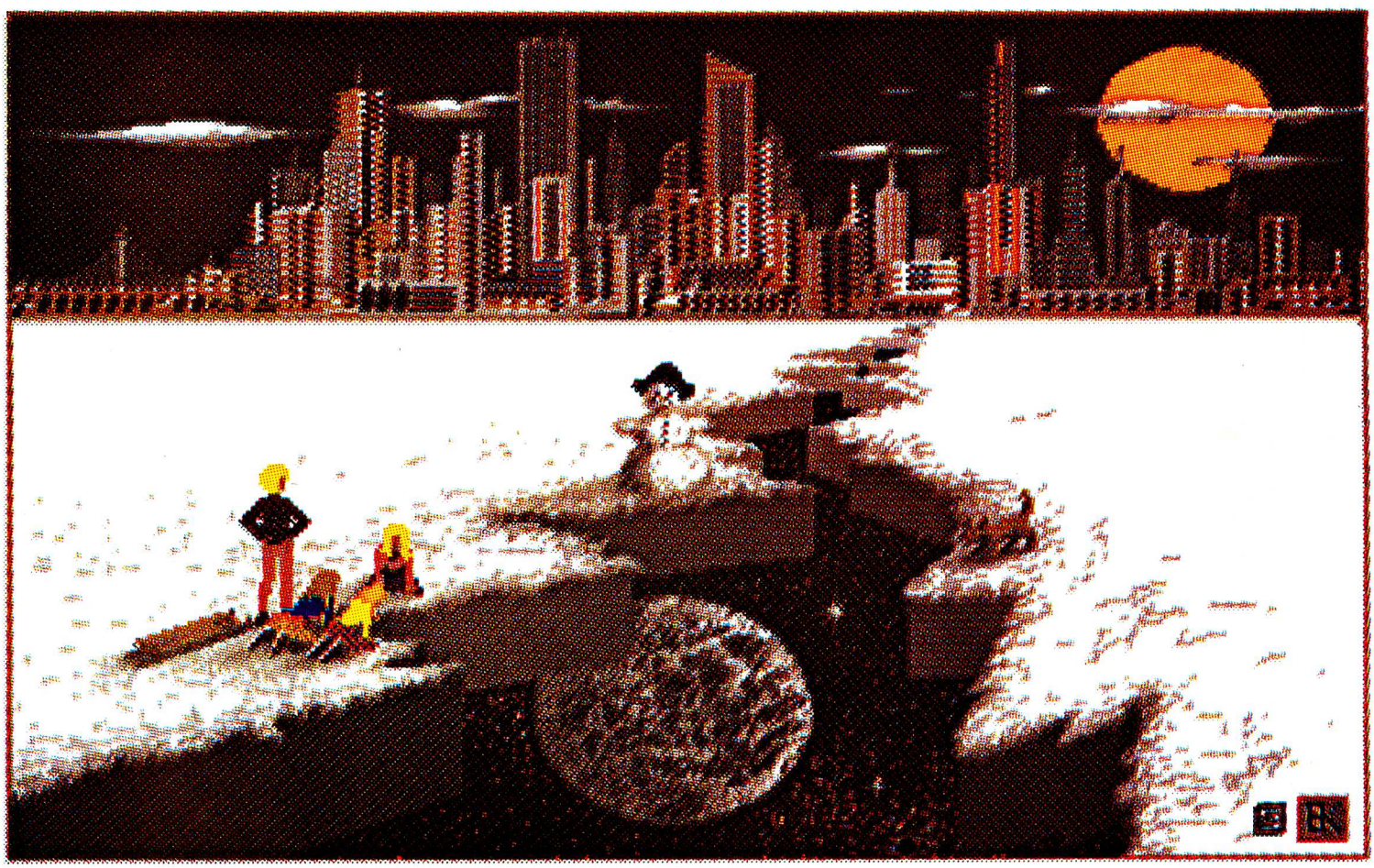
$2.25

ATARI INTERFACE MAGAZINE

Vol. 2 No. 1

January 1990



Piracy = Arbitrary Discrimination

Turbo-816 Info #7

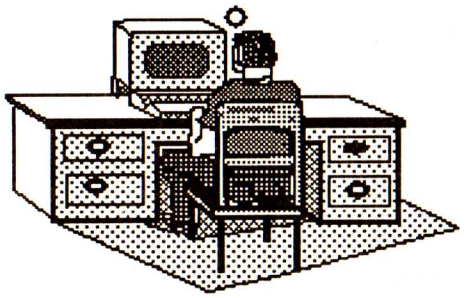
The Power of Advertising

Mini MIDI Lessons #2

AtariWriter + Part VI

Reviews of
Xenophobe
Lost Duchman Mine

and MORE...



EDITORIAL RAMBLINGS

Bob Brodie to Visit Users in Michigan

Atari's own Bob Brodie is coming to Michigan! "Mr. User Group" will be in Ann Arbor, Michigan and will meet with area Atari user groups and users on Sunday, February 18 from 1-3 PM at the University of Michigan Student Union (in the Anderson Room, to be precise!). Special thanks to the Washtenaw Atari Users Group for arranging the meeting space.

Bob will be showing the STacy and Spectre GCR combo to the MacTechnics Macintosh user group in Ann Arbor on Saturday, February 17 at 11 AM. It looks like the Macintosh community is VERY interested in this "poor man's" Mac portable -- they called him!

For anyone wishing to attend the Sunday meeting, here's a quick set of directions. Take U.S. 23 to I-94 west (or just take I-94 if you are coming from the east or west!). Exit I-94 at the State Street exit (near Briarwood Mall). Go north on State Street all the way into downtown. You'll come to a three-way stop with a flashing red light (S. University), and from there you can see the Student Union a little further up State Street and on your left. The Student Union is the tallest of the buildings in that block, with a set of three stairs leading to the front doors. If you come to Williams Street or Liberty, you've gone too far! There are a number of parking lots and parking structures in the vicinity of the Student Union...you may have to go around the block to find parking.

New Year...New Look...New Clubs

AIM has a few changes this month...all thanks to Soft-Logik's new version of PageStream. From the full color cover (yea!) to the slick new article titles (with no jaggies at large point sizes!), PageStream 1.8 has performed like a champ. Think of this issue of AIM as a preliminary review of some of what PageStream can do...we'll be running an actual in-depth review of this excellent program in the next issue (space permitting).

Speaking of space, perhaps you noticed this issue of AIM is pretty darn thick. If everything works out as planned (we're writing this before the magazine is all laid out), we're starting the year out with a full 52 pages including cover. We've also added a number of new participating clubs, including FACCS of Spokane, WA; BRACE of Lexington, KY (if their info get here in time. If not, look for them next month); RACE of Rapid City, SD; PHAST of Phoenix, AZ; and last, but not least, SPACE of Harrisburg, PA. That brings us up to a total of 24 participating clubs, with a few more "tentatives" for the February issue. It is due to the excellent articles submitted by all the participating clubs that we've grown to our current size. Keep 'em coming!

Bill & Pattie Rayl

Atari Interface Magazine is a monthly publication that also serves as an official newsletter of several independent Atari user groups and is not affiliated with Atari Corp. in any way. AIM is published by Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108, (313) 973-8825 voice, (313) 973-9137 BBS. A subscription to AIM is included in membership in any participating club or may be obtained directly from Unicorn Publications.

AIM does not knowingly reprint copyrighted material without first obtaining permission from the source. Non-commercial user group publications are granted permission to reprint articles from this magazine as long as credit is given to AIM, the author and club (if applicable). Opinions expressed within articles in this magazine are solely the views of the author(s) and do not necessarily represent the opinions of AIM or any participating club. Atari, the Fuji symbol and names of Atari computer products are trademarks of Atari Corp.

COMPUTER SOFTWARE SERVICES

P.O. BOX 17660, ROCHESTER, N.Y. 14617
PHONE (716) 586-5545

ATARI

DEALER/DISTRIBUTOR/USER GROUP Discount available call for info.
PHONE orders • MASTER CARD, VISA MAIL • Money Orders, Checks

*SHIPPING! Add $5 for Shipping/Handling/Insurance within the U.S.A.
UPS BLUE LABLE (2nd DAY AIR) available for $3 extra per shipment

CALL TODAY! (716) 586-5545
9 am - 5pm (EST) WEEKDAYS

COMPUTER SOFTWARE SERVICES
P.O. Box 17660
Rochester, N.Y. 14617

ATARI

BRAND NEW ITEMS

$199.95 The "BLACK BOX"!© $199.95

The **Black Box** is a device for your XL or 130XE computer that adds tremendous power to your 8-bit Atari. It has two buttons, two switches, and a set of dip switches visible from the outside. It plugs directly into the back of the 600XL, 800XL, and 130XE computers. Custom cases may be an optional expense. The **Black Box** performs three main tasks: interface to a SASI/SCSI bus device (hard disks), Parallel printer port, and a RS232 port. A fourth option, available soon, will be a floppy disk port, especially useful to XF-551 owners. The SASI/SCSI port provides the necessary signals for hooking up most common hard disks. You may partition your hard disk into as many drives as you wish: up to 9 can be accessed at at time. By pressing one of the buttons on the **Black Box**, you will enter the configuration menu, where you can re-assign drive numbers, etc. When you exit, you will be right back in the program you were running when the switch was pressed. Each hard disk can be write-protected. The Parallel Printer port will allow you to hook up any printer that uses the standard Centronics interface. As an option, you can use the computer's extra memory as a printer buffer, or order the **Black Box** with 64K of on-board RAM. You may assign printer number and line-feed options within the menu (for use with multiple printers). Another amazing feature of the **Black Box** is the built-in screen dump. By pressing a button (on the box), the contents of your screen will be dumped to your printer (you can define text or graphics modes with a switch)! The RS232 port supplies the full RS232 spec signals for connection to a modem, or another machine (for null-modeming). The handler for the **Black Box**' s modem port is built in and takes up NO memory! The port handles rates up to TRUE 19.2K BAUD! A future upgrade for the **Black Box** is a floppy disk interface board. This will allow the addition of up to four 5.25" or 3.5" mixtures of floppy drives to be used with the system. The drives will act like standard single/enhanced/double density disk drives, but MUCH faster! All drives will be Super Archiver compatible, and support up to 2 sides of 80 tracks. Along with this hardware upgrade will come software capable of reading, writing, and formatting disks in IBM's MS-DOS format and the Atari ST format, and allow you to transfer files between those disk formats and the Atari's format. In addition , a machine language monitor has been added to allow memory disassembly, memory/register changes, and more. The Price of the **Black Box** is $199.95 for the basic unit and $249.95 with 64K of RAM (for printer spooler) plus $8 for S/H/I. An optional custom **BLACK BOX** case is available for $39.95 extra.

$199.95 The "MULTIPLEXER"!© $199.95

This device brings the power and flexibility of larger systems to your 8-bit. The **Multiplexer** is a device (actually a collection of modules) that allow up to 8 Ataris to read and write to the same drive (typically a hard disk), printer, and talk to each other. One "master" computer (any 8-bit) is equipped with the master **Multiplexer** interface. Then up to 8 "slave" computers can hook up to the master, each having their own slave interface. The "common" peripherals (things that are to be shared) are connected to the master computer. On each slave, all disk and printer I/O is routed through the master, so no drives are needed on them. The master computer can be configured in any manner you wish - you can for example have certain peripherals "local" to the slave, or routed to a different number on the master. Under development is a BBS system that will make full use of this device, allow ing up to 8 lines/users to be using the system at the same time! A multiuser chat mode is a feature of this program, however, you do not NEED this program to run a BBS with the **Multiplexer** (but be warned that not all BBS programs will run concurrently). All slaves are independent, and do not need to have the same program running on them. This system is excellent for BBS SysOps, because you can be using your hard disk(s) while still running your BBS uninterrupted! Another example is in a classroom situation, or anywhere a disk needs to be shared by different people. This is an EXCELLENT programming/debugging tool as well! The **Multiplexer** price is $199.95 for a master and two slave units (plus $5 S/H/I). Additional slave units are $69.95 each.

$29.95 "XF551 ENHANCER!"© $29.95

The XF551 Atari drive is a fine product with one major flaw...It writes to side **TWO** of your floppy disks **BACKWARDS**. This causes read/write incompatibility problems with all other single sides drives made for Atari such as Indus, Trak, Rana, Percom, Astra, Atari 1050, Atari 810, etc. Add the **XF551 ENHANCER** to the new XF551 drive and your problems are over! This device will restore 100% compatibility while retaining original design qualities of Atari's super new drive. The **XF551 ENHANCER** is a **MUST** for all XF551 Owners. Installation is simple. Only $29.95 plus $4 S/H/I.

$99.95 The "POWER PLUS"!© MEMORY UPGRADE $99.95

(for 800XL'S and 130XE's only)

C.S.S. has made the "**Power Plus**"! memory upgrades available on an "unadvertised" basis to our regular patrons. These upgrades have become so popular we are now making them available to everyone! For those of you unfamiliar with"**Power Plus**"! upgrade, it is the most COMPATABLE upgrade available for the 800XL or 130 XE. All other upgrade kits have some degree of INCOMPATABILITY with certain software programs. C.S.S. studied this problem and developed the **POWER PLUS** upgrade which, to the best of our knowledge, appears to be 100% compatible. To upgrade a 130XE to 320K is only $99.95. To upgrade an 800XL to 320K is only $149.95 (circuitry from a 130XE is actually transplanted into the 800XL). Add $5 for S/H/I. C.S.S. will install these upgrades for only $20 if you wish.

NEW! OUR 24 HR. BBS! (716) 247-7157

For product information, **WEEKLY SPECIALS**, informative discussions on new products, theories, products you'd like to see developed, and used items for sale or trade. **CALL (716) 247-7157** 24 hrs. This **BBS** also features multi-user **"CHAT"** capabilities thanks to our new "**MULTIPLEXER**"! which allows multiple user and **BBS** boards to be linked so several callers can share boards or talk to each other simultaneously! **CALL (716) 247-7157** for **BBS** only. For **VOICE** orders or repairs, please call our normal Hot Line number **(716) 586-5545.**

BEST SELLERS

$69.95 The "SUPER ARCHIVER"!© $69.95

The new **SUPER ARCHIVER**, obsoletes all copying devices currently available for the **ATARI 1050**! It eliminates the need for Patches, **PDB** files, Computer Hardware, etc. Copies are exact duplicates of originals and will run on any drive; without exaggeration, the **SUPER ARCHIVER** is the most powerful **PROGRAMMING/COPYING** device available for the 1050! Installation consists of a plug-in chip and 6 simple solder connections. Software included. Features are:

- **TRUE DOUBLE DENSITY**
- **ULTRA-SPEED** read/write
- **FULLY AUTOMATIC COPYING**
- **SUPPORTS EXTRA MEMORY**
- **SCREEN DUMP** to printer
- **TOGGLE HEX/DEC DISPLAY**
- **SECTOR or TRACK TRACING**
- **AUTOMATIC DIAGNOSTICS**
- **DISPLAYS HIDDEN PROTECTION**
- **ADJUSTABLE/CUSTOM SKEWING**
- **AUTOMATIC SPEED COMPENSATION**
- **AUTOMATIC/PROGRAMMABLE**
- **PHANTOM SECTOR MAKER**
- **ARCHIVER/HAPPY ARCHIVER**
- **COMPATIBLE**
- **BUILT-IN EDITOR**-reads, writes, displays up to 35 sectors/track short
- **BUILT-IN CUSTOM FORMATTER** up to 40 sectors/track
- **BUILT-IN DISASSEMBLER**
- **BUILT-IN MAPPER**-up to 42 sectors/track
- **DISPLAYS/COPIES** Double Density **HEADERS**
- **AUTOMATIC FORMAT LENGTH CORRECTION**
- **SIMPLE INSTALLATION**

The SUPER ARCHIVER is so POWERFUL that only programs we know that can't becopied are the newer ELECTRONIC ARTS and SYNFILE/SYNCALC (34 FULLsectors/track). If you want it ALL...buy the "BIT-WRITER"! also... then you'll be able to copy even these programs! Only $69.95 plus $5 S/H/I.

JUST RELEASED

$99.95 The "SUPER ARCHIVER II"!© $99.95

(for ATARI 1050 drives)

NOW! COPIES all **ENHANCED DENSITY** programs plus retains all of the features of our World Famous **SUPER ARCHIVER**! (see above). Allows you to **COPY** or **CREATE** single or **ENHANCED** density protection schemes (including **PHANTOM SECTORS**!). Completely automatic; compatible with the **BIT-WRITER I**; the **ULTIMATE BACKUP/PROGRAMMING** device! Only $99.95 plus $4 S/H/I. **NOTICE!** If you already own a **SUPER ARCHIVER**!, you can upgrade to a **SUPER ARCHIVER II** for only $29.95 plus $5 S/H/I (disk only-no additional hardware required).

$69.95 The "ULTRA SPEED PLUS"!© $69.95

Imagine a universal XL/XE Operating System so easy to use that anyone can operate it instantly, yet so versatile and powerful that every Hacker, Programmer and Ramdisk owner will wonder how they ever got along without it! Ultra Speed Plus puts unbelievable speed and convenience at your fingertips. Use **ANY DOS** to place an **ULTRA SPEED** format on your disks, boot any drive (1-9) upon power-up, format your **RAMDISK** in Double Density, activate a built-in **400/800 OS** for software compatibility, plus dozens of other features too numerous to mention! Below are just a **FEW** features you'll find in the amazing OS:

- **ULTRA SPEED** Slo for most modified drives
- **ULTRA SPEED** is toggleable
- Boot directly from **RAMDISK**
- Special timer circuits not required for 1 or 2 Meg upgrades
- Background colors adjustable
- Reverse use of **OPTION** key
- Cold-start without memory loss
- Built-in floppy/disk configuration editor (1-9)
- Built in **RAMDISK** configuration editor(1-9)
- **RAMDISK** exactly duplicates floppy drive so sector copying and sector editing are now possible
- Built-in MINI Sector Copier
- Toggle **SCREEN OFF** for up to 40% increase of processing speed
- Toggle internal **BASIC**
- Ram resident disk loader program (**MACH10** menu)
- **DOUBLE DENSITY RAMDISK** capable
- Entire **MEMORY** test that pinpoints defective **RAM** chip
- Boot any drive (1-9) upon power-up or cold-start
- Supports memory upgrades up to **TWO MEGABYTES**
- **THREE** Operating Systems in one (**XL/XE, 400/800, ULTRA SPEED PLUS**)

$39.95 The "RICHMANS"!© $39.95

80 Colum Word Processor

Easy to use, very **powerful**, and **NO ADDITIONAL HARDWARE** required! Works with TV or Monitor! This **"DISK ONLY"** 80 Column Word-Processor is simple to use while offering numerous features such as:

- Completely Menu driven
- Self contained DOS
- Complete Text formatting
- Built-in Printer Drivers
- Page numbering
- Justify and Endfill
- High speed Cursor
- Spell Checker
- 80 COLUMNS ON THE SCREEN!
- Insert and Delete
- Search Mode
- View only mode
- Memory Statistics
- Alternate Output
- Change screen Colors, borders, luminesce
- Mouse compatible
- XEP-80 Compatible

One expert has compared 40 domestic and foreign word-processors and concluded that the RICHMANS 80 Column Word-Processor is the best! Only $39.95 plus $5 S/H/I. (64K required).

$79.95 The "BIT-WRITER"!©

The Super Archiver "**BIT-WRITER**"! is capable of duplicating even the "uncopyable" EA and SYN series which employ 34 FULL sectors/track. The "**BIT-WRITER**"! is capable of reproducing these and **FUTURE** protection schemes of non-physically damaged disks. Simple installation... **PLUG-IN** circuit board and 4 simple solder connections. The **"SUPER ARCHIVER"** with the **"BIT-WRITER"**! is the ultimate **PROGRAMMING/COPYING** device for Atari 1050's. **EXACT DUPLICATES** of originals are made! Copies run an **ANY** drive. Must be used with Super Archiver. Only $79.95 plus $5 S/H/I.

$39.95 The "QUINTOPUS"!© $39.95

The "**QUINTOPUS**"! is an inexpensive device that provides a tremendous amount of convenience while eliminating the problems associated with the endless "daisy-chaining" of peripherals (eg: drives, interfaces, printers, modems, cassettes, etc.). The "**QUINTOPUS**"! is an I/O port expander that converts a single I/O output/input into five additional outputs/inputs. Instead of daisy-chaining all your peripherals (which often times results in passing a signal through 30 feet or more of cable!), the "**QUINTOPUS**"! allows each device to be connected directly to the computers through only three or four feet of cable. This is particularly useful when attempting to use **ULTRASPEED** or **WARPSPEED** data transfer rates. The "**QUINTOPUS**"! also provides the "**extra**" I/O ports often needed to connect devices not having daisy-chaining capabilities. Cable resistance and compacitance are greatly reduced thereby significantly improving the opportunity of accurate data transfers! Only $39.95 plus $5 S/H/I. SIO cable is $5 extra if needed.

$59.95 The "QUINTOPUS"!© $59.95

(with SWITCHABLE PORTS!)

This Deluxe version of the "**QUINTOPUS!**" has all of the above features with the additional benefits of two **SWITCHABLE PORTS!** This means you can connect two computers to one printer or two printers to one computer; you can switch in a computer/printer combination and while you're printing out a long document, switch in a second computer to access a modem, disk drive, cassette deck, etc! Switch multiple combinations of peripherals or computers without the hassle or re-arranging I/O cables...simply flip a switch! Only $59.95 plus $5 S/H/I. SIO cable is $5 extra if needed.

HARD DRIVE SPECIALS

COMPLETE Hard Drive Systems from C.S.S. include the **BLACK BOX**, power supply, logic board, controller, DOS, cables and assorted software! All systems are wired, preformatted and have sample programs on them. Simply take it out of the box, plug it in and **BOOT**....no hassles! We currently stock 5 MEG to 80 MEG systems ranging from $495 to $895. Sizes range from 3 1/2 inch, 5 1/4 inch, to 8 inch industrial quality. Call!

Controllers available separately from Xebec, Adaptec, Seagate, Konan, and Western Digital. Call for pricing.

SPECIAL-SPECIAL! 5 MEG REMOVABLE disk Hard Drive — BRAND NEW — only $495 complete! Hard Drive sold separately in limited quantities for only $99.95. Excellent for backing up larger HD systems! (Original drive cost was $1100!)

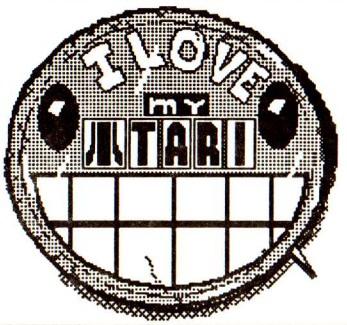
LIMITED SPECIALS

These specials are available on a first come first served basis. Pre-owned items are in exceptionally clean condition and are in perfect operating order. All items are warrantied. Sorry ... no rainchecks. Order 5 or more items and we'll pay the freight. These SPECIALS are for C.S.S. customers only - NO DEALER DISCOUNTS! Add $5 to order for S/H/I.

	NORMALLY	LIMITED SPECIAL
1. 130XE with 320K POWER PLUS upgrade and Ultra Speed Plus installed (with power supply and cable)		$ 250
2. 1050 DISK DRIVES with SUPER ARCHIVER II and SILENCER installed (with power supply and cable)		$ 250
3. SUPER PILL (without case)	$ 80	$ 22
4. ULTRA MENU/DOS	$ 30	$ 19
5. DISKCRACKER (Newest version)	$ 50	$ 19
6. ELECTRONIC PHANTOM SECTOR MAKER DELUXE	$ 60	$ 35
7. IMPOSSIBLE for 800 or 800XL	$ 150	$ 69
8. KLONE II (Generic HAPPY Backup)	$ 100	$ 75
9. SILENCER	$ 30	$ 19
10. BLACK PATCH (MASTER)	$ 50	$ 25

REPAIRS

For 24-48 hour repair service on Atari computers or drives, call our repair department at (716) 586-5545 day or night. All work is guaranteed. NO minimum estimate fees: If you have two or more items for repair and don't want to spend any money .... send them to us and we'll use the parts from both defective items to make one good working unit at NO CHARGE ... we'll keep the other defective item for parts!



ATARI BULLETIN BOARD

by Bill & Pattie Rayl

Tos 1.4 in 2 Chip Sets

TOS 1.4 is now available to Mega ST owners in the two chip, Masked ROM set. Those Atari owners who waited are rewarded with ROMS that will take far less power than the six chip set and will easily install in the newer STs with old 2 chip TOS.

Those owners who did install six chip TOS 1.4 sets to replace their old TOS 1.2 two chip sets had to install four sockets to hold the extra ROMs, and some even had to replace parts on the motherboard because the six chip sets drew so much power, other "working" buffer chips didn't.

If you'd like the two chip set of TOS 1.4, call your local dealer or Best Electronics at (408) 243-6950, and ask for Atari Part #CA400407.

Stacy is Approved

The Stacy has finally passed FCC certification and will begin appearing on dealers shelves late January as the Stacy 2 & 4. The Stacy 2 is a 2Meg version and Stacy 4 is a 4Meg version. Both editions will come with 40Meg internal hard drives. No word yet on when the low-end Stacy (1Meg and no hard drive) will be available.

Canadian Ads

The Stacy and STE were featured recently in a Canadian commercial during the Grey Cup. This is reportedly the biggest game in Canada.

The Lynx Ships

The Lynx was apparently a big success with shoppers over the holiday season. The shipments to Sears and the New York City area were completely sold out in a very short time.

There was one report of a Toys R Us having sold out of 200 Lynxs in under two hours. The Lynx also had a full page spread in a Sears Holiday catalog. Other press to feature the Lynx includes Business Week and TV Guide.

Atari Corp. Sues Nintendo

Atari has filed a legal action against Nintendo and Pepsi-Cola for their recent ads in People Magazine. The ads showed the Gameboy with a super-imposed color picture of the Mario Brothers arcade game. Pepsi has issued a press release clarifying that the Gameboy is a monochrome machine.

Nintendo also made big news in The Wall Street Journal with a report that the US Justice Department is investigating Nintendo for its business practices and the monopolization of 80 percent of the video game market.

As of MidDecember, Atari stock was $9.25 per share with more than 100,000 shares traded each day on the 13th and 14th.

New President Named

Back at Sunnyvale, changes are being made at Atari headquarters. Mike Moran has left Atari after spending only a few weeks as President of Atari Computer. David Harris has been moved over from the Atari Calculator division.

New Developer Rules

Charles Cherry, Atari's Developer contact, is busy re-registering Atari developers. There is now a two-tiered support system for commercial developers and public domain programmers. Commercial developers will receive more support from Atari with lists of registered owners, dealers and user groups, updated quarterly. Atari also plans to work with commercial developers and putting them in contact with foreign distributors.

PD software programmers obtain the normal developers kit and the monthly newsletter, but not access to the Atari databases. For more information on the new developer requirements, contact Charles Cherry at (408) 745-2000.

Bob Brodie, Atari User Group Coordinator, stated on-line that his boss, Bill Crouch, is supposed to be working on new and less restrictive Atari dealer requirements. We had no more information on this at press time.

Atari users in Michigan will be able to question Bob Brodie in person on recent developments and topics. He will be addressing the Ann Arbor Macintosh club, and will be speaking to all interested Atari user group members at 1 pm on the 18th in the Anderson Room at the UofM student union.

Online News

BobPuff was recently made a SysOp for CompuServe. Bob Puff may be familair as the programmer of BobTerm and MyDos. Well done, Bob! He is a regular in the Sunday Night Conferences on CIS.

AIM Subscription Form

Name: _____

Address: _____

City: _____ State/Country: _____ ZIP: _____

I am most interested in the following subjects:

- ☐ Product Reviews
- ☐ User Group Info
- ☐ Current Atari News
- ☐ Atari 8bit Articles
- ☐ Hardware Modifications
- ☐ Programming Tutorials
- ☐ New User Support
- ☐ Atari ST/Mega Articles
- ☐ Interviews with Developers
- ☐ Other (please specify):

_____

_____

Please enter my subscription for ☐ One Year (12 issues) ☐ Two Years (24 issues)

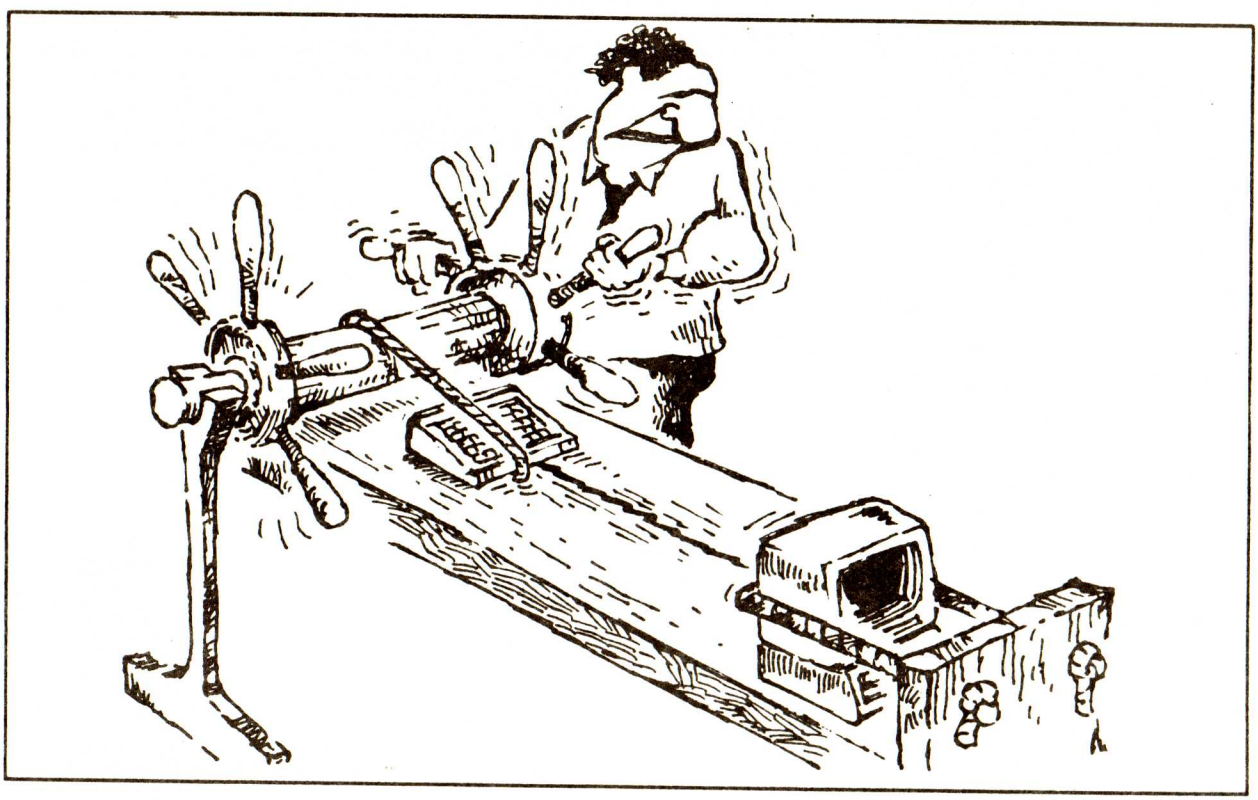
Subscription rates: U.S. – $18 for 1yr, $32 for 2yrs; Canadian – $30 for 1yr, $55 for 2yrs; Foreign – $36 for 1yr, $65 for 2 yrs
Please make check or money order payable in U.S. funds to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108.

I wish to receive your ST/Mega Disk of the Month. I am an Atari Interface Magazine subscriber.

- ☐ Full Payment for 12 Disks Enclosed ($50)
- ☐ Two Installments ($25 enclosed – bill for balance)

Sign me up for your ST/Mega Disk of the Month. I do not wish to subscribe to AIM.

- ☐ Full Payment for 12 Disks Enclosed ($60)
- ☐ Two Installments ($30 enclosed – bill for balance)



The Power of Advertising

by Tim Holt (El Paso)

The ads were eight pages long in a national magazine. Slick, glossy, well made. The ads showed people from all walks of life applying the uses of the computer.

There was an underwater "ocean engineer" that uses his computer to drive remote controlled submarines, a musician that composes her work on one, B.B. King, the jazz legend, a kid playing "Falcon," a computer programmer, and a novelist. All sitting in front of the computer, all happy as pigs in mud.

And the magazine the ad was in wasn't a poorly distributed monthly, it was Newsweek, with circulation in the millions. The week before, the same ad appeared in Time, with circulation in the millions. Nice ad. Excellent pictures. Too bad it was for the AMIGA. Yep, Commodore is pushing it's computer in America, to Americans. Yep, they beat Atari again.

Where are Atari's Ads?

Every place in that eight page ad that said "Amiga" could just as easily have said "Atari ST," or "Atari Mega."

Can you control an underwater submersible with the Atari? Yes. Can you compose music on the Atari? Yes. Can you play great games with kick-ass graphics on the Atari? Yes.

Does the Atari have a legendary musician that can tell the public how wonderful the computer is? Yes, several come to mind, but Mick Fleetwood is the obvious choice. Can you write a novel on the Atari? You bet your LYNX you can.

So, since the ST line of computers can do all those things, why is the Amiga the computer in Newsweek? Beats me.

Reasons Not to Advertise

In 1988, Atari said that they didn't advertise because there was a DRAM shortage, and there shouldn't be advertising for computers that were not there. Ok, I'll buy that.

Then 1989 came along, and they said they didn't advertise because the dealer base wasn't in place. Now 1990 is upon us, I wonder what the excuse will be this year?

I like the Atari excuse that the dealer base is not in place. That is an excuse that they can use ad infinitum. "Well, we still don't have a sound dealer base in Minot, North Dakota, therefore we cannot start a national ad campaign."

I wonder if they ever looked at it from the other side of the coin: Perhaps dealers are unwilling to sell the Atari *because* there is no national ad campaign. Who the heck wants to support and service computers that noone has ever heard of? Would *you* open up a business without ever telling anyone you were there? Of course not.

If I were a potential dealer, I would not be attracted to a company that places its emphasis on a foreign market. If I was a dealer looking to start selling a new line of computers, I would swing to the Commodore camp. They advertise.

A while back, the owner of the local Atari store wrote an article that appeared in this magazine. Part of his arguement on why a computer company does not advertise is that a multi-million dollar campaign would increase the price of the computer. A valid point.

We all know that there is no such thing as a "business expense," and that all costs to a company are eventually passed on to the consumer.

While this is true, he missed a vital other point: Suppose Atari spent 1 million dollars on a national ad campaign like the Amiga's. That million dollars would be passed on to the consumer.

Reasons To Advertise

But, if the ad campaign resulted in the sales of 33,000 computers (not an unrealistic assumption), the total price to the consumer would be a price increase of $30.30 per machine. If the machine was a 1040, which is going for about $1000 these days, the increase would be 3 percent. Hardly a radical change in price.

If a million units were sold (wouldn't that be nice?), the increase in price would be a whopping $1 per machine! I don't think any serious computer consumer would argue with that kind of inflation.

Besides, any consumer who was unfamiliar with the Atari line of home computers would be amazed at their low price. A price hike of 3 percent would matter little to them. Not only that, but Atari would be selling more computers than it would have done so originally, and with that more peripherals, such as modems and

laser printers. The company would be making more money, and so would the dealers just because more product was being sold!

Does Advertising Work?

Then there are those that say advertising really doesn't work. Only if the item is "hot" will it sell. Let me offer some counter thoughts on that.

A few years back, Sega and Nintendo offered new video game systems to the public. Both machines were virtually equal, with some even saying the Sega system had better graphics. Even though the Sega system was supposed to be the system with the better everything, Nintendo sales still sky-rocketed past Sega into God knows where. Was the item hot, or was it made hot by advertising? I think the latter is true. Now, how many Sega ads have you seen in the past few years? Compare that to the number of Nintendo ads. I think you can see the difference.

Advertising Does Work!

I have read reports that the Atari Portfolio has sold over 100,000 units in less than 2 months. Why? Not because it is an incredible technological breakthrough (Dos 2.2??), but simply because the little bugger has been seen in every PC magazine and Atari is actively *advertising* the Portfolio.

Ads have been seen in TIME, Scientific American, The Wall Street Journal and other national publications. Tom and Jim have told me that people have called them asking about the Portfolio after reading about it on an American Airlines in-flight magazine. Called them *from the airport!* People wanted to buy it *sight unseen.* The power of advertising. Surely, Atari can see that advertising works. So, the question arises, why don't they advertise the ST line of computers?

There might be several reasons. Here are some that myself and others have come up with:

> The executives at Atari simply don't understand the market.

Hard to believe that a company that has been around this long doesn't have a sound marketing plan. Hard to believe that Mr. Commodore turned Mr. Atari cannot see that his former comany is kicking some hiney. When the sales figures come in for the year, let's see who sold more computers in the U.S. It won't be Atari. When they have the end of the year corporate luncheon, no doubt they will blame everyone but themselves.

I can see it now : "Well, it's the dealer base coupled with the Federated sale, plus Sig leaving, in addition to the pirates and the burn we took on the DRAM shortage followed by the volatility of the Japanese market, coupled with the first quarter operating loss. I think that covers it all Mr. Tramiel. By the way, we DID save over a million dollars by not advertising this year again." Sam looks up from his caviar and hot dogs and says "Thank you Mr. Junior Executive, you are a true Atari expert. I couldn't have said it better myself."

> User groups will sell the computer for them, because word of mouth is the best form of advertisement.

Suppose there are 1000 user groups in the USA. (I don't know the exact figures, but this number will do.) I will be nice and say that each group has 50 go-get-'em active members. (I hear some of you laughing at that.) Ok, suppose that each and every member convinces three people to look at an Atari. That is a *total* of 150,000 people -- 150,000! That is 4 percent of the total *weekly* circulation of Newsweek (assuming a circulation of 4 million). Even if every member convinces six people to look at Atari, the numbers would still be less than 10 percent of one magazine's total circulation. If only 10 percent of all Newsweek readers read the Atari ad, that is 400,000 people!

If Atari thinks the user groups are the best method of spreading the word, they are only fooling themselves. People by nature believe what is written, and a well done, written ad, reaching millions of people out-does a user group any day. User groups simply do not have the numbers that magazines have. Word of mouth is great, but we don't have that many mouths!

> We don't have the money to invest in advertising.

Wrong-o. If you can do it for the Portfolio, you can do it for the rest of your products.

> We are really not very smart. We are in this for the quick buck, and really don't care what happens in America. Our money and our hearts are in Europe.

I believe that this one is a bit more accurate. Only when Atari believes what we have been saying for years — that there is a market in America for the ST— will they get serious and stop using us as a hand-me-down market for Europe.

So, Atari wants people to buy, but they are unwilling to advertise the product, due either to misinformation, poor market analysis or just plain stupidity.

Whatever the reason may be, I sure hope they don't come crying to the few user groups that are left. We do our part every single month. I hope they don't cry when the number of Amiga user groups doubles. We will all know why THAT happens. I hope they don't cry if the sales of the TT and ST-E are poor and they didn't advertise. Now is the time for them to do their part. It is time for Atari to join the Atari revolution.

From Freedom's Frontier or Will the Wall Come Tumbling Down?

Views from a European Correspondent

by Jim Cox (P3ACE)

Atari Alive and Well

I've been tracking Atari's effort to market their computers behind the Iron Curtain. There's no way I could have anticipated the recent political developments, though perhaps Atari did — though I doubt seriously they had more in mind than profits. Clearly, however, they were on the leading edge of a market which will only grow in the months and years ahead as Eastern Europe opens to Western economics. Whatever Atari's motives, their move was a precient one!

The Portfolio in Europe

Just a week ago I first saw the Atari Portfolio in the possession of a very proud and pleased owner. He quickly showed another interested observer and me the memory card with 256K, the small, but adequate fold up liquid crystal display and the automatic shutoff feature.

One surprising thing was that the machine was even smaller than I had pictured it. But even more surprising was the owner, a three star general officer. He had the Portfolio at a commander's conference he sponsored. He used it for keeping his calendar, tracking attendees, insuring the conference was on its time line and for taking a few notes.

A couple weeks later, I had occasion to encounter him in the hallway of his headquarters. He asked me by his office on a duty related subject, but the discussion briefly turned to the Portfolio since we were to discuss a future event, a conference of sorts a few weeks into the new year.

To my amazement, his entire calendar was loaded into the Portfolio well into 1990. He demonstrated a search by date, subject and keyword. Everything was broken down by hour in an established format. He also showed us his traveling checklist, the file card type file-and-search feature and the clarity of the display. Fortunately, he speaks German well, because the entire operating system is in "Deutch."

The memory card, the "gold card" memory cartridges the size and shape of a credit card, provide superb storage for programs as well as data. They contain a lithium battery with about a year of life. But the cards are not cheap. My source indicated about DM 1500 (about $835) bought the Portfolio, the memory card and the cables to drive a printer and permit data exchange with a PC compatible. He also found rechargable batteries did not work as well for his applications as did the alkaline type. But he uses his all the time, literally, and he probably was not discharging the batteries prior to recharging, a sure fire technique for keeping the nicad battery life at a more reasonable level.

The keyboard, contrary to what one might think, was easy to type on and actually works for word processing, though it is a little harder for those of us with fat or inaccurate fingers. All in all, quite a machine.

A MiniDrive in 3-1/2 Inch Format

Do you need a half-height low voltage and wattage disk drive for your ST? One you might be able to operate on batteries? One that will give you 3-1/2 inch format double density storage for your 16-bit machine?

Maybe there is a German-made unit that will do the job for you. The cost is less than $200 with cable and 220 volt power supply. But the requirement is for only 5 volts at low watts so operating using available U.S. power supplies or modifying for batteries should not be tough for the hobbiest. The only caution relates to availability and service, but the unit is so compact and simple that it is sure to operate for a good long time.

520 and 1040STs on Sale

The German versions of these two Atari standards are now being sold on sale in the small town where I live -- it has the best computer store I have seen in Germany so far.

They were selling the baseline 520ST German model for DM 399 (about $225), the same with disk drive for DM 499 ($277) and the 1040ST with monitor for DM 998 (about $550).

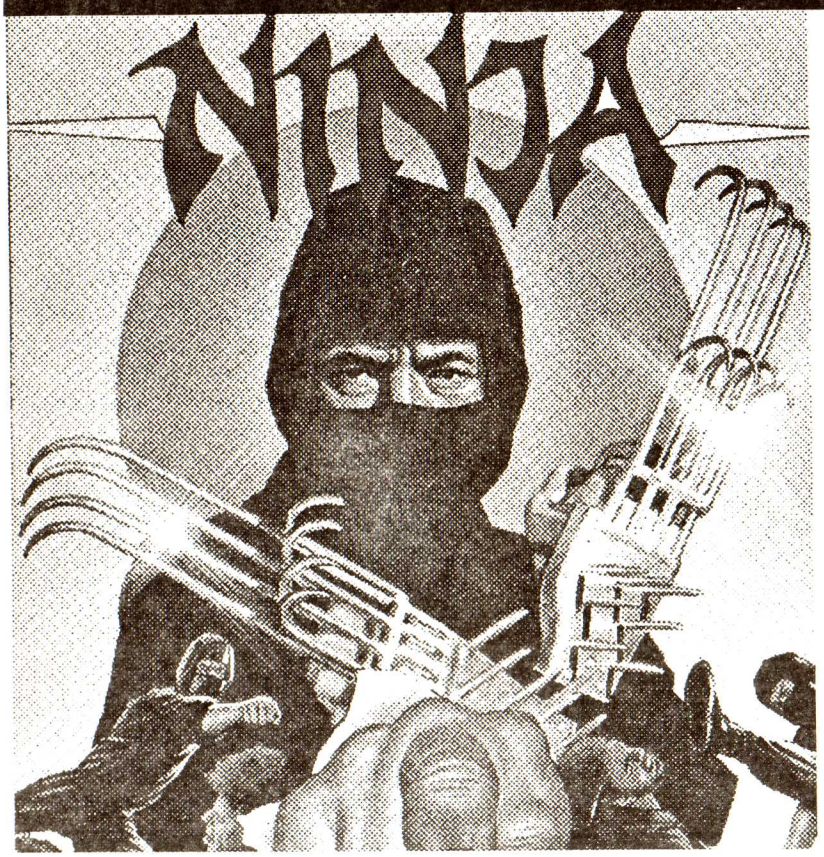
The best price I've seen on a U.S. model was $699 for the 520ST with drive and color monitor and $799 for the 1040ST in the same configuration.

Unfortunately, these U.S. versions sold out fast and the German models use a European keyboard and a system which is not totally compatible with U.S. models and NTSC TV systems. Some U.S. produced software is also incompatible!

Take care and great Atari computing!

ST - NINJA MISSION™

BY MASTERTRONICS



- MIND BLOWING GRAPHICS
- STUNNING PLAYABILITY

AND A SOUNDTRACK TO ROCK TO, IN THE GREATEST MARTIAL ARTS GAME OF THEM ALL - IT BLOWS THE BLACK BELTS OFF ALL THE OTHERS!

- 3 1/2 Disk for ST / MEGA ONLY
- JOYSTICK REQUIRED

Reg. ~~$19.95~~

Special $7.50

(While Supplies last)

OTHER ST SPECIALS

221-B BAKER ST.
221 - CASE LIB #1
221 - CASE LIB #2
COSMIC RELIEF

$10.00 EACH

SUSPENDED
SPELLBREAKER
TIME AND MAGIK
MERCENARY 2ND CITY

(WHILE SUPPLIES LAST)

CALL TOLL FREE
1-800-551-9995
IN CALIF. OR OUTSIDE U.S.
CALL 415-352-3787

AMERICAN TECHNA-VISION
Mail Order: 15338 Inverness St., San Leandro, Ca. 94579
Sales Office: 2098 Pike Ave., San Leandro, Ca. 94577

Terms: NO MINIMUM ORDER. We accept money orders, personal checks or C.O.D.s. VISA, Master/Card okay. Credit cards restricted to orders over $18.50. No personal checks on C.O.D. - Shipping: $4.00 shipping and handling on orders under $150.00. Add $2.75 for C.O.D. orders. In Canada total $6.00 for shipping and handling. Foreign shipping extra. Calif. residents include 7 1/4 % sales tax. All products new and guaranteed. All sales final..

Prices subject to change without notice. Send SASE for free price list. Atari is a reg. trademark of Atari Corp.

Piracy = Arbitrary Discrimination

by H. Jake Olbrich (RACC)

Let me tell you a tale my friends. It's long and true. Awhile back, I was a dealer for a company we shall call "J" farm machinery. This was during a time when a lot of agricultural equipment was built so poorly, that whatever you did to it was an improvement. The new machine on the scene was the corn combine. All the major equipment manufacturers had one form or another. As an improvement to the "J" machine, I, along with a step-brother, mechanic and neighboring welding shop, built the first low-profile corn head. Actually, we built four of them.

Competition was tough, and not ever fair. Financing always was, and still is a problem. However, it should be fair, but isn't. The area "H" dealer just happened to be on the Board of Directors for one bank and had a large interest in the other in my area. Many times I would sell a machine to a customer and we would agree on price and terms. The customer would go to the bank and never return. I would call on the customer; "HEY, what happened?" I would see an equivalent "H" machine. Sometimes the customer was too embarrassed to even talk to me. Seems the bank decided that if they were to finance this purchase, then the business ought to be kept in that banking community -- plenty of credit for an "H" machine, no credit for a "J" machine.

If, as sometimes happened, the farmer decided to use alternative financing for this purchase, and buy from me, then all of his credit at these banks was immediately withdrawn, forcing him out of farming. A neighboring farmer would farm the land, and need new "H" machinery to do it, all financed in this oligopolistic community.

I coined, and others adopted, the phrase: "Never Buy A Binder!" referring to an "H" machine. It had a small negative impact on their sales, anyway. Then "H" made a bad mistake. A third company, "D," had patented their low-profile corn head. Almost an exact copy of my unpatented, never adopted, head I developed for the "J" machine. I had been forced out of business because of unfair financing practices. But the phrase "Never Buy A Binder!" hung on and eventually had considerable impact.

To improve sales "H" made a too-exact copy of this low-profile corn head. Others made marketing agreements with "D," at great expense, to use this technology. I said nothing. "D" sued, collecting millions of dollars from "H," which eventually forced "H" out of business. I said nothing. If "D," 'The Kettle' wanted to call "H," 'The Pot,' black, I could only agree.

Of course I could prove that "D" never had an enforceable right to the patent but still, I said nothing. Also please understand, the "D" dealer never used unfair financing methods against me. Ironically "J" purchased "H."

What does this have to do with Computers? Well, change a few names, substitute Atari and the story is the same. And the story is still happening today. I guess it's evident that I have strong feelings about piracy. I also have strong feelings about arbitrary discrimination. Even stronger. And there is a way to overcome this total withholding of programs from the Atari market. I do not endorse it or practice it.

This is what could happen. It is illegitimate and probably very illegal. And it's also as bad as what has happened to me. If every Atari owner obtained -- not purchased -- copies of the highest selling programs for IBM and Apple and made as many copies as they could, it would not be piracy for profit because they would not be able to use the programs. Then, simply put these pirated copies on the doorstep of every IBM and APPLE user. Do not use the mailbox as the post office also takes a dim view of civil disobedience.

The IBM and APPLE user will certainly not purchase what he already has in hand. What is not purchased, the IBM and APPLE programmer cannot sell. Ergo, the IBM and APPLE markets no longer warrant the time and money to market programs for those computers. I do not endorse or support the above, but do you see now why we ATARIANS have lost all the third party support from software companies? Is it just piracy, or does an oligopolistic community's arbitrary discrimination also cause good programming effort to go to waste?

Obviously, we'd all need Apple and IBM compatible type machines to make these copies, so then where would we be? I would like to see the terrific "World of Atari [Power without the Price]" survive. REMEMBER: DON'T BUY A BINDER!

The Right Brain

by Paul Stampfli (El Paso)

Hey folks, It's me again. As I write this in mid-December it's wonderful weather we're having out here in the beautiful Southwest.

It was about 70 degrees yesterday (Sunday), and the wife and I decided to go for a little horse-back ride and try out the saddles that we just got back from the repair shop. It was wonderful. And had it not been for the gale force winds driving a wall of sand, grit and half the garbage from the coast, it would have been perfect.

Looks like another beautiful brown Christmas in the making. But enough of the personal stuff, what's happening in the world of Atari??? Excellent question, and if you get the answer right, you get to be part of Atari's executive management for a day. Which is about twice as long as most of those guys appear to be holding the jobs anyway...

Thoughts on PC Ditto II

I just got a couple of online magazines and PC Ditto II is finally starting to ship. If it's any consolation, it looks like it's been worth the wait. Most of the MS-DOS diagnostic tests seem to make it a NEC V-30 running in the 9mHz (plus a bit) range.

I'm waiting for mine with baited breath. How well it performs and what it will do is going to dictate what I do with the Atari in the future.

Our last club meeting was a gas! Tim and I, with the help of about half the membership, installed a Tweety Board during the meeting. We didn't kill the machine and it worked! Talk about miracles!

Support from Practical Solutions

It was part of the customer support program offered to clubs from Practical Solutions. I can't commend these people enough for their support of the ST. We all thank you!!!

We also talked about naming our club. This is a Radical Idea. We've been in existence two years now and getting a name might make us pretty formal! Tim likes the "Atari ST Club of El Paso"; I like "The ST Computer Club of El Paso."

The only reason we want to name the club formally is that it's being printed in the paper as the "St. Club of El Paso." Which makes us sound like either a church (right!), or a Street gang (that's even a bigger fantasy than the church!).

Thanks, Gordon!

I have to confess, I've been reading again. I read the Revolution Handbook, Tim Holt's article about the Power of Advertising and Gordon Totty's (MACE) *Excellent* article about being in a large club.

I especially want to thank Gordon for not taking the easy way out and just writing a "shoot-down" article. The piece was well thought out, well structured and presented an angle of view I hadn't appreciated before. I surely hope that Atari gets the message. But somehow I doubt it.

Atari is in the driver's seat here and I don't know how they look at the future of the ST.

On the one hand, its life span, about 4-5 years now, is about the maximum to maintain a front line system in the computer world. Now, before I get a lot of folks going ballistic on me, I don't mean that it won't be *usable*. I just mean that it will become a second class computer, probably behind the TT in the Atari line.

Downward Compatibility

On the other hand, the advance stuff that I've seen says the TT will be downwardly compatible with the ST so that base of software shouldn't be lost. But much like the MS-DOS stuff that is written to perform at 4.77 mHz in 256K of RAM, it's unlikely that anything earth shattering will be written for it.

On the other hand, with strong third-party support, like Practical Solutions, GCR, Ditto II, PC Speed, and others, this system will run very strong well into the 90's if the users stay flexible.

I heard a *rumor* the other day that a very prominent ST third-party developer was busy working up a TT upgrade board for the ST. Much like the 80286 and 80386 upgrade boards for the standard MS-DOS PC's. Therein lies the future of the ST. In the ability to upgrade and grow without undue and overburdening price to the consumer. Notice that Atari's idea of an upgrade is to trash the old system and buy a completely new system from them.

The Revolution

Donald A. Thomas, Jr., did a great job on the Revolution. It was

well thought out, well planned, and if executed correctly will generate serious publicity and sales of Atari computers. Of course some of the ideas, I'm sure, are pretty "tongue-in-cheek," but we could all have some fun with it. But do I fully support it? Yes and no.

The bottom line is that what we have is technology that is fairly old in the computer world. We have a company that is on top of sales in Europe, but gives the American customer the dregs, lies and false hopes. (That's their right, and is probably the best business choice they could make.) The question is "Should we support this company?" I don't know. I love the computer, and I love the third party support, but the company makes me angry 'cause I feel "slighted" and ignored. Do I want to support such a company? No. Do I want the computer to stay viable and strong? Yes.

So, therefore, I will have to indirectly support the company. But my main support is going to go to the developers of "those wonderful toys." When I talk about the ST, it will be as a less costly, and more flexible, alternate to the Mac and the MS-DOS machine. It will be as a platform for GEM, Practical Solutions, Ditto, PC-Speed, GCR, and desktop publishing. The fact that it's an Atari will be absolutely the last thing I talk about.

I would support the company a lot more if they would support me more. As it is, I'll give them exactly what they've given me. That's why I want to keep "Atari" out of the club name.

JOIN THE REVOLUTION!™...
REVOLUTION HANDBOOK™ (ST disk) $6
Also avail. on Compuserve, Genie & Delphi

WORD QUEST™ CROSSWORD PUZZLES from your list of words. Many advanced automatic options. color OR mono....Only $29.95!

Both WORD QUEST™ and WORD QUEST 2™ $49.95

WORD QUEST™ WORD SEARCH PUZZLES Sophisticated placement routines. color OR mono.....Only $29.95! 50 puzzle option disk Only $9.95!

GRAPH MAKER™ Line, Bar & Pie GRAPHS with min. input. Print DEGAS/ NEO files, clip-art, many options. color OR mono.....Only $59.95!

© 1989, ARTISAN SOFTWARE.

ARTISAN SOFTWARE

P.O. BOX 849 MANTECA, CA 95336

Add $ 1.50 shipping and handling for each titled ordered. Checks, cash, money orders welcome. California residents please add 6% sales tax.

Dealer/Distributor HOT LINE ☎ (209) 239-1552

The Reviews Are In!

"... If you own a hard drive ... then RUN, don't walk, to your nearest Atari dealer and ask him to order DIAMOND BACK from Data Innovations, Inc."

Victor T. Albino, ST World

"...The overall winner has got to be Diamond Back...it creates GEM compatible disks at image backup speeds...This is the one I use, and I use it a lot. It's Dependable!"

LeRoy Valley & Ron Robinson, ST Informer

DIAMOND BACK is packed with features, from its custom format/verify routines, to its use of script files, it's in a class by its self. Here are just a few of the features packed into DIAMOND BACK: • EASY to use completely GEM interface and online help • File compression & encryption • Selectable incremental backup, by date or archive bit (using TOS 1.4) • Load/ Save backup configurations • Automatic drive switching • Backup/Restore any number of drive partitions, directory paths, single directories, or even specific files or types of files • Recreate the original tree structure or specify a new directory structure during restore.

Feature for Feature, DIAMOND BACK offers the hard drive owner, more POWER and FLEXIBILITY than any other backup program currently available for the Atari ST/Mega computers.

FULL COUNT BASEBALL & COURT SIDE COLLEGE BASSKETBALL

Full Count Baseball & Court Side College Basketball are games for the true sports lovers in the family. Both are statisticly based simulations, which we believe offer the sports fan the most accurate statistical game play of any sports simulation for Atari computers. Full Count comes with teams from the most recent season plus 52 great old time teams and Court Side includes 286 teams from the most recent season plus 70 all-time great college teams.

Diamond Back, Full Count Baseball and Court Side College Basketball, are Available NOW. Retail price for Diamond Back is $39.95, sports games retail for $39.99 (each). Dealer inquires welcome.

Data Innovations, Inc.

315 North Walnut / Rising Sun, Indiana 47040

(812)438-2604

NET$WARE

by H. Jake Olbrich (RACC)

[Editor's Note: The NET$WARE concept is designed to help user groups, sysops and 8-bit software programmers. Basically, the user groups and sysops participating in this project become distributors for the NET$WARE software. In exchange for this work, the clubs (or sysops) receive a percentage of the money from each product sold.]

I have just received permission from C. Wilson Anderson to market the program Syllable.Net This will be the December NET$WARE program. Price $25.00. 10% to sysops and 10% to user groups participating. Please have all checks made out to NET$WARE. Hopefully this will acheive two things: control of piracy and income to user groups and sysops. Please keep track of all downloads and instruct user group disk librarians to also keep very good records of copies.

In order for me to remit your commissions, have all downloaders and purchasers at club meetings send their name and name of the club or sysop who should get the money. The current program for November is on Camille. This is the spelling program.

Downloads from sysop to sysop are free. Hopefully we can all share in this venture.

If your club, like RACC, depends on monthly disc sales to keep their club finances healthy maybe this can pick up the slack with Antic going to disk only versions.

Are there other programmers out there who have programs, preferably educational, that they are interested in selling. I believe this can help keep Atari alive. At least it can help defray the monstrous expenses sysops had to bear on their own.

See Spelling.Doc and Syllable.Doc for the programs' operations in the NET$WARE library. Sysops are instructed to remove the program itself after 60 days. Documentation and other pertinent messages are, of course, exempt from this requirement.

For more info on NET$WARE, contact Andy Learner, RACC BBS Sysop at (815) 397-5318 or call the Camille 2000 BBS at (815) 973-5327.]

Limited supply

1050s (reconditioned) **$165**

Koala Tablet replacement black membrane pads only $15 each

1010 Program Recorder $30

1050 Mother board $75

XF551 Disk drive owners – We now have the new **XE DSDD DOS** and Manual **$10**

Rana or **Indus GT** Drive Service Manuals **$35ea**

Indus Diagnostic Disk **$15**

XE Game Machine Owners want to know more about your built in **Basic** programming language, try these books: Atari Basic Learning by Using **$5**, 101 Programming Tips and Tricks **$5**, Inside Atari Basic **$6**, Kids on the Atari (a good book for Adults too) **$7**

Can't find the Synfile filing program any more? Try MPP **MicroFiler** progam (C) **$12**

Atari 1020 4 color 40 column **Printer/Plotter**. Don't be fooled by companies advertising units at lower prices! We **100% Test** all of our 1020 units and **Guarantee them 90 days. $20ea** (Great first printer for XE game machine)

For those of you who have bought 1020 Printers thru mail order and found them **bad!** try our **Replacement Mini gears** for the 1020 **$5** pair

Print Shop 1020 printer driver program (D) $14.95

3 ft I/O Cable Reg. $10 Sale $ 5 ea.

Wico 3 Way Joystick $15.95 or Black Max $8.95

Hofacker **ATMAS Editor and Macroassembler** (D) $24 or **Forth on the Atari** (D) $24

BEST Electronics
2021 The Alameda Suite 290
San Jose, CA 95126
(408) 243-6950

IS THERE A TACTITIAN IN YOU?

by Tim Feenstra (GRASS)

Have you ever been watching a war movie and wondered how you would react if you were the commander? Perhaps the movie commander made some real bad choices that you could see by watching the movie.

With the aid of your Atari computer and one of the multitude of military simulations available, you can try your hand commanding forces at any level. Commonly called wargames, these simulations are entertaining, challenging, sometimes frustrating, and history can be learned and understood from them.

Many of them are based on some historical confrontation. History can even be changed if you have the drive, desire and sound tactics required to do better (or worse) than the historical outcome.

Wargames come in a wide variety of styles and types, both two player and solitaire, covering most any level of command, in many types of conflict.

One aspect common to them all is the need for a sound strategy and the ability to get the most out of the forces you command. In a two-player game, you must have another human to play against, while in one-player games you can play against the computer, which does not make many errors for you to take advantage of.

Play against the computer and you get a feel for the historical aspect, as most programmers will include these as part of the computer's intelligence. Of course, if you vary too much from what the computer "expects," it can sometimes be tricked into doing something you want it to, which can bring you a victory.

There are too many different styles and types of war games to give an account here, but generally, they have an "orders" phase followed by an "action" phase where the orders are carried out to the best of your units' abilities.

The exception to the phase type play above are realtime games in which you issue orders while the action is going on. One realtime version allows you to break to an orders phase only when you wish. In the realtime games without an orders phase, you do not have much time to make those important decisions, for the computer does not stop the action. Hesitation in this case can be disastrous.

All military services have a chain of command. This chain starts at the President or Dictator, down to the General's Staff or High Command, followed by the Theatre commanders -- Generals in charge of specific areas or fronts -- followed by Corps Commanders.

A Corps consists of several divisions, each with a commander, who directs the action of the Regiments in his division. The Regiments in a Division have a number of Battalions, each with several Companies. Companies are made up of Platoons, which are made up of Squads. Lastly, Squads contain a gun and its crew or individual vehicles or perhaps a dozen or so infantry.

Each and every unit in this chain has its own commanding officer, which gives you the chance to command at any level you might wish to.

For an example, a Theatre Commander (call him Field-Marshall Putz) wants a certain mortar squad (2 or 3 mortars and their crews) to fire at a certain crossroad near them. In charge of the mortar squad is a Sergeant (call him Sergeant Hardwork). For the order to fire to get from Putz to Hardwork, it goes down the chain of command.

It would read like this: Theatre command (Putz) to Corps command to Division command to Regiment command to Battalion command to Company command to Platoon command to Squad command (Hardwork).

Now that that is over, and you all have had enough of the service life already, think of it as a ladder. A wargame can place you on just about any step you wish, from Field-Marshall Putz to Sergeant Hardwork. The higher up the ladder you get, the more remote the use of individual squads becomes.

In the above example, the squad that actually did the bombardment would probably be chosen by the Company or Platoon leader. A theatre commander could not possibly keep track of every squad under his command, let alone issue orders to each and every one.

The play mechanics of a wargame are such that you control units from the perspective of the scale level. In a strategic level game covering the Russian front in WWII, you command corps (several divisions) or individual divisions. The smaller units that make up the divisions are invisible to you and are handled totally by the computer. This gives the perspective of a General or Field-

Marshall, who gave their orders to division commanders.

This brings us to the different levels, from Strategic to Tactical, and several combinations in between. Strategic commands are generally considered to be those given at the larger scale, such as a General would give to a division or a Field-Marshall would give to his corps. Tactical commands are those that a Captain or Major would give his company or platoon, where he directs them right into contact with the enemy, deploying them as he deems necessary and using the tactics he feels will allow him to emerge victorious.

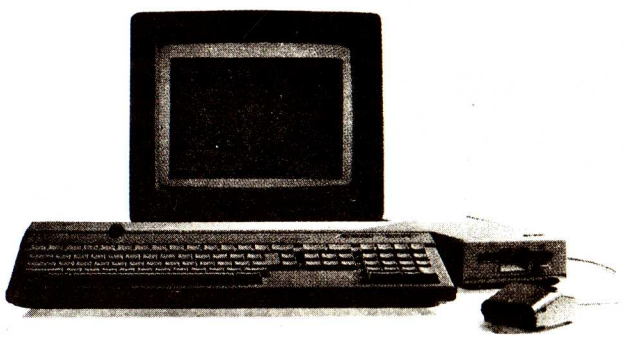
Strategic level simulations can include many factors that are not possible in the smaller scales. Supply is usually the important one, as well as a line of supply back to your rear area. Artillery allocation, reserves, reinforcement commitment and, in some instances, even the type of production of your cities factories are part of a large scale game. These games may cover a time frame of weeks, months or even years, and will usually require a large investment of your time to complete.

Tactical level simulations will get you closer to the feel of battle, and will generally include a morale factor that can really cause you fits if you don't rest units that have been taking a beating. Line of sight, hidden units and the proper deployment of the forces are also of importance here.

We'll cover some specific games later, but first an example of strategic and tactical level commands. In December 1944, the Germans launched the Battle of the Bulge. A strategic level game would include several corps of 3 to 5 divisions (usually 1000 to 1500 men each division) and cover the entire Ardennes Forest area. Your objective would be to get some strong, well supplied divisions as far into the enemy rear as possible before the enemy had time to react, and keep a line of supply open to those divisions for as long as you could.

The siege of the city of Bostogne, part of the Battle of the Bulge, with company or platoon size units would give you a tactical level simulation where you deploy the units around the city and try to capture it (the Germans did not succeed). Tactical games come with time frames of hours, days and occasionally weeks. Many of these can be completed in just a few hours while; others might last 20 to 30 hours.

Wargames come rated as beginner, intermediate or advanced, which rates the complexity of the mechanics and decisions required to play as well as the depth of realism. Short games usually fall into the beginner rating, while the long campaign games are almost all advanced. Intermediate games are a mixture of elements from both and are probably the most enjoyable to the average player. Playing time for intermediate wargames varies greatly -- as short as an hour or two or as long as 20 to 25 hours or more.



Don't Be A Solitary Atari.

The largest and longest standing group of Atari® users in the world shares its problems and solutions online every day in CompuServe's Atari Forums. And you can join them.

Find the latest software, like the new desktop publishing program for the ST. Learn how to run Macintosh® and MS-DOS® programs on your Atari. And pick up helpful game tips from experienced players.

Need technical help? Atari personnel and most third-party software and hardware vendors are online every day. You can even provide recommendations as they develop new programs and products. There's no better way to get more out of your Atari.

To join CompuServe, see your computer dealer. To order direct or for more information, call 800 848-8199. In Ohio and Canada, call 614 457-0802. If you're already a member, type GO ATARI at any ! prompt.

CompuServe®
An H&R Block Company

One last thing before we get into some games, I can hear most of you saying "Well, aren't those darn things really hard to play?" No!! It is like Chess, learning how to move the pieces is easy, but getting good at the game takes practice, lots of practice. I have played about 60 or 70 different war simulations from beginner to advanced, and have not come across more than a half dozen or so that require more than one evening's manual reading and experimenting to pick up the mechanics. Don't say you can't until you try one.

Warship

Naval engagements are my favorite type of battle with a special appeal for World War II carrier warfare, so we will start some game specifics here. "Warship" from Strategic Simulations Inc. (SSI) covers WWII surface combat in the Pacific Ocean. It may be played by 1 or 2 players and includes a good construction set to create your own battles, as well as four ready-to- play historical situations.

You command up to 20 ships in either division or ship mode. In division mode, your ships are divided into task groups (up to 9) and orders are given to them as a group. This gives the feel of being the Admiral in command of a task force out to destroy the enemy fleet. You tell them when to fire and where to move at what speed, but they pick their own targets.

In ship mode, you assume total command of each ship, control the guns and torpedos, and can assign priority targets. This game plays realtime, stopping only when you wish to give orders. The game clock runs in 2 minute pulses covering from 1 to 4 hours of the surface engagement. A single game can usually be completed in one evening. With 15-20 ships in ship mode, it can become lengthy though.

The construction feature allows you to create your own battles using ships from 79 available classes. You can alter almost every aspect of each ship, thus creating virtually any vessel from the WWII era. You can create your own map, with land, islands or shoals and set a weather level which affects the visibility...you must see the enemy to shoot at them.

Weapons available include five types of torpedoes and about 30 different guns from the Yamato's 18.1-inch monsters to 3-inch pea-shooters good only against thinly or unarmored targets. You can put any weapon on any ship you wish, armor it to your liking, and face any force you like. Extremely flexible, it includes ships from the U.S., England, Holland and Japan. The construction set makes the game one of the best naval simulations available.

Battlecruiser

If you prefer to fight in the Atlantic, "Battlecruiser," also from SSI, plays identically to Warship but includes French, Italian, British, and German ships. Battlecruiser also includes a WWI game, with German and British forces in the Atlantic.

It should be noted that you can play either side and mix any nationalities to form any fleet you want in either game. Put German and Japanese ships together if you want...use a German BB (battleship), modify all its weapons and armor to that of the I.J.N. Yamato and let her accompany the Bismarck on its fateful cruise. Like I said, the games are very flexible.

These 2 games are beginner to intermediate level. They make good starters for the new wargamer, as well as a challenge to the armchair Admiral. They use simple menus for commands and are easily learned in a single sitting. Victory in an evenly matched engagement, however, will take some time. To win with an outnumbered force will require the best tactics you can muster.

Carrier Force

"Carrier Force" is probably the ultimate Pacific carrier warfare simulation. An advanced game from SSI, it covers four famous battles fought early in the Pacific war between the U.S. and the Empire of Japan. It is also menu driven, meaning the mechanics are fairly easy, but the realism involved means there is a lot to be done to do it right.

There is a multi-level command here — you are not only in command of the various task forces, but you also command each air mission from both carrier and land bases. The main weapon is, of course, aircraft. These planes have a limited fuel supply. The computer will not care if you fly your planes too far and run out of fuel before getting back to the carrier or land base.

The enemy must be found before you can deal with him, so you also command search missions using seaplanes or other aircraft. Once you know the enemy forces position, quickly turn your carriers into the wind (that's right, even that is included), which can change every hour, and launch as many planes as you can.

Each carrier and base has an operation limit representing the number of aircraft that may be launched or landed every hour. You must also have your planes readied. It takes an hour to ready aircraft, an hour you cannot afford if the enemy spots you first and your planes are not armed for a strike. You also command CAP aircraft to protect the carriers and bases from enemy planes.

There is the possibility of surface combat in this one, but the main purpose is to do unto the Japanese with carrier borne aircraft, then split before he returns the favor. One or two people may play this one, but a single player may only play the American forces with the computer doing the Japanese part.

Orders are given in a series of menus, which starts with task force orders. Divide and join task forces, then change heading followed by the aircraft orders. First, ready aircraft, then launch aircraft, then fly each mission (up to 20). If there are planes to land, they will be landed before the air mission command phase.

After all these orders, a realtime combat phase shows you how you did.

Each turn represents one hour, and can take a half hour or more to complete if you are in the thick of battle. With each scenario being 3 or 4 days long, one of these games could keep you occupied for hours.

Did I tell you that you cannot go back to an order menu once you move on to the next one? If you forgot to do something (like ready your planes), tough. This was the second game I ever bought, and was my favorite until I got one that covers the entire South Pacific during '42-'43.

Coral Sea, Midway, Eastern Solomons and Santa Cruz were important battles for the United States. If you are an aircraft carrier fanatic, you should check this one out.

Broadsides

Another naval simulation that merits listing is "Broadsides," a joystick controlled battle in the golden age of sail. It plays realtime in a somewhat arcade style, but the tactics are anything but arcade. It plays fast, is easy to learn and makes a great fill-in for those nights you just don't want to get into some major venture. With a pretty good "create game" feature, this one has only one flaw -- a boarding phase that can only be described as arcade.

Another sail age game that is easy to learn is "Clear for Action" from Avalon Hill Game Company, which would be described about the same as Broadsides.

You might also want to check out one of the many sub simulations available for the Atari. I have Silent Service and enjoy an occasional clash with some Jap destroyers over the sinking of a tanker.

That is naval simulations in a nutshell. There are others, but not nearly the selection that a real naval buff would like to have. There are some other games that include naval forces, but they cannot be described as purely naval in intent.

So, if you are getting tired of playing Pac-Man for the 23 millionth time, enjoy a good challenging game, and have a desire to go to sea, try one of these naval simulations for some good, solid enjoyment and frustration.

In the next segment we'll move to land and see what's available there. It is a lot more than you might think. Happy hunting and have a good battle.

FA•ST

" ICD sells a superb, excellent, wonderful tape backup unit. I love mine, and it's saved me any number of times.. There's nothing else like this in the ST world; priceless and fast."
-Dave Small, Gadgets by Small

" Using the ICD Tape Backup was surprisingly simple and faster than imaginable. It was so fast that I doubted it was real."
-John Nagy, reviewer for Computer Shopper

" The ICD FA•ST Tape system is a dream come true. The hardware works flawlessly, and the software is incredibly flexible and easy to use...it's simply the best way to back up your hard drive."
-Charles F. Johnson, Codehead Software

ICD has been backing up Atari users since 1984. With hard drives, host adapters, printer interfaces, and the new FA•ST Tape Backup, ICD offers you more! Call us for information on our products. **(815) 968-2228**

ICD

ATARIWRITER 80

- 80 COLUMN EDITING
- EDITABLE PRINTER DRIVER
- 30,000 WORD DICTIONARY
- MAIL MERGE
- ON 5¼ DISKETTE

$49

ATARI XEP 80

- CONNECTS TO ANY COMPOSITE MONITOR
- 80 COL. DISPLAY
- PRINTER INTERFACE

$79

The Bookeeper w/ Keypad

- Financial Reports
- Profit, Loss Statement
- Accounts Payable
- Accounts Receivable
- And Many other Features!

$18.95

1020 COLOR PRINTER PLOTTER

NEW!

$14.95

COMPLETE WITH:
- 2 PEN SETS
- 1 ROLL PAPER
- POWER SUPPLY & CABLE

EXTRA PEN SETS
COLOR $3.98 BLACK $.89

1025 DOT MATRIX PRINTER

RECONDITIONED

$69

800 COMPUTER 48K MEMORY

RECONDITIONED

$49

HARDWARE & ACCESSORIES

JOYSTICK EXT. CABLES 10'	$2.95
MONITOR CABLE (GOLD PLT)	$4.95
EPYX HAND HELD JOYSTICK	$9.95
WICO COMMAND JOYSTICK	$19.95
WICO THE BOSS JOYSTICK	$19.95
ATARI TRACKBALLS	$9.95
ATARI SX212 MODEM	$79.95
SUPRA 2400 MODEM	$149.95
DOS 2.5 W/ MANUAL	$4.95
600XL (NO Transformer)	$19.95
400,800,850,1200XL Transformer	$14.95
XL/XE Transformer	$24.95

DISK DRIVES FOR 800/XL/XE

COMPLETE WITH:
POWER SUPPLY
I/O CABLE
DOS W/ MANUAL

ATARI XF551 $199.00

THE BEST LIGHT GUN FOR YOUR 800/XL/XE

$35

OR THE PACKAGE **$109**
- LIGHT GUN
- CRIME BUSTERS
- CROSSBOW
- BARNYARD BLASTER

THE NEWSROOM Desktop Publisher By SPRINGBOARD

$15

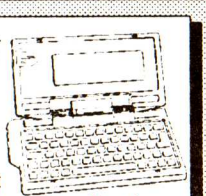
CARTRIDGES FOR THE 800/XL/XE

BASIC CARTRIDGE	$4.95	FACEMAKER	$4.95	TENNIS	$19.95	STAR RAIDERS II	$19.95
BASIC TUTOR (2 BOOKS)	$4.95	MATH ENCOUNTER	$7.95	FINAL LEGACY	$19.95	DAVID'S MIDNIGHT MAGIC	$19.95
QIX	$4.95	DANCE FANTASY	$8.95	MARIO BROS	$19.95	ARCHON	$19.95
TURMOIL	$4.95	LOGIC LEVELS	$8.95	DONKEY KONG JR	$19.95	KARATEKA	$19.95
PAC-MAN (no box)	$4.95	MEMORY MANOR	$8.95	JUNGLE HUNT	$19.95	CHOPLIFTER	$19.95
DONKEY KONG (no box)	$4.95	LINKING LOGIC	$8.95	MOON PATROL	$19.95	GATO	$24.95
E.T. (no box)	$4.95	DELTA DRAWING	$9.95	BATTLEZONE	$19.95	ACE OF ACES	$24.95
MISSILE COMMAND (no box)	$4.95	HEY DIDDLE DIDDLE	$9.95	FOOD FIGHT	$19.95	LODE RUNNER	$24.95
GORF (400,800)	$4.95	FRACTION FEVER	$9.95	HARDBALL	$19.95	BARNYARD BLASTER (LG)	$24.95
CHICKEN	$4.95	ALPHABET ZOO	$9.95	FIGHT NIGHT	$19.95	DARK CHAMBERS	$29.95
SLIME (400,800)	$4.95	FROGGER	$14.95	ONE ON ONE BASKETBALL	$19.95	AIRBALL	$29.95
CLAIM JUMPER	$4.95	DIG DUG	$14.95	DESERT FALCON	$19.95	SUMMER GAMES	$29.95
DELUXE INVADERS	$4.95	MILLIPEDE	$14.95	NECROMANCER	$19.95	CROSSBOW (LG)	$29.95
JOURNEY TO THE PLANETS	$4.95	SKY WRITER	$14.95	RESCUE ON FRACTALUS	$19.95	EAGLES NEST	$29.95
STAR RAIDERS	$4.95	FOOTBALL	$14.95	BALLBLAZER	$19.95	CRIME BUSTERS (LG)	$29.95
DEFENDER	$4.95	ROBOTRON	$19.95	BLUE MAX	$19.95	MICROFILER (database)	$39.95

DISK SOFTWARE FOR THE 800/XL/XE

DAVID'S MIDNIGHT MAGIC	$4.95	NATO COMMANDER	$4.95	HULK	$4.95	SILICON DREAMS	$9.95
SPIDERMAN	$4.95	CROSSCHECK	$4.95	ALIEN AMBUSH	$4.95	F-15 STRIKE EAGLE	$9.95
CRYSTAL RAIDERS	$4.95	MISSION ASTEROID	$4.95	JAWBREAKER	$7.95	THE NEWSROOM(1050-64K)	$15.00
REPTON	$4.95	PREPPIE I	$4.95	SPY VS SPY	$9.95	BOOKKEEPER W/ num keypad	$18.95
BANDITS (48K 400,800)	$4.95	THE COUNT	$4.95	TOP GUNNER COLLECTION (3 GAMES)	$9.95	BOOKKEEPER (Only)	$9.95
CLAIM JUMPER	$4.95	ADVENTURELAND	$4.95	SILICON DREAMS(1050)	$9.95	HOME ACCOUTANT	$29.95
DECISION IN THE DESERT	$4.95	SECRET MISSION	$4.95	JEWELS of DARKNESS(1050)	$9.95		
CRUSADE IN EUROPE	$4.95	VOODOO CASTLE	$4.95	SILENT SERVICE	$9.95		
KENNEDY APPROACH	$4.95	STRANGE ODYSSEY	$4.95	DISPATCH RIDER	$9.95		
CONFLICT IN VIETNAM	$4.95	REPTON	$4.95				

The Atari Portfolio



Built In: Lotus Comp. Spread Sheet, Appointment Calendar w/Alarms, Text Processor, Database w/Dialer, Calculator, IBM Dos Compatble!

The Size of a Video Cassette

Only $399

Also Available

Printer/Xfer Interface	$49.95	RamCard 64K	$99.95
Serial Interface	$79.95	RamCard 128K	$199.95
RAMCard 32K	$79.95		

NEW ARRIVALS

DECISION IN THE DESERT	$4.95
CRUSADE IN EUROPE	$4.95
KENNEDY APPROACH	$4.95
CONFLICT IN VIETNAM	$4.95
NATO COMMANDER	$4.95
F-15 STRIKE EAGLE	$9.95
SILENT SERVICE	$9.95
SPY VS SPY	$9.95

NUMERIC KEYPAD W/ Software

$12.95

EPYX 500XJ HAND HELD JOYSTICK

SALE

ONLY $9.95

Reg. $19.95

FLAT RATE $5.00 SHIPPING

ON ALL GROUND ORDERS IN THE CONTINENTAL U.S. *

SONY DISK SPECIAL

3.5 BULK PACKS WITH LABELS

1 - $.99 25 - $24.75 1000 - $750.00

MEMORY UPGRADES

Z-Ram 3-D	2/4Meg	$149.95
NEW WORLD UPGRADE	2/4Meg	$139.95
ARCO BOARD	1/2/4Meg	$169.95
256K/1Meg CHIPS		$CALL

ST TURBO SPEED!!

J.A.T.O. BOARD 8/16Mhz	$99
CMI PROCESSOR ACCELERATOR	$299
Math Co-processor for CMI 12Mhz	$99

ST HARD DRIVE SAVINGS

ATARI MEGAFILE 30	$529
AWESOME 60+ (60Meg 28ms)	$799
AWESOME 80+ (80Meg 28ms)	$999

PCBoard Designer $49

Reg. $199.95

STAR PRINTERS

STAR NX1000	9 Pin	$199
STAR NX1000 Rainbow	9 Pin	$299
STAR NX2400 4 Fonts	24 Pin	$399

HARDWARE ITEMS

JRI GENLOCK SYSTEM	$650
ST/IME MODULE	
Battery Backed up Clock	$59
Migraph Hand Scanner	$499

FAX US YOUR ORDER!

FOR FASTER SERVICE PLEASE INCLUDE:

- NAME
- BILL TO ADDRESS
- SHIP TO ADDRESS
- PHONE #
- ITEM(S) YOU WISH TO PURCHASE

VISA / MASTERCARD ORDERS ONLY

CARD ADDRESS MUST MATCH BILL TO ADDRESS

(408) 224-8574

EPYX Spectacular!

Winter Games	$19.95	World Games	$19.95
Death Sword	$19.95	Karate	$19.95
Mission Impossible	$19.95	California Games	$19.95
Axe of Rage	$19.95	The Games (Winter)	$19.95
Devon Aire	$19.95	Boulder Dash	$19.95
Battleship	$19.95	Dive Bomber	$19.95
Sub Battle	$19.95	Metrocross	$19.95
Space Station Oblivion	$19.95	Tower Toppler	$19.95
Champion Wrestling	$19.95	Techno-Cop	$19.95
Final Assault	$19.95	Art & Film Director	$19.95

Retail Price $30 to $100

Buy All 20 Epyx Titles And Receive an Additional 50% Off

THE BEST MOUSE

REPLACEMENT MOUSE FOR THE ST!

$49

RAINBIRD TITLES ST

Golden Path*	99¢
Knight Orc	$9.95
Tracker*	$1.95
Advanced Art Studio	$9.95
Guild of Thieves	$9.95
The Pawn	$9.95
Jinxter	$9.95
Sentry	$9.95
StarGlider	$9.95
Universal Military Simulator	$14.95
Carrier Command	$19.95

*Works on TOS 1.0 Only

SPECIAL SOFTWARE SALE ST

HIT DISK (4 games)	Reg $59.95	NOW! $19.95
GOLDRUNNER II	Reg $39.95	NOW! $19.95
INVASION	Reg $29.95	NOW! $19.95
SOCCER	Reg $39.95	NOW! $14.95
ZERO GRAVITY	Reg $29.95	NOW! $14.95
TETRA QUEST	Reg $29.95	NOW! $14.95
PAINT PRO	Reg $49.95	NOW! $19.95
DATA RETRIEVE	Reg $49.95	NOW! $19.95
H & D BASE	Reg $99.95	NOW! $14.95
Atari PLANARIUM	Reg $29.95	NOW! $14.95

EMULATORS FOR YOUR ST

PC DITTO II	$299
PC SPEED	$399
MAGIC SAC PLUS w/Roms	$79.95
SPECTRE 128	$169.95
SPECTRE GCR	$299.95
MAC ROMS 64K	$19.95
MAC ROMS 128K	$129.95

SAN JOSE COMPUTER

THE ATARI STORE

640 BLOSSOM HILL RD. SAN JOSE, CA 95123

STORE (408) 224-8575 • FAX (408) 224-8574

* SHIPPING: ADD $5.00 FOR PREPAID ORDERS, OR $10.00 FOR COD ORDERS. AIR AND INTERNATIONAL SHIPPING EXTRA. NO COD FOR INTERNATIONAL ORDERS, THAT'S IT.

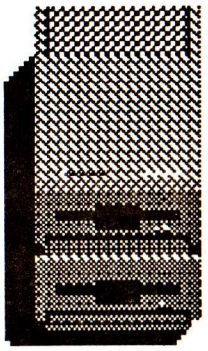
PREPAYMENT: USE VISA, MASTERCARD, MONEY ORDER, CASHIER'S CHECK OR PERSONAL CHECK. PERSONAL CHECK MUST CLEAR PRIOR TO SHIPMENT. C.O.D.: CASH, CASHIER'S CHECK OR M.O. ONLY.

WARRANTY: 90 DAY WARRANTY ON ALL ITEMS. TAX: CALIFORNIA RESIDENTS ADD 7% SALES TAX.

Prices subject to change without notice.

Brand and/or product names are trademarks or registered trademarks of their respective holders.

Ad produced on an ATARI ST using CALAMUS and printed on an ATARI SLM804 PostScript compatible laser printer.



IN YOUR DRIVE 25

by good ol' Chet (ACCD)

Golly pollywogs, does that opening seem dull! The price you pay for all this wonderful typeset and slick printing is that you've gotta make your heading Real Darned Conspicuous.

You noticed in AIM #12 that the "dialogue" opening ("Hey, kids! What time is it?") ended up in the main body of text. This is called clarity and is required when you're communicating to a wider audience than The Usual Gang which knows your idiosyncrasies. And, hey, my customary closing of "Jeep!" disappeared! What will the Popeye fanatics of the world think?

Not that any of the above is that important, but we got a whole paragraph out of it!

So here we are again, and here it is the day of deadline and I'm only now finishing up this IYD. Christmas, and all it represents (end of the year paperwork, dozens of NCOs wanting to go on leave, retirement ceremonies, and emergencies — and, at home, shopping, shopping, shopping! Arrrggghhh!!) has kept me from doing ANY writing the past few weeks. Mike (our ACC.D editor) is probably ready to throttle me, and Pattie 'n' Bill (AIM) will probably be right in line behind him.

Sometimes, I know exactly how an Atari dealer feels.

Mangled Baby Ducks

Now 1989 is behind us, the year that was supposed to be "the year of Atari." Ah well, better luck next time. We heard literally hundreds of MacIntosh commercials on radio (the most underestimated advertising medium) and saw several different Amiga commercials on TV.

Did Atari really advertise its computers at all? I heard rumours of television commercials — when did these air? At 3 AM on ESPN or some UHF station? Did *anyone*, other than the most dedicated of Atarians, see these?

The Game Boy from Nintinduh proved to be the hit of Christmas. Where was the Lynx? The MacIntosh laptop finally arrived, and suckers (there's one born every minute) waited in line to pay five times its worth. Where was the STacy?

Atari is posed to try to take the business market with the TT. I won't hold my breath.

We have always had this love/hate relationship with Atari, from the days when the 8K 800 was released. The machines have always been the best for the price, and the support to users was better than average. But the support to dealers, distributors and developers has never been good, and it has been "curiouser and curiouser" these last few years.

The fact that Atari is still alive, and could still easily make a deep inroad into the American market, shows just how healthy the machines, the users and the users' groups are.

Bob Brodie's appointment as User Group Coordinator, the Portfolio and preliminary publicity for the TT all look good— but looks can be deceiving. Atari could fall again.

Well, as I said back in 1984, Atari the Company could die off tomorrow and I *still* would have the computer power I need and want, plus all the software to do the jobs I want (at the speed I want). I'm prepared...I'm hoarding software. Such as the following:

Study 'til You Drop

A place called Skills Improvement based in Aurora, Colorado puts out a series of products which might seem of limited interest, but bear with me. If you are an enlisted member of the Air Force, or even if you could use help studying for more mundane written tests, you could find no better study aids.

Their "Generic SKT" program permits you to create flashcards on your screen or print them to paper. It doesn't include questions, but the documentation, though scanty in all other places, gives *excellent* tips on how to extract sample questions and facts (called "keynotes" for no discernible reason) from your study materials.

I've now used the Generic SKT program for a couple of tests, and was surprised to find that many of the questions I'd culled from my references actually showed up on the tests!

It thus saved me many hours of study, helping me focus on specific questions and topics. As a person to whom time *is* money — perhaps even *more* valuable than money — this timesaving study program is worth more than the $39.95 + postage.

The Generic SKT program is available for the XL/XE computers (where it runs INCREDIBLY slowly!) or for the ST (which runs faster than a speeding bullet). Each version is priced the same, and each

version uses a joystick port "key" or "dongle" — whatever you wanna call it.

More Monsters

Most arcade games are mindless, twitchy things and I grew tired of the genre long ago. That's why the Nintendo craze just amazes me; so many nice graphics, so little difference in style. Yet there's one game which caught my fancy precisely *because* it determined to be mindless. That's Rampage, where you play a giant monster and generally tear up things.

Rampage is little more than a rip-off of the classic "Crush, Crumble, and Chomp" (itself a direct steal from the boardgame "Creature that Ate Sheboygan," which stole its style from "Ogre"...we're *really* going back a few years now!), but requires less strategy (and brains). Occasionally, you'll turn into a human geek, but generally it's just smash, smash, and more smash.

After a rough day at the office, Rampage is a perfect cool down. Sadly, it's not available for the XL/XE or ST computers — strictly 2600 or 7800 owners. At times, there IS a place for mindless, twitchy things.

[Ed. Note: Actually, Rampage is available for the ST and is marketed by MediaGenic. See the Sept. '88 issue of Michigan Atari Magazine (going back a bit!) for a review of the ST version written by MACE's Bill Boles.

Pretty Pages

We have the newest PageStream (version 1.8) in hand, and if it does half of what its manual claims, it outclasses the MacIntosh desktop publishing kingdom at a fraction of the cost. However, it requires a double-sided drive, so I'll need to transfer the disks over to 5-1/4". (My system is a single-sided 3-1/2 drive and a double-sided 5-1/4 drive.)

We'll tell you more next time, but I can let you know that the manual is now really friendly. Learning something from wargamers and (possibly) Timeworks, Soft-Logik has included a Quick Start section for people who hate documentation. And the entire manual was prepared with their product — it seems obvious, but many publishers don't seem to have that sort of faith in their own product. Soft-Logik does, and you can see from this manual just how powerful a tool PageStream is. Next month, we'll let you know if it's easy or not!

Shut Up, Chester

Can I stop now? I mean, not only is Christmas killing my "spare" time, but I have two strep throat victims to take care of (wife and oldest daughter), snow to shovel out of the driveway and I have to send this to Mike before 1700 hours. Book 'em, Dano!

Jeep!

Go ahead.

SPEED LIMIT 8MHz

Punch it.

For the ATARI 520ST, 1040ST, MEGA and STACY.
Step a generation ahead with **TURBO16** by Fast Technology. The **TURBO16** accelerator can move your ST into high gear. Upgrade your ST and achieve *up to double the speed* in some applications.

Take Your ST Past Its Limits.
TURBO16 will *dramatically* increase your desktop performance. Complex illustrating and page layout is no longer a *drag, click and wait*. **TURBO16** will increase your ST's speed from 8MHz to a *blazing* 16MHz. A state-of-the-art 16MHz processor and 32k high-speed cache memory add the power that lets you *soar*. **TURBO16** is fully compatible with standard ST software, including *Spectre 128* and *pc-ditto*, and **TURBO16** makes games *fly*. **TURBO16** has a far greater effect on productivity than a hard disk, and at **$299 suggested list**, a far lesser effect on your wallet.

Easy To Install, Easy To Use.
TURBO16's installation requires only the removal and replacement of your ST's 8MHz 68000 chip, and connection to the ST's MMU chip 16MHz clock. That's it! The low profile package will not interfere with other upgrades, and **TURBO16**'s special features optimize your ST's operations. **TURBO16**'s speed can be controlled by way of an optional, dealer-supplied hardware switch, auto folder program or desk accessory. Take full advantage of your ST's power with **TURBO16**. See your Atari dealer today, or contact Fast Technology.

TURBO16 is a trademark of Fast Technology. **Atari** is a registered trademark and **ST**, **520ST**, **1040ST**, **MEGA** and **STACY** are trademarks of Atari Corp. **Spectre 128** is a trademark of Gadgets by Small, Inc. **pc-ditto** is a trademark of Avant-Garde Systems.

We won't tell.

FAST TECHNOLOGY P.O. BOX 578, ANDOVER, MA 01810 PHONE: (508) 475-3810

Real Programmers Don't Use Pascal

Submitted by ACCD

Note: This was found on a UNIX system in 1983. Some things may have changed since then, but most hold true even today.

Programming Tools, Part III

What kind of tools does a Real Programmer use? In theory, a Real Programmer could run his programs by keying them into the front panel of the computer. Back in the days when computers had front panels, this was actually done occasionally.

Your typical Real Programmer knew the entire bootstrap loader by memory in hex, and toggled it in whenever it got destroyed by his program. (Back then, memory was memory — it didn't go away when the power went off. Today, memory either forgets things when you don't want it to or remembers things long after they're better forgotten.)

Legend has it that Seymour Cray, inventor of the Cray I supercomputer and most of Control Data's computers, actually toggled the first operating system for the CDC7600 in on the front panel from memory when it was first powered on. Seymour, needless to say, is a Real Programmer.

One of my favorite Real Programmers was a systems programmer for Texas Instruments. One day, he got a long distance call from a user whose system had crashed in the middle of saving some important work. Jim was able to repair the damage over the phone, getting the user to toggle in disk I/O instructions at the front panel, repairing system tables in hex, reading register contents back over the phone.

The moral of this story: while a Real Programmer usually includes a keypunch and line printer in his toolkit, he can get alone with just a front panel and a telephone in emergencies.

In some companies, text editing no longer consists of 10 engineers standing in line to use a 029 keypunch.

The Real Programmer in this situation has to do his work with a "text editor" program. Most systems supply several text editors to select from, and the Real Programmer must be careful to pick one that reflects his personal style.

Many people believe that the best text editors in the world were written at Xerox Palo Alto Research Center for use on their Alto and Dorado computers. Unfortunately, no Real Programmer would ever use a computer whose operating system is called SmallTalk, and would certainly not talk to the computer with a mouse.

Some of the concepts have been incorporated into editors running on more reasonably named operating systems. The problem with these editors is Real Programmers consider "what you see is what you get" to be just as bad a concept in Text Editors as it is in women. No, the Real Programmer wants a "you asked for it, you got it" text editor — complicated, cryptic, powerful, unforgiving, dangerous. TECO, to be precise.

It has been observed that a TECO command sequence more closely resembles transmission line noise than readable text.

One of the more entertaining games to play with TECO is to type your name in as a command line and try to guess what it does. Just about any possible typing error while talking with TECO will probably destroy your program, or even worse — introduce subtle and mysterious bugs in a once working subroutine.

For this reason, Real Programmers are reluctant to actually edit a program that is close to working. They find it much easier to just patch the binary object code directly, using a wonderful program called SUPERZAP (or its equivalent on non-IBM machines).

This works so well that many working programs on IBM systems bear no relation to the original Fortran code. In many cases, the original source code is no longer available. When it comes time to fix a program like this, no manager would even think of sending anything less than a Real Programmer to do the job — no Quiche-eating structured programmer would even know where to start. This is called "job security."

Programming Tools Not Used by Real Programmers:

* FORTRAN preprocessors like MORTRAN and RATFOR. The Cuisinarts of programming — great for making Quiche. See comments above on structured programming.

* Source language debuggers. Real Programmers can read core dumps.

* Compilers with array bounds checking. They stifle creativity, destroy most of the interesting uses for *equivalence*, and make it impossible to modify the operating system code with negative subscripts.

* Source code maintenance systems. A Real Programmer keeps his code locked up in a card file, because it implies that its owner cannot leave his important programs unguarded.

XENOPHOBE FROM MICRO-STYLE

by S. Kendrick (CDACE)

System Requirements: 520ST, color.

Ratings: On a scale of 1 to 10...
Graphics: 8
Sound: 7
User Interface: 6
Documentation: 5
Longevity: 5
Overall Rating: 7

That's it! It's game over, man. Game over! — Pvt. Hudson "Aliens"

Xe'-no-phob (n): 1) One who has a deathly fear of anything alien.

Xenophobe is a translation of the Bally-Midway coin op arcade game. As in most arcade games, the objectives are pretty clear-cut: survive as long as possible....

I need to know only one thing — where they are... — Vasquez

Dramatis Personae

Upon booting, you are brought into the player selection mode, where you choose your on-screen counterpart. There are nine highly-detailed characters to select from: normal looking men and women to the more strange, such as the duck-headed Dr. Kwak.

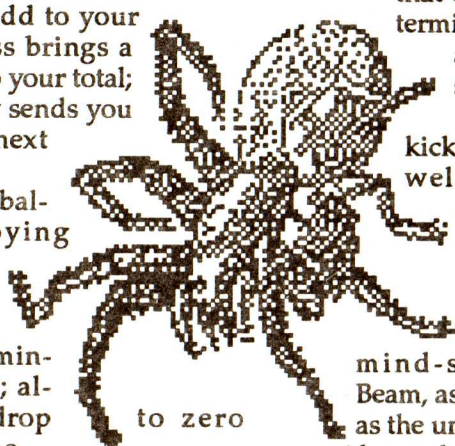
Opposing the human player is a formidable gaggle of extraterrestrial beasts. Sprouting forth from green pods are such things as armadillo-like Rollerbabies and leg-gnawing, parasitic Critters. Poking out of crevices, acid-dripping Tentacles emerge to menace the players. Slime-spitting Snotterpillars bound about recklessly, and lurking behind doorways is the fearsome Festor.

This installation has a substantial dollar value attached to it — Burke

Game Objectives

Your onscreen alter-ego is part of a mercenary team (The Exterminators) hired to disinfect several human space outposts, ships, and the like of an invading alien presence. To earn your pay you must dispatch the unwelcome creepies before the outpost self-destructs.

During your mission you can also pick up belongings left behind: better weapons, items that increase your health, useful gadgets and miscellaneous objects that add to your score. Success brings a hefty bonus to your total; failure simply sends you along to the next encounter.



You must balance destroying aliens and grabbing objects against your ever-diminishing health; allowing it to drop to zero ends your game

Often it is better to self-destruct the base and forego the bonus if you find yourself in an untenable situation or want to skip ahead to the more challenging scenarios.

I like to keep this handy — for close encounters.... — Hicks

Utensils of Mayhem

You start with the ubiquitous, low-powered phasor. Encountered in your travels are more powerful devices, such as the longer range laser pistol, short range but devastating lightning rifle, and the unstoppable smoke gun. Indispensable to the bounty-hunter are hand-lobbed bombs, the only weapon devastating enough to eliminate Rollerbabies when they curl up into a ball.

The Xenos are not without their tricks, however. Each alien has at least one distinct method of attack, causing your Health to drop if it hits you. Critters favor creeping up and latching onto loose appendages, gnawing away Health until they are shaken off or shot.

Rollerbabies transform intoa nearly-invunerable "bowling ball" that crashes into your Exterminator. Tentacles grab at you and must be shot or avoided.

Snotterpillars can kick your player over, as well as spit corrosive green slime. Festor is the most fearsome opponent. It can spring out and traps your player with a mind-scrambling Brain Beam, as well as hurling pods as the unwary.

Also endangering your player are various non-living hazards such as automated sentries, force fields and open shafts and pits. Some of these can be deactivated or avoided, but of course the Xenos won't provide much leisure time to decide....

I got a bad feeling about this drop — Frost

Gameplay

If you have played the coin-op version of Xenophobe, you have noticed many similarities in my description so far. The reason is simple — the home version is almost identical to the arcade game.

The graphics (especially the animation of the monsters and your character) are very close to coin-op quality, and the sounds are just as annoyingly raucous as the real thing. The levels that you must explore are identical in both layout and rendering as far as I have gotten into the game (nearly the end). Two-player support is excellent, providing two separate displays on a split screen for each player's location (again, just like the arcade).

Joystick control is responsive and usable, only marred by the need to use the keyboard to throw bombs. You will need two joysticks to support two-player mode. There is no support for three players, as most home computers don't have three joystick ports (or three of anything, for that matter), but this is a minor quibble.

Shortcomings to Xenophobe

This similarity also happens to be the game's shortcoming. The locations of rooms and items are identical to the arcade incarnation, and never change from play session to play session, lessening the challenge of discovery and exploration after repeated play. The game pace is a bit too fast for my liking, even at beginner level — the monsters just keep coming, in droves, making it hard to use your items or explore very thoroughly, earning this game five "sore thumbs" for extreme firebutton abuse.

Xenophobe was new and different when it was first released, but almost three years later it is showing some signs of age. Had this title been released a year or two ago it would be a classic, but now it is more mundane.

It also seems somewhat lacking of "depth" — proficient joystick jockeys might exhaust the program's possibilities in a short time; less skilled players might find a longer lasting challenge.

Whether you buy this one is based upon your personal preference. It is an arcade style game with an adventure/problem-solving twist, so don't look here for any brain-busting puzzles. If you have poured quarters into the arcade machine don't expect anything new here either.

But, if you like arcade quality graphics and gameplay and don't frequent arcades, or just can't get enough of the game, Xenophobe is as faithful a conversion as one could hope for (minus the quarter slot).

If this sounds like your cup of green slime, I heartily recommend Xenophobe and a pair of industrial-strength joysticks.

SOME LIKE IT... HOT!

The CodeHeads announce:

HOTWIRE + MAXIFILE

- "When the START editorial staff first saw HotWire, our collective reaction was "Wow!""
- By far the **fastest, easiest way to run programs** on the Atari ST...from a floppy disk or from a hard drive!
- Build menus for all your most commonly-used programs. Load new menus with a single keypress or mouse click!
- New **Ledger** function records time spent in programs of your choice.
- **Passwords** may be used to restrict unauthorized access to certain programs.
- New **on-screen clock**, appears in the programs that you choose.
- Unlike other shells, HotWire works correctly with all programs, just like the GEM desktop.
- A **seamless interface** offers direct access to MultiDesk and MaxiFile.
- Full-featured file-handling utility lets you **move/copy/delete/rename/touch/lock/hide** any combination of files and/or folders.
- Runs as a desk accessory or as a program in any resolution.
- Incorporates **every** file/disk feature of the GEM desktop plus much more.
- **Intelligent disk copying** routines.
- **Rename folders** - Print directory listings.
- Store **comments** about any file/folder.
- Unique and intuitive user interface designed for easy, speedy operation.
- **Customizable** for your style of use.
- **Keyboard equivalents** for all operations.
- Quickly select from up to 20 of your most-used paths.
- Even runs programs and loads documents.

Here's what our users are saying about HotWire and MaxiFile:

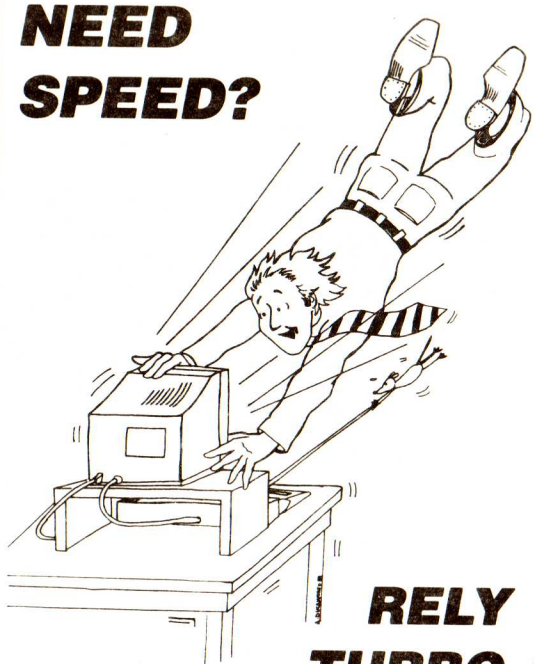
"The HotWire/MaxiFile combo **has changed the way I use my ST.**"
"I haven't used the **standard** GEM desktop in **weeks.**"
"Without HotWire and MaxiFile I'd be totally lost on the ST."
"...a tribute to **assembly excellence.**" - "MaxiFile is **a wonder!**"
"HotWire and MaxiFile **really** beat up on the competition!!"
"...you'll need to package it in asbestos because it is too hot."
"**AWESOME!**" - "Super!" - "a veritable software gem!"

HotWire Plus (includes MaxiFile)	$49.95
MaxiFile	$24.95
HotWire	$39.95
G+Plus - a replacement for Atari GDOS	$34.95
MultiDesk - load unlimited desk accessories	$29.95
CodeHead Utilities - a collection of useful programs	$29.95
MIDIMax - a powerful MIDI tool for performers	$49.95

Phone: (213) 386-5735. Visa, Mastercard, AmEx accepted. Shipping charge: US $2, Canada $3, Europe $5. CA residents add 6.5% sales tax.

CodeHead Software
P.O. Box 74090
Los Angeles, CA 90004

NEED SPEED?



RELY ON TURBO ST!

Turbo ST turns your Atari ST into a speed demon. Check out **Turbo ST** at your local dealer or download our free demo from your favorite bulletin board.

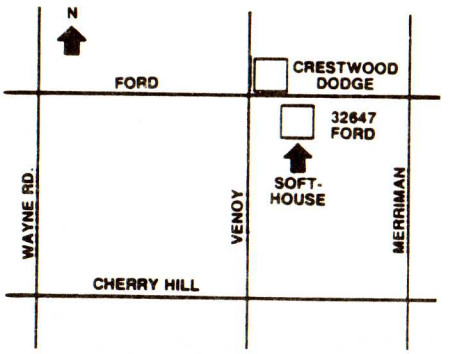
Upgrades to version 1.8 are only $5 with your original disk. For more information, call (407) 657-4611, or write to SofTrek, P.O. Box 5257, Winter Park, FL 32793.

SOFTWARE
HARDWARE
ACCESSORIES
RENTAL CLUB

Soft-House COMPUTER CENTER

"WHERE SERVICE COUNTS"

32647 Ford Rd.
Garden City, MI 48135
(313) 422-6760
1/2 blk. E. of Venoy



Soft House Computer Center has served the Metro Detroit area from this same location for over 4 years. We carry a complete line of software, accessories and books for the Atari ST, Commodore and IBM compatible computers as well as the entire product line of Atari ST hardware.

DISCOVER VISA MasterCard TeleCheck

Memory Upgrades

'Room to Maneuver!'

We can add memory to your ST, ranging from 1 Megabyte up to 4 Megabytes at your request. Call us for pricing information!

TOS v1.4 Upgrades

'Take the jump to Light Speed!'

We'll install and test this new version of the Operating System for only $99.95 plus tax and your old chips. Call us for more details!

Software Rental Club

'Try it before you buy it!'

Save money by sampling our great selection of software before adding it to your permanent collection. Rental amount is deducted from shelf price if the software is purchased on return. One-year and Lifetime memberships available. Some restrictions apply.

We offer liberal trade-up credit toward the purchase of new computer systems. Call us for details!

Michigan's Largest Selection of ST Software!

ST Imports

'How the other half lives.'

We have over 90 titles in stock. The latest and the greatest; the tried and the true; and now Multi-Packs are available. Come take a look, you won't be disappointed!

Repairs

Authorized Repair Service Center

Expert Atari ST and Commodore repair service is available at reasonable rates. All service is done in-house to assure prompt return. All work is guaranteed.

Magazines

U.S.

Atari Interface Magazine, STart, Antic, ST Applications, ST Informer, Computer Play, Compute!'s Gazette

European

ST User, ST Format, ST Action, ST World, Computer & Video Games, The Games Machine

One Stop Christmas Shopping:

Supra Hard Drive Systems
Panasonic Printers
Supra and Avatex Modems
Bulk Disks in a Variety of Colors
Disk Cases and Carriers
Cables and Connectors
Paper and Ribbons
Desks and Hutches

LOST DUTCHMAN MINE

FROM MAGNETIC IMAGES

by Tim Holt (El Paso)

When I was a young 'un, my father and I drove from El Paso to Orange Cove, California to see my Uncle Claude. I don't remember the trip too well, except for the night that we drove back.

It was getting dark, and it seemed we had been driving for 200 hours. My father looked over to me and then pointed to a group of mountains outside of Pheonix, Arizona. "See those mountains over there? Those are the Superstition Mountains. They say the Lost Dutchman Mine is in that mountain. Supposed to be the richest vein of gold in the world there."

"Where is it?" I asked innocently.

"Well, no one knows. Seems the old Dutchman died, and didn't tell anyone about where it was. Lots of folks have looked for it, but noone has ever found it."

I looked off into the distance, and saw the Superstition Mountains. I always wanted to go back and look for the mine, but never did it. That was until Magnetic Images came out with "Lost Dutchman Mine."

Lost Dutchman Mine (LDM) takes the ST user to the mythical town of Goldfield near the Superstition Mountains in 1896. Your only troubles are you don't have a lot of money, you don't have too many possessions and you don't have the foggiest idea of where the mine is. So, you must not only come up with money, you have to explore more than 100 caves and old mine shafts, one of which holds the treasure.

How you get your money and supplies is up to you. You can buy a pan and go pannin' for gold in a nearby stream, or you can try your luck with Dapper Dan, the local card shark. The game is poker, and Dan is pretty easy to beat if you stick with it. Don't go into a game with less than $200 though, or you will lose.

Dan's digitized voice always asks you if you want to play a game. I thought that this was a nice touch. When you win, Dan frowns; when he wins, Dan grins at you. Bust him and you get something that may be even more valuable than money...

The town of Goldfield consists of all the stereotypical old west places: a doctor's office if you get shot or hit by an arrow, the mercantile for buying supplies (you have to visit this place), a stable where you can pick up a mule or two to carry supplies (essential), the local newspaper, an assay office for cashing in any gold you may find, a bank and a jail. Each place has a specific purpose and must be visited during the course of the game.

LDM is played with a combination joystick, mouse and keyboard. The mouse buttons all have different purposes, the right one gives the player an aerial view of the entire playing field and back to the normal screen when clicked again. The left mouse button is used to direct specific actions, like buying a rope or telling Dapper Dan what cards you want replaced. Joystick is used for the action, like gunfights, or moving the old prospector across the playing field.

When you finally get to a cave or old mine shaft, you have to take the correct tools in with you. A pick is nice, as well as a lantern. Watch out for rock slides and earthquakes though, as you can be killed at any time. I found it advantagous to always save the game *before* I went into the mines.

You have to watch out for running out of water, running out of food, dying in the heat and getting shot either by the local band of terrorist Indians or the local band of bad dudes. (Capture the bad dude from the gang and get a reward back at the jail!) You might want to save the game before you get killed in these too.

The graphics are really nice in LDM, and if you have a MIDI keyboard, the sound is excellent in the opening screens. The graphics aren't terribly mind boggling, but attention has been paid in several areas, most notably the mines, and the town of Golfield. I did not like the little fishing sequence, as it was terribly simple compared to the rest of the game.

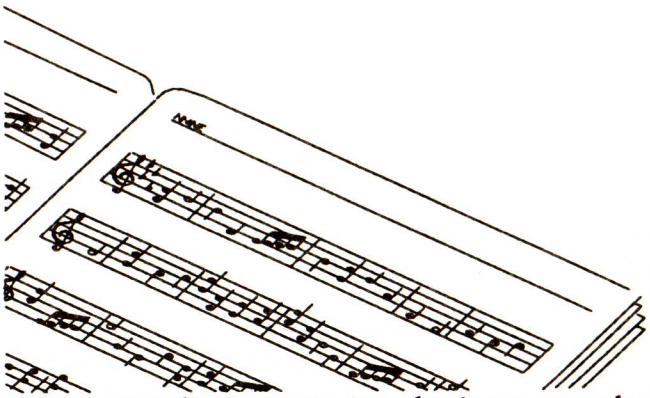
Playing the game was enjoyable, although at times my joystick did not respond as well as I expected. I was killed several times before I learned to save the game.

If you get the game and actually find the mine before October 31,1990, you can stake your claim with Magnetic Images for a $100 gold nugget.

LDM is not copy protected, although you must have the instructions or the game will lock up. A really nice effort from Magnetic Images. I look forward to their next game.

Lost Dutchman Mine $39.95
Magnetic Images P.O. Box 17422
Phoenix, AZ 85011

Mini MIDI Lessons #2



by Morris Miller (El Paso)

What is a Sequencer?

The sequencer really is the very heart of a MIDI system. It is the sequencer in which you can record, edit, arrange performances and play back your music to the synthesizers.

In this context the sequencer includes all the accessory programs which work together to make the total MIDI package. Some program vendors have everything rolled into one program while others provide a number of separate programs which work together.

It is the number of refined features and various added functions that makes one sequencer different from another. You will like the display and the way things are done with one and not in another. I probably prefer mine just the other way around.

This is why you should see a few total packages working before you invest. A public domain program will keep you going until it is time to commit and make the plunge.

When you do commit, make sure it is a package that offers support for the synthesizers you will be using.

Here are the major things MIDI control programs do:

1. Record a song played on the keyboard. Enter real time (as played) or step (one note at a time).

2. Provide a minimum of 8 song tracks. Some have up to 60 or more tracks. Each track holds a separate song or part of a song.

3. Editing notes, duration, attack, release, portamento, etc. Edit notes into tracks.

4. Copy and move song sections into other positions. Loop song sections (repeats).

5. Set synthesizer patch selections into song. Change patch, tempo and other parameters in song performance.

6. Convert a song into a score sheet and print. Print MIDI parameters of song performance.

7. Perform multiple song files in named sequence, like songs of an album.

8. Create and edit new voices for the synthesizers. Dump the synthesizer voice parameters and store on disk. Restore again on demand.

Talk to the people who use synthesizers and try as many of them as possible. Make your selection carefully and plan to acquire as many of the function modules as you can afford. You do not have to have them all at once.

What are the Differences in Keyboards?

Keyboards for MIDI have two main functions — to play music and to control the instruments making the sounds.

Not all keyboards have the same number of playing keys. Nor keys of the same size. My fat fingers will not play a reduced size keyboard. A song may be entered with a keyboard of 3 octaves and then edited (and played) over a full 8 octaves. It just takes more editing. I prefer a 5-octave keyboard, but it is mainly a personal preference and dollar investment.

The MIDI keyboard is more than just keys to play on. With MIDI a number of sound instruments (synthesizers, samplers, drum and rhythm machines, and program sequencers) may be controlled by an operator console.

The keyboard is often that console, especially in a live performance. The console controls may be recorded as they are performed. When re-played by the sequencer, it replaces the original performer, sending all the original, or edited, performance controls.

The main difference between keyboards, then, is in how many of the MIDI control signals it sends to the sequencer in performance. How many of these controls you need depends on how much of a performer you are — and how much of the control you do not mind entering by the editor.

Take the action of pressing a note key, for example. Full touch sensitivity means that MIDI information is sent saying (a) which note was pressed and when it was pressed; (b) how quickly the key was pressed (attack velocity — often used for loudness control); (c) how hard the key is pressed after it is down (after touch pressure — sometimes used for vibrato control); (d) which note is released and when it is released; (e) how quickly the key was released (release velocity — sometimes used for portamento or glissando).

All keyboards having MIDI will send the basic note on/off information of (a) and (d). Some will send (b) and maybe (c) information. Few, except the most expensive, will send it all.

Not all synthesizers (in a keyboard or otherwise) are stereo. Many are mono only. Not all keyboards include the accessory controls of pitch bend (note glide),

foot switches (on/off functions), foot pedals (variable control for soft-loud, etc.), or pan (stereo balance).

As a side effect, if a keyboard does not generate a MIDI function, then very likely the embedded synthesizer will not respond to that control either. Without touch velocity the loudness is not controlled. Try the instrument to see what it will or will not do.

What is a Synthesizer?

A sine wave tone at any frequency is the most pure and undistorted sound we can make; it is much like a bird whistle, when given notes to play. Most instruments have some pure note characteristics. Only some. There is no musical instrument pleasing to the ear which produces sound in the purity of a sine wave. It is the characteristic distortions of an instrument that makes it sound like that instrument and none other.

The trick, then, is to electronically produce sound with the proper distortion and harmonic characteristics in order to sound like some instrument we know and love. Or, once we learn to create the sounds of instruments found naturally, and understand the natural laws which govern those sounds, we can create by those rules of nature new sounds of instruments not yet devised by craftsmen. Ain't that exciting?

The English prefixes "syn" and "sym" mean, simply, "together." The word "synthesis" is from the old Greek, meaning "to put together." One way to create distortion in sounds, otherwise pure, is to put two or more of them together with varying amplitudes and phase relationships — and you have the beginnings of a violin, guitar or piano sound. Add to that control over the amplitude envelopes and it can be quite good.

To give even greater flexibility to the sound synthesis, each tone to be combined (operators) can be given a distortion. The easiest way to do this is to generate the tone in various wave forms (shapes). The most common such wave forms are sine wave (no distortion), square wave (rich in odd numbered harmonics), triangle or peaked wave (weak low-order odd harmonics), sawtooth (rich in both odd and even harmonics), and pulse shapes (harmonic content variable). By mixing the selected operators to various degree, many different sounds can be produced.

To take this process further, allow a low frequency operator (LFO), to determine the amplitude or frequency modulation of another (the carrier) at the desired note frequency. Add feedback so that the modulator can modulate itself to some degree. Now combine mixes of these signals in various combinations and you have the synthesizers available today.

To make a new voice, select the manner in which you want the modulators, carriers and feedback loops to be interconnected (the algorithm). Set the desired range of control for each of the operator parameters, and which of the control functions to vary the operator effects, if any. Set output envelope shape parameters and which of the control functions will vary the envelope effects, if any. Then play....

TEAM COMPUTERS
22205 Kelly
East Detroit, MI 48021
(313) 445-2983 Adventure-Line BBS 445-1313
Open 10AM - 7PM Monday - Saturday
Serving the Atari Community for over 5 years

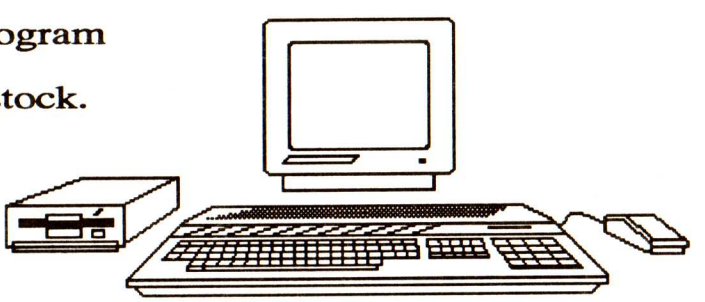
ATARI authorized service center

Software discounted 15 - 30%

Over 1,500 software titles in stock for 8 bit, ST, MS DOS, Apple, Macintosh and Commodore

Hard to get parts for ATARI games machines

Join our software preview program



We have Atari products in stock.
Portfolio
520/1040 ST
Mega 2/4
Megafile 30
XF551
SX212
Color/Monochrome Monitors - 19" Moniterm monitors
The latest software and magazines - including imports
Mail orders accepted We match prices with other Atari dealers!

Turbo-816 Info #7

Dual Memory Usage in Applications

Chuck Steinman (DataQue)

This article will present one way to set up a program to run under the Turbo-OS, yet still be compatible with the Atari XL/XE operating system. It is assumed that the reader has some knowledge of programming at the assembly language level and is familiar with the previous article #6 (see the December '89 issue of AIM). This installment will concentrate on memory use decisions.

Last month the program fragment presented determined the type and amount of available RAM. There were two significant variables which were set by that program to make later RAM accesses easier in applications where both standard and expanded RAM may be used.

The first, was the three byte pointer, BASEBYTE. This pointer is used to indicate where the base of user RAM resides. Since we want to make our application work in both the stock 6502 units and the Turbo-816, we must be very careful of what instructions are used. It is very easy to accidentally slip in a 65816 instruction, which would cause a real problem for the 6502.

The second variable was a flag called EXPANDED. This flag is set to zero to indicate there is no expanded RAM and some negative number if expanded memory does exist. We will modify last month's program just after the label NO_ERROR, to store $FF into EXPANDED. This will allow us to use the bit instruction to test what memory to use in our program. Note that $FF is already loaded into the accumulator, so all we have to add is the one line 'STA EXPANDED'.

First we may want to initialize the RAM with the information expected as the defaults. In our little mini-application, let's say we have several tables which need to be initialized. To fall back to Turbo-Calc as a reference, we will need a 128-byte table for the cell width, and a 384-byte table for the row pointers. Another table will be initialized, to contain the cell data. To simplify later coding, we will keep pointers to the beginning of each of these tables. Well...let's begin.

Source code follows on next page.

```
; new definitions: note: order is important, due to byt/pag offsets

widvec      dsb 3           ; width pointer
bytvec      dsb 3           ; row address pointer
pagvec      dsb 3           ; row bank pointer
bnkvec      dsb 3           ; row bank pointer
celvec      dsb 3           ; temp cell pointer

; mini-memory map:
;
; widvec —>  128 byte table (width of column)
;
; bytvec —>  128 byte table (lsb of data vec)
;
; pagvec —>  128 byte table (msb of data vec)
;
; bnkvec —>  128 byte table (cell data banks)
;
; celvec —>  variable length cell data block
;
; offset tables to simplify initialization
bytoff      dcb             $00,$80,$00,$80,$00
pagoff      dcb             $00,$00,$01,$01,$02

initialize  jsr initialization  ; run last month's code
            ldx #$00

loop1       lda basebyte    ; byte of memory pointer
            clc
            adc bytoff,x
            sta widvec,x
            inx
            lda basebyte    ; page of memory pointer
            adc pagoff,x
            sta widvec,x
            inx
            lda basebyte    ; bank of memory pointer
            adc #$00
            sta widvec,x
            inx
            cpx #$0f
            bcc loop1
            ldy #$7f        ; fill the width table
            lda #$08        ; set out default width to 8 characters
            bit expanded
            bpl nexp1
            nat             ; go into the native CPU mode

exp1        sta [widvec],y  ; use long indirect access
            dey
            bpl exp1
            iny             ; now zero

fill1       lda #$ff
            sta [celvec]    ; set end of row flag
            lda celvec
            sta [bytvec],y  ; byte of row vector
            lda celvec+1
            sta [pagvec],y  ; page of row vector
            lda celvec+2
            sta [bnkvec],y  ; bank of row vector
            inc celvec
            bne noadj4
            inc celvec+1    ; move to next (now empty) row
            bne noadj4
            inc celvec+2

noadj4      iny
            bpl fill1
            emu             ; and back to 6502 emulation mode
            bra cont1

nexp1       sta (widvec),y  ; non t816 executes this
            dey
            bpl nexp1
            iny             ; back to zero

fill2       lda #$ff
            sta (widvec),y
            lda celvec
            sta (bytvec),y  ; byte of row vector
            lda celvec+1
            sta (pagvec),y  ; page of row vector
            inc celvec
            bne noadj5
            inc celvec+1    ; set pointer to next row

noadj5      iny
            bpl fill2       ; note: no need to modify bank vectors

cont1       rts             ; that's all!
```


The ToadFile 44

The first LOW PRICED Removable Cartridge Hard Disk Drive!

We at Toad Computers wonder why good technology always has to mean high prices and long waits. We have the Toadfile 44 **now**, available in varying configurations with fixed drives up to 129 megabytes, while other companies are still telling you to wait. We also have **the lowest price** available. We use the same drive Atari™ will be using in their drive, and compatible cartridges will be available at your Atari™ dealer, or through us. Finally, the capacity of a hard disk with the convenience of a floppy. Only from the leaders! Toad Computers.

ToadFile 44 - ONLY $899!

Basic unit includes drive, one 44 megabyte cartridge, case, power supply, fan, ICD™ host adapter, clock, formatting and partitioning software, and a 3' DMA cable. Please specify an under-the-monitor case or a shoebox style case. Both may hold two 5.25" or 3.5" drives. Extra 44 MB cartridges are $99 when purchased with drive, or $109 later.

ToadFile 44 *Variations*

ToadFile 94 *(44 MB Cartridge + 50 MB Drive 40ms time)*.....$1279
ToadFile 109 *(44 MB Cartridge + 65 MB Drive 40ms time)*.....$1309
ToadFile 129X *(44 MB Cartridge + 85 MB Drive 28 ms time)*.....$1399
ToadFile 88X *(2 44 MB Cartridge Drives & Carts, 25 ms time)*.....$1549
ToadFile 44S *(44 MB Cartridge Drive, Case, Power & SCSI In)*.....$799
ToadFile 44D *(44 MB Cartridge Drive Only, No Power or Case)*....$699

Toad *Hard Disk Drives*

Toad 30 *Drive 40 ms Access Time 3.5" Mechanism*.....$539
Toad 50 *Drive 40 ms Access Time 3.5" Mechanism*.....$599
Toad 85 *Drive 28 ms Access Time 5.25" Mechanism*.....$709
Toad 100 *Drive 40 ms Access Time 2 3.5" Mechanisms*.....$899
Toad 170 *Drive 28 ms Access Time 2 5.25" Mechanisms*.....$1399

(301) 544-6943
TOAD COMPUTERS

556 Baltimore Annapolis Blvd.,Severna Park, MD 21146

These prices reflect a 4% discount for money orders, certified, or personal checks. We accept Visa, MC, and Discover. MD residents add 5% sales tax. Please call if you have further questions!

FREE SHIPPING!!

AtariWriter+ Plus VI

For Those Who Don't Want to Read the Book

by Jimmy Boyce (CACE)

Well folks, I got my AW+ book back and...no notes. So I will start with the following premise: we have completed our discussion on the dictionary and we have written, edited and corrected the spelling of our great literary masterpiece (oh yes, and saved it to disk).

Printing our Masterpiece

This leaves us with printing it for the eyes of the privileged and chosen (but not for the sneaks that boot up AW+ and get into our private file disks and already know what we are about to print) <pg15>.

Once again, this segment is menu driven and is really quite simple. However, there are some fun things we will get into later on, such as printer drivers. I will be devoting an entire segment to this nasty little subject and hopefully will clear up some of the fog in the book.

Don't Forget to Turn On Your Printer!

One of the first steps to successful printing is turning on the printer. Don't laugh, I wish I had a nickle for every time I forgot that little item. I notice in the book that it mentions that some printer-interfaces have to be switched on, so if you have that to do — do it! Smash the [ESC] key (I own stock in Atari) and — voila — there on your CRT (fancy for monitor screen) is the main menu.

Indulge yourself and strike the [P] key for PRINT FILE. Down at the bottom of your screen is the burning question: PRINT TO PRINTER Y/N? Go ahead, be brave and strike [Y].

Using Atari Printers

Now the screen has a whole list of Atari printers listed, from the 825 to the XDM121. If you have any of the Atari printers listed on the screen, push the appropriate letter listed to the left of the equal sign and a program resident printer driver will be loaded for you.

This for Atari printer owners only — if your Atari printer is not listed try the letter [A]. If the printer isn't listed under the letter [A], you must reboot AW+ and try the letter [F], usually one or the other will work for you.

Let's assume one of the two letters worked or that you have a listed Atari printer. The next question at the bottom of the screen will be PRINT WHOLE DOCUMENT, Y/N? Type in the letter [Y].

You are asked how many time you want this thing to be printed; it is your option, up to and including 99 copies of a single document. Usually, I ask for one and take it to a copier and get copies made. This saves a fair amount of wear-and-tear on the printer. At this point your printer will start printing — usually.

And if You Have Another Printer?

I will explain the pitfalls and problems later. Right now, I am going to continue on with a discussion of the letter [H] option on the printer menu.

Yes, that all inclusive letter [H] which stands for OTHER. Almost intimidating isn't it? It simply means that you are some sort of a low life that does not own an Atari printer (like me).

Epson Printers

Gently depress the [H] key and three printers are listed, the first being an Epson — "Oh, happy days," you say! "Mine is an Epson compatible." Try the letter [E] if this is the case, but don't be surprised if you do not get full use of your printer's capability, at least I could not.

What about the next one? I don't know, because I know nothing of the printer, the same applies to the last printer listed. And that leave us with the final choice — that all inclusive other. Go ahead... be chancy and see what happens, I dare you! All that happens is that another request appears at the bottom of the screen. It asks you to enter your printer driver disk filename.

My Printer's Not Listed!

Well, you do not have a printer driver, so what are you going to do? This is what you are going to do — you are going to wait until next month when we go through in detail setting up a custom printer driver for your indiviual printer.

This gives you a month to find that moldy old printer book that came with your printer or a chance to borrow one from someone else, because without it you just simply cannot enter the commands necessary for your printer.

Happy hunting. Bye now.

The 8Bit Atari to IBM PC Interface

by Jim Cox (P3ACE)

With the help of my Happy modified Atari 1050 disk drive, I've resolved the Atari 8-bit to IBM PC interface challenge! My setup allows me to carry word processor files produced on my favorite computer and edit them on those funny, far less user friendly MS-DOS machines industry insists on buying. Hard, you say? Not at all!

The latest Happy modification, which includes version 7.1 software, provides the essentials, assuming you also have access to an MS-DOS machine. If you have an older Happy modified 1050 drive, all you need is the software from Happy Computing and you're in business.

Unfortunately, there are a couple of potential pitfalls. For one, 810 Happy drives won't do the job. Another problem is the Happy software will not allow IBM formatting on your Atari 1050. Finally, you are restricted by the software to single-sided IBM disk formatting, halving your potential storage, though this is only on the transfer disk. You may recopy the files and store them on a double-sided disk or use any other storage medium. But let's get on with it!

Getting Started

The most important step to avoid frustration is to start by formatting several 5-1/4 inch floppies on the MS-DOS machine using IBM DOS 2.0 or later and the "FORMAT/1" command. It is critical that you use the "/1" as it forces the system to format the disk as a single-sided disk with 40 tracks, 9 sectors per track, a step essential to the success of the file transfer operation. Insure you verify the formatted disk has 179,712 bytes available, no more!

Produce a data file on your Atari 8-bit machine using a word processor like AtariWriter. I recommend you use straight text, avoiding the Tab key by using the space bar and Return. Then save the file as ASCII by using "CTRL S" rather than "S" on the AtariWriter menu.

Boot your Happy drive using the flip side of the Happy disk. Choose the menu option "I" which loads the conversion program, producing a numerical menu. Put your AtariWriter data disk in the drive and press "4". Follow the prompts to identify the file by name (you can call the Atari directory with "3") and provide the file name you desire on the IBM disk. A Return gives you the Atari file name as the default. Another Return loads the file into CPU memory and you are prompted to replace the AtariWriter disk with your IBM single-sided data disk.

After the disk swap, all that is required is another Return and the cursor jumps laterally and the file loads as IBM. To check your success in conversion, hit Return again to return to the menu and then "1" for the IBM directory.

Now comes the hard part! You must wait until you return to work (or wherever the MS-DOS machine is located) before you can assure that you were successful. If your file conversion to IBM carried some formatting problems, you might try again using the "translation" option also available from the Happy drive software number menu.

I found that on my particular (and somewhat older) IBM version of WordStar, I had to copy two files to the data disk to permit full hard drive operation and prevent errors which prevented file loading. I copied "WSOVL1.OVR" and "WSMSGS.OVR" much as one copies DOS and DUP to an Atari disk to assure it will boot independently.

Going the Other Way

To reverse the process, again use the single-side formatted IBM disk and save the file produced on the MS-DOS PC in ASCII format. Check the word processor documentation for instructions on an ASCII save. Once again, avoiding control characters and special keys in your word processing will shorten the editing you may have to do following the file transfer. Focus on raw typing with returns only if you can, then add the control characters after the transfer.

The process for reversing the transfer on the Happy drive is identical to that outlined above except for the menu numbers selected.

I bought my Happy board for about $100.00 from B&C ComputerVision. Having the MS-DOS compatibility extends the useful value of my Atari 8-bit machines and seems well worth the cost. Adding the advantage of being able to back-up much of my copy protected 8-bit software adds a significant fringe benefit.

Happy Computers Inc. P.O. Box 1268 Morgan Hill, CA 95037

B&C ComputerVisions 3257 Kifer Road Santa Clara, CA 95051

The Basics of BASIC

by Rick Burton (RACE)

Time to begin a detailed examination of colors as BASICS steps further into a look at "graphic illustrations." Some understanding of the SETCOLOR command will start us on the path to painting on the screen.

Graphics modes have 3 main components: text, background and border. The SETCOLOR command is followed by 3 numbers, separated by commas, the first of which selects the main component to be manipulated.

SETCOLOR 1 selects text or any lines drawn on the screen, SETCOLOR 2 selects background, and SETCOLOR 4 selects border. The second number controls color and the third number controls brightness. Brightness increases from 0 to 14 by even numbers only. The following table lists numbers used for colors:

0 - gray
1 - light orange
2 - orange
3 - red orange
4 - pink
5 - violet
6 - blue violet
7 - blue
8 - blue
9 - light blue
10 - blue green
11 - green blue
12 - green
13 - yellow green
14 - orange green
15 - light orange

Let's go to a mode with resolution finer than GRAPHICS 7 from last month...GRAPHICS 8 (with a 320 x 192 grid!) and type:

```
10 GRAPHICS 8+16
20 COLOR 1:SETCOLOR 1,0,14
30 PLOT 0,0
40 DRAWTO 319,191
50 PLOT 319,0
60 DRAWTO 0,191
70 GOTO 70
```

Run this and you have a high-resolution "X" on a blue background with a black border. What about that COLOR 1 statement in program line 20? Next month we will look at an explanation, but for now simply include it. Now let's use the trusty FOR-NEXT loop to change line brightness. Type these modifications:

```
15 FOR X=1 TO 14
20 COLOR 1:SETCOLOR 1,0,X
65 NEXT X
70 GOTO 15
```

A "graphic illustration" of brightness changing in the lines that have been drawn. Now change program line 20 again:

```
20 COLOR 1:SETCOLOR 1,0,14:SET
COLOR 2,7,X
```

The brightness of the background changes before your very eyes. One more change:

```
20 COLOR 1:SETCOLOR 1,0,14:SET-
COLOR 2,7,6:SETCOLOR 4,3,X
```

Last but not least, a glowing red orange border! Some final notes:

If you have a monochrome monitor, don't despair. The effects of the demo can be fairly well seen.

Color of lines or text is automatically determined by background color as a rule of thumb, but stay tuned to future BASICS for exceptions to the rule.

So generally, the second number in a SETCOLOR 1 command won't determine color of text and lines, the background color will.

Notice the STEP 2 portion of line 15 and remember that brightness increases by even numbers. (5 is the same as 4 etc.) Join me again next month for yet another "graphic illustration" of the characteristics of color...

You Think Atari Owners Have Problems?

by Rich Deen (SPACE)

The following quotes are taken from InCider magazine, a publication for Apple computer owners. These quotes are taken from the column called Status Report, written by Paul Statt. His article "High-Rent District" appeared in the December '89 issue of InCider.

Discussing the burning question of "Why do Apple computers cost so much?" Mr. Statt makes the following statements:

"Apple could truly build a computer for the rest of us, and could make lots of money selling lots of computer, but that kind of logic is too simple for today's business." Sounds like Atari's ST laptop. If it was out and coupled with a Spectre GCR, they could sell a MAC laptop at a third of what Apple intends to charge. Geez where is it?

"Apple sells computers at the highest price the market will bear. Wall Street loves it. You pay for it." (Apple users com- plaining?)

"Apple started with a vision — personal computing — that looks more like a hallucination today."

Just a few thoughts to ponder on.

AIM Disk of the Month

Welcome to the first Atari Interface Magazine ST/Mega Disk of the Month.

All files on this disk are self-extracting LZH archives. The AIM Disk of the Month is always a double-sided disk packed with some of the best public domain and Shareware software that has come available in the previous month.

Here's a short description of the files found on this disk:

ARC521C.TOS—This file contains TWO TTP files, both of which are the new versions of the ARC utilities. The first is ARC521C.TTP, the complete archive program. The second is ARCX521C.TTP, which only handles unarcing of files.

BLASTER.TOS—PD version of the classic "Defender" from the UK. This game requires a color monitor.

BLITZ.TOS—Contains text and a drawing detailing how to build your own "Blitz" disk copier. Backup your copy-protected software and normal disks FAST. Also in this archive is a program and desk accessory allowing you to use the hardware.

BLITZ2.TOS—More software for the Blitz disk copier (see BLITZ.TOS). This file contains Turbo Blitz, a program that gives you a bit more power and flexibility.

BLTZINTR.TOS—Introductory program and text file to the world of the Blitz disk copier. This file is helpful to anyone new to using Blitz. Created by Plexus Systems Ltd.

BREAKER1.TOS—Another great game from Germany, this file contains a monochrome only Breakout game similar to Arkanoid. This file has been called "public domain at its best!" Excellent graphics and game play.

CARDFILE.TOS—A slick and easy-to-use address and phone book database. Allows you to address envelopes, print phone lists, autodial phone numbers and pass info directly to your word processor. Powerful "filtering" capability. Contains both a .PRG and .ACC version. Shareware.

CPOKER.TOS—Casino Poker for monochrome or color STs. Shareware program that simulates the popular casino poker machines found in many gambling houses.

CSBPORTS.TOS—Portraits of characters for FTL's Chaos Strikes Back. The following characters are included: Bloom County characters Oliver Jones, Opus (in 2 renditions), Rosebud, Cutter John, Calvin and Hobbes, Spaceman Spiff, Susie Derkins, Milo, Steve Dallas and Bill de Cat and four characters from The Lord of the Rings: Gandalf, Aragorn, Arwen Evenstar and Elron.

DESFX.TOS—A small program and C source code that removes the self extraction program from self-extracting LZH archives, basically turning them into normal LZH files that can be unLZHed using LHARC.

DIARY16.TOS—Shareware desk accessory from Craig Harvey, president of the Washtenaw Atari Users Group. Diary is a text editor desk accessory featuring search and replace, block operations and more.

GRAPHITI.TOS—A PD desk accessory from Chet Walters that allows you to spray paint your ST desktop. Great fun if you've just spent a few frustrating hours at your computer.

JAMES.TOS—A PD desk accessory, James the ST Butler is a color palette and a whole lot more—including virus checker, screen snapshot utility and more.

KEYBOARD.TOS—A Shareware typing tutor program. Runs on a color or mono system. This program can help you learn to touch type on your ST. Various lessons hone your typing skills and show you statistics such as Words per Minute and # of errors.

LHARC051.TOS—This program creates and unarcs .LZH files (LZHs?) and can save piles of disk space and download time. Although not as quick as ARC.TTP, LHARC blows away all competition when it comes to maximum file compression.

MACPAN.TOS—Monochrome-only version of PacMan from Germany. If you're a PacMan fanatic, you'll love this game.

MCHESS.TOS—Very excellent chess game. Features save/load/print games, One or two player, with ST vs. ST option. Uses GEM and mouse, 2D graphics. For medium resolution color monitor only.

MOUNTAIN.TOS—Probably the best fractal mountain generator yet to come to the ST. Generates color fractal mountains and valleys, with options for sun positioning, horizon angle, moon/planet lighting and night/day. Fast Rendition feature for the impatient! Save your creations in D.E.G.A.S. format.

OPUSNR1.TOS—Vector graphics "flight simulation arcade shoot-em-up" from Germany. Features smooth scrolling vector graphics. Works on Monochrome monitor only.

SDRIVER2.TOS—SIO-Driver, a unique little program that allows you to use 8-bit Atari disk drives directly from the ST desktop. Version 2.0 supports single and enhanced density drives. Requires a cable as used by Darek Mihocka's 8-bit emulator.

SFX_LZH.TOS—Create self-extracting LZH files from LZH archives created by LHARC. This little baby is *great* for user group disks. Turns LZH archives into programs that, when double clicked, will automatically unarc themselves on the disk. This program was used to create all the self-extracting files on the AIM disk.

STMIRROR.TOS—ST MIRROR II makes a data file out of the Boot, FAT and Directory sectors of your hard drive that can be used to restore the drive in case of a crash. It will also protect your drive from a virus or allow you to recover a lost or deleted file. Shareware from Catspaw Software.

Readers can purchase this disk by sending $6/disk to Unicorn Publications, 3487 Braeburn Circle, Ann Arbor, MI 48108, by subscribing to the AIM Disk of the Month, or by contacting one of the AIM participating clubs.

For 520ST, 1040ST, 520STfm and MEGA

MEMORY:

Expand your St's memory to ONE Megabyte, TWO and ONE-HALF Megabytes or even FOUR Megabytes with tech-specialities plug-in memory modules. All memory boards fit under the R/F shield. The CPU is completely available for any future enhancements (blitter, coprocessors, PC-emulators, speedup kits etc.). No soldering is required.

520ST modules use 256K DRAMs for upgrades to 1 MB and 1 Megabit DIPs for 2-1/2 and 4 MB upgrades. All boards are fully socketed and the expandable boards can be configured for either 256K or 1 Mb chips. This means that you can start by upgrading your 520 to one Megabyte and later move up to either 2.5 or even 4 Megabytes--the maximum for any ST, even the Mega! Installation is completely solder-free. Comes with detailed illustrated instructions and a one (1) year limited warranty.

expandable boards:

520A	Socketed, no RAM	$129.
520B	1 MB, socketed	$179.
520C	2.5 MB, socketed	$297.
520D	4MB	$495.

Blitter Upgrade:

520STfm/1040, new motherboard, Installed	$ 99.
Combined with TOS 1.4, Installed	$199.

Upgrade your 1040ST or 520STfm just as easily!

Send us your 520STfm and we will upgrade it to ONE Megabyte by installing a second bank of memory, easily removable in case you want to upgrade again. Complete with installation for only $149 plus shipping.

Or install one of our 1040 (fits 520STfm too) memory boards and upgrade your ST to 2-1/2 or even 4 Megabytes. There are nowadays four (4) different versions of the 1040/520 motherboards around. If you bought your ST less than 2 years ago, you need to check your machine, detailed info in our catalog.

Version "0" fits all 'old style" 1040/520 with 6 ROM chips under the power supply. Limited space above the 1040 mother board prohibits the use of conventional sockets in one bank. Optional "ZERO Height" sockets allow you to have this bank socketed too, so you can plug in or exchange 1 Mbit chips. The "ZERO-Height" socket kit is also available separately so you can install it at any time!

1040A	1 Bank sockets, no RAM	$110.
1040B	Fully socketed, no RAM	$149.
1040C	2.5 MB + 1 bank sockets	$317.
1040D	4 MB, 32 1 Mb DRAM installed	$495.

Version "1" fits all 1040/520 with the memory chips under the power supply. Available room prohibited the use of "DIP" packaged chips. The main board is only 6.4" x 2.9" and needs "ZIP" packaged 1 Mb x 1 DRAM. It fits in the area under the power supply with the shield installed and stays 0.5" away from the CPU to allow attachment of other upgrades. More details in our catalog!

1040B1A	1 bank socketed, no RAM	$149.
1040B1	Completely socketed, no RAM	$189.
1040C1	2.5MB, no sockets	$297.
1040C1A	2MB installed, 2nd bank socketed	$317.
1040D1	4 MB installed	$495.

Upgrades for Version "2" & "3" of the 1040/520 motherboard also available! See prices for Version "1".

All upgrades can be equipped with a Clock Option on the Memory Board, comes with software, only $30.
Stand-alone CLOCK, please specify 520/1040 and your version of the motherboard $38.

EXPANDABLE Hard Drive Kits

come complete with software and all parts needed to get the system operational, 1 year ltd. warranty. There are right now three different case styles available:

1. Tower Type, 10" wide x 6.8" high x 15" deep, if sitting on your desk with monitor on top , with full SCSI interface and 'DMA-through'

-150 W PC power supply w/fan

-room for up to 5 half height hard drives or combination full/half height

-mounts on floor, under desk or on desktop

-can power up 520ST and external floppy drives.

-optional delay circuit for CPU allows fully automatic power-up!

T0S	No Drive, install your own emb. SCSI drive	$265.
T0	No Drive, MFM controller	$299.
T0R	No Drive, RLL controller	$475.

Complete with drive mechanism:

10 MB	$485.	20 MB	$565.	30 MB	$695.
40 MB	$745	64 MB	$795	85 MB	$895.

2. Monitor Style, 13.25" wide (same as MEGA) x 15" deep x 3.8" high with single port host adapter

-ready for up to three 1/2 ht or 1 each full/half ht. hard/tape/floppy drives

-55 W power supply with 115V fan

-can be placed under monitor or at side of your desk

M0S	No Drive, install your own emb. SCSI drive	$179.
M0	No Drive, MFM controller	$295.
M0R	No Drive, RLL controller	$365.

Complete with drive mechanism:

10 MB	$395.	20 MB	$395.	30 MB	$545.
40 MB	$685.	49 MB	*$625.	64 MB	$795.
85 MB	*$795.				

3. Desktop Style, 4.5" wide x 6" high x 13" deep with single port host adapter

-ready for 2 1/2 height or 1 full height drive

-55 W power supply

-optional fan available (add $18)

D0S	No Drive, install your own emb. SCSI drive	$149.
D0	No Drive, MFM controller	$279.
D0R	No Drive, RLL controller	$349.

10 MB	$355.	20 MB	$369.	30 MB	$525.
40 MB	$695	49 MB	*$595.	64 MB	$725.
85 MB	*$745.				

ATARI MEGAFILE:

Replace the 20 MB drive in your MEGAFILE 20 with a 42 MB 40 ms autoparking drive. Comes with a 1 year warranty on the drive mechanism. Exchange price including installation with your drive in good condition: $260., $369. outright.

Gain 65 MB of high speed (22ms av., 5 ms track to track) storage. Exchange with installation: $360., outright $449.

SUPRA 20/30 and ASTRA 20 MB:

Upgrade to 49 MB high speed storage with auto parking, 500 K/s transfer rate. With installation and transfer of your existing files: $379.

Host adapter cards are separately available and come with software and DMA cable or additionally with case and 6' round shielded SCSI cable with embedded power supply lines. Prices after the "/" are for version with case and cable. 1 port $79/119 full SCSI $119/159

CPU CASES:

Upgrade 520/1040 to the MEGA standard.

* Separate CPU and keyboard, gain space for three each 3.5"/5.25" floppy, hard or tape drives in two separate drive bays. Full height drives will also fit.

* A 150 W power supply with fan provides power for all possible combinations and keeps everything cool

* Reset button on keyboard

* A delay circuit allows fully automatic HD power-up.

* Monitor can be switched on/off with CPU, using an optional cable.

* Our kit uses a steel case 18" wide x 12" deep x 8" high, easily strong enough to support a high resolution monitor.

* The original keyboard gets a low profile enclosure, 18.7" wide x 7" deep x 2" high, consisting of a metal bottom part and the modified plastic top of the original case, supplied as exchange or you do the modification your self. The kit comes preassembled and installs without soldering. All mounting kits, wire harnesses and connectors to modify a standard machine are included.

Complete kit, please specify your machine type $295

OPTIONS:

Hard Drive kits for the CPU case consist of host adapter/controller with support bracket if necessary, DC harness and control cabling and might also be used with customer supplied case/power supplies. Kits with controller cards come with connections to two 5.25" drives. Kits for embedded SCSI drives come with one SCSI connector. Additional connectors $8. installed.

C0S	No Drive, install your own emb. SCSI drive	$99.
C0	No Drive, MFM controller	
C0R	No Drive, RLL controller	$299.

20 MB	$295.	30 MB	$465.	40 MB	$595.
49 MB	*$525.	64 MB	$725.	85 MB	*$685.

Cable sets to connect additional 3.5"/5.25" floppies also available, please see catalog.

KEYBOARD KITS:

We noticed quite a lot of interest for our keyboard parts used in the CPU CASE. Keyboard kits consisting of metal bottom case, connecting cable with reset and modified plastic tops on an exchange basis are available separately for $69., please specify your machine type.

Space limitations don't allow a more detailed descriptions. For complete 24 page catalog contact:

tech-specialities Co.

909 Crosstimbers

Houston, TX 77022

(713)691-4527/8

FAX: (713)691-7009

We ship COD ($3) or prepaid (5% discount), sorry no credit cards! Add the following amounts for shipping and handling:

memory upgrades and host adapters, 1st unit $5, add. units	$2
Hard Drive kits/CPU cases without drive	$10/$20
with drive - special shock resistant packaging needed	$20/30

Texas residents and willcall customers add 8% state sales tax.

Above prices are correct on 12-18-89. Prices with a "*" are PREPAY SPECIELS, no further discount available.

520ST, 1040ST, 520STfm, MEGA and MEGAFILE are trademarks of ATARI Corp.

Forward Into the Past! The Grizzly Times and Lives of the Atari Computer Club of Denver's December Meeting

Gee, aren't you sorry if you're a member of the ACC.D and didn't attend the December meeting? Or—worse!—you hadn't paid your dues! Because the door prize at the December meeting, a complete XEGS (Yes, including the lusted-after Flight Simulator 2 cartridge!), went to Steve Question Mark's daughter. Said daughter immediately turned to aforementioned father and said "Now I need a color TV." Lots of luck with those after-Christmas payments for the TV, Steve!

Demonstrations? You bet we had demonstrations. (Uh—what were those demonstrations?) Oh yeah, DISKIO (marked down from $35 to $10) showed its stuff, and the Generic SKT Study Guide went up on the large projection screen TV—only to crash because stupid ol' Chet forgot to bring the protection dongle. (What do you call those little plug-into-joystick-port plugs which serve as copy protection?) Enough was shown to demonstrate how the program could be used to create self-tests...but this isn't a review column (See "In Your Drive"). This is a club minutes. Or minute. Whatever.

Press releases were passed around for approval, corrections, and mockery. Local Denver papers (As opposed to non-local Denver papers?) should be receiving copies of these various releases, which indicate the existence of the club, our purposes, and our renewed dedication to implanted subliminal Atariconscious messages in the civilian community.

Further publicity suggestions were entertained, such as further donations of Ataris. Lowry Air Force Base's training units are a prime target (because of the amount of gossip the airmen can generate amongst themselves), as was Children's Hospital. (The silly hospital advertised for Apple computers and Nintendo videogame machines. We're trying to show them how to have both purposes in one machine.) Rick from Horizon Computers is giving ol' Chet a hand on that latter one.

Everyone complained that the newsletter hadn't arrived. Since the newsletter has *never* arrived by the time of the meeting, Editor Mike turned around and made faces at everyone else. Treasurer Guy said that for the slickness of AIM and the monetary savings, he'd be willing to wait an extra two weeks for delivery. (Treasurers always get the last word.) Ed Fason said nothing, since he didn't come to the meeting.

New (?) projects include a History of the Club, to be compiled from interviews with past presidents. This will occur just as soon as someone invents the 34 hour day or 10 day week for me.

And my throat is too sore to talk anymore. (I'm leaving before somebody thinks about that one!)

STIGs and STones —the November STIG meeting and STuff like that there by good ol' Chet (It's darned well time to get another scribe!)

Ol' Chet was late again (and will be, until Cherie's semester ends), so he missed out on the first dozen ST games which Joe Ronda demonstrated. Fortunately (?), Joe still had hundreds more to show. They included {insert names of every single game ever written for the ST} and {insert some more}. Joe, who is obviously made out of money, was then mugged and stripped of every disk he ever owned.

Ed Fason (Hallowed be his name), our dauntless First Speaker, kept trying to interrupt with foolish things like STIG business. He promises more MIDI demonstrations in the future, possibly to try to forestall the incredibly-wealthy Joe Ronda.

The Monitor Master was shown. There isn't really much more you can do with it than show how simply it works... it is SO-O simple that any idiot can use it. Ol' Chet proved this by using it himself! As a matter of fact, he plans to perform a Big Expensive Demonstration by showing it in conjunction between color and monochrome usage while using PageStream — which often requires color *and* monochrome work on the same document. Look for this, along with the 5-1/4 40/80 track disk drive at this, or next (or who knows?) meeting.

And, as a personal thank you, I'd really like to thank Pattie and Bill Rayl for their design and inclusion of a logo for the Atari Computer Clubs of Denver, which the ST Interest Group (STIG) is one of. No, we haven't gotten rid of our old tree logo, but we couldn't send it to the Rayls of AIM. Y'see, Ed supplied a DeGas copy of our famous ACC tree on disk — but put it on a *double-sided* 3-1/2 disk, which Chet's ancient single sided 3 1/2 drive couldn't read. This time for sure! ("Hey Rocky! Watch me pull a rabbit out of my hat!")

And Editor Mike is ready to kill me dead if I don't finish this Right Now and send it to him. G'bye! I'm outta here! Jeep!

Starfleet Meeting Minutes December 8, 1989

Officers present: Bender, Oughton, Robique

The meeting convened at 7:05, eight members were present.

The election of officers resulted in the present officers keeping their current positions for the next year.

C.J., who is turning a little weird on us, demonstrated the Numerologist program from the December/January Antic. This Disk bonus program uses a name and birthdate to determine a person's personality.

Several members then played Naval Battle from the same issue of Antic. This game is a very good version of Battleship. You have 1 each of an aircraft carrier, a battleship, a destroyer, a submarine, and a PT boat. The game can be played either one or two person, and a demo mode is included to watch the computer play itself. All play is done with one or two joysticks.

The following demo was Voice Master Jr. It was used to digitize sounds from the room, record words and recognize words. Just to give an idea of how smart this device is, it wouldn't work for our president C.J. Included in the package is a Black Jack game where all input is done by saying words. This worked most of the time, but missed sometimes. We would say "zero" and get an eight. A clock is included, where when the spacebar is hit, the time is said in your voice. A music composer is also included, where when a note is sung into the microphone, the note is displayed on the screen, it will then play back the notes inputted. At $39.95 this can be really useful for input and output to the Atari computer.

I demonstrated a public domain Wheel of Fortune. This game, now included in our library, has 900 puzzles on the front of the disk, and another 900 on the back. Documentation is included as a file on the back.

Draper Pascal is now shareware, and included in our library. A short demo of the built-in editor and compiler was given. Norm Draper is asking $15 if you use his Pascal. For this you will get support, the most current version (if you didn't get the most current as shareware), and complete documentation. This is a very good deal for a program that sold for over $40 just a little while ago.

The meeting broke up at about 9:15.

Thomas Oughton

For Sale

SM124 Monochrome Monitor $90.

Atari SF314 D/S Disk Drive $150.

Practical Solutions Monitor Master $30.

Atari SH204 20 Meg Hard Drive $250.

Prices will be lower if one or more components are purchased with the computer. Components will only be sold with or after computer. Call Jim at 313-791-2015 weekends or from 6-10 p.m. Mo-Fr.

Atari Computer Club of Toledo is an independent user group founded in 1980. A.C.C.T. is the only Atari user group in the NW Ohio/SE Michigan area that provides help and support for and from both 8-bit and 16-bit computer users.

Club members receive, as part of their dues, Atari Interface Magazine and access to the 8-bit and ST public domain software libraries. Disks are $2/8-bit and $3/ST, non-members may purchase disks at a slightly higher cost.

A.C.C.T. meets on the second Monday of the month from 7-9 pm at Bassett's Health Foods, 3301 West Central Avenue (Westgate Shopping Center), Toledo, Ohio. 8-BIT SIG (yes, I said 8-bit) held monthly at the home of Jim Herzberg. Dates and times announced at meeting. ST SIG held monthly at the home of David & Brenda Micka. Dates and times announced at meeting.

A.C.C.T. may be contacted at 6107 Greenwycke Lane, Monroe, MI 48161, by calling Dave Micka at 313-241-1157 or Michael Justice at 419-242-7797 or via Fantasy Island BBS.

President:	David Micka	313-241-1157
VP & 8-Bit Librarian:	Michael Justice	419-242-7797
Secretary:	Sharon Hill	419-423-2135
Treasurer:	Rose Taylor	
ST Librarian:	Brenda Micka	313-241-1157
Fantasy Island BBS (3/12/2400)		419-691-6459

From the Prez.

Our Christmas party was poorly attended but given the less than extensive planning that went into it, it's no wonder. We did get an opportunity to try out Populous and Falcon, ST to ST!

I hope everyone had safe and happy holidays and would like to welcome an old new member to ACCT, Alan Wilford. Alan started out as most as an 8-bit user and when the ST happened he naturally upgraded but a curious thing occurred. Disappointed with the lack of support for the ST in the area he sold it and purchased an A____ (Arrrgh!). Alan knows his computers and after using the ST and the A,A,Am,Am,Ammm, well, you know, he realized that identical processors do not identical computers make. He is now back and we welcome him.

Speaking of the BBS, seems like Alan is the only one using it sometimes! What's the deal? I realize I haven't been Joe Regular on it, but my last month's long distance bill was outrageous! Most of you don't have that problem and our BBS has everything that the pay services have, except the price! So come on and get on. ST,XL,XE it doesn't matter,if you want it to do more, *you* have to do more on it.

The publishers of this magazine have asked us to do a feature article on ACCT for publication in early '90. Anyone with history on the club is invited to contribute your little (or big) tidbit to Sharon by February's meeting for inclusion in the profile.

Getting your issue of AIM late? We asked why and here is the answer. The articles must be in no later than the 17th of the month prior to publication, then it is put together by the staff at AIM and sent to the printers, then it is returned in about two weeks and the AIM staff labels and sorts them for bulk mailing, then they are delivered to the Ann Arbor post office were they are sorted for shipment to zone sorting centers (ours is Detroit), from there they are sorted for shipment to regional sorting centers (ours is Cincinnati), then they are sorted for shipment to local sorting centers (at last Toledo), then they are sorted for local delivery or for distribution to outlaying post offices, that's why! So the good people at AIM have offered us a couple of alternatives to this madness.

1st--The magazines can be mailed first class to each member adding about $1.05 to the cost of each issue.

2nd--The magazines can be bulk shipped to a designated person in Toledo and that person can then post them in Toledo and they would arrive in 2-3 days adding about $0.25 to the cost of each issue.

3rd--We can continue to get them whenever they get here.

The board will act on this at January's meeting which by the way, will be held at: Bassett's in Westgate on 1/8/90, 7-9pm.

Cascades Atari Computer Enthusiasts

CACE

Cascades Atari Computer Enthusiasts is the Atari Club in and around the Jackson County area. The Main purpose of the club is to help inform new users and to promote the use of the Atari Computer in the community.

President	Brent Fisher	(517) 764-4599
Vice-President	Tim Hotchkiss	522-8912
Secretary	Joe Cripps	782-0199
Treasurer	Craig Schaff	787-3970

The CACE BBS is run by the club and is open to anyone with a modem. The number to call is (517) 787-4011. The current membership dues are $14.80 per year, and are payable at any of the CACE monthly meetings, or by mail to the PO Box. Club membership includes access to the entire club software and publication libraries, along with a monthly published newsletter.

Any written communication with CACE should be sent to PO Box 6161, Jackson, MI 49204. Our meetings are held on the second Sunday of the month from 1 pm to approx. 4 pm.

Central Connecticut Computer Club

The Central Connecticut Computer Club is the oldest, still operational Atari club in the state. Conceived in December of 1980, and operational in January, 1981, the CCCC continues to serve the Atari community. New blood is welcomed, and of course, old hands are always welcomed back.

Meetings of the CCCC are on the third Wednesday of each month. The meets kick off at 7:30 and usually include presentation or demos of various hardware or software items. The meetings are held at Eastern Computer Video, 1207 Meriden-Waterbury Turnpike, Milldale, CT 06467.

Prospective members may call Rich Scheidel (203) 589-9035 or 589-3738. Failing that, call Tim Brandt, (203) 283-0500 or writeCCCC, 127 Pinnacle, Bristol, CT 06010.

Dues are $25 per year, $30 for family plan. Includes Voting membership, newsletter, access to Club library (8bit and ST), access to club magazine library, discounts on computer and video supplies at Eastern Computer-Video, and access to the CLub message base at Ultra Project BBS.

Wow...We made it. Just think....another new year, not to mention decade. Time for all those New Years Resolutions (are you listening Atari??) and hoping that we can keep them. Things look SO bright for Atari this year....if they decide to move off their butts and *advertise*. And I don't mean in just Atari-specific magazines. WE don't need the hype. We already have bought machines. I haven't heard of one advertisement on the east coast (New York-Boston area). Maybe you have, but if the sofa-spuds in *this* club haven't seen an ad on TV, I'm inclined to believe them. There just isn't much that they miss. Tell me if I'm wrong, but I haven't found any ads in Computer Shopper, Personal Computing, or any of those messy Dos type magazines. Now I wear glasses, but hey, they are in great shape and I see pretty durn good.

Well, Bob Brodie sez....this is the year. I hope so. Sig said....that was the year. I want to believe someone. Four years ago we had, in our area, seven dealers that carried Atari. Want to know how many we have now? Do you really?? Three. I'm not going to go into the manufacturer-dealer relationship war that we have all heard about. I'm going to scream about the fact that no *new users* are coming in. No one knows *we exist*.

This is the East Coast. Corporate Connecticut. Conservative three piece business suits, Jaguars, BMW's, Mercedes and quarter to half million dollar houses abound. Everybody reads all the na-

tional magazines, and of course most of the New York newspapers. *All we see are eye-bee-yem and Amiga ads!!*

With all the Insurance, and most of the corporate headquarters on the EAST coast, you think maybe, just maybe someone might think that we could use some advertisements over here? It's like the East coast doesn't count. At least it seems that way. Maybe I'm wrong...and all this "disposable income" we are blowing is relatively nothing compared to income in the Peoples Republic of California, but why limit yourself to one, small geographical area?

Hell, I want to see ads! I want to see the dealers that have put up with so much for so long with little support to grow, to prosper, to push *our* computers. I would like to see *Atari* succeed , despite the fact they can't stand prosperity. All it would take is advertising. Take the money normally blown on wild ventures (Federated) and advertise. They say they have the attention of the messy Dos users now with Portfolio. They will use these machines on the job. Maybe they would like to know what else Atari makes?? It's not inconceivable....

People....renewals and election nominations are scheduled for January's club meeting. There will be a machine on site for demonstrations and we do have quite a few to show. There will be offers from various companies that will be shown (user group discounts!)

Another sad note...by the time this comes out, Ultra Project BBS will probably be history. Scott can no longer afford to run this fine board and has hinted it will soon be shut down. We are really going to miss that F-net message base. Many thanks to Scott Mozden for running Ultra for so long. Look at the time.....I gotta go. See you at the meeting!

COAC

Central Oregon Atari Club

- Dedicated to Central Oregon Atari Users and Enthusiasts Since 1986 -

President:	Norman Moore	(503) 447-3598
ST-VP:	Bob Kanski	(503) 548-8201
8-bit VP:	Marc Hitson	(503) 648-0513
Treasurer/Ed	Glenn Dulin	(503) 382-3956
Secretary:	Nancy Kanski	(503) 548-8201

Address: Central Oregon Atari Club, P.O. Box 6824, Bend, OR 97708. Membership dues are $1.00/month and $1.00/year for each addition family member. We meet every second Saturday of the month at 5:00pm at the Ann Rita Conference Center, which lies just in front of St. Charles Hospital on Neff Road in Bend.

December Minutes —December's newly elected club officers (above) are not all so new. As you can see, we have a return engagement for several. We did, however, create and fill two new positions, hereafter and forever known for eternity (or until we change them) as the 8-BIT Vice President and the ST-Vice President. Ol' Bob Kanski was one of the main founders of the club and himself once the club's VP. Now he's back as our new ST-VP. Mr. Marc Hitson, probably because he wasn't at the meeting to defend himself, has been elected our new 8-BIT VP. Congratulations to you all.

Our December meeting was a fruitful and busy meeting. Other than election of officers, we had some door prizes and discussed our arrangement with Practical Solutions to show and review their products as we receive them. We have, at this point, received the Video-Key and this should be shown at our January meeting. We will probably raffle this item off, so come to the meeting or you'll miss your chance. We also discussed the purchasing of PD disks through AIM as a participating club. The subscription for 12 months will cost the club $12.00. Great deal, since we don't have anyone regularly logging on to bulletin boards.

From the President —Great and Interesting

Do yo know what makes a meeting great and interesting? Maybe great speakers, planned demonstrations? Well, perhaps. What really makes a meeting great and interesting is *you! Your participation.* Do you have something new for your computer: hardware, software, ideas? Then bring them to the meeting and share them. Do you have a question or problem with a program or your computer? More than likely, you can find someone at the meeting who can help.

Also, please bring a computer with you, especially if you have come to copy some PD files from the Library or friends. Please, don't leave it up to someone else. Always bring one. I recall a recent meeting when there was only one computer at the meeting. And, although the group was small, needless to say the meeting did not last very long. Just remember, it is *you that makes a great and interesting meeting and a great and interesting club.*

Norman Moore

FACCS

First Atari Computer Club of Spokane

F.A.C.C.S. is an independent, non-profit computer club formed in 1981 by local Atari computer users. We currently meet on the 2nd Thursday of each month at 7 PM. All visitors are welcome to come to any meeting. Membership is $15 per family and includes our club newsletter, access to our public domain libraries and to the club levels on the Atari Zone BBS (3/12/2400 baud, 24 hrs/day, call 509-326-5741).

GKAUG

GREATER KALAMAZOO ATARI USERS GROUP

GKAUG meets once a month by invitation only as time permits. Membership is through the M.A.C.E organization for those who want the AIM magazine and other benefits.

President:	Frank Fellheimer	(616) 657-6106
Archiver:	Dave Oldenburg	
Librarian:	Bill Berner	
2nd System/GKAUG BBS		(616) 385-2448

All other posts are vacant. We run a 130XE with 320K/7DD Drives using BBS EXPRESS! PRO Node #197

President's Report —Our last scheduled meeting was at Star World in Kalamazoo and we had six memebers present, our regulars, and we looked at "Easy Scan II" by Innovative Concepts. We found it to be a decent system, but could use some improvement. Selecting the proper settings to read a picture was somewhat frustrating and keeping the fiber optic cable on the print head was even more confusing. I thought Innovative Concepts could have come up with something to cover a number of standard type printers to hold the fiber optic in place. I am experimenting with velcro fastners myself.

Surprisingly, we spent about 4 hours at this meeting going over several programs. We also decided to send in our dues to the M.A.C.E. organization to keep abreast of 8-bit technology and keep receiving AIM magazine. Our meetings will be at my home in Paw Paw, whenever it is convenient for all of us to get together. In past times, it has been normally on a Saturday or Sunday afternoon. This way we will have more time to spend on our projects, and won't have to lug all the equipment around. If you wish to be a part of this operation, you will have to contact me: Frank Fellheimer (616) 657-6106 to get on my list of "Active" Members.

The GKAUG BBS will continue to operate as long as there are people to use it. We are supporting it ourselves. If the club is to survive, there must be active participation in it. I have been involved with this club since its beginning in 1982 and have enjoyed it greatly. If there are others in this area that want an active club, contact me, I would be happy to help set up.

Frank Fellheimer

GRAND RAPIDS ATARI SYSTEMS SUPPORTERS

Next Meeting: 6:30 P.M. Wednesday, 7 Febuary 1990. Wyoming Public Library. 3350 Michael S.W.

Tim Feenstra	President	(616)784-6230

5625 Buthview N.E. Comstock Park, Mich. 49321

Greg Williams	Vice President	(616)698-7319
George Nosky	Treasurer	(616)942-1527
Bob Bulliment	Secretary	(616)457-1766
C Baughman	Librarian	(616)795-7373
Marvin Waid	Membership	(616)897-0194
Gary Heitz	Director	(616)676-0112
G Borysiak	Director	(616)896-9358
Charlene Bird	Director	(616)795-3593

Happy New Year everyone. I hope one and all had a Merry Christmas. Did you get all the Christmas presents you had on your list? I'll be looking forward to hearing about all the good things you got, and seeing some of them demoed at the meetings.

I have a word of caution to all XF551 owners. Some of these drives came with weak hollow rivets holding the I/O ports to the drive board. With repeated twisting these rivits can loosen up, letting the port rock on the board. This can cause the little bus bars soldered to the board to break free, or worse yet, ripe the circuit traces from the board. If you move your 551 a lot, use the I/O cable you have that goes in the easiest, and use care when plugging it in and removing it. By next month I should be able to tell you how much it will cost to repair this.

Also next month, there should be a new officer's list. The elections take place at the January meeting. Good luck to all the new officers, and here's to a good year ahead.

One last item. At the December meeting, a motion was made to give blank disks to anyone who brings in some public domain software for the library. If you bring in a disk that is not already there, you will receive 2 blank disks. Bring in 2 and get 4 blank disks. I would ask that you make them single density, and use both sides of the disks please. I know many of you get PD stuff mailorder or from BBS's, so why not let this software get you some free disks? It won't require much of your time, and will help us get a library we can be proud of.

There have been several new additions to the library the last couple months, like several new Print Shop icon disks, some graphics programs and a German version of Dos 2.5. Each month we'll try to list any new titles we get. Remember, PD and shareware only.

Take care all, Tim

Layton ACE of Utah

The L.A.C.E. Club Meets in the basement of the Clearfield Library every secondWednesday of the month at 7:00 p.m. Mark your calendars for the next two meetings: January 9, 1990 and February 13, 1990.

Irwin Brooks	President/ST Librarian	(801)731-1516
Richard Clark	Vice President	(801)825-5823
Ken Karchner	Secretary/Treasurer	(801)776-8015
Lonnie Allen	8-Bit Librarian	(801)392-4450

LACE President's Column

Atari Swap Meets Bring 'em Out

The other day I heard about an Atari Swap Meet in Salt Lake City that was sponsored by the A.C.E. Club. No big promotion, just a little ad in the newspaper. No business retailers or representatives were there. Not even signs at the Granger High School before or during the swap meet.

In fact, you wouldn't know that you were in the right place until you walked in and saw all the familiar hardware and software. This Atari Swap Meet seemed to have very little planning and effort done. All the makings of a good idea gone sour...but it wasn't. People showed up from all over. I came from Ogden myself, 40 miles. People that weren't members of A.C.E. or any other club for that matter were there. Just loyal closet Atari users and lots of them. It was by everyone's explanation *a great success.*

There were Atari 8-bit computers, 800s, XLs and XEs. STs were there humming along. New, used and public domain software abounded. There were 3-1/2" and 5-1/4" disks as well as cartridges. New and used hardware was for sale. It was buzzing with excitement for all Atari users.

For me, it lifted my spirits and gave me hope. I'm constantly surrounded by users of "that other" computer both at work and play. I've begun to think that I must be alone in relaying the virtures of the computers that do not play "follow the leader." But, thankfully, there are others who use and love these computers that the mainstream world seems to be trying so hard to ignore. To my great surprise, there are others who aren't swayed by the pressures of the unknowing masses. No, no, we aren't out-of-touch, obsolete or any other label one might dream up. We just know what it is we like and have the courage to stick with it.

It will take more users in this quiet rebellion. More recruiting and disciplining is necessary. It will take more steadfastness and perseverance on our part as users. I urge you to keep your head held high and press on. And by all means, urge friends, neighbors, relatives and all others to:Join the Revolution...Buy an ATARI!

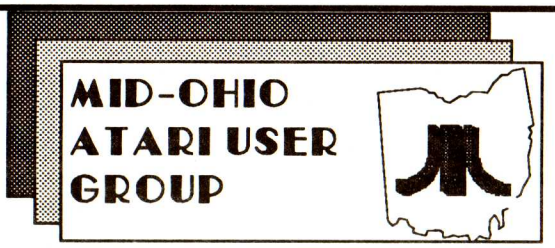
Michigan Atari Computer Enthusiasts receive, as part of their dues, Atari Interface Magazine. Members are also entitled to purchase disks from the 8bit and ST public domain software libraries. 8bit disks are $3 and ST disks are $4 each, and if you buy three disks from either library, you can choose a 4th disk absolutely FREE! Non-Members may purchase disks at a slightly higher rate. Mail order is also available.

For a catalog of current disks in our libraries, send $2 for either an ST or 8bit catalog to MACE, PO Box 2785, Southfield, MI 48037. MACE can also be contacted throught Ed Hanson, (313) 675-0044 or Bob Retelle (313) 483-7358. MACE meets on the Third Tuesday of each month at 7:30 at the Southfield Civic Center at 10-1/2 Mile and Evergreen Roads in Southfield, MI.

November meeting minutes: The November meeting was called to order at 7:30 PM. Bob Retelle got things going by giving the members the latest Atari news. Afterwards, Bob Retelle and Ed Hanson demo'ed several programs including the games Xenon II, Bloodmoney, and bolo, and also showed off the A-Lite sound and graphics demo and a German demo titled The Snowman.

Following the demos, Anton Malje held a discussion about the CSS Black Box for the 8-bit machines. Team Computers was up next showing Atari's new Portfolio computer and then held a quick discussion on Atari's Stacy computer. After a short break, Innovative Concepts demo'ed and sold (official) copies of TOS 1.4 and also the Best Mouse which, according to the people at I.C. were superior to Atari's mouse. Ed Hanson then informed the members that MACE West was back on-line at 582-0657, and mentioned that his company Hurricane Systems had donated the use of a 30 meg hard drive to run the BBS. It was then announced that Michtron had donated a copy of Utilities Plus with which to catalog the disks in the ST library. Finally, to close out the meeting, Ed Hanson gave demos of the games Bloodwych and Populus.

Next month is December, and that means we will be having our annual Christmas Party. There will be prizes and lots of goodies on hand. This meeting is open to MACE members and their families ONLY. however, those wishing to attend may purchase memberships for $20.00 at the door.



Mid-Ohio Atari Users Group Post Office Box 134, Ontario, OH 44862 The Mid-Ohio Atari User Group supports all models of Atari computers. We meet at A&B Computers, located in the West Park Shopping Center on Park Avenue West in Mansfield. The meetings are the third Saturday of each month, from 7pm until 9pm. Demonstrations are welcomed,and pirating is expressly forbidden.

MAUG is a participating club in the Atari Interface Magazine group. As such members receive an issue of AIM every month for no extra charge. Club dues are $7.50 per year for all members. The club maintains a disk library for both the 8-bit and ST line of computers. There is also a special MAUG section for members on the DataQue Support BBS, for email and file downloads. The number of the board is (419) 529-5197.

Well the December meeting of the group was generally only of intrest to the ST members, since no one brought any demos or news for the 8-bit. There were various items for the ST being displayed and demoed. Also it was decided to move the club meeting to the third week of each month to allow more time for the A.I.M. magazine to arrive to the members.

On display was the Michtron PC Speed enhancement. This small board inserts into an Atari ST with only minor modifications. Included in the kit is a boot disk, and a 64-pin socket which is soldered on top of the 68000 in the ST in a piggy-back fashion. The board should be installed and ready for demonstration for the January meeting. If you have any PC software you would like to see run on the upgrade be sure to bring it along to the meeting.

Also a demo version of the new game XENON-2 was shown. This is a real nice shoot-em-up game for the ST. The graphics are superb, and the action is non-stop. Even though it is a demo version, it still is fully functional as a game, although limited to only level-1. This demo was included on the monthly ST club diskette.

A nice tennis game was also demoed which had very good graphics and playing action. Control of the player and ball seemed to be good, and various courts are selectable. View is third person perspective, and players are fully defined. The digitized sound adds to the realism of play.

The new versions of the C.F. Johnson ARCShell program, as well as the newest versions of ARC, and LHARC were made available to users at the meeting. A copy of the runtime library of GFA BASIC-3 was also included on this months diskette. If you would like to get a copy, send a blank 3.5" disk and mailer to the club address or stop into A&B computers.

At the January meeting we expect to see the operational PC Speed, and also the Atari XEP-80 80 column adapter for the Atari 8-bit computers. We should also have received the first monthly diskette from A.I.M. which should contain some great stuff for the ST.

Remember! Your membership dues will have to be in *before* the 13th of January 1990 to assure the receipt of the February 1990 issue of AIM! Don't forget it! Just send a check to the club address made out to Chuck Steinman for $7.50.

The Middle GA Atari Users Group is the sole Atari Club in the Middle Georgia area. We are composed of 60 members of which approx. half are ST users. Club president Pete Miller can be reached by phone at 912-922-5666. The MGAUG address is 115 Feagin Mill Rd., Warner Robins, GA 31088.

MGAUG meets the second Sunday of each month at 2 PM at the Warner Robins Library. Annual dues are $5 with the newsletter optional. Use of the club library is free to all paid members.

Dec. Meeting — December's meeting had a good turnout with about 17 members showing up. Charles Kight brought his 520ST with Mono Monitor and DeskJet II printer. Charles gave us a demo of Pagestream 1.8 and printed out some papers on the DeskJet. At slightly over $650 the DeskJet seems to be the printer of choice for the low end desktop publishing user. Also the power of Pagestream is coming through and has become the Desktop Program of choice among most members of the club. Charles also showed us the power of Logo with some programming demos. I was slightly surprised at the interest that the Logo programming generated in many members.

Also discussed at the meeting was the loss of Atari Magazines in the U.S. We now have lost ST-Log and Computer Shopper will cut coverage on the 8-Bit computers as of 1 Jan. Also what may be some disturbing news from Antic, that they have lost some of their top personnel. The word from Bob Brodie is that the reason that ST-Log was dropped by Flint Pub. was not that it wasn't generating a profit but that it wasn't generating the amount of profit that Flint thought that it would. Well I imagine that this should help ST Informer, ST World, Current Notes and others increase their readership.

Speaking of Bob Brodie, I talked to him for a while on 11 Dec. and we touched on several topics. First the STE will be out soon as it still is awaiting FCC approval, apparently their is a slight problem with RF shielding but the problem has been rectified. The Stacy is still on track for a February debut we hope. I think that a lot of Mac people would like to get their hands on one. The LYNX is SHIPPING and is available at Sears ONLY through mailorder and in limited quantities. Bob has been busy trying to reorganize the Atari Club membership and said that he hopes to be able to restart the newsletter. Even as we talked he was selecting pictures to have in the newsletter so we should have one at the club soon for you to read.

Virus Alert —It seems that one of the members of the club recently bought Tecno-Cop by U.S. Gold and found a virus. The virus was found when he made a backup disk of the program so that he would not have to use the original. He noticed that he was having disk crashes and some of his disks would not boot. The reason he found the virus was that he was using a new desktop ACC file called JAMES, which you can configure to look for a virus with each disk swap or at boot. Running a public domain program VKILLER and checking his Tecno-Cop disk reared up the ole Devil's Head. Checking with information VKILLER stated that this was a virus by the retailer to stop piracy!! The member intends to give U.S. Gold a call and tell them what he thinks of this policy. The bottom line is that everyone should be able to make a copy of a disk for his OWN USE without worrying about the retailer sabotaging his computer system.

Duplitwix Blitz —I purchased this product to speed up disk copys of public domain files at the club. This has turned into a lengthy project at each meeting as many members want a copy of the latest Public Domain software. It would have been great in that it will copy a disk in around 20 seconds. Alas I have no such luck again and Duplitwix Blitz will have to go back. It seems that Blitz requires 2 disk drives (no problem), the cable is hooked to the output of disk A (problem - I have MFD dual drives, no disk A output port) so back it goes. I also had problems with the software not booting and I am the second club member to have this problem.

VideoKey — We have received a free VideoKey from Practical Solutions. I will be looking for someone interested to take a look at this product and doing a review for the newsletter. I have had an opportunity to hook it to my color TV and the improvement in picture qualityshows a very definite improvement in quality. VideoKey has both RF and Composite outputs and is optimized for low rez viewing. I hope to have a demo of this product at the Jan. meeting.

Jan Meeting — The January meeting will be at 2PM at the Warner Robins Library on January 14. Mike Carter will be bringing his ST with color monitor and hard drive. I hope to see you there.

PORTS ATARI
P.A.C.E.
COMPUTER ENTHUSIASTS

President	Tracy Hendershot	525-1058
Vice President	Larry Nadeau	525-7430
Sec/Treasurer	John Zupansic	394-9326
STLibrarian	Don Henricksen	729-6309
8bit Librarian	Gary Armbrust	729-6906
ST Coordinator	Geoffrey Bennett	722-3354
8bit Coordinator	Aaron Potopinski	525-1058

Membership to PACE is $30.00 per year or $9.00 per quarter. General meetings are held at 6:30pm on the third Sunday of every month. In the event of a holiday, a new date will be chosen and will be posted within the pages of this newsletter and on local Bulletin Boards. Membership includes a monthly newsletter, monthly meeting, FREE Disk-of-the-Month, access to our BBS, FREE printer ribbon re-inking, and FREE copying priveleges to our VAST collection of 8/16 bit Public Domain programs. Ports A.C.E. is an alliance of families with a mutual interest in the Atari Computer and is an independent, non-profit organization. PACE hardware assets: 130XE, 1050 Drive, MacInker and a Supra 300 baud modem. Any written correspondence should be addressed directly to Ports A.C.E., Tracy Hendershot, 4835 Crosley Avenue, Duluth, MN 55804.

From the President...I hope everyone got what they wanted for Christmas. I didn't...Santa Claus just doesn't make those kind of deliveries! Instead he gave me an Alesis QuadraVerb (digital effects), the perfect compliment to my MIDI recording studio.

I'd like to thank everyone who brought snacks and refreshments to our 5th annual PACE Christmas party last month. The food was great and everyone was well satisfied. Our raffle of PageStream brought in a tidy sum for the club's treasury. Along with that, we had numerous door prizes given away during the social hour. I encouraged members prior to this meeting to bring in software and hardware they no longer use, price it and hopefully sell or trade those items to the needy. There were some great deals available and I encourage people to continue doing this at every meeting. Other clubs have been doing this for years and it's about time we followed suit.

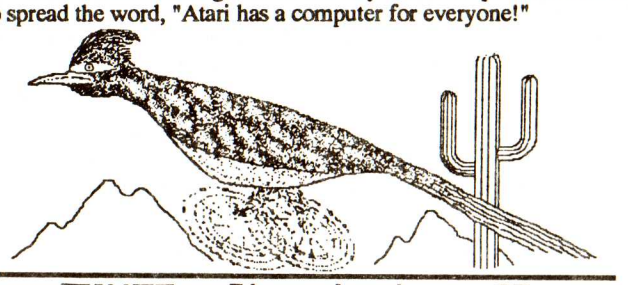
The kids were relatively well-behaved during the business part of the meeting. Much of the discussion was focused on Atari's inability to offer much to users in the Twin Ports area. It was agreed Atari damaged itself in a large part by eliminating distribution of STs through mail order houses. 100% of PACE members purchased their machines through mail order, because our nearest dealer is 150 miles away. Christmas came and went, again without Atari on anybody's mind. It seems Atari isn't on the minds of two publishers this month. There is a rumor that ST-Xpress and Analog/ST Log have ceased publication. Debt problems with the former, lack of subscriptions for the latter. Unfortunately for us, we just spent $75.00 for a subscription to ST-Xpress! Gary commented we would be lucky to ever see our money again.

Micro Simulations has left town...and moved across the bridge into Superior, WI. The new numbers are: Node 1 (715) 394-3360 and Node 2 (715) 394-3369. Personal reasons were the cause of this relocation, yet Micro Simulations BBS offers more bang for the buck and is light years ahead of anything in this region. 35 megs of Atari downloads, 200 megs of IBM downloads for you PC Ditto fans, Mac downloads for the Spectre people, 104 conferences, 50 online games, 'nuf said.

On to cheerier things. The Portfolio is receiving favorable reviews in the "PC" magazines during the month of December. I personally think it will be a big seller, however, it won't be long before the Japanese will come out with a similar unit and improve upon Portfolio's shortcomings. I certainly hope that R&D is continuing and a Portfolio 2 will make its debut next Christmas.

Atari made an excellent presentation at the November 17th Las Vegas COMDEX, *finally!* Present were the Portfolio, TT, STacy & STE! The STacy equipped with 4 megabytes of RAM, 40 Meg HD, and Spectre GCR costs only a third of what a "real" portable Mac costs. This had everyone's attention including dealers and distributors. The TT's (5 of them) were up and running ST software at "light-speed." The STE is housed in the 1040 case and was demonstrating its new sound capabilities. There was even a hint that "new machines at both ends of the lineup are yet to be announced!" (I won't hold my breath)

Next PACE meeting will be January 21st, 6:30pm. Remember to spread the word, "Atari has a computer for everyone!"



PHAST - Phoenix Area ST

Richard Covert	President
Lance Summers	Vice-President
Jim Keho	Recording Secretary
John Steiner	Treasurer
Mike Zachary	Membership Secretary/Sergeant at Arms

From the PHAST officers....

PHAST members, welcome to the AIM family!!! I know that some of our members are wondering just why they're getting this copy of the AIM magazine (that'll teach you to miss one of our meetings!). At the December meeting, the membership voted unanimously to drop our participation in Nibbles and Bytes and to join AIM. It was felt that N&B's wasn't meeting the needs of our membership and was always arriving late...if at all. The members thought that AIM would give us a more dependable and informative platform than we currently had, it would provide our membership with the news, previews and reviews needed to keep us up to date in the ST world, it would provide us a glimpse of what other Atari clubs across the country are doing and it would provide us with an inexpensive and dependable monthly newsletter.

For you PHAST Times enthusiasts, don't despair!! The members didn't want to put "all of their eggs into one basket" and didn't want to risk loosing their clubs' individuality, so they decided to continue with PHAST Times also. So along with AIM, you will continue to get PHAST Times, just like normal (every other month - it's next issue will be in February). There will be some changes in PHAST Times this year though and the major one will be a new editor...Jim Keho. Mark Kiel and Lloyd Pulley (the current co-editors) have too many personal and business obligations to continue as full-time editors, so Jim was kind enough to take over the job. Each editor has his own ideas on how a magazine should be produced, so I expect to see some new and exciting changes to PHAST Times in the near future.

We've seen many changes in PHAST this last year (most of them to the good...I hope) and there are several people that deserve a lot of thanks for their time and ideas. Dave Thorson (for being the stabilizing influence that the maverick officers needed), Marc Kiel (for stepping into the Presidency when our old President had to resign...and for helping establish PHAST Times), Doreen Webbert (for taking on the Recording Secretary position even though she didn't have the time), Aric Friesen (for taking on the Treasurer's position when our old Treasurer had to resign due to changes in his job), Mike Zachary (for being the only officer brave enough to run for office again) and Charles Cullinan III (for being the only one with enough patience to do the disk library). These are not the only ones that deserve thanks, there are many other "unsung heroes" that helped to make PHAST successful. People who donated their time for demos, people who donated their time writing articles, people who donated their time for the many various odds-and-ends that are needed to make a successful club. We thank all of these people!! Also, let's not forget Henry of Computer Works, he's donated a lot of equipment and software to the club over the last year. And finally, all of the out-going officers thank *you,* the members, for all of your support!!!

In closing, Marc and I want to thank each and every one of you for making this a successful year for us and we wish all of you nothing but the best for the new year! —Lloyd Pulley

P3Atari Computer Enthusiasts (P3ACE)

Serving the Colorado Springs, Colorado ATARI community since 1982.

President:	Rick Reaser,	380-8082
VP ST:	Dave Koster,	550-1410
VPXE:	John Sandgren,	559-5933
Treasurer:	Jerry Sundee,	574-0005
STLibrarian:	Rick Mount,	596-8631
XELibrarian:	Dave Koster,	550-1410
Editor:	Ed Fletcher,	596-1130

P. O. Box 17779 Colorado Springs, CO 80935

WELL...! It's hard to believe we've come to the start of 1990 already. I hope this last year went well for everyone and you're starting a new decade with a fresh outlook, a positive attitude and a new toaster/oven.

The gala P3ACE Christmas Party was much fun! Thanks for the cookies, everyone, and to Phil Michaelson of Horizon Computers, who brought loads of software sugarplums. We gave away disks-o'the-month and library listings, then followed up by auctioning some *nice* things. A Percom XL/XE disk drive went for $25!, give-me-a-break.

Rick Reaser, XL/XE guru extraordinaire, is the new P3ACE President. His capable staff is listed above, give them a call. If you have the time and the tools, get with Rick and pitch in to help with meetings or functions. P3ACE needs you!

The great AIM experiment is on! If you have an opinion about receiving AIM instead of our regular newsletter, call Rick! We'll be making desicions without you, would you like that? If you have an idea about an article, call Ed! Expose yourself to a *national* audience!

Lastly, my personal thanks to everyone who contributed their time to help the group last year, in which we managed to stay afloat and had good fun despite the (still!) slow growth of Atari computers in the US. (Oh, Jack, Sam, rescue your true believers and long-suffering supporters from the Valley of Dearth). Special mention to the outgoing (or transitioning) officers: Ed Fletcher, Bob Vixie, John Sandgren, Jerry Sundee, Howard Adams, Chris Smith, Will Bates, and Dave Ritchie. Round of applause, everyone!

dkos

ROCKFORD ATARI COMPUTER CLUB

Serving the Greater Blackhawk Area of Northern Illinois

Rockford Atari Computer Club serves the North Central and Northwest area of Illinois. We invite anyone in the area to attend our meetings. We meet at Rock Valley College, Rockford, IL: usually on the third Saturday of each month. Meetings start at 10 AM and feature demos on both the Atari 8-bit and ST. Our address is RACC c/o Andy Learner, 3902 15th Avenue 1, Rockford, IL 61108. Call the Camille 2000 BBS at 815-397-5327.

Andy Learner	President	(815) 397-5316
Mark Kunkle	ST VP	(815) 874-5546
Jake Olbrich	8Bit VP	(815) 332-5303
Roger Creedy	Secretary	(815) 877-3769
Thom Lofthouse	Treasurer	(815) 654-1863
Dave Zolmierski	8Bit Librarian	(815) 654-0247
Mike Boughneit	ST Librarian	(815) 282-2530

President's Report

Here it is December, and I'm writing about the new year to come. WOW! 1990..to think just yesterday it was nineteen eighty, it seems. Guess time flies when we're having fun! Most of the eighties have been pretty good for me. My kids are growing, learning, and they want an ST for themselves. Funny how technology effects us. I never saw a color TV set until I was a teen-ager. Now my kids want the latest in computers, AND a new color monitor of course!

Our Christmas party was a great success I thought, as well as reported by some of the other members to me. It was my first official, full meeting as the new RACC president. I really enjoyed the party. We had three ST's set up as a MIDI-MAZE, one set up for other games. Also Roger brought his 130XE and had it running Christmas music on two MIDI keyboards. Jake brought the club's 130XE for other games and 8-Bit demos.

One thing I will recommend to the board, when we convene is that I think elections should be as far away from this time of year as possible. Assuming the responsibility for the club, right in time for a major event like the party, is very taxing. Believe me, I had my hands full, with the newsletter to get out and all sorts of things to plan. Now I thought since we had an early December party, I'd have a little breathing room, until the next meeting January 20.

NO such luck chubby! I am at the last minute writing my report for AIM..Oh! how unusual. Well I hope this new year finds all our AIM participants healthy and happily playing with all the new TOYS we bought ourselves for 1990!

ON THE BBS: I have noticed that a few of the newer clubs, TACE in particular, share the BBS network we do. I think it is great we have this speedy way to communicate with each other. I look forward to things I read on the NETS, and really get a kick out of how helpful people are. Folks get on the message base and give helpful suggestions to other Atarians. I really am tickled when I can share something I've learned with others.

ON SIGS: Mark Kunkle is busy planning some beginning C programming SIGS for the ST, and Jake Olbrich is planning SIGS for 8 Bit. Since we have to all start new records for 1990, his first SIG will be on our modified MICROCHECK, and how to set it up. and use it with the budget program.

Till later! G'Data...Andy

The Rushmore Atari Computer Enthusiasts is a nonprofit organization of Atari computer owners not affiliated with Atari Corp. Meetings are held on the third Saturday of each month, 2pm, at the Westminster Presbyterian Church. Annual dues are $12 for basic membership and $15 for membership and newsletter. RACE offers the Black Hills Atari owner hardware and software support and the largest library of public domain Atari software in the state of South Dakota.NOTE: No piracy will be tolerated at any RACE function!

President:	Rick Burton	(605)-642-5353
V. President:	Gregg Anderson	(605)-348-6331
Secretary:	Mike Douglass	
Treasurer:	Mike Randall	
NL Editor:	Mike Harbison	
ST Librarian:	Mark Wolf	(605)-923-2841
XE Librarian:	Ken Kayle	(605)-343-7289

8-Bit Library Corner by Ken Kayl, Rushmore ACE 8-Bit Librarian

Welcome to Rushmore Atari Computer Enthusiasts (RACE) 8-bit library. So what's our special this month? Let's first review RACE's Disk #51, which has both game and arcade style programs.

HANGMAN is a one player game that we all probably played as a kid. The computer draws a scaffold and puts in the required blank spaces, you then guess the letters. Eight wrong guesses and the man gets hung and a dirge is played. Win and the man goes free.

OILGAME is a multiple player game (one or two on the XL/XE and up to four on the 400/800). You try to guess where to drill for oil. You can then keep the well or sell. The player with the most money at the end wins. MINIATURE GOLF is a 9 hole course for 1 to 8 players. ALIEN ASYLUMS is a one person game. You pick up 4 to 6 keys while not hitting aliens moving across the screen. VALIANT is a one person game. You must find a key to the locked door. You then

move into a castle where you find another key and locked door, but there are monsters to fight in the castle. If successful you again advance.

CASTLE QUEST is a one player game where you pick up two keys and a hidden door appears. Sounds easy? Well the walls are deadly and so are moving dots.BICYCLE is a one player game. You must guide a kid on a bicycle between two rows of trucks and oil slicks. For maximium points you must touch two other kids. The trucks move towards the center and you move forward and can't stop. This is a difficult game. MIDNIGHT STRIP is a one player, arcade style. You guide a car down the winding highway. Fail to stay on the road and the game is over. You control the speed using the joystick firebutton. STAR VENTURE is a one player game. Your mission should you decide to accept it is to take your craft into a star field and get all of the small planets. If you touch a star or wall you lose. Once you have all the planets a gate opens and you go to the next field. As always should you or your men get caught or killed the secretary will disavow all knowledge.

TRIVIA is a one player game. You choose a category and bet points. To advance a level you must bet ALL the points and answer 5 questions in a row. These are fairly tough questions and it is not easy to advance.WARRIOR 3000 is a two player game. You try to shoot the opponent, but you are limited to 20 shots. BUNNY HOP is a one player game. You hop a bunny picking up carrots. Get all the carrots and you get a new screen. FORTUNE is a Wheel of Fortune type game for two players. DGEN is a data generator for FORTUNE so you can add your own places, phrases, people, or things. ISLAND JUMPER is a one player game where you attempt to jump out of an airplane and land on an island. SPEED RACERS is a one player game where you guide a car on a road avoiding the other cars. Speed is controlled by how many cars you have avoided.

Let's also review RACE disk 64. RACE 64 has the games Jeopardy and Wheel of Fortune. These are played very much like the TV shows of the same names. Jeopardy is for two players and no joystick is needed. Wheel of Fortune is for 2 or 3 players and no joystick is needed.

These and the entire 8-bit library will be at the January meeting. If you're interested in any of our software library contents they are available at the very low price of only $2.00 per disk for members and $3.00 for nonmembers. If you have suggestions for types of software you want in the library or reviewed here let me [Ken Kayl, (605) 343-7289] know. Or write to me in care of RACE, 902 Virgina Lane, Rapid City SD 57701

Happenings at the November RACE Meeting

Old Business: First of all it was put forward and agreed to that we would put on permanent hold any computer show at Haggerty's Music Works due to an apparent lack of interest on their part. Gregg Anderson was selected to approach Westmore Music (in the Rushmore Mall) on doing a MIDI demonstration with their equipment. No December Newsletter will be mailed out since we missed the deadline for December's AIM. A short 'reminder' note will be mailed to the membership as a 'memory jogger' though.A motion was made by Ken Kayle & seconded to allow for a lump sum payment to AIM to cover the newsletter costs. This was agreed to and will be done in the near future.

New Business: It was brought up and a motion was made that RACE join the FACE Disk Exchange Program. This was agreed to and our Librarians will be sending in disks this month as FACE requires.

Odds & Ends: Gregg Anderson brought in a fairly complete report on the new hardware Atari was showing at ComDex this fall together with the usual assortment of Atari related magazines. A sad note was his announcement that Analog and STLog magazines had been closed by their owner, LFP. Status of subscribers still owed issues is currently unknown, though Analog informed Gregg that they would be taken care of. Happenings at the December RACE Meeting

Old Business: It turns out that Wesmore Music is VERY interested in letting us do a MIDI demonstration at their Mall store. They're even willing to write letters to some of the various MIDI software houses to help us get more demonstration software. Companies currently under consideration are ST Express, Hybrid Arts and Dr T's. The 8-bit FACE disk was mailed out last month and the 16-bit disk will go out this week.

New Business: A telecomputing demonstration is being arranged for a future meeting to provide some 'hands on' training on the ever popular sport of modeming. We will have to set this meeting up well in advance as it must be held somewhere other than the church due to the church's multiple line phone system (though a few members think they may know a way around that problem). The JANUARY meeting theme will be 8 and 16 Bit WORD PROCESSING applications and some of the finer points of the more popular software packages out for the two systems. Demos will be by Ken Kayle and Rick Burton on the 8-Bit and Gregg Anderson and Mark Wolf on the 16-bit. PageStream 1.8 is currently enroute to the club to be included as part of our next raffle. Many thanks are due the talented and generous folks at Soft-Logik for their donation. Planned as a special for the 8-bit library is an unusual program called 'Christmas Shopping'. Rather unusual in concept and execution. I'll let somone else present a formal review of it later.

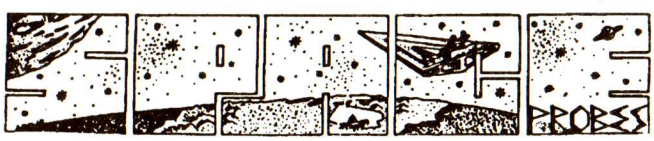
Special info: It seems that we're loosing two of our long time members. Both Gregg Anderson and Mark Wolf are receiving new assignments (both are active duty Air Force) and will be leaving the area soon. Open in late February will be the position of Vice President and a new ST librarian will be needed by July of '90. Remember, our constitution requires that the new Vice President must be an ST owner. So step forward and take an active role in our club, after all it's your club too.

President's Particulars — I believe it would be in order to repeat some comments made in the last Particulars before RACE Tracks merged with A.I.M. Two concepts which, in my opinion, are vitally important to all of us: mutual support and networking.

Mutual support begins at the local user's group. Members support each other with ideas, answers to questions, new inspirations, and comradeship not to mention just having fun. People from many different areas of life meet on common ground -- computing with the Atari!

Networking of groups takes place through exchange of newsletters and public domain software and also takes place through BBS communication. Programs such as A.I.M. and F.A.C.E. (a PD disk exchange) have arisen because of a recognized advantage in networking.

Mutual support then filters through the network. There's even some international co-operation. Let's all dig in and make Atari computing more rewarding for each other. Bring your ideas and your expertise to the meetings. Do a demo, help someone with a problem, lead a discussion, teach a class, write an article, *contribute, volunteer!* It's enjoyable and rewarding. Upcoming meetings will be zeroing in on some practical application techniques (put that software to work). January's meeting will be Sat. the 20th at the usual location. Looking forward to seeing all you R.A.C.E. drivers at the meeting!...Rick Burton



Meeting NoticesCombined Club Meetings: January 15, 1990 (7:30 to 9:00 PM) at the Camp Hill Shopping Mall Community Room. This date is different from that listed in the December newsletter.

Future Meetings: February 19, 1990 (7:30 - 9:00 PM) March 19, 1990 (7:30 - 9:00 PM) April 16, 1990 (7:30 - 9:00 PM) May 21, 1990 (7:30 - 9:00 PM) June 18, 1990 (7:30 - 9:00 PM) July 16, 1990 (7:30 - 9:00 PM)

All meetings will be held at the Camp Hill Shopping Mall Community Room until further notice. Currently all dates are set for the 3rd Monday of the month.

December Meeting—Elections were held with the following elected officers for 1990:

President - Rich Deen
Administrative Vice President - John Hileman
Program Vice President - John Slade
Treasurer - Don Zeiders
Secretary - Mike Moyer

Rich Deen discussed "The Revolution" while FREE disks were passed out to members containing the Revolution. More discussion will take place next month. The $50 Attendance Prize was not won,

so next month's prize will be $55. Practical Solutions, Mouse Master was raffled off by silent bid. Many bids were received with the lucky winner being Dennis Engle. The club received $21.55 Club fund raising will be discussed at our January meeting.

Don Zeiders gave a tremendous demonstration using Tweety Board. Don showed the strengths and weaknesses of the Tweety Board. The Stereo sound was amazing (especially Airball), while digitized sounds were very 'scratchy' as the documentation stated. Don said that Tweety was worth every penny he paid for it and highly recommended it to all. This demo was very well received and as a result it looks like a few more members will be buying the Tweety Board.

View from the Bridge by Rich Deen STARDATE: 12789

Well, as promised, here is your first issue of Atari Interface Magazine (or AIM for short). At the December Board meeting, the newsletter topic was kicked around. We thought trying AIM on a trial basis, but after much discussion we decided to become a 'Participating Club' with AIM. With this new format we will be able to provide meeting notices every month. That in itself should be a big plus. We had five individuals show up for our November meeting (we had no November newsletter). For December we had 20-30 people show up. It makes a big difference when we put out a newsletter. Also the number of pages will jump from 8-10 to 30-36. From reading past issues of AIM, I can see that coverage for you 8 Bitters out there is much greater than what we could provide. The Board hopes members will continue to write articles for the newsletter. Anyone wishing to submit articles should send their material to Rich Deen. It should be in ASCII, Word Perfect, ST Writer, or First Word format. Please stay away from any fancy formatting in the file.

One of the main goals I would like the club to accomplish over the next year is to re-establish the SPACE BBS. We have had numerous problems in the past and with some effort on our part, I hope we can overcome these problems.

I also hope that we can continue upgrading our club's machines. In particular, I would like to see us finally get the 520ST in one piece and get that disk drive fully operational. It would be nice if we could pick up a hard drive for the club too. That might be something that would come in handy with a BBS.

January will be the beginning of fund raising. The Board will be looking into various options. This will be discussed at the next Board meeting. While currently in the black, we must continue to direct our efforts to make sure that we stay that way.

One last area we discussed lightly at the Board meeting was about the possibility of having some type of statewide get together (circa mid 1990). Recently I read where the Pittsburgh Atari Computer Enthusiasts were considering having another Atarifest sometime in 1990. The Board will have to consider this when discussing what kind of get together we might be willing to get involved in. Well, that's all for this month. ENGAGE . . . .

President	Claudette Tishcler	226-5644
Vice-Pres	Gary	521-2855
Treasurer	Kathi Koenig	892-0881
Newsletter Ed	Joseph Adato	449-6881
Disk Librarian	Barbara Carlstrom	371-2732

The ST Atari North Coast Enthusiasts (STANCE) is an independent, not for profit Atari computer user group and is not affiliated with Atari Corporation, or any of its affiliates, in any way.

$12.00 per Year with a one time sign up fee of $13.00.

STANCE club meetings are held every third Monday of each and every month at B & G Electronics, (located at 15729 Madison Ave., Lakewood, Ohio 44107) starting at 7:15PM

The ST Club of El Paso is the only Atari ST and Mega user group in the El Paso area. The ST Club has proven to be a benefit not only to new users, but also to the "old hacks" of computing.

We now meet twice a month at the Richard Burges Library, 9300 Diana. The first meeting of the month is always the second Saturday of the month, at 12:30pm. The second meeting of the month is held on the last Thursday of each month at 7:00pm. Meetings feature demoes of the latest ST software, as well as help for the those that might be having problems with their computers.

Membership in the ST Club of El Paso includes a year subscription to the magazine you are holding in your hands, discounts on software at Jenkins' Computer Store, and access to one of the largest public domain libraries in the nation. We also offer technical help, and we sometimes have a party or two when we run out of computer things to talk about. Voting membership is $20 a year, Sponsored and Newsletter only memberships are $15 a year.

To become a member of the ST Club of El Paso, call 915-821-2048, or write the ST Club of El Paso at 10953 Yogi Berra, El Paso, Texas 79934.

President:	Tim Holt	915-821-2048
Vice Pres:	Morris Miller	594-1906
Sec't/Tres.:	Joann Anderson	751-2710
Editor:	Paul Stampfli	821-4861
Librarian:	Norm Bates	593-6234
ST El Paso BBS		751-7837
Data Retention Center		821-0006

From The Prez...

What a meeting! The December meeting was a real humdinger! We originally planned to show PC Ditto II, but since it hadn't come in we switched gears and demonstrated the Tweety Board by Practical Solutions. (The club joined the ACE club sponsored by Practical Solutions last month, and the Tweety Board was the first item they sent us.) So, Paul brought the tools, I brought the patient, and Morris brought the amp and speakers. I wanted to show how easy it was to install, and you know what? It was! We had that puppy inside the computer in about 15 minutes. This was the first time there had ever been an open heart surgery during a club meeting, and I am proud to report the patient is doing well. We hooked the speaker wires up to the amp, turned on Star Wars by Broderbund, and by goodness, everyone there was impressed with the stereo sound produced by the Tweety Board. We tried some digitized examples, but the Tweety Board does not work as well with the digitized sound. But the sound that popped out of the amp that was not digitized was 1,000,000 times better than what comes out of the little speaker on the monitor. Thanks to Practical Solutions, Paul, Morris and everyone else that helped with the demo. I think we also learned that we can do simple hardware install demos at the meeting as well.

The auction started a few minutes later, and the deals were incredible. Norm hit the nail on the head when he said if you were there to make a lot of money for your programs you were in the wrong place! Software was being sold at prices that surprised even me! Norm's Timeworks Desktop Publishing sold for, get this, $25! I sold a brand new Wordwriter for...stand back...$25! Games were flying put the door for pennies on the dollar. Chronoquest...$10! And that was just the beginning. All and all, the auction raised $20.90 for the club, and auction sellers earned a little over $209! (Still don't think this club is a good business deal?)

The door prize, a $25 gift certificate to Jaxons' was won by club member James Blount. Congratulations James.

We had two new members join our ranks: Frank J. Yrigoyan and Joerg Schluter. Welcome to our club. Isela and Frank Padilla also renewed their memberships for another year, even though they have moved overseas! Thanks to all for showing faith in the ST, and the club.

Copies of the Atari revolution were handed out to all in attendance.

The dinner at Jaxons' was poorly attended, but the folks that were there seemed to have a good time. I won the gift certificate, sorry Pete and James.

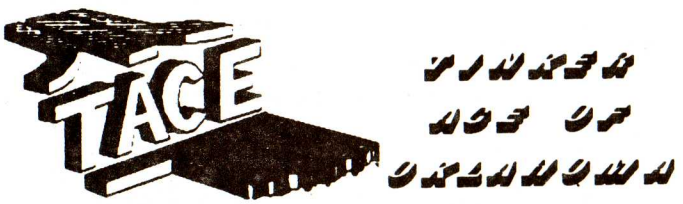
We rescheduled some meetings due to the PC Ditto II delay, so now it looks like February's meeting will be the Ditto II demo, March looks like Word Processors, and April will be a great one when our librarian Norm Bates does a "Best Of Public Domain" demonstration.

Paul Stampfli would like to see a response to a Name the Club Contest, with the winner getting a prize of some sort. We have had some difficulty with the ST Club name, as some people confuse ST for Street, and therefore we become the Street Club of El Paso, which makes us sound like a bunch of homeless people. I have proposed Atari ST Club of El Paso, now let's hear your suggestion.

Mark Davis was wondering if anyone would like to become the club's "Hardware Man". Ever since Bob Pack left, we have had a gap in the hardware expertise department. Any volunteers?

Well, I hope the new year is going well for you! remember our second meeting of the month, and keep on computing!

Viva el Revolution! Tim



Tinker ACE of Oklahoma meets the first Saturday of each month at 1 PM (12:30 set-up time) in the Moore Public Library, 225 S. Howard, just off of SW 4th and I-35 in Moore. TACE can be contacted at 104 E. Northrup, Midwest City, OK 72110 or at the TACE BBS (405) 755-9561, 24 hrs., 3/12/2400 baud, running Oasis 4.3 software with over 60megs online storage. ST & 8bit support. Dues: Full - $20.00, Correspondence - $15.00. Dues are prorated at $1.25/month for correspondence membership and $1.66/month for full membership.

President	Greg Ray	(405) 964-3765
Sec/Treas	Stephen Moffitt	(405) 732-8449
Librarian	Chris Hamilton	
BBS Sysop	Rick Spencer	
Technical Ad	Ron Hamilton	(405) 387-5649

Secretary/Treasurer Report-December

How are you all doing in this rather chilly weather we have been getting recently?

Terrrible, isn't it?

Well, I bet you all are wondering what went on at the meeting this past December....especially you who did not show up (shame on you). Well, we handed out some 'crossword magic' disks for the disk of the month...I enjoyed it, at least.

People, we need to get those submissions for the magazine up, and soon! Come on, get your name in a national magazine! It isn't hard, write a review, write an informational article, write whatever, and see if you can get YOUR name published.

Next meeting will be the first week of January (which I am sure you are aware), on the 6th. Be there. Bring a freind.

Stephen C Moffit.

SOFTWARE & HARDWARE FOR SALE

Falcon and Mission Disk $25 —Never Opened!
F16 Combat Pilot $20 —Also Never Opened
Galactic Conqueror from Titus $15 —w/Registration Card
Titan from Titus $10 —Complete w/Registation Card
Space Station Oblivion $10 —w/Registration Card
Karateka from Broderbund $15
VDOS ProQueue $25 —Brand New!
Turbo ST, the Software Blitter $20 — w/Registration Card
New **Astra 2001,** Dual Double Density Disk Drives, $275 or best offer.

Call (313) 973-8825 anytime.

TRI-CITY ATARI GROUP

The Tri-City Atari Users Group meets the last Saturday before the 18th of the month, at 9 am at the Rudy Zauel Memorial Library, on the corner of Center and Shattuck in Saginaw Township. Upcoming meetings are January 13, and February 17th, 1990.

President	Steve Volker	(517) 685-9035
ST Librarian/Tech	LeRoy Valley	686-6796
Treasurer/Sec	Marty Schmidt	792-6029
8Bit Librarian	Ted Beauchamp	686-8872

Club dues are still only $20.00, which provides support for both the 8Bit and ST, and full access to the club's PD library, along with a year's subscription to the Atari Interface Magazine. Check your mailing label, if you need to renew (or haven't joined us yet!), DO IT NOW!

FIRST UP... ...la..la..la..the Hackers were nestled all snug in their beds while visions of accelerator boards danced in their heads..la..la.. So, how was your Christmas? Did you find any STEs or VIDI STs or DDSs or GCRs or GTSs or DCAs or GFAs or OS2s or GOGO STs or LDWs or VDT VCRs or any other computer related alphanumerics under your '89 tree?

I played a little catch up myself, getting things I wanted that most people had already acquired last year. I got Quantum Paint and ImageScanner to name a few. Both interesting and powerful but already as old as the Motorola 486. My, but doesn't computer technology grow old very quickly? (Oh..Oh,..he's reminiscing..) I remember the first computer I ever owned, the TI99/4A hybrid, with an extended memory of a whopping 48K!! Then there was that 64K computer, (you know the one), that could be used to play anything, and bankswitched itself into more exciting and amazing things, and then I had 512K!!, humming under the hood of the futuristic-like, Atari 520ST, a 'gem' of a machine in anyones home, and now I have access to 1,000,000 bytes of waiting, excitably RAM, purring along at speeds undreamed of even twenty-five years ago!! But today there is so much more available! Keyboardless PCs! Voice-Activated Terminals! Holographic Displays! Writable CD-ROMS! Laser Memory! Space-Grown Crystal Memory! Hundred-Megabytes! Gigabytes! Psuedo-Artificial Intelligence! Computers that have left our Solar System!

And how much of this do we take for granted?! We still can't wait for the next unimagined spaceflight adventurer game, or the next 'Faster than ever before' disk copier, or machine accelerator. Whew! Being a computer hobbyist is life in the fast lane, huh?!

Anyway...HAPPY NEW YEAR!!! We really seemed to have a lot to look forward to. (Just the promises Atari needs to fulfill will take the whole year.)

WHAT YOU MISSED! Now that was a MEETING!! (What do you think, have I used enough exclamation points so far in the text?...NAW!!) Just about everyone remembered about the change of time we decided on last month. Most were here at the standard, 15 minutes after the hour point, which has become the normal arrival time for our club. Everybody had their telltale unmarked box, filled with all kinds of juicy gadgets and software, for the annual Christmas swap meet. LeRoy informed me after-the-fact, that the prez was responsible for bringing the annual, Christmas-cheer coffee pot to the December meeting, so I expected a few more of the group to fall asleep during my update speech. (I wasn't disappointed.) There were donuts and cookies and lively conversation though.

We talked about the visit from Atari's new User Group Rep., Bob Brodie, who will be in Michigan in February. It will probably be the 17th or 18th, at the Student Union at U of M, says AIM's pretty Managing Editor, Pattie Rayl. We will be getting together a group of those interested in going, and do the carpool thing, next meeting. We also finished up the registration form that AIM had sent us last month. The response was a lot better at this meeting, and, I think, more closely resembles the concerns and opinions of our club. I will be sending it back to them any day now. (If you're interested in what we had to say, ask me for a copy of the form.)

By the time you are reading this, the Community Fair Weekend show at Fashion Square will have been just over. We will have a brief report at the January meeting about all the activities that went on and such. You should have heard more about it from our new POSTiCARD EXPRESS newsletter, which we sent out last month to all active members, to make sure the real important stuff gets out before the next meeting, instead of relying on the arrival of AIM. Hey! Nobody's perfect...

Practical Solutions and Soft-Logik have both approached us recently about some great software and hardware promotions coming up in the next few months. As I understand it, we can get free, or nearly free products, by demoing them at the club meeting, and reviewing the products in our newsletter, and sending them a copy of the newsletter. This is quite an offer!! Though I can bring up some criticisms of Atari's support of the User Groups in the last few years, I think we all have to agree that third party hardware and software providers have continuously gone to extraordinary lengths to support and work with us. Thank you Practical Solutions, Soft-Logik, and all those who have always been there for us. More on this later.

WHAT YOU SHOULDN'T MISS... Next month, Al Jennings will be demoing that product we wondered if we would ever see...Chaos Strikes Back! (aha...another exclamation point), the second chapter to the DungeonMaster adventure. (Or, DungeonMaster II: The Revenge...if it were a movie.) I am already excited about seeing it, and Al says it's everything we wanted it to be so...BE THERE!!! If anyone still wants to see the April Computer Chronicles show, which spotlighted on Atari, or a comprehensive video of the Anaheim World of Atari, (with about twenty minutes of questions and answers with Sig Hartmann), Al's got it--just ask. REMEMBER!! (Two more!...Three...) E*veryone who comes to the meetings is expected to have some amusing or thought provoking anecdote to share with the rest of us...o.k.!!*

ON ANOTHER NOTE... I am excited about the year 1990, and all that can come out of Atari this year. But, I have just read something which upsets me a bit, and dampens my hope some of a truly consumer-oriented Atari Corporation. According to Charlie Young of ST WORLD, in his column All Things Considered, the December 1989 issue, Sig Hartmann is leaving (has left) Atari. I am not sure how that affects you, but I have met the man, listened to him, critically examined what he had to say, believed him, and had renewed faith in Atari, through him. I am really disappointed to see him go. I am sorry for two things especially...I didn't get the chance to say goodbye, and I didn't get the chance to say 'Thank You'.

Equipment volunteers for January:

ST Equipment: Al Jennings is bringing his color monitor, and Steve Volker with bring his system. Jerry and Ted, as usual, will bring the 8-bit equipment. Thanks Everyone.

FOR SALE:

Mars 3rd Drive Cable, never used, orig. $31.95, asking $25. Blitz Copy Cable, works great, disk with software, $35. Perry Mason game, original documentation, asking $12. All items for ST/MEGA and include *free* shipping (in the continental USA). Call Rich at (717) 238-3528 after 4:30 PM EST or contact RDEEN on GEnie.

Atari 130XE, 1050 Disk Drive with original boxes and disk-based games, $250. Numerous 8-bit cartridge games, $4 each or best offer. Call John Hileman at (717) 938-8753 between 6-9 PM EST or contact J.HILEMAN1 on GEnie.

The Washtenaw Atari Users Group meetings are held every second Tuesday of the month at 7:30 pm in the Michigan Union building on the campus of the University of Michigan on State street at the Corner of S. University in Ann Arbor.

Club dues are $15 per year and provides access to the PD library and subscription to AIM. Meetings feature demos of both 8bit and ST software and hardware. Non-members and questions are welcome. Officers can be contacted by BBS at Molin's Den at (313) 420-0407.

General Meeting, 12/12/89

The December Games & Entertainment Meeting was held on 12/12 in the Wolverine Room of the Michigan Union. Much of the evening was spent in light chit chat and game play on several computers supplied by members. Midi Maze ran on 3 STs while a 4th machine was kept busy playing a variety of additional other "favorites" and Bob Retelle showed us how to treat his favorite disease (Dungeon Master Elbow...) by using a mouse left-handed while demonstrating/playing the new release of Chaos Strikes Back, the long awaited release of Dungeon Master II. BobR has apparently practiced this A LOT! When asked to summarize his first impressions of the game, BobR's eyes lit up like a Christmas tree and he said, "It's just like Dungeon Master! only more so!" (Thank you Bill and Pattie Rayl for bringing your copy of the program to the meeting!)

On the 8-bit side of the room, members were treated to games which used the light gun, and enough other golden oldies to bring a nostalgic tear to one's eyes. It was interesting to note how many good games have appeared over the years on the magazine disks, and some members indicated their disappointment that Analog magazine is no longer being published as yet another bastion of the 8-bit genre fades into history.

President Craig Harvey announced the January meeting topic would be Telecommunications, and efforts are being made to incorporate a discussion of Packet Radio in the agenda. February's topic will be Emulators, and we will be making every effort to show PC and Mac emulators on that night. February's topic coincides nicely with an expected visit by Bob Brodie, Atari Corp.'s User Group Coordinator, who will be in town with a STacy in tow. Bob will be the guest speaker at the Feb. meeting of Mactechnics, the local Macintosh club, to be held on Saturday 2/17, and will also speak at a special meeting to be held for interested Atarians on Sunday 2/18 in the Michigan Union. (Watch for announcements regarding time and location on local BBSs and here in AIM magazine. -Mike) Craig also informed the members that TWO copies of the latest version of PageStream had been donated to the club, along with a demo disk for the ST Library, by Soft-Logik. One copy will be raffled at the February meeting, and the fate of the second is still being considered. SL donated the software in exchange for a subscription to the club's newsletter and a review which is to appear in that newsletter.

Many thanks to both Soft-House Computer Center of Garden City, and to State Street Computer of Ann Arbor for their generous donations to this year's door prizes. Several members also contributed books and entertainment software from their own personal libraries. Prizes ranged from games to word processor packages to books as well as some coupons from the club disk libraries. Cookies and cake and soft drinks were supplied by Dick Selke and, (presumably...) his wife. The Chocolate cake was SUPERB!

Michael Olin, Sec'y - 12/17/89

People Are Talking About DC UTILITIES

"The wizards at Double Click Software have decided to bombard us with several top notch utilities at once in their first commercial software venture, and are these programs ever good!"
— ST ZMAG

"Squish loads and decompresses programs faster than a standard ST would take just to load the same program full-size."
— COMPUTER SHOPPER

"In keeping with the spirit of pushing the ST and its programs to the limit or past the envelope..."
— ST REPORT

"You won't want to be without this superb utiltiy disk and it's a steal at the price DC is asking."
— ST PLUG

only $29.95

DC SQUISH Save valuable disk space! Compress executable programs and desk accessories up to 1/3 their original size! And your programs stay executable! Makes programs load faster too!

DC DESKEY 2.0 Make any GEM program 'Expert Friendly.' Assign keystrokes to GEM drop down menus in any GEM program! Over 2000 possible key combinations!

DC XTRACT A super fast, pure assembly desk accessory that allows you to xtract, test, or list the contents of any ARC file. DC XTRACT is 4X faster than ARC.TTP, only 12K in size, and always ready when you need it!

DC RAMIT The FASTEST RAMdisk bar none! Allows you to make the RAMdisk look just like a floppy! Save the contents of the RAMdisk to one file, for quick loading of the same files! MUCH MORE!

DC DSKORG Make your DESKTOP.INF file an executable program! Change desktop windows, icons, the complete desktop layout quickly and easily by double clicking one program.

DC SEA Create programs from ARC files! That's right! DC SEA (self extracting ARC) allows you to make a program that will extract or list its own ARC contents.

All programs are 100% pure assembly language

Double Click Software

Double Click Software P.O. Box 741206
Houston, Texas 77274

Available now at your local dealer.
COD and credit card orders welcome. Mail orders add $2 postage and handling (Foreign orders add $5). Texas residents add 8% sales tax.

Free updates! Each order includes a surprise gift!

Phone orders: (713)645-3759
Support BBS: (713)944-0108

January 1990 Events Calendar

SUN	MON	TUE	WED	THU	FRI	SAT
	1	ACCD 2	GRASS 3	4	5	TACE 6
7	ACCT 8	WAUG 9	LACE 10	FACCS 11	Starfleet 12	COAC El Paso MAUG PHAST TAG 13
CACE MGAUG 14	SPACE STANCE 15	MACE 16	CCCC 17	18	19	RACC RACE 20
BRACE PACE 21	22	23	24	P3ACE ST SIG 25	26	27
28	29	30	31			

February 1990 Events Calendar

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	TACE 3
4	5	ACCD P3ACE XL/XE 6	GRASS 7	FACCS 8	Starfleet 9	COAC El Paso MAUG PHAST 10

AIM Advertisers

American Techna-Vision 9
(800) 551-9995
Artisan Software 12
(209) 239-1552
Best Electronics 13
(408) 243-6950
CodeHead Software 24
(213) 386-5735
CompuServe 15
(800) 848-8199
CSS 3
(716) 586-5545
Data Innovations 12
(812) 438-2604
Double Click Software 47
(713) 654-3759
Fast Technology 21
(508) 475-3810
ICD, Inc 17
(815) 968-2228
San Jose Computer 18
(408) 224-8575
San Jose Computer 19
(408) 224-8575
SoftHouse 25
(313) 422-6760
SofTrek 24
(407) 657-4611
Team Computers 28
(313) 445-2983
Tech-Specialities 35
(713) 691-4527
Toad Computers 30
(301) 544-6943

Inside Front Cover:
Rock Digital
(513) 254-3160
Inside Back Cover:
American Techna-Vision
(800) 551-9995
Back Cover:
CAL COM
(301) 933-3574

AIM Affiliated Clubs

Genesee Atari Group
PO Box E
Flint, MI 48507

Mid-Florida Atari Computer Club
1213 Baranova Rd.
Ocoee, FL 34761

American Techna-Vision

For Orders Only - 1-800-551-9995

CA. Orders / Info. - 415-352-3787

1050 MECHANISM

Factory fresh TANDON mechs. make difficult repairs a snap. Units are complete with Head, Stepper, Spindle motor, belt etc. Just plug in, no difficult alignments or adjustments required.

$47.50

POWER PACKS

Exact replacement transformer for 800/400, 1050 810, 1200XL, 850, and XF551 units. Part #CO17945.

$14.50

XL/XE SUPPLY

Power Pak for 800XL,600XL 130XE, 65XE & XE Game.

$25.00

VISICALC SPREADSHEET

Unleash the computing power of your 8 bit Atari with Visicalc. Compute everything from home finances to high powered financial projections. Hundreds of uses.

$19.95 DISK

THE BOOKKEEPER AND CX85 KEYPAD

You get both Atari's 8 bit professional bookkeeping system and the handy CX85 numeric keypad for one low price. Packages Factory sealed.

$19.95 4 DISK SET

XL 40 PIN LSI CHIP SET

A Complete set of 40 Pin Large Scale Integrated Circuits for your 800XL, 600XL or 1200XL computer. Great for quick repairs! Set contains one each of the following: CPU, GTIA, ANTIC, PIA AND POKEY.

$19.95

KEYBOARDS

New and complete subassembly. Easy internal replacement.

130XE/65XE	$35.00
800	$40.00
800XL	$29.50
400	$12.50

800 4 PIECE BOARD SET

Includes Main Board, Power Supply Assembly, CPU Module and 10K Revision B Operating System Module. All boards are new, tested and complete with all components $28.50

800/400 MODULES

NEW PARTS COMPLETE WITH IC'S

- CX853 16K RAM Module $9.50
- 800/400 CPU with GTIA . $8.75
- 800 10K "B" OS MODULE $8.75
- 800 POWER BOARD $14.50
- 400 POWER BOARD $9.50

INTEGRATED CIRCUITS

- CO14795 .. $4.50
- CO14805 .. $4.50
- CO12296 .. $4.50
- CO10745 .. $4.50
- CO14377 .. $4.50
- CO60472 .. $4.50
- 6532 .... $4.50
- CO12399B $4.50
- CO12499B $4.50
- CO14599B $4.50
- CO14806 .. $4.50
- CO10750 .. $4.50
- CO10444 .. $8.50
- CO60302 $9.50
- CO21697 $15.00
- CO61991 $15.00
- CO61598 . $20.00
- CO25953 $9.95
- CO24947 $15.00

1050 IC'S

- U7 - 6532 $4.50
- U8 - 6810 $4.50
- U9 - 6507 $4.50
- U10 ROM $19.50
- U13 2793 $19.50
- U5 LM2917 $8.50
- 5713 $5.25
- 2793 FDC $19.50

1050 Track Zero Sensor Assy. $8.50

850 INTERFACE

12 Piece Chip set. Includes all plug in IC's except ROM. Replacement fixes vast majority of 850 failures $19.50

COMPUTER BOOKS

ATARI PLAYGROUND WORKBOOK	$5.95
HACKERBOOK TRICKS & TIPS	$5.00
INSIDE ATARI BASIC	$5.00
ATARI BASIC REF. MANUAL	$5.00
HOW TO ATARI 6502 PROGRAM	$5.00
PROGRAMMERS REF. GUIDE	$14.95
ASSEMBLY LANGUAGE GUIDE	$21.95
XE USERS HANDBOOK	$21.95
XL USERS HANDBOOK	$21.95
ATARI BASIC FASTER & BETTER	$21.95
YOUR ATARI COMPUTER	$17.95
SAMS SERVICE MANUAL FOR THE 800,800XL,130XE,1050 OR 400	$24.95 EA
520ST SAMS SERVICE MANUAL	$37.50

PR: CONNECTION

SERIAL / PARALLEL INTERFACE FOR CONNECTING MODEMS AND PRINTERS $65.00

MISCELLANEOUS

600XL 64K UPGRADE KIT	$29.95
13 Pin Serial I/O Cable	$4.50
Special - 3 I/O Cables for	$10.00
ACE Joystick	$7.95
U.S. Doubler	$29.95
400 Board Set (W/O Kybd)	$22.95
Paddle Controllers (Pair)	$9.95
Rev. "C" Basic ROM IC	$15.00
Rambo XL w/o RAM IC's	$39.95
850 or PR Modem Cable	$14.50
850 or PR Printer Cable	$14.50
8-BIT Monitor Cable	$9.95
Printer Interface	$43.95
I/O 13 Pin PC connector	$4.50
1030 Modem Power Pack	$6.95
800XL RF MODULATOR	$9.50

CARTRIDGES

For XL's/XE's 800/400

PAC-MAN Cartridge	$4.00
DONKEY KONG Cartridge	$5.00
DELUXE INVADERS Cartridge	$4.00
STAR RAIDERS Cartridge	$5.00
JOURNEY TO THE PLANETS Cart.	$4.00
POLE POSITION Cartridge	$15.00
BARNYARD BLASTER Cartridge	$19.50
BALLBLAZER Cartridge	$17.50
HARDBALL Cartridge	$17.50
LODE RUNNER Cartridge	$19.50
GATO Cartridge	$19.50
ONE on ONE BASKETBALL Cart.	$17.50
NECROMANCER Cartridge	$17.50
FOOTBALL Cartridge	$14.95
STAR WARS - Return of the Jedi	$9.95
GORF Cart. 800/400 Only	$4.00
MILLIPEDE Cartridge	$10.00
PLATTER MANIA Cart. by Epyx	$7.50
WIZARD of WOR Cartridge	$9.95
CAVERNS of MARS Cartridge	$12.50
PENGO Cartridge	$12.50
EASTERN FRONT Cartridge	$12.50
TURMOIL Cartridge	$5.00
SPRINGER Cartridge	$7.50
ADVENTURE CREATOR Cartridge	$12.50
SILICON WARRIOR Cartridge	$12.50
MATH ENCOUNTER Cartridge	$12.50
BASIC LANGUAGE Cartridge	$15.00
PILOT LANGUAGE PACKAGE	$17.50
SPARTADOS-X Cartridge	$59.95
ACTION O.S.S Cartridge	$59.95
ACTION TOOL KIT DISK	$25.00
ACTION RUN TIME (DISK)	$25.00
MAC-65 O.S.S. Cartridge	$59.95
MAC-65 TOOL KIT DISK	$25.00
R-TIME 8 Cartridge	$56.95

SPINNAKER EDUCATIONAL CARTRIDGES

KINDERCOMP Cartridge	$8.75
FRACTION FEVER Cartridge	$8.75
FACEMAKER Cartridge	$8.75
ALPHABET ZOO Cartridge	$8.75
UP FOR GRABS Cartridge	$8.75
ALF IN THE COLOR CAVES Cart.	$8.75
DELTA DRAWING Cartridge	$8.75
STORY MACHINE 800/400 only	$8.75
LINKING LOGIC (Fisher-Price) Cart.	$8.75
GRANDMA'S HOUSE (Disk)	$8.75

HOT DISK TITLES

BEST SELLERS / LOW PRICES

- GHOSTBUSTERS $9.95
- SEVEN CITIES OF GOLD $9.95
- LORDS OF CONQUEST $9.95
- ONE ON ONE BASKETBALL $9.95
- RACING DESTRUCTION SET $9.95
- VIDEO TITLE SHOP (64K) $14.95
- CHESSMASTER 2000 ..... $12.50
- ALTERNATE REALITY THE CITY $12.50
- ALTERNATE REALITY DUNGEON $12.50
- TOMAHAWK (64K) $12.50
- PINBALL CONSTRUCTION SET $12.50
- 221-B BAKER STREET (64K) $12.50
- MUSIC STUDIO $12.50
- MUSIC CONSTRUCTION SET $12.50
- F-15 STRIKE EAGLE $14.95
- TOP GUNNER COLLECTION $14.95
- SILENT SERVICE $14.95
- KENNEDY APPROACH $14.95

• • INFOCOM • •

- WISHBRINGER $14.95
- MOONMIST $14.95
- SPELLBREAKER $14.95
- SEA STALKER $14.95
- HOLLYWOOD HIJINX $14.95
- STATION FALL $14.95
- INFIDEL $14.95
- LURKING HORROR $14.95
- CUT THROATS $14.95
- BALLYHOO $14.95
- SUSPENDED $14.95
- WITNESS $14.95
- HITCH HIKERS GUIDE $14.95
- ZORK 1 ..... $14.95
- DEADLINE $19.95
- FOOBLITSKY $12.50

DISK BARGINS

- ZORRO $4.95
- CROSSCHECK $4.95
- THE GAMBLER $4.95
- MOONSHUTTLE $4.95
- SPIDERMAN $4.95
- ULYSSES & THE GOLDEN FLEECE $4.95
- HUMAN TORCH & THE THING $4.95
- DAVID'S MIDNIGHT MAGIC $4.95
- TECHNA-COLOR DREAM $4.95
- ALIEN AMBUSH $4.95
- REAR GUARD $4.95
- PROTECTOR $4.95
- ROCKET REPAIRMAN $4.95
- SPEED KING $4.95
- THE LAST V-8 ..... $4.95
- PATHFINDER $4.95
- MATCH RACER $4.95
- STRATOS $4.95
- WOMBATS 1 ..... $4.95
- FREAKY FACTORY $4.95

Disks-XL's/XE's/800

NEWSROOM (1050 - 64K)	$12.95
GHOSTBUSTERS Disk	$9.95
SEVEN CITIES OF GOLD	$9.95
RACING DESTRUCTION SET	$9.95
ONE ON ONE BASKETBALL	$9.95
LORDS OF CONQUEST	$9.95
F-15 STRIKE EAGLE Disk	$14.95
TOP GUNNER COLLECTION	$14.95
SILENTSERVICE Disk	$14.95
KENNEDY APPROACH Disk	$14.95
NATO COMMANDER Disk	$14.95
S.A.T. MATH	$17.95
S.A.T. VERBAL	$17.95
VISICALC Spreadsheet	$19.95
BOOKKEEPER & CX85 KEYPAD	$19.95
MUSICAL PILOT Ed. Disk	$5.00
CON*PUTATION Disk	$5.00
MASTER CHESS Disk	$5.00
FAMILY FINANCE Disk by Atari	$6.50
FORT APOCALYPSE Disk	$7.50
NINJA Disk	$7.50
ELECTRA-GLIDE Disk	$7.50
MIND MAZES (Educational)	$7.50
FUN IN NUMBERS (Educational)	$7.50
COUNTING & ADDING with Tink	$9.95
VIDEO VEGAS Poker & Slots	$9.95
ACTION BIKER	$9.95
KICK START	$9.95
MONEY TOOLS (Financial Utility)	$9.95
DIG DUG Disk	$9.95
REPTON Disk	$9.95
PUZZLE PANIC Disk by Epyx	$9.95
CEST'E LA VE Disk	$9.95
WOMPER STOMPER Disk	$9.95
OLIN EMERALD (Jr., Adv.)	$9.95
MOVIE MAKER (Graphics)	$9.95
FINANCIAL COOKBOOK	$9.95
CYCLE KNIGHT	$9.95
SONG WRITER	$9.95
CHESSMASTER 2000	$12.50
PINBALL CONSTRUCTION SET	$12.50
BRIDGE 4.0	$12.50
PEGAMMON	$12.50
MUSIC STUDIO	$12.50
MUSIC CONSTRUCTION SET	$12.50
HOTEL ALIEN	$12.50
FOOBLITSKY Disk / Board Game	$12.50
L. A. SWAT	$12.50
CASTLE WOLFENSTEIN Disk	$12.50
BEYOND CASTLE WOLFENSTEIN	$12.50
TEMPLE of APSHAI	$12.50
ALI-ANTS Disk	$12.50
MOUSE QUEST Disk (64K)	$12.50
ELECTRONIC DRUMMER Disk	$12.50
STOCK MARKET Game	$12.50
PIRATES OF THE BARBARY COAST	$12.50
NICKERBOCKER Disk	$12.50
BOULDER DASH Construction Set	$12.50
GOLDEN OLDIES (4 Classic Games)	$12.50
MIND SHADOW Adventure 64K	$14.95
HACKER Adventure	$14.95
SEA STALKER Adventure	$14.95
CONFLICT IN VIETNAM	$14.95
DECISION IN THE DESERT	$14.95
CRUSADE IN EUROPE	$14.95
SPITFIRE ACE	$14.95
MASTERTYPE (Typing Tutor)	$15.00
BANK STREET WRITER	$17.50
CUT & PASTE W.P. Disk	$17.50
SCHEMATIC DESIGNER	$24.95
THE SCANALYZER	$29.95
Advanced Protection Techniques	$24.95
BASIC TURBOCHARGER	$23.95
YOUR ATARI COMES ALIVE	$23.95
SPARTADOS CONST. SET	$39.50
SPARTADOS Tool-Kit	$32.95
LJK DATA PERFECT Database	$CALL

SSI QUALITY SIMULATIONS

SSI Rebel Charge at Chickamauga	$14.95
SSI SHILOH	$14.95
SSI THE ETERNAL DAGGER	$14.95
SSI 50 MISSION CRUSH	$14.95
SSI BATTALION COMMANDER	$14.95
SSI PANZER GRENADIER	$14.95
SSI FIELD OF FIRE	$14.95
SSI WIZARDS CROWN	$14.95
SSI GEMSTONE WARRIOR	$14.95
SSI PHANTASIE	$19.95
SSI SONS OF LIBERTY	$19.95
SSI U.S.A.F.	$19.95
SSI WARSHIP	$19.95

DATASOFT DISKS

VIDEO TITLE SHOP 3 DISK BONUS PACK	
Contains VTS + 2 Companion Disks	$14.95
ALTERNATE REALITY (The City)	$12.50
ALTERNATE REALITY The Dungeon	$12.50
SARACEN Disk	$9.95
GUNSLINGER Disk (64K)	$9.95
TOMAHAWK Helicopter Game 64K	$12.50
THEATER EUROPE War Game	$12.50
BRUCE LEE Disk	$12.50
MERCENARY Disk	$12.50
MERCENARY 2ND CITY DISK	$12.50
THE GOONIES Disk	$12.50
CONAN Disk	$12.50
NEVER ENDING STORY (64K)	$12.50
221-B BAKER STREET (64K)	$12.50
221-B BAKER ST. Case Library 1	$9.95
221-B BAKER ST. Case Library 2	$9.95
Napolean in Russia (Borodino 1812)	$12.50
BISMARCK	$12.50

CALL TOLL FREE

1-800-551-9995

IN CALIF. OR OUTSIDE U.S.

CALL 415-352-3787

AMERICAN TECHNA-VISION

Mail Order: 15338 Inverness St., San Leandro, Ca. 94579

Sales Office: 2098 Pike Ave., San Leandro, Ca. 94577

Terms: NO MINIMUM ORDER. We accept money orders, personal checks or C.O.D.s. VISA, Master/Card okay. Credit cards restricted to orders over $18.50. No personal checks on C.O.D. - Shipping: $4.00 shipping and handling on orders under $150.00. Add $2.75 for C.O.D. orders. In Canada total $6.00 for shipping and handling. Foreign shipping extra. Calif. residents include 7% sales tax. All products new and guaranteed. All sales final..

Prices subject to change without notice. Send SASE for free price list. Atari is a reg. trademark of Atari Corp.

DATED MATERIAL!

PLEASE RUSH!!!

Unicorn Publications
3487 Braeburn Circle
Ann Arbor, MI 48108
(313) 973-8825 Voice
(313) 973-9137 BBS

BULK RATE
US POSTAGE
PAID
PERMIT #468
ANN ARBOR, MI

CAL COM INC.

2503-B Ennalls Ave. Silver Spring, Md. 20902 (301)933-3074

Portfolio- $389.95 & Accs in stock!

MIDI SOFTWARE HEADQUARTERS

Everything for Beginners to Pros.

Dr. T's C-LAB

Digidesign Sampler CD's

Tiger**T-Basic**X-Or**Proteus Editor!

CUBASE with M-ROS

All in STOCK NOW!

Authorized ATARI Sales & Service

IMG Scan

$49.95!!

Konyo DS/DD Drive

$169.95

Brand New for your "Midiot"

Come see the new line of *Roland Midi* Modules for the ST. These new modules have sound effects, drums, and hundreds of instruments, and best of all;

THEY ARE SET-UP TO PLAY ALL SIERRA GAMES SOUNDTRACKS!!

Starting at $450.00

Cal Com ST Hard Drives

50 MB SCSI HARD DRIVE- $699.95

65 MB SCSI HARD DRIVE- $799.95

85 MB SCSI HARD DRIVE- $899.95

ICD FAST Case & Desktop Style

155 MB Tapestream with 50 MB SCSI Just $1349.95! Or we can install your present SCSI Drive in the Tapestream FAST Case for only $949.95!

CHAOS STRIKES BACK-$31.95

Discovery Cartridge Overstock Sale!

Option 0 now just $109.95!!

(sorry, no option 2's available)

SLM-804 Laser toner in stock-$49.95

Game Closeouts by the Dozen!

30%-50% off many titles!

SONY 2S/2D Disks with Case

$15.95 for 10

CAL COM BBS Back on-line!

(301)933-2401 1200/2400 Baud

There is a $10.00 charter fee.

DTP Headquarters Presents:

*VIKING MONITERM MONITOR:

1280 x 960 Resolution;

Match Co-Processor Slot;

New Decade Special- $1449.95!

*The *IMAGE* Video Board for the Mega ST.

Palette of 4096 colors, Resolution to 1024 x 760, and all three resolutions with 1 Multi-sync monitor, including FULL PAGE DISPLAY!

Just *$749.95* (monitor extra)

Many Multi-Sync models available including NEC, SONY, and TOSHIBA!

*Practical Solutions *WIRELESS MOUSE!* You've got to see it to believe it!

**Scanning and Laser Printing available on Calamus, Pagestream, Fleet Street and Timeworks (G-DOS & Postscript)*