

INTERNATIONAL SOFTWARE NEWS #5

A Letter from SIG HARTMANN

April 3, 1987

I am happy to announce that Richard Frick and I are back in charge of U.S. software development and sales. These additional responsibilities do not alleviate our previous duties which still include OEM, VAR and Fortune 1000 sales.

In the past, we have received great responses to our requests. We are grateful for all your previous support, which is reflected by the 1,100 titles which presently exist in the marketplace. This is a very good start, but I believe that we have just scratched the surface in our marketplace.

There is a definite need for software packages which address vertical markets such as real estate, medical, dental and "mom and pop" stores, which would like to computerize to increase their productivity. The ST and its user friendly software is the vehicle to give them a cost effective solution.

Please send us 2 copies of your latest software and marketing material (see page 2 for a list of

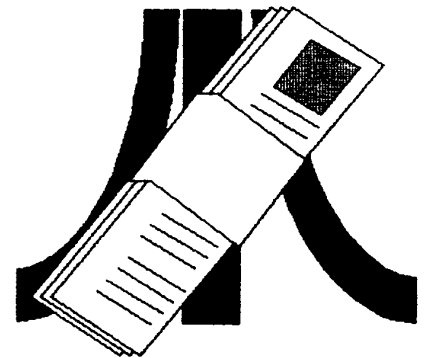


material). We plan to use your software and marketing material to advertise to dealers, distributors and include in our general advertising campaign.

It's time once again to commence work on a new ST software catalog. Therefore, we will need updates to your existing software which were listed in our Spring 1986 and Winter 1987 ST software catalog (2 copies should be sent attention Juli Wade - Software Librarian). Should you be working on new software which is scheduled for completion by May or June, we would like to receive a description, beta copy and marketing material before Chicago CES.

Gershon Blumstein is now responsible for International Software Coordination, an important assignment for the ...

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Letter from SIG

Sig Hartmann talks about his new responsibilities and other things.

DEADKEY...

John Feagans describes how to make your program more suitable for the International market. Page 7

Education, the Toy Fair and other NEWS

John Skruch rambles on about the XE Game System, educational displays of ATARI products and a new software distribution system. Page 6

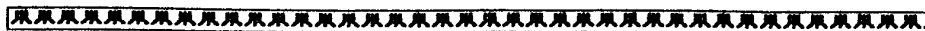
Developers Update

Cindy Claveran has created a new form so she can keep track of your software efforts. Page 9

BE SURE YOU FILL OUT AND RETURN THIS FORM !!

Technical Information about the NEW TOS ROMS Page 3

And Much More !!!



Sig Hartmann continued from page 1 ...

company. In his new position, Gershon can help get your products distributed in the international market place.

John Feagans continues his position of developer support. Another "Question and Answer" bulletin is forthcoming from John.

Well, it's nice to be back. Richard and I have missed all of you, and look forward to once again working closely with you. As partners, we will work towards our common goal to ensure that our futures will be bright and profitable, while having fun getting there.

Best Regards,

Sig Hartmann
ATARI CORPORATION

Basic Compiler for the ST

LDW has released a new version of their Basic Compiler (Rev1.1). LDW Basic is fully compatible with the ST Basic interpreter, however it offers many significant enhancements. Fast double precision math, array sizes limited only by available memory, up to 30,000 lines of code are a few of these enhancements. This compiler features full access to GEM, BIOS, and GDOS like any "C" compiler plus access to file zero page. The price is \$69.95.

Order direct from:
Logical Design Works, Inc.
780 Trimble Road Suite 403
San Jose, Ca. 95131
408-435-1445

Marketing Materials Needed for Atari to Promote Third Party Products

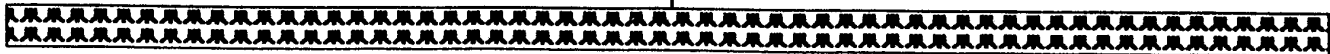
The following is a list of the minimum set of materials we need to properly advertise your products:

- * Reprints of any reviews
- * A stat sheet (various sizes) of company's logo
- * A stat sheet (various sizes) of the logo title for each title
- * Line art for each title
- * Two empty boxes, two manuals
- * Details on planned promotions
- * Copies of any ads (reprints or tear sheets)
- * Samples of material packed out with your software
- * Any photographs of product packaging and product screens
- * Press releases about or that include the product
- * Slides of the product package and screen shots (2ea)
- * Catalogs which feature or mention the product
- * Any sell sheets that mention or feature the product
- * Product package dimensions and weight
- * Case pack quantity, weight, and dimensions

Send the above to:

ATARI Corporation
1196 Borregas Ave.
Sunnyvale, Ca 94086
Attn: Lauren Trevathan
408-745-4967

We will keep this material in a file under your company name and use it when we create advertisements. Please be sure to regularly send us updates.



New TOS ROMS

This document is intended for developers and others who require technical information on the differences between the ROM TOS that has been used in the ST up until now and the new ROMs that are required for the BLIT chip. Although the blitter requires the new ROMs, the new ROMs do not require the blitter (the upgrade for extra features is possible without the BLIT chip).

The following is arranged in two sections; changes that do not affect compatibility and those that do. Each section is also broken down by the area of the ROMs involved.

Non-Compatibility Issues

BIOS

The Real-Time-Clock is utilized by the XBIOS GETTIME and SETTIME functions for the IKBD. The GEMDOS clock is reset from the RTC at the termination of every process.

The BIOS level character out routines are much faster.

The format of the floppy disk has been skewed from track to track to improve disk speed. The XBIOS routine to format a track will support this by using -1 for the skew value and placing a pointer to a one word per sector skew table in the previously unused long.

The RS-232 handler was re-written to support RTS/CTS handshake.

Upon power up more than one device may be attached to the DMA bus without the need for special software.

VDI

The BLIT chip is supported. The support is automatic via line-A and VDI calls. The extended inquire will now report a larger performance factor than before allowing for differentiation. XBIOS (Trap 14) function number 0x40 (64 decimal) gets and sets the blitter configuration. It takes one 16 bit parameter called flag. If flag is -1 no set is performed. For any other value of flag the least significant bit turns on the hardware blitter (1 is on, 0 is off). The next 14 bits are

reserved for future expansion and the sign bit must be off. The results are returned in D0 as follows: bit 0 is on if the hardware is used, bit 1 is on if the blitter is present, bits 2-14 are reserved and bit 15 is always off.

Small angle arcs are now drawn. In some cases, usually small angles with small radius, the arc (or filled arc) would not appear.

The mouse redraw can now be set to xor mode, via line-A.

AES

Smooth scroll is allowed by merely holding down the mouse button on the arrow or page controls.

Underscores in TED_INFO structure inputs no longer crash the system.

The system will return after a single click when only a single click was requested.

APPL_TRECORD and APPL_TPLAY now work.

DESKTOP

Printing or showing from the desktop will display characters above 127 ASCII. This allows foreign characters to be displayed in a file show or print.

Spurious characters are no longer written to the desktop.inf file. These would sometimes poison the system causing surprising behavior (crashes).

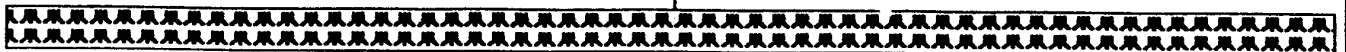
Changes were made to the cartridge code to remove the need for 'CARTSTART' and allow .TOS and .TTP programs. Remember the old ROMs still require 'CARTSTART'.

Show or print file uses a larger disk buffer.

The 'Show' option is the default when opening a non-executable file.

Fewer disk swaps are needed with a single drive disk copy.

The 'Save Desktop' and 'Print Screen' options now request confirmation with an alert box.



The following are COMPATIBILITY issues. They are arranged as above with the addition of a section.

BIOS

The floppy read/write code checks for more disk errors. Under some circumstances, the old system would not report a CRC error. It now will. The non-reporting of this error reduced the reliability of our disk system. This is causing some copy protection schemes to fail.

The RS-232 handler re-write requires a minimum buffer size of two bytes.

BDOS

The system no longer needs to have the folder pool enlarged by the hard disk driver, and as a result the system uses more RAM. This does not fix the 40 folder limit. Programs that were near the edge and required no desk accessories or were self-booted may no longer fit on a 520.

VDI

The 4 Meg machine is slightly different from other STs. The screen is near the end of accessible RAM. Therefore if a sloppy program writes far past the end of the screen, on the 4 Meg a bus error results. Before, this was harmless.

The BLiT chip is not re-entrant, therefore line-A and VDI should not be called from within an interrupt.

The size of the VDI arrays has been enlarged to allow more detail. Make sure your globals are as big as your inputs require.

AES

The limit of 30 characters on a line in an alert box is rigidly enforced. Any line longer than the limit will be truncated. In previous revs runover in an Alert Box caused damage to internal system data structures.

The system always returns the state of the mouse buttons that caused a return from an evnt_multi or evnt_button. Before, the system would return the button state after a short length of time. This would allow a fast click to be returned as no buttons down. This bug was used by a few programs for short vs long

button click detection. This will no longer work.

DESKTOP

Lower case letters are no longer forced to upper case from the 'Open Application ... Parameter' dialog box.

GENERAL COMMENTS

Most undocumented variables have been moved. This has broken some programs but they knew what they were doing (or should have). You were warned!!!!

The registers D0,D1,D2,A0,A1,A2 have always been destroyed when a trap call was made. Now the demise of these registers occurs under more conditions than before. DO NOT count on these registers.

We have noticed that some programs depend on the OS always being at \$FC0000. This is NOT cast in stone. It will probably change (soon) without warning. To find the OS header use the pointer sysbase as documented.

COMDEX

Comdex in Atlanta has become recognized as a regional show. It furthermore now conflicts with summer CES in Chicago, which is an order writing show for Atari. We are therefore not going to have a booth in Atlanta this year.

Sig will however be going to visit our software developers and meet with new VARs. If you plan to attend Comdex or will have a presence on the floor Sig would like to visit you. Please call Lauren at 408-745-2906 so she can schedule an appointment.

This entire Newsletter was created with Migraph's Easy Draw 2.0.

URGENT MESSAGE !!

We still have developers who refuse or have forgotten to send us copies of their software.

Rumors are that we put it in a "LIBRARY" and make it available for anyone to copy!

This is absolutely untrue. All software sent to the "SOFTWARE LIBRARY" is kept under lock and key and is only available to a select few (Our test group, Leonard, Jill).

We do not want any surprises, and we think you do not either. We cannot be sure whether your software will work with our new software or hardware systems without testing them together.

If the reason your software will not work is because of an oversight (whether documented or not) on our part, we will patch our software or hardware to assure your software runs in the future. If the problem is on your part, we will notify you immediately and suggest a fix.

Please send us two copies of your software (Attn: ST Library) so we (and you) can be sure you are compatible.

(Atari Corporation's address is on page 9)

SOFTWARE GUIDELINES

The purpose of the following software guidelines is to offer a set of do's and don'ts to the software developer. This list is by no means complete and will be expanded over time. If you have any ideas that you wish to input, please feel free to write to Attn: Cindy Claveran.

* Drop-down menus: Offer keystrokes as an alternate method of menu item selection. For example: Alternate-S for Save and Alternate-L for Load. Remain consistent in the sequence of the menu items. For example: Desk-File-Edit not Desk-Edit-File.

* Compatibility: Follow the rules! Inquire using system or GEM calls for hardware dependent information like screen location, number of bit planes, etc. Don't use undocumented locations or system calls. This will ensure compatibility with future hardware and software releases.

* Item Selector: Remember and handle paths. Inquire the current path upon start up of the program and use it. Don't assume that the program was run from drive A when instead it was run from drive C. When the user selects a new path, don't restore the old one. Also allow the loading of the program from any drive path, especially when using copy protection.

* Right mouse button: Limit the abuse of the right mouse button. If you do use it, use it for one consistent function throughout your application.

* Keep it simple: Avoid putting the user through unnecessary steps. For example: When 1st Word is run it assumes that you want to load and edit a document. There are times when all the user wants to do is print out a file. They have to cancel and then select print. Or when text is cut, you have to click on a dialog box telling you that it has been cut.

* Screen colors: Leave them alone! The user has the option of setting them with the Control Panel to their personal preferences. If you have to change screen colors in your

application, save them before you change them, and restore them when your application is done.

* **User feedback:** Make the application as interactive as possible. For example: When inserting text into a paragraph in 1st Word, you have to go to the beginning of the paragraph and then press F10 to reformat it. Reformat on the fly.

* **Configuraton:** Allow the user to set the various application program's defaults and 'states'. For example: GEM Desktop allows you to place your icons, opened windows, set your preferences and then save them.

* **Software Performance:** Try to avoid cursor key run on. For example: The original 1st Word buffered all the keystrokes. When it got to scrolling the screen using the cursor keys, the screen always ended up far behind the keystrokes and the intended location overran. Most important of all, you have a 16/32 bit Motorola 68000 running at 8Mhz. Applications have been seen to run slower than their 8 bit 6502 based counterparts...

XE GAME SYSTEM A HIT AT TOY FAIR by John Skruch

The Toy Fair, held in New York City in March, was a rousing success for our new XE Game System. Based on the 800XL/65XE, the new Game System is totally compatible with all XE and XL hardware, software, and peripherals. The attachable keyboard and new light gun were very well received by the retailers and sent the President of Sega away muttering and shaking his head. We will be shipping the system in June and will include SUBLOGIC's Flight Simulator II (in a cartridge) with the unit. We have developed a "Super Cart" that allows up to 256K Bytes of program. We encourage those of you with XE/XL games to convert them to cartridge. If you have a hit game, you can also submit it to us for possible licensing if it meets our standards. We will be happy to supply Super Cart data upon request.

XE and ST Computers on Display

On February 24, the Technology Resource Center of the Department of Education was officially opened. The Center will demonstrate how all forms of technology can be effectively used in education. They plan to provide education professionals from the Department, other government agencies, and visiting educators (including many foreign visitors) with ongoing demonstrations of how computers are being used in all levels of education. The Center will also have an active outreach program to the many educational associations in Washington D.C.

To assist this effort, ATARI has donated a 1040ST color system with hard disk, and a complete 130XE system. We also arranged support from W.A.A.C.E., the confederation of seven local ATARI user groups.

If your software is educational in nature, or if it would be useful to educators, we recommend that you donate a copy to the Center. They do not lend the software and strictly enforce the Copyright law. Software should be sent to :

U.S. Department of Education
555 New Jersey Ave. NW
Washington D.C. 20208
Attn: Sheldon Fisher (Director)

"Software Machine May Change the Way Programs Are Sold" by John Skruch

The February 6th Wall Street Journal article was talking about a vending machine of sorts that can electronically reproduce any of thousands of software programs in just seconds. This answers the needs of retailers who would like to offer big selections of software without carrying massive amounts of expensive inventory. One such retailer is ComputerLand, who may soon have this machine in all 550 outlets.

Based on CD ROM technology, the 30 square foot kiosk can also show demo videos, tutorials, and program demonstrations. If a person decides to purchase a program, the machine makes him a copy complete with 15 pages of "starter"



documentation in about 40 seconds. Full manuals are then shipped to the customer. The Hands On system currently has 1,600 programs from 150 publishers such as MicroPro, IBM, and Apple. ATARI is currently working with Instant Software Generation, Inc., the developer of the Hands On system, to support both the ATARI ST and XE lines. If you are interested in becoming part of this hi-tech adventure, contact: Instant Software Generation, Inc. 151 Calmus Building B Costa Mesa, CA 92626 Attn: Parley Hansen (714) 957-6166

Deadkey Function for ATARI ST Computers Version 1.0

by John Feagans

We programmers here in the United States tend to be very myopic when creating products for our market. We limit the distribution of our programs by not using resource files for translations, and blocking certain character code combinations. The following program has been posted to DL7 as an example of how the usefulness of an application can be extended.

The deadkey is a function that allows access to letters in the international character set from any keyboard version. It is patterned after a typewriter mechanism that did not move the carriage when an accent mark was struck and allowed the overstriking of a letter. In the ST version we substitute the correct character code for the accented letter instead of sending two codes to the application program. The application program receives and displays the resulting code.

DEADKEY.PRG can be installed two ways: First, it may be placed in the AUTO folder on a boot disk so that it is automatically initialized when the ST is powered-up. Alternatively the user may install the driver by executing DEADKEY.PRG from the desktop. In either case the program outputs an installation message.

When DEADKEY.PRG is installed, eight keys function as dead keys--that is, if you press them only once, nothing will happen. If you press them a second time in succession, or if you press the space bar, the deadkey character will be transmitted to the application. If you press a deadkey, then an

applicable letter, the accented letter will be transmitted to the application. Any other character will cancel the deadkey and that letter will instead be transmitted to the application.

I encourage ST developers to download and test this program with their applications. If you have any ideas of how diphthongs such as ae and ij can be entered from any keyboard, please contact me here at Atari.

Deadkeys: Valid characters: Results:

tilde ~	a A n N o O	ã Ä ñ Ñ õ Ö
umlaut " a	A e E i o O u U y	ä Ä ö E I ö Ö ü Ü y
circumflex ^	a e i o u	â ê î ô û
grave `	a A e i o u	à À è ì ò ù
acute ´	a e E i o u	á é É í ó ú
slant /	o O	ø Ø
circle °	a A	â Ä
long _	a o	á à

MODULA 2 for the ATARI ST

Jefferson Software is releasing a Modula 2 Development System on Thomas Jefferson's Birthday (April 13). The system includes compiler, linker, debugger, and the SOURCE to the libraries all for a low \$39.95. This is a fast one-pass compiler based upon Wirth's latest definition of Modula 2, the 3rd edition. It is not copy protected. Order direct from:

Jefferson Software
12416 N. 28th Dr. #18-236
Phoenix, AZ 85029-2434
(602)243-3106
(602)258-7205 (Support BBS)



You Need a Grabber !!

by Rene De La Briandais

We've all seen fancy demos on the ST that take advantage of the machines great graphics. Trade shows, retail outlets, users group meetings, and bulletin boards are all places where these attention getters show up. Bouncing balls and rotating logos get attention but they lack a message. A valuable opportunity to inform prospective buyers of the benefits of a particular product is thereby lost.

Why not make a commercial for your product just like those on TV, only running on an ST? One that is a GRABBER. One that not only gets attention, but tells people about your product at the same time. You could send dealers a disk with both a GRABBER and a separate, animated demonstration of what your program does and how it works. Your distributors will probably be willing to help get these disks out. And users groups are always delighted to have new things to show off at their meetings and distribute through their public domain libraries and bulletin boards.

What you need to create such a disk is a paint program, an animation package, a little artistic talent and some inspiration. And of course you'll need time. This sort of thing must be well done not only because it speaks for your product, but because you want people to continue to use it. If you would like to have a GRABBER to help sell your product but feel you haven't the time or talent to do it yourself get in touch with me at Avila Associates. I have now made several such ads using Make it Move, one of the animation packages currently available for the ST. As the developer of this software I know how to use it to the best advantage and can even customize it for added impact. I would be happy to talk to you about doing one for you. This might just be the most cost effective way available for you to promote your product.

I can be reached at Avila Associates, 3646 Baker Lane, Lafayette, CA 94549. My GENie address is AVILA-ASSOC and the phone number is (415) 284-5922.

OEM's, VAR's and the Fortune 1000

What do OEM, VAR, and Fortune 1000 business mean?

An OEM (Original Equipment Manufacturer) is a reseller who purchases our computers at a board level, repackaging it and selling their system as a specific complete solution. Unless you looked inside their machine you would not know an ATARI computer was inside.

As a general guideline, to be an OEM you must use a minimum of 1000 boards per year.

As an example, an OEM in Germany rack mounts a 1040 board, adds some A/D converters through a memory mapped technique, and sells the complete system for data aquisition and system controller.

A VAR (Value Added Reseller) is a reseller who buys our complete computer system, bundles some additional hardware and/or software, and sells to a specific vertical market.

General requirements for a VAR are: a) a Purchase Order for 1 years volume of machines, b) a release schedule by month, and c) a specific signed agreement that the systems will ONLY be sold as described in the VAR Agreement (i.e., no retail sales!).

An example of a VAR is a reseller who bundles a 1040, Laser Printer, and Software and sells it as a complete Desktop Publishing Solution.

Our efforts in the Fortune 1000 arena have been to "get our foot in the door."

We have attended Corpcon in New York City, which is a trade show specifically catering to the corporate mini computer buyer.

We have set up arrangements with local dealers so they can accept P.O.'s from large Corporations without suffering any financial hardship.

We are prepared to sign major purchase agreements with those Fortune 1000 companies interested in ATARI's "POWER WITHOUT THE PRICE" philosophy.

If you are interested in any of the above business opportunities please contact either Sig or Richard at 408-745-2134 or 408-745-2906.