restore the keyboard repeat rate to its desired setting.

`ACC_ID` Introduce program

```
Format: buffer[0] = ACC_ID
        buffer[1] = Sender's identifier
        buffer[2] = 0
        buffer[3] = Protocol level and
                  program version number
        buffer[4-5] = Pointer to sender's name
        buffer[6] = Sender's menu identifier
        buffer[7] = Reserved
```

This message can be sent by either an accessory or by a main application. `Buffer[3]` contains two pieces of information. The low byte contains the number of the highest XAcc protocol level whose messages the program is prepared to receive. Note that it may send messages of any level, regardless of this value. For example, a program may only understand

level 1 messages, yet be capable of sending a level 2 message. The high byte of buffer[3] is the version number of the sender represented in some format defined by the sender.

Buffer[4] and [5] form a long-word pointer to a C string (null-terminated array of characters) which is the name of the sender. No restrictions are placed on the length of the string. The protocol specification suggests that the version number should not be repeated in the string. This name should be static: the address should be continuously valid for the lifetime of the program.

Buffer[6] is the identifier returned to an accessory by the AES function menu_register(). If ACC_ID is sent by a main application, this word has no defined meaning. There is a weakness in the protocol here: there is no explicit statement of whether the message comes from an accessory (buffer[6] valid) or a main application (buffer[6] invalid). An accessory could assume that a main application will have an application identifier of 0, but this seems an unnecessary design flaw. Buffer[7] could have been used to carry a flag indicating the nature of the sender.

ACC_ACC Inform accessory about another accessory

Format: buffer[0] = ACC_ACC
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] = Protocol level and program version number
 buffer[4-5] = Pointer to accessory's name
 buffer[6] = Accessory's menu identifier
 buffer[7] = Accessory's application identifier

This message is used by a main application to inform one accessory about the existence of another. Words 3 to 6 are used as above, but the information contained therein refers not to the sender of the message, but to the accessory being described. Buffer[7] contains the application identifier of that accessory. The program that receives this message will then have all the information required to communicate with the other accessory.

Level 0 - Using the system

These four functions which form the basis of the XAcc protocol are used to set up a working communications network. The sequence of events required for this is as follows:

1) Whenever an accessory receives the AES message AC_CLOSE, it should immediately send the main application (assumed to be application identifier 0) an ACC_ID message about itself. This will happen whenever a main application is started or terminates. In the latter case, the message will be ignored.

2) The main application should respond to each ACC_ID message with an ACC_ID message describing itself. At this stage, the main program is learning about all XAcc-compliant accessories (because they all get an AC_CLOSE and send their ACC_IDs); and all accessories are getting to know about the main

program.

3) Additionally, for each ACC_ID received, the main application sends all previously known accessories a message telling them about the new registration: an ACC_ACC message.

4) When an accessory receives an ACC_ACC message, it should tell the accessory described therein of its own existence by sending it an ACC_ID message.

At the end of this series of introductions, everyone knows everyone else, and how to contact them. A couple of further notes: programs should make use of the statement of protocol support in the ACC_ID message to ensure that they never send a program a message it does not understand. Secondly, accessories that take more than one of the desk menu slots (a bad practice, seeing as there are only six), should send one ACC_ID message for each entry. If an accessory does not call menu_register(), then -1 should be given as its menu identifier.

Level 1 - The Messages

ACC_TEXT Send ASCII text data

Format: buffer[0] = ACC_TEXT
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] Undefined
 buffer[4-5] = Pointer to block of text
 buffer[6-7] Undefined

The text block should be terminated with a 0 byte and should contain only ASCII printable characters. These are characters with ASCII codes 32 and above. Additionally, TAB (character 9), CR (character 13) and LF (character 10) can be used. According to the protocol, other characters may be used if the receiver is known to be able to handle them. This situation might be better dealt with by using a special-purpose code.

What the recipient does with the text block is up to it. Compo suggest that TAB could be interpreted as a space if required, LF ignored and CR interpreted as a line or paragraph terminator. If the text is going to be displayed on the screen, there is a potential problem. A main application will not be able to display text properly unless it has the currently active window. For this reason, it is suggested that accessories send text data only when they are not using the screen themselves.

ACC_KEY Simulate a user keypress

Format: buffer[0] = ACC_KEY
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] = Scan code and ASCII code of 'key'
 buffer[4] = Shift key status
 buffer[5-7] Undefined

This message is used to simulate the pressing of a key by the user. Buffer[3] is set to duplicate the value that would have been returned by evt_keybd(), and buffer[4] to that that would have been returned by the BIOS Kbshift() function. With prior knowledge of the receiver, an accessory could send key-

board short-cut commands, making possible some form of macro facility.

ACC_ACK Acknowledge level 1/2 message

Format: buffer[0] = ACC_ACK
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] = 0 if message ignored,
 1 if message acted upon
 buffer[4-7] Undefined

ACC_ACK must be sent by the recipient of an ACC_TEXT or ACC_KEY message once it has finished processing the data associated with the message. Until an ACC_TEXT has been acknowledged in this way, its sender should not move or alter the text block, nor should it issue any other ACC_TEXT messages to the same program.

Compo suggest that level 1 compliant programs should have some sort of escape mechanism to recover from the situation where they are waiting for an ACC_ACK that never comes. This could be a time-out or, for an accessory, activation from the desk menu.

Level 2 - The Messages

The most advanced level currently defined allows for the passing of graphics data. In a similar way to level 1, recipients of either of these messages should respond with ACC_ACK when they have finished dealing with the request.

ACC_META Send GEM metafile

Format: buffer[0] = ACC_META
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] = Multipart flag
 buffer[4-5] = Pointer to data block
 buffer[6-7] = Number of bytes in this part (longword)

This message allows a program to send a metafile to another program. The protocol makes provision for the file to be split into several parts: if buffer[3] is 0, this is part of a larger file, if 1 this is the last part (or the only part). The recipient must reassemble the file if necessary. Each part must be acknowledged with ACC_ACK. The sender must not interperse parts of a single metafile with other messages.

ACC_IMG Send GEM bit image data

Format: buffer[0] = ACC_IMG
 buffer[1] = Sender's identifier
 buffer[2] = 0
 buffer[3] = Multipart flag
 buffer[4-5] = Pointer to data block
 buffer[6-7] = Number of bytes in this block (long)

This message should be interpreted in the same way as ACC_META, except that the data conforms to the GEM bit image (.IMG) format.

Example programs

To illustrate the operation of the XAcc protocol, I have written a couple of short programs. Both make use of Listing 1, a useful header file for writing XAcc compatible programs. Listing 2 contains the source code for

an accessory: compile and link this appropriately; place in the root directory of your boot drive and reboot. Listing 3 contains source for an XAcc-compatible main application: this should be compiled and linked as normal.

Both listings contain code to support the basic handshaking that establishes the XAcc level 0 link. All XAcc messages received by the main application are displayed in its dialogue box. This demonstrates how it receives an ACC_ID message as soon as it starts up. Selecting the accessory entry from the desk menu will cause ACC_OPEN and ACC_CLOSE messages to be displayed. Clicking the dialogue box 'Send' button will send a block of text to the first XAcc level 1-compatible accessory. The accessory will respond with ACC_ACK to show that it has received

and processed the block. After this, activating the accessory from the Desk menu will allow the processed block (text all in capitals) to be sent back to the main application where it will appear as an ACC_TEXT message.

By modifying the code in these listings you should be able to add at least XAcc level 0 support to your applications and accessories. Thanks are due to Compo Software for providing the XAcc specification document.

Next month

That's all we have space for this month. Next month Programmers' Forum will feature more of your letters and continue the discussion on inter-program communication. Keep the letters coming in: hints on any subjects, or questions about programming problems should be sent to the address below. All contributions, no

matter how simple or advanced, are most welcome. Please include your address on the letter, so I can get back to you if anything in your contribution is unclear. E-mail addresses are useful too.

Please send a disk if there are large chunks of text or ASCII source code: I have no time to retype lots of material. Naturally, disks will be returned if an SAE is included.

Jon Ellis
 Programmers' Forum
 29 Ashridge Drive
 Bricket Wood
 St Albans
 Hertfordshire
 AL2 3SR

Listing 1

```

=====
/*****
**
** XAcc Definitions
**
**
** Header file containing the message code numbers for the
** XAcc protocol, derived from the XAcc Protocol document
** published by Compo Software.
**
**-----**
** Filename: XACC.H Version: 1.00 Date: 11/01/92 **
** Compiler: Lattice C v5.06 Options: -cafku **
**-----**
**
** Level 0 standard messages...
**
#define ACC_ID 0x0400
#define ACC_OPEN 0x0401
#define ACC_CLOSE 0x0402
#define ACC_ACC 0x0403

**
** Level 1 standard messages...
**
#define ACC_ACK 0x0500
#define ACC_TEXT 0x0501
#define ACC_KEY 0x0502

**
** Level 2 standard messages...
**
#define ACC_META 0x0503
#define ACC_IMG 0x0504

**-----**
**
** Useful things for programming with XAcc, but
** not part of the XAcc standard itself.
**
#define IGNORED 0 /* ACC_ACK 'ignored level' message */
#define PROCESSED 1 /* ACC_ACK 'acted on level' message*/

#define MAX_ACCS 6 /* Maximum number of accessories */
#define APP 0 /* acc_type codes for application */
#define ACC 1 /* and desk accessory */

**
** Useful structure allowing the information derived
** about each program from the XAcc conversation to
** be stored.
**
typedef struct
{
    const char *xacc_name; /* Program's name string */
    short xacc_type; /* Program type: APP or ACC */
    short xacc_apid; /* Program application identifier */
    short xacc_menuid; /* Accessory only: menu identifier */
    short xacc_protocol; /* Highest XAcc level allowed */
    short xacc_version; /* Program's version number */
} XACC_INFO;
    
```

```

/*
** Listing 2.
** Programmers' Forum STA 16 (April 1992)
**
** Sample desk accessory showing how to implement an
** XAcc level 1 compatible accessory. See articles for
** details of use.
**
** Compiler system: Lattice C v5.06
** Compile options: Phase 1: -cafku Phase 2: -ms -v
** Link with CACC.O, LCG.LIB and LC.LIB
** Written on 12th January 1992
**
#include <aes.h>
#include <portab.h>
#include <string.h>

#include "xacc.h"

#define BUF_LEN 255

**
** Global variables...
**
short ap_id; /* AES application ID */
short menu_id; /* Menu identifier */
char version = 0x10; /* Version = 1.0 */
char level = 1; /* XAcc level 1 supported */
const char *name = "Block Uppercaser"; /* Pass our name */

XACC_INFO info[MAX_ACCS]; /* Space to store program info */
XACC_INFO *app_ptr = NULL; /* Point to application entry */
int info_count = 0; /* Number of XAcc progs noted */

char text[BUF_LEN+1]; /* Our text buffer */
char *intro = "[1][XAcc Demo Accessory] |Uppercases text sent to it. | Ok ]";
char *send = "[2][XAcc Demo Accessory] |Send block to main application
?|[Send|Cancel]";

**
** Prototype the functions...
**
int main(int, char **, char **);
XACC_INFO *record_xacc(short *);

**
** Message buffers for quick message sending.
**
unsigned short acc_id[8] = {ACC_ID,0,0,0,0,0,0,0};
unsigned short acc_open[8] = {ACC_OPEN,0,0,0,0,0,0,0};
unsigned short acc_close[8] = {ACC_CLOSE,0,0,0,0,0,0,0};
unsigned short acc_ack[8] = {ACC_ACK,0,0,0,0,0,0,0};
unsigned short acc_text[8] = {ACC_TEXT,0,0,0,0,0,0,0};

**
** The program starts here...
**
int main(argc,argv,envp)

int argc;
char **argv, **envp;

{
    short pipe[8];
    int got_ack, buffer_used;
    XACC_INFO *xptr;
    char *str;
    
```

```

ap_id = appl_init();
menu_id = menu_register(ap_id," XAcc Demo");
acc_id[1] = acc_open[1] = acc_close[1] = acc_ack[1] = acc_text[1] = ap_id;
acc_id[3] = (version << 8) | level;
acc_id[4] = (unsigned short)((unsigned long)name >> 16);
acc_id[5] = (unsigned short)((unsigned long)name & 0xFFFF);
acc_id[6] = menu_id;
acc_text[4] = (unsigned short)((unsigned long)text >> 16);
acc_text[5] = (unsigned short)((unsigned long)text & 0xFFFF);

got_ack = TRUE;
buffer_used = FALSE;

/*
** This is the main program loop which is never
** exited. The first thing to do is to wait for
** a wake-up message.
*/

while(TRUE)
{
    evnt_mesag(pipe);
    switch(pipe[0])
    {
        case AC_OPEN: if (app_ptr != NULL)
            appl_write(app_ptr->xacc_apid,16,acc_open);
            if (buffer_used == FALSE || got_ack == FALSE)
                form_alert(1,intro);
            else if (form_alert(1,send) == 1 && app_ptr != NULL)
            {
                if (app_ptr->xacc_protocol > 0)
                {
                    appl_write(app_ptr->xacc_apid,16,acc_text);
                    buffer_used = FALSE;
                    got_ack = FALSE;
                    evnt_timer(10000,0);
                }
                if (app_ptr != NULL)
                    appl_write(app_ptr->xacc_apid,16,acc_close);
                break;
            }

        case AC_CLOSE: appl_write(0,16,acc_id);
            break;

        case ACC_ID: if (xptr = record_xacc(pipe)) == NULL)
            break;
            break;

        case ACC_ACC: if (xptr = record_xacc(pipe)) == NULL)
            break;
            appl_write(xptr->xacc_apid,16,acc_id);
            break;

        case ACC_ACK: got_ack = TRUE;
            break;

        case ACC_KEY: acc_ack[3] = IGNORED;
            appl_write(pipe[1],16,acc_ack);
            break;

        case ACC_TEXT: str = (char *)((pipe[4] << 16) + pipe[5]);
            if (strlen(str) > BUF_LEN)
            {
                acc_ack[3] = IGNORED;
                appl_write(pipe[1],16,acc_ack);
                break;
            }
            strcpy(text,str);
            acc_ack[3] = PROCESSED;
            appl_write(pipe[1],16,acc_ack);
            strupr(text);
            buffer_used = TRUE;
            break;
    }
}
return(0);
}

/*
** Function to record the information received from
** and ACC_ID or ACC_ACC call for later reference.
** The function stores into a global array of
** structures, and increments the global counter.
** The argument is a pointer to the message pipe,
** the return a pointer to the saved data.
**
** Usage: xptr = record_xacc(pipe);
**
** XACC_INFO *xptr, *record_xacc(short *);
*/

XACC_INFO *record_xacc(buffer)

short buffer[];

{
    XACC_INFO *xptr;

    if (info_count == MAX_ACCS)
        return(NULL);
    xptr = &info[info_count++];
    xptr->xacc_name = (char *)((buffer[4] << 16) | buffer[5]);
    xptr->xacc_version = (buffer[3] >> 8);
    xptr->xacc_protocol = (buffer[3] & 0xFF);
    xptr->xacc_apid = buffer[buffer[0] == ACC_ACC ? 7 : 1];
    xptr->xacc_menuid = buffer[6];
    xptr->xacc_type = (xptr->xacc_apid==0 ? APP : ACC);
    if (xptr->xacc_type == APP)
        app_ptr = xptr;
}

```

```

return (xptr);
}

/*
** Listing 3.
** Programmers' Forum STA 16 (April 1992)
**
** Sample XAcc level 1 compliant application.
** See text for details of use.
**
** Compiler system: Lattice C v5.06
** Compile options: Phase 1: -cafk Phase 2: -ms
** Link with C.O, LCG.LIB and LC.LIB
** Written on 12th January 1992
*/

#include <aes.h>
#include <portab.h>
#include <stdio.h>

#include "xacc.h"

/*
** The data for the menu and dialogue box...
*/

#define DESKMENU 3
#define FILEMENU 4
#define ABOUTSTR 7
#define QUIT 16

#define XACCMMSG 2
#define XACCAPID 6
#define XACCSTR1 9
#define XACCSTR2 10
#define DIALQUIT 12
#define DIALSEND 13
#define DIALNEXT 14

#include <aes.h>

TEDINFO rs_tedinfo[] = {
/*0*/ {"Message", "", "", IBM,190,TE_CNTR,0x1180,12,0,8,1},
/*1*/ {" XAcc Messages", "", "", IBM,6,TE_CNTR,0x1180,0,-1,16,1},
/*2*/ {"Sender", "", "", IBM,190,TE_CNTR,0x1180,12,0,7,1},
/*3*/ {"Extra Data", "", "", IBM,190,TE_CNTR,0x1180,12,0,11,1},
};

OBJECT menu[] = {
/*0*/ (-1,1,5,G_IBOX,0x0,0x0,(void *)0x0,0,0,80,25),
/*1*/ (5,2,2,G_BOX,0x0,0x0,(void *)0x1100,0,0,80,513),
/*2*/ (1,3,4,G_IBOX,0x0,0x0,(void *)0x0,2,0,12,769),
/*3*/ (4,-1,-1,G_TITLE,0x0,0x0," Desk", 0,0,6,769),
/*4*/ (2,-1,-1,G_TITLE,0x0,0x0," File", 6,0,6,769),
/*5*/ (0,6,15,G_IBOX,0x0,0x0,(void *)0x0,0,769,80,19),
/*6*/ (15,7,14,G_BOX,0x0,0x0,(void *)0xf1100,2,0,25,8),
/*7*/ (8,-1,-1,G_STRING,0x0,0x0," XAcc Demo Application", 0,0,25,1),
/*8*/ (9,-1,-1,G_STRING,0x0,0x8,"-----", 0,1,25,1),
/*9*/ (10,-1,-1,G_STRING,0x0,0x0," Desk Accessory 1", 0,2,25,1),
/*10*/ (11,-1,-1,G_STRING,0x0,0x0," Desk Accessory 2", 0,3,25,1),
/*11*/ (12,-1,-1,G_STRING,0x0,0x0," Desk Accessory 3", 0,4,25,1),
/*12*/ (13,-1,-1,G_STRING,0x0,0x0," Desk Accessory 4", 0,5,25,1),
/*13*/ (14,-1,-1,G_STRING,0x0,0x0," Desk Accessory 5", 0,6,25,1),
/*14*/ (6,-1,-1,G_STRING,0x0,0x0," Desk Accessory 6", 0,7,25,1),
/*15*/ (5,16,16,G_BOX,0x0,0x0,(void *)0xf1100,8,0,8,1),
/*16*/ (15,-1,-1,G_STRING,0x20,0x0," Quit", 0,0,8,1),
};

OBJECT dialogue[] = {
/*0*/ (-1,1,13,G_BOX,0x0,0x10,(void *)0x21100,1,1,28,14),
/*1*/ (3,2,2,G_BOX,0x0,0x10,(void *)0x11101,2,3,11,3),
/*2*/ (1,-1,-1,G_STRING,0x0,0x0,"ACC_TEXT", 1,1,8,1),
/*3*/ (4,-1,-1,G_TEXT,0x0,0x0,&rs_tedinfo[0],1282,1538,7,1),
/*4*/ (5,-1,-1,G_BOXTEXT,0x0,0x11,&rs_tedinfo[1],6,1,16,1),
/*5*/ (7,6,6,G_BOX,0x0,0x10,(void *)0x11101,15,3,11,3),
/*6*/ (5,-1,-1,G_STRING,0x0,0x0,"Ap ID: xx", 1,1,9,1),
/*7*/ (8,-1,-1,G_TEXT,0x0,0x0,&rs_tedinfo[2],1295,1538,6,1),
/*8*/ (11,9,10,G_BOX,0x0,0x10,(void *)0x11101,2,7,24,4),
/*9*/ (10,-1,-1,G_STRING,0x0,0x0,"a", 1,1,1,1),
/*10*/ (8,-1,-1,G_STRING,0x0,0x0,"a", 1,2,1,1),
/*11*/ (12,-1,-1,G_TEXT,0x0,0x0,&rs_tedinfo[3],1026,1542,10,1),
/*12*/ (13,-1,-1,G_BUTTON,0x7,0x0,"Quit", 2,12,7,1),
/*13*/ (0,-1,-1,G_BUTTON,0x5,0x0,"Send", 19,12,7,1),
};

/*
** Global variables...
*/

int ap_id; /* AES application identifier */
short pipe[8]; /* AES message pipe */
short dx, dy, dw, dh; /* Screen coords of dialogue box */
XACC_INFO info[MAX_ACCS]; /* Space to store program info */
XACC_INFO *app_ptr = NULL; /* Point to application entry */
int info_count = 0; /* Number of XAcc progs noted */

unsigned short acc_id[8] = {ACC_ID,0,0,0,0,0,0,0};
unsigned short acc_acc[8] = {ACC_ACC,0,0,0,0,0,0,0};
unsigned short acc_text[8] = {ACC_TEXT,0,0,0,0,0,0,0};
unsigned short acc_ack[8] = {ACC_ACK,0,0,0,0,0,0,0};
int version = 0x10;
int level = 1;
const char *name = "XAcc Monitor";
char *text = "Mixed case text";

/*
** Function prototypes...
*/

int main(int,char **,char **);

```

```

void display_xacc(short *);
XACC_INFO *record_xacc(short *);

/*
** The program starts here...
*/

int main(argc,argv,envp)

int argc;
char **argv, **envp;

{
    int f, do_program, event, got_ack;
    short mx, my, shift, key, button, clicks, clicked;

    ap_id = appl_init();
    for (f=0; f<17; f++)
        rsrc_obfix(menu,f);
    for (f=0; f<15; f++)
        rsrc_obfix(dialogue,f);
    graf_mouse(ARROW,0);
    menu_bar(menu,TRUE);

    do_program = TRUE;
    got_ack = TRUE;
    form_center(dialogue, &dx, &dy, &dw, &dh);
    dy = dialogue[0].ob_y = 20;
    dx = dialogue[0].ob_x = 20;
    form_dial(FMD_START,0,0,0,0,dx,dy,dw,dh);
    acc_id[1] = acc_acc[1] = acc_ack[1] = acc_text[1] = ap_id;
    acc_id[3] = (version << 8) | level;
    acc_id[4] = (unsigned short)((unsigned long)name >> 16);
    acc_id[5] = (unsigned short)((unsigned long)name & 0xFFFF);
    acc_text[4] = (unsigned short)((unsigned long)text >> 16);
    acc_text[5] = (unsigned short)((unsigned long)text & 0xFFFF);
    display_xacc(pipe);

    while (do_program)
    {
        event = evnt_multi((MU_MESAG|MU_BUTTON),1,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0);
        if (event & MU_BUTTON)
        {
            clicked = objc_find(dialogue,0,9,mx,my);
            if (clicked == DIALQUIT)
                do_program = FALSE;
            else if (clicked == DIALSEND)
            {
                if (got_ack == TRUE)
                    for (f=0; f<info_count; f++)
                        if (info[f].xacc_protocol > 0)
                        {
                            appl_write(info[f].xacc_apid,16,acc_text);
                            got_ack = FALSE;
                            break;
                        }
            }
        }
        if (event & MU_MESAG)
        {
            switch(pipe[0])
            {
                case MN_SELECTED: if (pipe[3] == DESKMENU && pipe[4] == ABOUTSTR)
                    form_alert(1,"[1][Xacc Demo Application]");

                else if (pipe[3] == FILEMENU && pipe[4] == QUIT)
                    do_program = FALSE;
                    menu_tnormal(menu,pipe[3],1);
                    break;

                case ACC_ID: record_xacc(pipe);
                    display_xacc(pipe);
                    appl_write(pipe[1],16,acc_id);
                    for (f=0; f<info_count-1; f++)
                    {
                        acc_acc[3] = pipe[3];
                        acc_acc[4] = pipe[4];
                        acc_acc[5] = pipe[5];
                        acc_acc[6] = pipe[6];
                        acc_acc[7] = pipe[7];
                        appl_write(info[f].xacc_apid,16,acc_acc);
                    }
                    break;

                case ACC_ACC:
                case ACC_CLOSE:
                case ACC_OPEN: display_xacc(pipe);
                    break;

                case ACC_ACK: got_ack = TRUE;
                    display_xacc(pipe);
                    break;

                case ACC_KEY: acc_ack[3] = IGNORED;
                    appl_write(pipe[1],16,acc_ack);
                    display_xacc(pipe);
                    break;

                case ACC_TEXT: display_xacc(pipe);
                    acc_ack[3] = PROCESSED;
                    appl_write(pipe[1],16,acc_ack);
                    break;
            }
        }
    }

    form_dial(FMD_FINISH,0,0,0,0,dx,dy,dw,dh);
    menu_bar(menu,FALSE);
    appl_exit();
    return(0);
}

```

```

}

/*
** Function to display the Xacc message in the buffer
** in the dialogue box on the screen. There are no
** return values. If the message is not an Xacc one,
** the box is cleared.
**
** Usage: display_xacc(pipe);
**
** void display_xacc(short *);
*/

void display_xacc(buffer)
short buffer[];

{
    static char ap_buffer[16];
    static char str1_buffer[40];
    static char str2_buffer[40];

    sprintf(ap_buffer,"Ap ID = %d",buffer[1]);
    str1_buffer[0] = str2_buffer[0] = '\0';
    dialogue[XACCAPID].ob_spec = ap_buffer;
    dialogue[XACCSTR1].ob_spec = str1_buffer;
    dialogue[XACCSTR2].ob_spec = str2_buffer;
    switch(buffer[0])
    {
        case ACC_OPEN: dialogue[XACCMSG].ob_spec = "ACC_OPEN";
            break;

        case ACC_CLOSE: dialogue[XACCMSG].ob_spec = "ACC_CLOSE";
            break;

        case ACC_ACC: dialogue[XACCMSG].ob_spec = "ACC_ACC";
            sprintf(str1_buffer,"Acc: %s",
                (char *)((buffer[4] << 16) | buffer[5]));
            sprintf(str2_buffer,"V: %0X L&d MID: %d AID: %d",
                buffer[3] >> 8,buffer[3] & 0xFF,buffer[6],buffer[7]);
            break;

        case ACC_ID: dialogue[XACCMSG].ob_spec = "ACC_ID";
            sprintf(str1_buffer,"Acc: %s",
                (char *)((buffer[4] << 16) | buffer[5]));
            sprintf(str2_buffer,"Ver: %0X Xacc&d MID: %d",
                buffer[3] >> 8,buffer[3] & 0xFF,buffer[6]);
            break;

        case ACC_ACK: dialogue[XACCMSG].ob_spec = "ACC_ACK";
            dialogue[XACCSTR1].ob_spec = buffer[3] ? "Processed"
                : "Ignored";
            break;

        case ACC_KEY: dialogue[XACCMSG].ob_spec = "ACC_ACK";
            sprintf(str1_buffer,"ASCII: %c Scan: %2X",
                buffer[3] & 0xFF,buffer[3]>>8);
            sprintf(str2_buffer,"Shift keys: %04X",buffer[4]);
            break;

        case ACC_TEXT: dialogue[XACCMSG].ob_spec = "ACC_TEXT";
            sprintf(str1_buffer,"Str: %s",
                (char *)((buffer[4] << 16) | buffer[5]));
            break;

        default: dialogue[XACCMSG].ob_spec = "<None>";
            dialogue[XACCAPID].ob_spec = "";
            break;
    }
    objc_draw(dialogue,0,9,dx,dy,dw,dh);
}

/*
** Function to record the information received from
** and ACC_ID or ACC_ACC call for later reference.
** The function stores into a global array of
** structures, and increments the global counter.
** The argument is a pointer to the message pipe,
** the return a pointer to the saved data.
**
** Usage: xptr = record_xacc(pipe);
**
** XACC_INFO *xptr, *record_xacc(short *);
*/

XACC_INFO *record_xacc(buffer)
short buffer[];

{
    XACC_INFO *xptr;

    if (info_count == MAX_ACCS)
        return(NULL);
    xptr = &info[info_count++];
    xptr->xacc_name = (char *)((buffer[4] << 16) | buffer[5]);
    xptr->xacc_version = (buffer[3] >> 8);
    xptr->xacc_protocol = (buffer[3] & 0xFF);
    xptr->xacc_apid = buffer[buffer[0] == ACC_ACC ? 7 : 1];
    xptr->xacc_menuid = buffer[6];
    xptr->xacc_type = (xptr->xacc_apid==0 ? APP : ACC);
    if (xptr->xacc_type == APP)
        app_ptr = xptr;
    return (xptr);
}

```

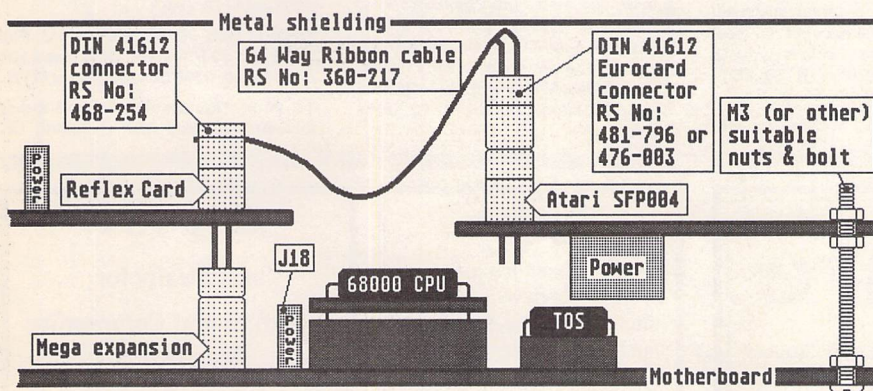
CAD Column

Write to me with your CAD related hardware and software problems. Unlike other magazine writers, I guarantee a personal answer to every letter!

Joe Connor, 65 Mill Road,
Colchester, CO4 5LJ.

Improve Your Reflexes

Last month I mentioned that the Atari SFP004 maths coprocessor board could be piggy-backed onto the Crazy DOTS board, and it suddenly occurred to me this might also work with the Titan Designs Reflex card. A phone call to David Encill at Titan confirmed there was a good chance this would work. I hastily plugged the coprocessor board on to the through pins of the Reflex card and... success. Unfortunately, getting the lid back on and power to both boards needed a bit more work. I finally got it all back together as shown below. David gave me the connectors, and all I had to do was solder the 64 contacts: thanks David! I was a bit worried the power supply would not be up to the job, but so far so good. Titan can supply an external power supply specifically for the Reflex card or, alternatively, a replacement external power supply for the original internal Atari power supply (which is removed).



The diagram shows a side view of my installation. Neither I nor ST Applications can be held responsible for any damage caused as a result of this modification, and don't forget that any warranty becomes void the moment you open your ST. The components are available from the address shown below.

Start by assembling the snap-together end and curse the gods because the other end does not seem to be available as a snap-together component. (If anyone knows better, please let me know at the usual address.) Push it onto the Reflex card; if a resistor prevents the connector going fully home trim the connector. Soldering the 64 terminals is not very exciting. Start with the marker wire to pin 1 and follow along to pin 64 (opposite pin 1), pin 2, pin 63 (opposite pin 2), pin 3 and so on. Check each joint carefully. Plug the maths coprocessor board into the other end of the ribbon cable. If the connector lugs at each end mismatch, preventing assembly, first panic and then cut them off and try it anyway. I did!

Next, the power cables from both boards need to be connected to J18 on the motherboard. Cut the plug off the Reflex card cable and splice the loose ends into the coprocessor lead. Be careful to ensure the ribbon cable end of the coprocessor board does not come into contact with the CPU or TOS chips underneath and the 64 soldered joints do not touch each other or the metal shielding.

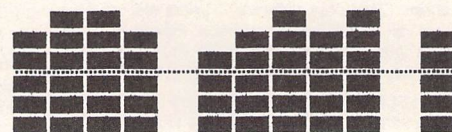
The board is now fixed (upside down) to the motherboard by bolting the non-ribbon cable end of the coprocessor board to the nearest fixing hole on the motherboard. Only one hole can be lined up, and so to complete the earth connection on the other side of the coprocessor board either make up a small bracket or solder a wire between the two points.

Components

Available from Electromail, PO Box 33,
Corby, Northants, NN17 9EL.
Telephone: 0536 204555
Credit cards accepted.

Mac CAD better on the ST/TT?

I recently had the opportunity to try Claris CAD (one of the leading Mac 2D drafting packages) with my Spectre emulator. A Mac SE30 owner watched in bewilderment as my Mega/Reflex/Adspeed/Eizo 21-inch monitor got to grips with Claris. Of course, a TT would leave even the fastest Mac IICI gasping for breath, but I didn't want to overplay the merits of our favourite beasts! It provided an excellent opportunity to see how Atari CAD software compares. I decided to write this column in the same format as the CAD supertest format in STA 14; the new icon is Spectre (or mac) required.



1 2 3 4 5 6 7 8 9 10 11 12

- 1) **Draw:** good range of commands, including excellent double line command. Reminiscent of EasyDraw in use.
- 2) **Edit:** exhaustive options to change all element types, including dimensions, makes the delete command look superfluous.
- 3) **Dimension:** associative, intuitive, superlative! A model for others to follow.
- 4) **Layer:** entire layer handling dialog box tucked away in a single pull down menu option. Complete but awkward to get at.
- 5) **Symbol:** not tested.
- 6) **File:** usual anything-will-do native file format works fine. DXF and IGES translation modules are available separately. Bit images can be easily output using the built-in mac clipboard facility.
- 7) **View:** all, fitted to window, step zoom in/out and by selection frame. Up to 9 views can also be defined and recalled using the pull down menu or key command combination.
- 8) **User interface:** classic point and click environment. Combines pull down menus and dialog boxes with icons and pop-up menus. A nice little GUI. No on-line help or help prompts and limited range of keyboard shortcuts.
- 9) **Text:** good control over bit mapped typefaces. They can be sized, spaced and positioned as desired.
- 10) **Cursor position:** an unrivalled range of snap tools are provided, including % along a line, tangent, perpendicular and parallel. Direct coördinate entry and grids are also provided.
- 11) **Customisation:** none I could find, but check the latest version.
- 12) **Manual:** I didn't see the manual but you really do not need to after you have watched the video and worked through the tutorial workbook!



88%

For Sale

Kozmic 2.1 (TOS 1.62 OK) Direct from the author. Psychedelic Pattern Generator STF Rating 89% Aug 91. DS Disk needs 1 Meg Ram. Infinite patterns save to disk. £5.00 for two disks incl. source code + extras. Dave Henninger, 199 Bruntsfield Place, Edinburgh EH10 4DQ. (19).

Creator V3. Midi Sequencing software, dongle, manual etc. Dr. T's D10/D110 Editor/Librarian plus over 2000 sounds - manual etc. Huge Casio FZ1/FZ20M Sample Library. Ring evenings for details. Andy: Leeds (0532) 430177 or write 20, Hanover Square, Leeds, LS3 1AP. (16)

ST Tower System case and keyboard unit. Fittings for 520/1040 and two disk drives. £50.00. Phil Davies on 0482 642302 (day) or 0482 797841 (night) - Hull. (17)

Amstrad PCW8512, two drives (3"), monitor and printer built-in. Loco-script, CP/M plus software. 3 years old and still in very good condition. Please ring James Beswick on 0959 71114, any day between 6pm and 11pm. (18)

Atari SLM804 laser printer, 2 years old, excellent condition. Recent new toner. Offers over £600. Epson LX800 dot matrix printer, excellent condition, boxed as new: £75 o.n.o. Herbert Payne Printers 0602 502054. (16)

Atari Mega ST4 with Adspeed and Fast TOS 1.4 ROMs fitted £500; Atari Mega-file 60 hard disk £200; SM124 mono monitor £40; Reflex graphics card with WYSE WY790N A3 monitor - a superb display system for £600; AVR Pro12 Sampler £100; Daatascan 400dpi scanner £70. Large library of original software for sale includes Calamus,

Classified Adverts

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Please use the form on page 58.

Megapaint Professional and Calligrapher. Call Anthony for dull details on 0562 730381 evenings/weekends. (16)

Still available the following ST games, all originals with manuals: Elite, Corruption, Jinxter, Castle Master, Life and Death, Conflict Europe, Red Storm Rising. Call S. O'Connor on 081 798 5435 after 6.30pm. Each game £10. (26)

1st Word Plus v3.20 - brand new, unregistered, the standard ST word processor, WYSIWYG display, 40,000 word spell checker, graphics and mail merge. Cost £60, will accept £35. Des Gibbons, 5 White Lodge Court, Greenisland, Co. Antrim BT38 8SJ. (16)

Datel Geniscan hand scanner for the

STFM, 100-400dpi, saves in IMG or DEGAS formats, settable for size of scan. In good condition: £80.00 (currently sells for £130.00) John Weller, 49 Haylett Gardens, Surbiton Crescent, Kingston, Surrey KT1 2Er. (16)

SM124 monitor with cover and tilt and swivel base £75. Protex WP v5.5 (latest version) £75. Timeworks DTP £30. Funschool 3 (5-7's) £10. Plus P&P for monitor. Evenings 0233 720677. (16)

HiSoft Basic 1.3, Fast Basic ROM £20 each, Railroad Tycoon £10; Sim City, Balance of Power, Bridge Player 2150, printer lead, Blitz Turbo backup cable, Anatomy of Atari ST (h/b), Programming the 68000 (Sybex, 540pp: £5 each. Phone Paul on 0494 712274. Also ST User/World issues 1-26 and ST Applications issues 1-12. Any offers? (17)

Proscore v2.0 score writing software, original, boxed with dongle. £140. Tel: Leeds (0532) 665388. (17)

Switch-on delay unit kit - as ST Applications issue 6, £10 only. Bob Harvey 0780 63810. (16)

Atari SM124 monitor only 6 months old £80 o.n.o. David Fenny 0400 61292 (Lincoln area). (17)

Atari SLM804 laser printer, excellent condition, new toner cartridge, £450. Call Anthony on 0562 730381 eve./wkend. (16)

Atari 1040 STE (Upgraded to 4 Meg). £300. Atari SM124 Mono Monitor £75. (£50 if with computer). (Buyer collects or carriage extra.) Microtext Teletext Adaptor for ST £80. Golden Image Hand Scanner with "Touch Up" £90. Vidi ST £45. IMG Scan £10. Power Mouse £8. First Word Plus £25. Superbase Personal £10. K-Spread £20. Stac £8, Word Up £10. Hyper Draw £8. Hyper Paint £10. Art Director £7. Imprint 9 & 24 Pin Mono £5. Zany Gold £5. Introducing Atari Machine Code £10. (0787) 476733 (19)

Replay Professional and Quartet together for £50.00. GFA Draft Plus V.3 £50.00. Stos (game creator) Stos Sprites, Maestro (no hardware) £35.00. All items listed are originals and very well looked after. Please contact Martin after 6.00pm on 081 303 0289. (18)

Citizen Prodot 24-pin colour printer 10 months old, still under warranty. Buyer to arrange collection £170. Contact 0952-614118. (18)

Yamaha PSR 50. Midi Keyboard, Full size keys, 16 Rhythms, 16 Voices £100 ono. (Doug. 0268 684682. Essex.) (17)

1st Word Plus Version 3.14 (2 disks) including manual £20, including UK

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Genealogy

My genealogy program runs on any ST(E). SAE for details or £17 for program: E.G. Richards, 2 Peckarmans Wood, London SE26 6RX.

STEN

ST ENthusiasts disk magazine - for your copy send a disk + SAE to:

Dave Mooney, 14 School Road, Morningside, Newmains, Lanarkshire.

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Wizztronics Compatibility Plus Kit to Install 2 Operating systems into 1 ST. Fits most ST's and Mega's. Never used. Cost £39. Original Condition. Offers to John. Tel: 0895-639802 Eves & W/ends - TOS 1.4 or 1.2 at the Flick of a Switch. (17)

Fast Basic (Disc) £8.00; Mighty Mail (Microdeal) £5.00, Scrabble £2.50, I Ludicrus £2.50. All original STM PSU (working) offers? Ralph 0273-476553. (16)

PCB Board Designer by Abacus £60. PC Speed £50, £100 for both. Tel: Barnsley 0226-287710. (17)

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PageStream, as new £70, Microsoft Write - as new £15, Wordperfect 4.1 as new £85, Winners Game - £8, Precious Metal £8, Risk - £3, Backgammon - £3. Money back if not satisfied. Please write to Chris, 9 Dunbar Road, Southsea, Hants. PO4 8EX. (17)

1040 STE, Upgraded to 4Mb, ICD 110Mb Harddisk, Two 1 Meg floppy disk drives, all contained in a Tower System with separate keyboard, plus a SM124 Monitor, Neodesk 3, That's Write, Prosound and lots of PD titles

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Large Tektronix Graphic Tablet and Power unit, need an interface for use with ST (Details provided) only £45. ono. Tel: Ipswich (0473) 328013. (16)

Wanted

Synthesizer voices for Roland D50. Buy, swap for DX7. MKS70, K1, TX81Z voices. Tel. Robin (eves) 0522 752458. (17)

SM124 Mono Monitor. Must be in Edinburgh area, as I have no transport! Call Sam Marshall (031)668 3316. (18)

AutoRoute Program for ST. Please write to Richard, 34 Purlieu Way, Thexdon Bois, Essex (CM16 7EH). (17)

Have you any of the following books surplus and for sale? Atari ST Logo Users' Guide - Abacus; Practical Logo on the Atari ST; Atari ST Tricks and Tips - Abacus. If you do have any of the above please contact Peter Benson on Nottingham (0602) 435946. (18)

Star NL 10 Sheet Feeder. Must be reasonably priced as I am a student. Phone 051-648-4926. (17)

Calamus DTP. Telephone Nial on (0269) 845 826. Must be original with manual!. (17)

PC-Ditto, Proshare, Supercharger. Bernard (0962) 78619 (Hants). (17)

Casio FZ1/FZ20 Sample disks for swaps etc. Andy: Leeds (0532) 430177 or write 20, Hanover Square, Leeds, LS3 1AP. (16)

Timeworks DTP, Hand-held scanner, MasterCad or similar, printer switchbox (one computer to two parallel printers). Tel: Paul on 0308 24072 eves. (16)

Anyone have a copy of Your First Basic they no longer need? Phone David on 0505 22650. (16)

Needed urgently! Any American Football simulation (preferably U.S. import) or management game. I already have Gridiron (Bethesda) and Headcoach v3 (Coda). If you can help then phone 081 364 3982 or write to Colin Campbell, 21 Aldbury Mews, London N9 9JD. Good prices paid! (19)

Anyone who has successfully decoded Morse or RTTY on their ST - what software/hardware used? Has anyone developed a shoestrapping version yet using a sampler? Any info welcome or discussion in Forum - Tim 0742 435999. (16)

Help

I have a GST 40E Gemlock. A full screen image on the computer is not full screen on the video screen. I am told that a modification to the computer is required. Can anyone help me in finding out what and where I can get one? R. Bounsall, 67 Cambria Crescent, Gravesend, Kent.

Is there anyone out there who uses Timeworks DTP on a 1040 ST with mono monitor, 2 disk drives and a DeskJet 500? You might be able to help me! Please ring Nick on 0582 602941.

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Newsletter Issue 29

Reviews: Le Rédacteur v3, Citizen Swift Printer, Astronomy Lab, Hyperpaint. Articles: First steps in Prolog - II, Some thoughts upon learning C, Fontkit Plus Tutorial II, Canadian News.

Newsletter Issue 30

Reviews: Atari Tower, K Spread 3 & K Graph 2, PC Ditto 2, PC Board Design, Lattice C version 5. Articles: First steps in Prolog - III, Calamus Comment, Hardware - DMA Port and Hard Disks, Fontkit Plus Tutorial III.

Newsletter Issue 31

Reviews: Supercharger version 1.4, Xenomorph, Scanner Appeal, Zubair Z-RAM Board, Resolution 101, Chronoquest II. Articles: First Steps in Prolog - IV, Cupertino Cowboys, DIY Half Meg Upgrade, Fontkit Plus Tutorial IV.

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Reviews: NeoDesk 3, Universal Item Selector III, Deluxe Paint ST, East Draw 3, Tristan, PD Adventure Games: Invasion and Darkness is Forever; Jeremiah's Journal: Adventure Probe Convention, Operation Stealth, Tamoret; Book Reviews: C - A Dabhand Guide, The Oxford Dictionary of Computing; Articles: Computer Entertainment Show '90, MIDI Hands on Show, MIDI in the UK, Fontkit Plus Tutorial V, That's Write, Hard Disk Backup, Searching Directory Trees, MIDI Software in C, Reading CP/M disks, Gadgets by Small; Regulars: PD Update 11.1 Forum, CAD Column, STicks and STones.

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Reviews: NeoDesk CLI, Le Rédacteur v3.03, Megapaint II, Protext v5, Jet Setters (Inkjet printer), Dr. T's Tiger Club, Headstart; Articles: Whistle Stop Tour, Fleet Street Publisher 3 or Timeworks?, TeX Notes, Fontkit Plus Tutorial VI, ST Parallel Port Buffer, MIDI Software in C; Regulars: PD Update 11.2, CAD Column, GFA Problem Page, Programmers' Forum, Adventure Column, Forum, STicks and STones.

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Reviews: Wordflair, Molgraph, Write ON, EdScheme; Articles: Computer Shopper Show, Living with the Atari Laser, Working in Tandem (ST & HP Deskjet), LaserFace, On-Line Conferencing (CIX), Racing Spreadsheets, Giving it the WERCS Part 1, Dan Wilga Interview; Regulars: News, Forum, Adventure Column,

CAD Column, PD Update 11.3, STicks and STones, Programmers' Forum.

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Reviews: Harlekin, CADja, Calligrapher, Titan Designs' Reflex Board; Articles: 16-bit Computer Fair Reports, Pictures - Scanners and Pixels, Your FirST BASIC, ST Internals, DIY Fan Thermostat, Fontswitch 3 Part 1, Giving it the WERCS Part 2, GEM Dialogue boxes in C; Regulars: News, Forum, Adventure Column, CAD Column, STicks and STones, PD Update 11.4, Programmers' Forum.

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Reviews: Keys!, Craft 2, ISETL, AdSpeed, Personal Finance Manager Plus, Master Time, Game Makers' Manual, FastCopy 3; Articles: FastFire, Bertha (DIY Upgrade), MIDI Fundamentals Part 1, Auto-Run, Software Documentation, Fontswitch Part 2, Tempus Part 1, Giving it the WERCS Part 3; Regulars: News, ST Internals, STicks and STones, Adventure Column, Forum GFA Problem Page, Programmers' Forum, CAD Column.

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Reviews: Playback, Quartet, Opus 2.2, Auto-Switch Overscan, In The Public Domain; Articles: Atari Press Conference, ST in the Office, Scanning New Horizons, Switch-On Delay Unit, Tempus Part 2, Giving it the WERCS Part 4; Regulars: News, STicks and STones, MIDI Fundamentals, PD Update 11.5, Adventure Column, CAD Column, Forum, Programmers' Forum.

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Reviews: MasterSound 2, Introducing Atari ST Machine Code, Retouche, Deskjet Refills, Migraph Scanner and Touch-Up, In the Public Domain; Articles: TeX First Aid, More Upgrades, MIDI Fundamentals, STE Programming; Regulars: ST Internals, PD Update 11.6, Adventure Column, STicks & STones, Desktop Discussions, Forum, CAD Column, GFA Problem Page, Programmers' Forum.

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Reviews: Replay 8, Knife ST, GO, Professional Virus Killer 2, SuperBoot versus XBoot, Bible Concordance, Master CAD, Xtra RAM ST+2, The Blag; Articles: High Density Floppies, ST Internals, Cubase Part 2, In

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Reviews: HyperChart, Knife ST - Ultimate Disk Editor?, CodeKeys, Cold Hard Cache, PC Speed, Fractal Music, Public Domain Software; Articles: Racing Spreadsheet - is it a Winner?, ST Internals, Getting to Grips with Cubase Part 3, From the Hotline, File Selector, Traps for the Wary Part 1; Regulars: News, PD Update, Jeremiah's Journal, The A-Z of the ST (C-D), STicks and STones, Forum, Desktop Discussions, Programmers' Forum, CAD Column.

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Reviews: Hard Reign's a-Gonna Fall (Hard Drives), MultiDesk, The Ultimate Ripper, Hype! Calligrapher Junior, PD Software; Articles: Dusseldorf '91 Show Report, ST Internals, Getting to Grips With Cubase Part 5, Proportional Print, From the Hotline, Traps for the Wary Part 3; Regulars: News, PD Update, Jeremiah's Journal, The A-Z of the ST (F-G), STicks and STones, Forum, Desktop Discussions, Programmers' Forum, CAD Column.

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Reviews: GFA Draft Plus v3, Hotwire, Avant Vector, Games in Black and White, Printer-Q, Public Domain Software; Articles: ST Internals (Part 9), Getting to Grips with Cubase (Part 6), Going On-Line, Signum - The Jewel in the Crown, From the Hotline, Traps for the Wary (Part 4); Regulars: News, Licenceware Update, Jeremiah's Journal, A to Z of the ST (H-I), STicks and STones, Forum, Desktop Discussions, Programmers' Forum, CAD Column, Classified Adverts.

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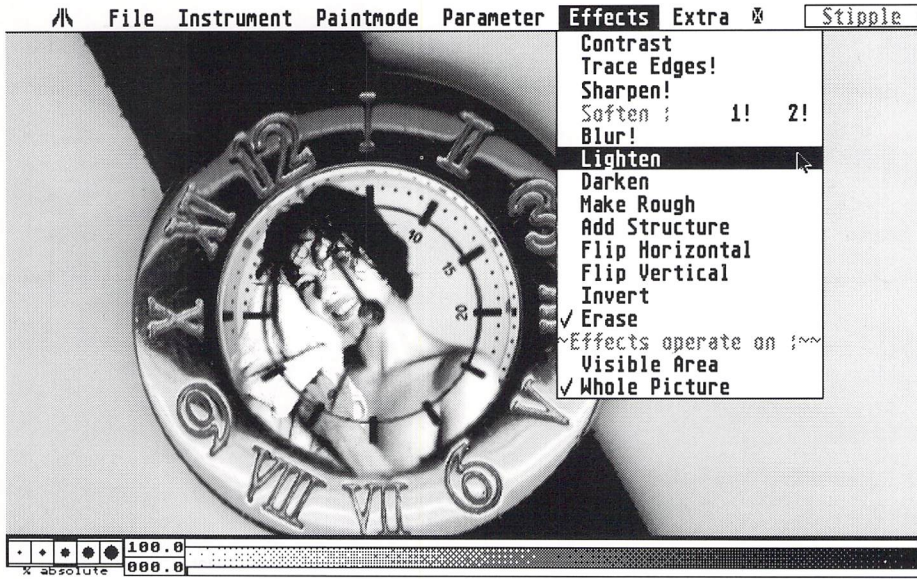
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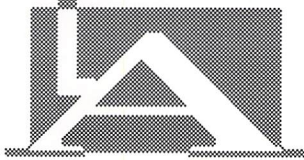
Retouch is a truly revolutionary new graphics tool for the Atari ST(E)/TT. As a Creative user you'll know that a picture can say a thousand words and that powerful tools are essential to achieve the quality you need. We can guarantee that after using Retouche, you'll look back on the days of tortuous pixel-punching with the best of the current bunch of high resolution monochrome art programs as a gruesome nightmare.

Retouche brings new levels of graceful ease and elegant sophistication to the subtle art of fine halftone image retouching, whilst possessing the sheer brute block processing power necessary to execute its comprehensive range of radical full blown image processing techniques. All very smoothly at the highest quality possible and available directly from your desktop.

Price: £175.00

Didot

LINEART



Didot LineArt, is the latest and possibly greatest vector art package of its type to become available for the Atari ST(E)/TT,

Didot LineArt displays a fully thought out user interface, and a wealth of features to make vector graphics useable.

Didot LineArt includes three main modules which are: The Font Editor allowing Postscript Type 1 and Calamus fonts to be edited/converted; The Auto-trace Module (level 1), which allows you to trace bitmap images for conversion to vector file formats; and finally The Vector Module itself, allowing you to create simple and complex artwork. Also a number of file formats are supported, including IMG; GEM; CVG; TIFF and many more.

"What better compliment could a reviewer make than to say that the package under review has pushed all competitors off his hard disk? For me, it's definitely good-bye to Easy Draw, Megapaint Professional and Outline Art."

Günter Minnerup. ST Applications

Price: £235.00



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Welcome

All prices correct when going to press

All prices inc VAT