ABE'S LOG - FEBRUARY 1986

ALLENTOWN BETHLEHEM EASTON ATARI COMPUTER ENTHUSIASTS
PO BOX 2830, LEHIGH VALLEY, PA 18001-2830

SATURDAY, JANUARY 11, 1986

BILL HOLT, FROM BRODERBUND, ADDRESSING OUR MEMBERSHIP IN THE ARTS CENTER AT NCACC. PHOTO BY DENNIS JOHN.

COMING EVENTS

GENERAL MEETINGS

Our next general meetings are scheduled as follows:

March 8, 1986
Printers & Monitors

April 5, 1986
Magazine Support for Atari

Both meetings start at 9 AM!

SPECIAL INTEREST GROUPS

The next SIG meetings are as follows:

MODEM SIG
February 23
March 30

ST SIG
February 22
March 29

WOMEN'S SIG
Dates and time
to be announced!

SIG meetings start at 2 PM!

GAME HINTS By Dennis Galligani
THE GREAT AMERICAN ROAD RACE

By using some of the methods listed below, I was able to average 157 MPH and knock All-American Al off his lofty perch of first place. Some of you real gamers may already have your own methods.

1. Always try and outrun the cop car. When you first hear the siren, increase your speed to the max. and maintain this speed until you pass the cop. Don't take your finger off the fire button or else you may slow down due to a slippery road.

2. The time you start the race is very important. Try early morning from San Francisco - say 2 a.m.

3. When stopping for gas it really helps your time to get in and out as fast as you can. Try down shifting and pulling off the road (just a bit) at the same time. Rubbing against the curb with your tires will help slow you down fast.

4. When switching lanes, speed up or else your speed will drop quickly.

5. Also, if you can't drive stick shift, forget it! You'll just get frustrated and call the game a few choice words and probably say the game stinks anyway.

HOMECARD
Reviewed By Dennis Galligani

HomeCard was created by Russ Wetmore, co-author of HomePak, and Sparky Stark, for the affordable price of $19.95, and is offered through Antic magazine's Catalog.

HomeCard is both a database and an autodial program, which is very easy to use (I know everyone has heard this claim before, but its true) and functions quite fast. The documentation is on the back of the disk and can be sent to the screen or your printer. Now more about the program.

The database is produced in the form of index cards, each containing 12 lines with each line having a maximum of 32 characters. You can add backs to the cards and the backs can have backs, etc... Each disk can hold a "box" of 233 filing cards. I haven't determined yet how many backs of cards can be created for the 233 filing cards. Now, for one of the really neat features, HomeCard allows up to 8 Labels. One may be called Relatives or Friends or Enemies or Atari Club Members. When you create a card, you may place it under a label and mark it by placing a hole at the top of the card. Later, let's say you want to search your database only for all ACE members who are up for membership renewal and call them. HomeCard, through its "Parade" function will parade in front of you only those cards that you have placed the hole on under the label of Atari members.

The printer option is very exciting and allows a great deal of flexibility. There are eight ready made print formats in the program (You can add your own). Several of the formats dump various types of mailing lists to your printer. You can be very creative with Custom print formatting.

The autodial function works like this; first, you enter a CONTROL "D" at the beginning of any line, then enter your phone number without spaces. Now, any time you want to make a phone call, just pull up a card on the screen, with you modem already on, and press "d" for dial. You'll see the number being dialed and when there is an answer you'll be prompted to pick up your phone. Actually, you can do this any time after pressing "D". A nice feature here is that you don't need a modem to operate the autodial. You can choose Tone dialing on the set-up menu. All you do then is place your phone near the speaker of the tv and turn up the sound. I tried both tone and modem dialing (with 1030) and both worked fine. The program is also set-up for a Hayes compatible.

If you own a XL or XE computer, you won't have to hold down the OPTION key when booting the program, HomeCard automatically disables Basic.

HomeCard surely can be a great addition to any Atari owner's software library and, by using your imagination, you'll be able to develop numerous applications for HomeCard, which I rate an "A".

COMMERCIAL SOFTWARE

Reviews by Brad Piatt

Holmes & Duckworth Forth
Mirage Concepts, Inc.

This is a partial implementation of Forth-83 for the ST. It uses a 32-bit stack and allows access to GEM and graphics. Floating point and integer math are supported and the run-time system is included. I haven't had time to play with this language much. The package works and seems to be a good package to learn Forth on. The documentation does not provide a tutorial, so you must purchase a book on Forth (Starting Forth by Brodie is highly recommended). You can't beat the price at $39.95.

Holmes & Duckworth Tool Box
Mirage Concepts, Inc.

The Tool Box contains several useful disk utilities. 1) A sector/memory editor which displays in HEX or ASCII: This utility allows you to explore disks and the memory in the ST. The disk sector editor is limited in that it will only edit single-sided format. 2) A fast format and copy program which allows you to copy and format disks in one step: This one program is worth the price of the package. The format/copy program saves many disk swaps. 3) The deleted file recovery utility automates the recovery process (useful if you have just incinerated several hours of work). The price for the package is $24.95

Chat 1.1
SST Systems

Chat is a full-featured terminal program that uses GEM. Chat features XMODEM, capture and autodial (for Hayes modems). The program works well with the following exceptions: it uses the mouse for many operations, making the program clumsy to use, and CompuServe tends to crash it during XMODEM downloads. Even with its faults, Chat is worth the price at $19.95

Fahrenheit 451
Telarium Corp.

Fahrenheit 451 is a pictorial adventure game by Telarium software. The game is based on Ray Bradbury's book with the same title. The graphics are excellant and add a lot to the game. Based on my InfoCom experience, 451 is a moderate to easy adventure. The program only accepts two word sentences, not up to InfoCom standards, but the excellant graphics make up the difference.

TIPS

Adventure in the boot sector

I was rummaging around on my TOS disk and discovered a boot sector (track 0 sector 1). The boot sector is not part of TOS.IMG but is read first on boot. This is why you cannot copy TOS.IMG with the file copy program! The boot sector seems to control the boot, specifying what is loaded, the number of sectors to a track, etc. I have not been able to decipher how to set the resolution on boot. If a program in loaded from the AUTO folder on boot, the system comes up in low resolution. Any ideas?

The mighty ESC key

Ever change disks and want a new directory? If you hit ESC when a window is open, the computer will automatically put the directory in the open Window, a la logging a disk into CP/M. The ESC key also clears text fields in dialog windows. Open the control panel window and hit ESC, the date and time are cleared with the cursor sitting at the beginning of the field.

Text file tip

The ST allows you to view text files on the screen by clicking on them and selecting show in the dialog box. This is great, unless the file is long and/or you picked the wrong one! You don't have to page through the whole file to get back to the desktop. Press the letter "Q" and you will return to the desktop directly.

ST SIG MEETING

The second meeting of ABE's ACEs ST SIG took place on January 25, 1986 at Walt Lukow's house. Attendance was up slightly over the first meeting.

The meeting opened with a sound and graphics demo by Audio-Light shown by Dennis John. This was followed by a demo of DEGAS by Batteries Included, after which a copy was handed out with the understanding that the recipient would provide a review for the newsletter and a demo for the general meeting.

The next program demoed was HabaDex by Haba. Ralph Fenner showed some of the features that he liked most about this phone and mailing list program. Next, Walt Lukow demoed the very powerful VIP Professional spreadsheet. The last demo was First Word processor, shown by Dennis John. This is one of two new "freebies" which Atari is now bundling with the ST.

THE MISSING LINK

by Dennis John

If you purchased your Atari computer system in the last two years, you may be interested in this bit of trivia. Once upon a time, Atari computers were sold at computer shops, right next to "real" computers.

Back in 1981-82, General Computer, 20/20 and even Computerland handled the Atari line. Prices were right up there with the Apple too. Atari's list price for a 48K 800 with one disk drive, 80 column printer and interface (monitor not included) was just under $3,000!

When Atari dropped the prices of its computers and moved into the mass-merchant chains, we, the consumer, lost two things. First, we lost almost any hope of purchasing the Atari from someone who knew the product. Not every salesman in the computer stores was well informed about the Atari, but at least one person at each store knew the machine. Of the several thousand employees in the Kiddie-City chain, you'd be hard pressed to find three who know the difference between a 2600 and a 600XL. The second thing we lost was documentation. The original Atari came with a good hardware manual. In addition, Atari included a 332 page BASIC book with the computer. The 850 interface came with a 100+ page technical manual. The 810 disk drive had a 100 page DOS manual and so on. The manual(?) with the 800XL was a joke. The new Atari Corporation is improving in this area. The 130XE for example, comes with a very nice manual.

All of this leads to the title of this article, The Missing Link. What is needed is some way to instruct and educate new Atari owners. Users groups are part of the solution. Our club, for example, is starting a beginners corner this month where we will try to answer some of the most common questions new users have. A 30 minute session, once a month, isn't going to be enough help for some of our members. Enter Dr. Bob.

Dr. Bob Loux has been running ads in our newsletter for quite some time now. I'm sure you've all seen them and yet, if you're like me, you may not have given much thought to the value they represent. What good is a great computer system like the Atari, if you're unable to utilize all of its powerful features? Dr. Bob fills the void opened when the Atari moved from the computer store to the mass-merchant.

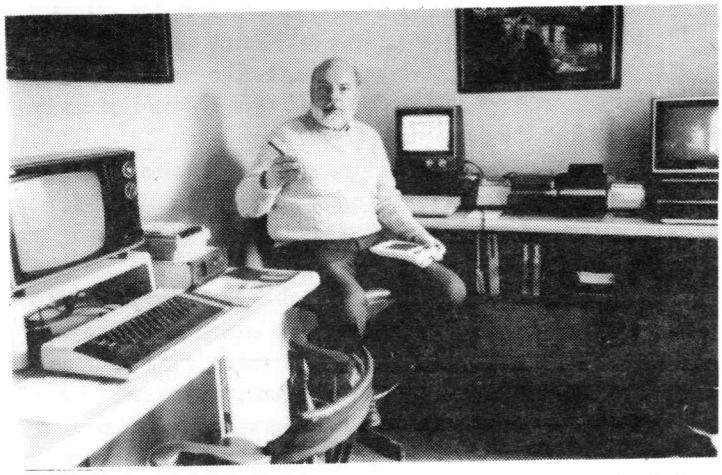
Dr. Bob is a former teacher, counselor and school psychologist. He became interested in computers when the school district started using them as part of the curriculum. Since the Allentown School District had chosen Ataris for its elementry schools, Dr. Bob followed suit and purchased an Atari as his personal computer. When he retired about a year and a half ago, he decided to offer basic computer class as a way of supplementing his income.

"I started off with all adults," says Dr. Bob. "Most of my students were business people for spreadsheets, data management and so on. Now things seem to be opening up with the kids." Part of the credit for the influx of younger computer students goes to Bob's wife, Lillian who runs the art corner. Dr. Bob uses the Koala Pad as a way of introducing budding artists to the joys of computer art. He's had art workshops on all levels from Brownie/Girl Scout troops to adults. Dr. Bob puts his educational background to good use. "I've had parents bring in children who they can't motivate to use the computer. What we do is get them hooked on games, especially adventure games. Once they're into that, then we get them to change the adventures. Without realizing it, they're into programming."

Music is another of Dr. Bob's interests. He's waiting for his MIDI hardware/software to arrive so that he can connect his Casio CZ-101 to the Atari.

Still, the most common needs among new computer users involve the basics. "I get an awful lot of people who just want to know how to run the computer," says Dr. Bob. "They have that DOS 3, they can't get one program over from one disk to another. The disk operating system and setting up autorun disks seems to be an area where many people need help."

Word processing workshops are also given. On top of one of the counters is a stack of Atariwriter cartridges. Dr. Bob instructs students on how to use the program without a printer driver, with any printer.



The computer classroom Dr. Bob has set up includes Apple and Commodore computers as well as Ataris. On some days, they're may be six or more Atari computers for a given workshop. Dr. Bob's lessons and workshops may well be the missing link that will help Atari owners get more out of their computer investment. At $3 per hour, you can be assured you won't find a better computer instruction value anywhere.

If you'd like more information, or want to make an appointment, call Dr. Bob at 797-5298 or see him in the lobby at any of our general club meetings.

PRESCHOOLERS ON COMPUTERS

by Shirl

I received a lot of criticism this Christmas when I purchased computer Software for my three children. After all, everyone knows that children must know how to read before they can begin using a computer.

WRONG!!! There are lots of programs out there for youngsters from about 3 years old on up. One excellent series is put out by CBS Software, and is produced in cooperation with the Childrens Television Workshop (better know as Sesame Street). The Sesame Street series uses the relationship established with your child through the television series, to help young child feel comfortable with the computer.

Each program is available with the "Easykey - Keyboard Overlay". If you can get the overlay, do so! First of all, your little darling will not get jelly or God knows what else on your keyboard. But the real reason is that the overlay is designed to help your child, and it does. The overlay is not cluttered with a lot of keys that your child does not need, thus making it easier for your child to find the proper key. The overlay is different for each piece of software, and is made of easy-to-clean vinyl. The overlays aimed at Preschoolers use the familiar faces of the Sesame Street Pals. The more advanced programs use oversized bold numbers, located at the same spot as on your keyboard, so that when your child is ready to work without the overlay system, they will know how and where to locate the necessary keys. Each program comes with two overlays, one for the XL series and the other for the 800. Also, these programs come on cartridge and do not require the use of either a tape or disc drive, making it very easy for you to take an old keyboard that you are not currently using and set it up for the kids.

My youngest has just turned 4 and has been using our system for over a year. These new programs are among her favorites and she constantly asks to play one of them. Since these programs are on cartridge, they only take a few seconds to set-up. While she is being entertained, and is out of my way, she is also learning. Whenever we introduce her to a new program, we work with her until she is able to understand how to play it by herself. She is currently using Big Bird's Funhouse and the first stages of both Astro-Grover and Letter-Go-Round. The next oldest is an 8-year-old girl. She is learning reading and arithmetic in school and both Astro-Grover and Letter-Go-Round reinforce her classwork. She is almost out of the Sesame Street series and is ready for more advanced work.

Big Bird's Funhouse is a memory teaching game where children pick certain Sesame Pals to hide and then try to remember who is hiding; at higher levels of play, they are asked to find the pals in the same order they were hidden in. Astro-Grover is a early math game. Grover helps children learn what each number looks like. (It's great when the little ones can count to 20, but even better when they know what each number actually looks like.) As they get bigger, Grover teaches addition and subtraction. Letter-Go-Round, in its early screens, is a matching game using upper case, lower case, or mixed case depending on level of play. The other three screens concern themselves with early words, either matching the word letter by letter, filling in the blank, or coming up with the whole word by yourself. Whatever game that they play, the children receive praise from their beloved Sesame Pals whenever they get the right answer. As we all know, kids eat up praise and are more than willing to learn new things when they know that this will be their reward.

These programs are done so well that children are not aware that they are working on Educational software. The only problem that we have is that both girls want to be on the computer at the same time; luckily, we have an extra keyboard.

I feel that parents must take an active part in choosing what software they let their kids use. It would not be at all beneficial to allow the kids to just play games all day. We have a firm rule in our home, "Arcade time" must not be more than the amount of time spent on "Educational software". This has not been a problem because the creators of Children's Software have made a real effort to make these programs fun. Thanks for your time - now to go make a half dozen peanut butter and jelly sandwiches.

MORE POKEY POKES

SOUND PROGRAMMING BY J.D. CRAIG

There are many reasons to use POKE instead of the SOUND commands in Atari BASIC.

For one thing, a POKE to an AUDC or AUDF register (locations 53760 thru 53767) is a more specific command: POKE 53760,0 affects only one "volume and tone" register, whereas SOUND 0,0,0,0 also has a "pitch" component. Since the machine is actually using two separate registers to create its sound effects, it is more realistic to deal with the effects on those terms. Should you ever get a system that uses an entirely different processor or "personality" chips, and decide you'd like to have the new system play some of your old music software, this practice could help the transfer greatly.

Second, POKEing allows you to deal with the POKEY chip as the 6502's internal programming does: in values from 0 through 255. (This expansion of the binary system is common to almost all 8 bit micros.) Try this program, with a joystick plugged into the left port:

```
10 GRAPHICS Z:G=1:H=3:F=5:U=14:D=13:R=
7:L=11:J=19:X=632:T=644:E=255:AF=53760
:AC=AF+G:AUC=AC+R:SK=AC+U
20 POKE AUC,Z:POKE SK,H:B=AF:C=5:POKE
752,G:REM D:SOUNDSTK.JC1
30 IF PEEK(X)=D THEN A=A-G:IF A<Z THEN
 A=E
40 IF PEEK(X)=U THEN A=A+G:IF A>E THEN
 A=Z
50 IF PEEK(X)=R AND B=AF THEN B=AC:C=J
60 IF PEEK(X)=L AND B=AC THEN B=AF:C=F
70 POKE B,A:POSITION C,H:? B;"  ";A;"
 "
80 IF PEEK(T)=Z THEN LIST :POKE 752,Z:
END
90 GOTO 30
```

This simply takes values between 0 and 255 and POKEs them into locations 53760 (AUDF1) and 53761 (AUDC1). Moving the stick up or down controls this variable, moving left or right controls where it is POKEd. With a little experimentation, you can discover the true nature of POKEY sound. Pitch (53760) is pretty much a stepped continuum, with the POKEd variable representing a single "divide by" function. Tone and volume (53761) are arranged so that volume increases from 0 (off) through 15 (maximum), then from 32-47, 64-79, 96-111, 128-143, 160-175, 192-207, and 224-239, in each tone group. In between these points are areas of silence. You might also notice that the groups starting at 0 and 128, 32 and 96, and 160 and 224, sound alike. So there are really only 5 tone groups available from the POKEY chip.

A final reason for using POKEs rather than SOUND commands lies in the creation of envelopes. We can make our sound much more interesting if we do more to each note than just turn it on or off. For example, changing these lines in last issue's program creates a simple "percussive envelope" for each tone.

```
50 FOR LL=170 TO 160 STEP -D:POKE 5376
1,LL:NEXT LL
100 DATA 15,.2
101 DATA 20,.6,21,.6,20,.6
102 DATA 19,.2
103 DATA 20,.2
104 DATA 0,.2
105 DATA 16,.2
106 DATA 15,.2
```

If a negative running loop (as in line 50) is used with a SOUND command and fractional values, there may be problems. Either the resulting fraction may not be low enough to turn the sound completely off, or the program may crash from trying to use a value below zero. Using the POKE values keeps you in the actual range wanted, and if a value slips a bit below a level like 160, the system could care less.

A few words about execution times: Sometimes a program will slow down appreciably as it runs. Things can be stabilized by running out a counter (FOR L=1 TO 100: NEXT L) before actually starting the tune. Or timing values can be experimented with until it sounds right. Notice, however, that the floating point math package does not give completely uniform control. For example, there is a lot more difference than one would think between STEP -1 and STEP -1.001: The additional precision needed can slow up processing. If you really want absolute control, use the hardware timers (at 18, 19, and 20) to move through your tune. These are the real-time clock locations, and are as reliable as, well, clockwork.

In conclusion, let me pass on a question from one of our members regarding lines like line 10 in the first program. Why do all that stuff? Well, that stuff is a minor example of initialization. It is done because the Atari handles variables (AF) much faster than integers (53760). The undefined variable Z will be equal to zero.

Next issue, we start to design a 3 part Christmas tune from scratch. We may finish in time for Christmas '86.

The first program above and the update to the one from last issue are available on library disk.

LIBRARY NEWS

by John Slaby

As a reminder, sign up for the ANALOG subscription at the discounted price of $24 for a year by the March meeting. Please make out a check to ANALOG Magazine for the $24.00 amount. This savings is possible only because you are a member of a User Group. This is one of your benefits, take advantage of it. We DO NEED 10 people to signup to get the discount rate. Only 6 have signed up to date!

The reorganization of the disk library is complete, so do not ask for A or U series disks as the contents of these disk have been reassigned to the new 100+ disks and the Archives (#1-99).

SPECIALS

Right now it appears that the specials will be as follows:
Feb. - Art and Music disk
March - The Best from SigATARI
April - The Best from ROM
May - The Best from ANALOG #4
June - ELECTIONS, no special

Also, it looks like specials will no longer be monthly after the elections. I suspect that due to lack of NEW QUALITY programs to FILL a disk, we will have to go to a bimonthly or quarterly special.

PAPER LIBRARY

Some people are taking advantage of the paper library. When you borrow a book or magazine you are to return it the NEXT meeting. If for some reason you can't make it to the meeting, find someone that can take it in for you. It is unfair to the rest of the members of our user group for you to hold on to a magazine or book for months.

CLASSIFIED ADS

FOR SALE: 400KZD Kawasaki '75. Only 9300 miles. Garage kept. New rear tire & battery. Fering & saddle bags. Asking $550. Phone 252-1991, John Slaby.

FOR SALE: Atari 400 Computer, $20. 2 WICO Red-Ball Joysticks, like new, $10 each. Miner 2049'er, $10. Galaxian & Missile Command, $5 each. Hayes 300 Smartmodem (with Atari Telelink cartridge), $160 for both. Call Bill, 797-9256, after 6:00 PM.

FOR SALE: VIP Professional spreadsheet. Asking $100. Call Wayne Snyder, 433-3458, in the evening.

THE COMPUTER AND YOU

by Jim Upton

Not so long ago, business computers were huge pieces of equipment hidden away in antiseptic rooms and attended by a special class of computer specialists. Personal computers made computing accessible to ordinary people. Secretarys found themselves working with a computer and a plastic disk containing a word-processing program. Clerks became adept at indexing and filing electronically. Accountants put away their ledger sheets in favor of electronic spreadsheets. Managers made fewer educated guesses and more decisions were based on the conputer's ability to do hundreds of calculations almost instantantly.

Meanwhile, out of the arcades came the video game machine, introducing millions of American families to the computer as a playmate.

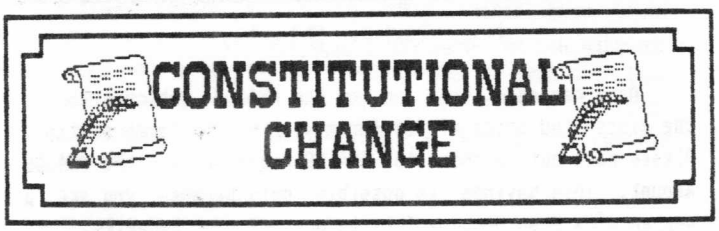
The video game machine is a "dedicated" computer, given over to a single function. It incorporates all the elements of a computer that can do more than play games. Its heart is a solid-state chip called a central processing unit (CPU), and its associated memory. The CPU is something like a brain capable of certain tricks but unable to remember what those tricks are. The CPU is jogged into action only when a program is loaded into the computer's memory. Programs are loaded into a video-game machine by inserting a game cartridge into a slot in the machine. General purpose computers receive their instructions from either a disc or a cassette tape device connected to the computer. In some instances these devices may be incorporated into the computer itself.

Once a program is loaded into the CPU, the computer can remember what tricks it's supposed to do. But usually lacks the initiative to do anything until you give it directions.

Directions are given through an input device. In the game machine, its typically a joystick or a joystick with a keypad with numbers on it. You punch a number on the keypad to tell the machine what game you want to play or what level you want to play at. Maneuvering the joystick tells the machine how to move a paddle, ball or weapon during the course of the game. The input device of a general-purpose computer is a keyboard much like a regular typewriter but with additional symbols. The keyboard lets the operator input more detailed information required by more complex programs in addition to letting the operator write his own programs

In order for the operator to see what the machine is doing or to input additional information requested, an output device called a monitor must be connected to the CPU. The output device for a game machine is usually a TV set. General purpose computers can also use a TV set although most are connected to a video display terminal or a monitor capable of producing sharper images.

What has been described to this point is a very basic computer system. It is the writer's belief that in order to take full advantage of any computer, many more devices called peripherals must be added, which we will discuss in a future article.



Proposed by Thom Geller

The following constitutional change will be voted on at the April 12 general meeting:

7. Election of Officers

7.1 The Executive Committee of the Club shall be elected at the June meeting to serve for a one year term.

7.1.1 The term shall commence July 1st, and terminate June 30th.

7.2 Nominations of officers shall be accepted from those members present at the May meeting. Persons nominated must be members in good standing and at least eighteen years (18) years of age.

7.2.1 Members nominated must be present at the May meeting. No member shall be a candidate for more than one office. If nominated for more than one office, the member shall declare for which office they will be a candidate, before the closing of nominations.

7.3 After the closing of nominations, The Executive Committee shall appoint an Election Judge and two (2) Tellers, who shall serve as an Election Board to conduct the election. No candidate for any office shall be eligible to serve on this Board.

7.3.1 After nominations have been made and those nominated are found to be qualified, the Election Board shall have ballots prepared, listing in alphabetical order, the names of all candidates for each respective office, beginning with President and continuing in order named in the Constitution of ABE's ACEs section 3.2. Such ballots shall not contain any identifying numbers or marks.

7.4 The Election Board shall be supplied with a current membership list, and shall be responsible for distributing the ballots, only members in good standing shall be eligible to vote.

7.4.1 The Election Board shall select and assemble an offical depository ballot box.

(CONSTITUTION CONTINUED)

7.5 At the closing of the June meeting, the Election Board shall count the ballots and certify the results in writing to the Executive Committee immediately after the ballots have been counted.

7.5.1 The election shall be decided for the candidate receiving the most votes for a specific office.

7.5.2 In the event of a tie, a runoff election shall be held.

7.5.3 All election records including ballots shall be preserved for one year from the date of election, after which same shall be destroyed unless a question has arisen in connection therewith.

CURT'S CORNER

By Curt Lopez

As most of you know, Dennis John asked for volunteers to do articles for the club's paper and before I knew it, my daughter had my hand in the air. I reluctantly gave in to her wishes and after a few days of thinking about it, came up with the idea of doing a regular column based on feedback from you readers, sort of "Your soapbox, my soapbox", hopefully spiced up with tidbits from such publications as Infoworld, Electronics News,etc.

On the subject of tidbits from magazines, most of them seem to be "anti-Atari" especially in comparing the Atari 520ST to the Amiga, however, the "Letters to the Editor" columns helps offset the Mag's obvious bias. The week after the club's meeting (Jan.11),the media was gloating over Atari's announcement to switch their marketing direction to stores such as K-Mart and Sear's for the ST with an enhanced version (the 1040) being sold in the specialty stores. The specialty stores were claiming that Jack Tramiel had double-crossed them again, repeating his track record at Commodore. Featured in the articles were many of the dealer's comments regarding Atari, mostly negative, of course. Prominent among these was the statement by Jeff Griffiths, merchandise manager of Electronics Boutique, claiming Atari's plan to offer the 520ST to mass merchants reaffirms his already soured feelings about Atari. "I plan to drop the machine anyway," he said.

Unfortunately, at this time, K-Mart and Sear's both have no idea about Atari's plans, or so they are saying.

Comments about the above or any suggestions about the column will be welcomed. Please feel free to call me any evening between 6 and 8 at (201)475-4854.

FEEDBACK

By Dennis Galligani

The Executive Board of our club, and everyone that helped out, is to be congraduated for their effort and energy in producing the last several Atari meetings. It's pretty exciting to belong to this Atari users group.

I have only one word of caution. The input/output part of the meeting where we share ideas,news,etc. is a very important part and should remain a priority.

I think we'll have to pay special attention to the above in light of our use of the Arts Center, which is great for visual presentations but leaves a little to be desired in the way of "member to member" communication. At last weeks meeting, I found myself straining to turn around to hear and see who was talking.

Just some food for thought.

TELECOMMUNICATIONS

SO, YOU THINK YOU WANT TO GO ONLINE!

by Leon Bonam

You say you don't know anything about it? WEELLL! Help is on the way. The first thing you need to know about is the MODEM, a contraction of MOdulator-DEModulator. What this does is analogous to a two-way radio. It modulates a sound carrier in a way similar to the transmitter modulating a radio carrier and demodulates in the manner of a receiver so that you can listen.

Modems are of two basic types: 1) the acoustic coupled type and 2) the direct-connect type. The acoustic is the type used in the movie "War Games", and requires placing a telephone handset into the rubber cups on the modem to send and receive data. These are becoming rare due to the conversion to modular phone systems, designer phones and lower prices for direct-connect modems.

Direct-connect modems plug into a modular phone jack, just like a phone, and most have a pass-through jack so you don't lose your phone. They are a bit more reliable because outside noise doesn't affect them and they require less dexterity of the operator.

When considering a modem for your ATARI, we can, once again, consider two groups: 1) direct-to-computer and 2) 850 interface types. The direct-to-computer types are generally the less expensive and less featured types, but still give you access to all types of services and are a good way to start out. The second group require you to buy an interface (either the 850 or another similar type) to connect the computer to the modem. A greater variety of features and models is available in this type, although at a higher cost.

Let's talk about speed for a bit here as it applies to modems. The speed of a modem is rated in "BAUD", which is an acronym for Bits of Actual Usable Data in a timeframe of one second. The faster your modem, the less time you spend in data transfer (the process of uploading and downloading data files from a service) providing the service has the same speed capability. The most common modems for home use are 300 baud and include the MPP and ATARI direct to computer types. Newer and faster models for use with the 850 interface are available from HAYES, U.S. ROBOTICS, NOVATION, RACAL, etc.

You have probably heard of "SMART" modems. Well, most new modems are "smart" to some degree in that they can dial the phone, hang it up and know when they have connected to another modem. The really smart ones can vary baud rates, tell a busy signal and perform other "housekeeping" chores to tailor itself to your needs.

You will need software in order to use a modem with your computer. The software comes in (guess) two types: smart and dumb! Dumb software does not take advantage of your computer and turns it into a "dumb terminal", which allows you to read the screen and talk to the service, but does not provide a way to store information. A smart program allows you to use your cassette or disk drive to store, upload or download information.

The new direct to computer modems generally do come with software, and it is usually smart and easy to use. There are also separate terminal programs available at varying costs and complexities. A good step up from some of the bundled software is a public-domain program called AMODEM 7.1, which is available on the club bulletin board "THE HELP KEY" and, also, I am sure, in the library. AMODEM 7.1 is easy to use, even if you don't read the instructions, and has some very powerful features for the advanced user, such as log-on macros and dialing directories limited only by disk space.

A new program aimed at the more advanced is "BACKTALK", available from ANTIC magazine, which does not have a dialing directory per se but uses macros to control all the functions. This allows you to create a macro or a chain of macros which will set baud rate, translation, redial, and also, log you onto the service with only one keypress. By the way, a "MACRO" is a series of commands activated by a shorter command, usually a single keystroke.

You may have noticed the word "translation" in the last paragraph and wondered what it means. Well, computers don't all speak the same language; most speak a language called "ASCII", which stands for American Standard Code for Information Interchange and is the language of most mainframe and mini-computers.

Some of the smaller micro-computers, such as ATARI, speak a slightly different dialect (in the case of ATARI it is called ATASCII). This slightly different language is responsible for the ease with which an ATARI can send and receive graphics characters which do not exist in ASCII. Most software now on the market allows for translation of ASCII to ATASCII and vice-versa so that ATARI can talk to other computers, no matter what make.

The pleasures of telecommunications can be addictive and include meeting new friends, talking to old ones, finding new ideas, and finding new software for essentially the cost of your time.

SEE YOU ONLINE!!!

OPINION POLL

Are you interested in belonging to a Women's Special Interest Group? Please give us a little information about yourself to help us tailor our meetings to your needs.

1) Please indicate which of the following times would be best for you.

WEEKDAY MORNING WEEKDAY EVENING SATURDAY AFTERNOON

2) Please number in order of their current importance (1 being the most important) what you would like to gain from belonging to such a group.

_____ Basic understanding of Atari computers (how to load and successfully run a program, become confident of your ability to your ability to use your computer, hands-on experience, what things never to do, etc.)

_____ Understand computer talk (DOS, BOOT, CLOAD, SAVE, etc.)

_____ How to get your money's-worth out of the family computer (word processing, letters. home inventories for insurance purposes, recipe files, pattern layout for everything from a scarf to the living room, etc.)

_____ More advanced applications (use a phone modem, upload or download a file, use a printer, learn graphics, early programming, etc.)

3) What model computer do you have access to?

_____

4) What other hardware do you have access to?

CASSETTE DISK DRIVE MODEM PRINTER _____

5) How can we reach you?

_____
(first name) (last name)

_____
(house number) (street)

_____
(city, state) (zip)

_____ DAY/EVENING
(phone number)

EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT ATARI'S

BUT WERE AFRAID TO ASK!!!!!!!

That's right, it's here! Or, at least, it will be. All we need to know is - Who are you? What do you know? What equipment are you working with? And, when can you meet with us?

Now, to answer some of your questions about us. "We" are women who need to know more about using an Atari. We have gotten encouragement from the executive committee to form a SIG (that's Special Interest Group). This SIG will be geared to helping Women be able to operate and enjoy their Atari computer. We will deal with whatever you need to know more about; such as Computerese, basic machine operation, more advanced machine operation, and what your computer can do for you. And, best of all, we will have an Executive committee member available at our meetings to help answer the questions that we are not able to.

Please take a few minutes to answer the Opinion Poll included in this month's newsletter. If you do not receive an opinion poll with your newsletter - please call me, I will be happy to mail one to you. We are trying to reach ALL female clubmembers, so all family memberships are asked to please contact me. I need to know who is out there.

Call today - Shirley Bickert 837-6799

or - Lee Geisler 865-8107

RETURN COMPLETED POLLS TO:

S.A. BICKERT
PO BOX 493
BETHLEHEM, PA
18016

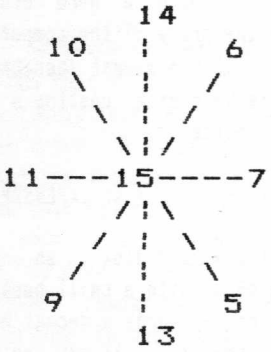
OR CALL ABE'S ACES HOTLINE: 759-2683.

ATARI BASIC & JOYSTICK INPUTS

by Ben Davis

Have you ever wanted to include a joystick as an input to a Basic program? I hope to show that it isn't that hard to do. First you must know where to get input data from the joystick.

Atari Basic provides a single function to get the data: STICK(numexpr). Numexpr is a number or an expression that represents the number of the joystick that you want to work with. For this function the joystick numbers start at 0. The data returned by the function is an integer between 0 and 15, based on the position of the stick. See the following diagram:



Now I will develop a small input program, and describe the function of each section.

```
100 S=STICK(0)
```

The variable S holds the value of the stick position when the line is run.

```
110 IF S=15 THEN 100
```

As long as the stick value is 15 the program goes back to read the stick again. This means the program will wait at lines 100 and 110 until the stick is moved. In practice try to keep this loop as small as possible to keep response time short.

Now that the joystick is in control of the program, lets see if it can do something. The following lines are the jobs that correspond to joystick motion.

```
1000 ? "UP":GOTO 100
2000 ? "UP-RIGHT":GOTO 100
3000 ? "RIGHT":GOTO 100
4000 ? "DOWN-RIGHT":GOTO 100
5000 ? "DOWN":GOTO 100
6000 ? "DOWN-LEFT":GOTO 100
7000 ? "LEFT":GOTO 100
8000 ? "UP-LEFT":GOTO 100
```

Each line is one job. At the end of each job the program returns to check the joystick. Remember that as the time needed to do any job in this program increases, the response time for the joystick also increases.

Now, getting values from the joystick related to the jobs.

```
120 IF S=14 THEN 1000
130 IF S=6 THEN 2000
140 IF S=7 THEN 3000
150 IF S=5 THEN 4000
160 IF S=13 THEN 5000
170 IF S=9 THEN 6000
180 IF S=11 THEN 7000
190 IF S=10 THEN 8000
200 GOTO 100
```

This approach to steering the program is easy to understand and it may also be the fastest logic. When the joystick is moved, the variable "S" represents the joystick position. The "S" value is then compared to the value of known joystick positions. If the two values match then the program goes to that job line number. Line 200 is a catch-all loop. If the program gets this far it will go to line 100 and check the joystick. If you put the program together and run it, you should get a feel for its operation. Don't forget to plug a joystick into port #1.

I hope this walk through a joystick input program will help programmers that have not discovered the joysticks potential. For those who are thinking about writing programs using the STICK function, you may also want to check out the STRIG function. To close this article, I wrote the following program that uses a FOR-NEXT loop, a READ/DATA statement and the ON-GOTO function to replace most of the IF THEN functions in the program above.

```
100 S=STICK(0):REM GET STICK VALUE
110 FOR S1=1 TO 9:REM 9 POSITIONS
120 READ SX:REM GET DATA VALUE
130 IF SX=S THEN RESTORE:GOTO 170:REM
STICK VALUE FOUND
140 NEXT S1:REM GOTO NEXT VALUE
150 DATA 15,14,6,7,5,13,9,11,10:REM DA
TA
160 RESTORE:GOTO 100:REM NUMBER NOT FO
UND
170 ON S1 GOTO 100,1000,2000,3000,4000
,5000,6000,7000,8000
1000 ? "UP":GOTO 100
2000 ? "UP-RIGHT":GOTO 100
3000 ? "RIGHT":GOTO 100
4000 ? "DOWN-RIGHT":GOTO 100
5000 ? "DOWN":GOTO 100
6000 ? "DOWN-LEFT":GOTO 100
7000 ? "LEFT":GOTO 100
8000 ? "UP-LEFT":GOTO 100
```

HARD DISKS AND THE ATARI

by Michael C. Stoliker

What's a Hard Disk?

A hard disk drive mechanism is very similar in purpose to the floppy disk drives that you are already familiar with. The major differences between hard and floppy drives lie in the amount of data storage capability, the medium used for data storage and the speed at which data can be written or retrieved. The actual disk in a hard drive may be only one of three or more 'platters' that are permanently sealed inside the drive enclosure. These platters usually are made of a light metal alloy coated with a magnetically alterable surface. There is usually one read/write head per side of each platter and the positioning of the head is controlled by a high speed stepper-motor. The platters normally rotate at a speed that is typically much faster than a standard floppy drive. These features coupled with the high density of the disk medium account for the increased storage capability and speed of data retrieval.

So what does all this boringly technical stuff have to do with your Atari? Hopefully, quite a bit in the near future!

The Early Days

In the earliest days of the Atari computer, before there were Commodore 64's, there were rumors that some manufacturers were producing hard disks for the Atari 800. In those days there was hope that the 800 computer system would be taken seriously by the consumer as an alternative to the high-priced Apple system. Although the majority of these hard drives turned out to be rumors and wishful thinking (on the part of Atari owners) there was one manufacturer that actually did produce and sell such a product.

Corvus systems produced a stand-alone hard disk for the Atari 800 that was at best difficult to find, and if found priced well out of reach of the computer hobbyist. Although I don't remember seeing a firm figure, I believe the price was something like 2 and 1/2 times the price of an Atari 800 (at the time an Atari 800 cost well over the $999.00 that a 520ST goes for today).

Unfortunatly, due to the high price and lack of serious users the Corvus system was discontinued and is now even more difficult to find used. For a long time the Atari owner had no hard disk system available. Then in 1985 came the XE and ST computers and things started to look up.

Back to the Present

So here we are in 1986, half a decade later and things haven't changed much. There are rumors of hard drives popping up all over and as far as I know only one manufacturer each for the two major Atari systems. Supra Corp., once known as MPP, has a hard drive available for the eight-bit Ataris and Haba Systems Co. has an offering for the 16-bit STs.

Did I say things haven't changed much? They've actually gotten worse for us 8-bit users. The price of the Supra Corp. drive is almost eight times the cost of the most expensive 8-bit computer that Atari makes. The ST user is much better off with the Haba systems drive at only three-quarters of the price of their system!

How does this compare with the rest of the computer world? At the moment, I'm not aware of the price for a Commodore hard drive, although I know that they exist. For Apple, (although they tend to cost more than a drive for an Atari ST) in relation to the cost of the CPU, there is a parity with the ST with a hard disk costing about three-quarter's of the price of the computer system. IBM is in the best position at the moment (because of volume sales) with a 10 Mega-byte hard disk costing a small fraction of the original system price.

Why buy a Hard Disk if they're so EXPENSIVE?

For most people, a hard disk is an unnecessary expense. However, for those of us with a small business or more money than sense, a hard drive turns a decent home computer into something much more powerful. If you can remember when you switched from a tape based system to a floppy disk based system (if you didn't just start with a floppy) you already have an idea of the magnitude of change. A hard disk is typically much faster than a floppy disk, and when compared to the fairly slow Atari (810/1050) drive it will seem almost as if the program or data you call from disk was already in memory. In fact, any data on a hard disk can be recovered so fast that you can regard the hard disk as an extension of memory. Try to imagine your Atari with 10 million bytes of free memory! (Try to imagine where you'd put that many memory chips!)

How will that change the way I use my Atari?

Most hard disks and their related Operating Systems (called DOS or BIOS for Basic Input/Output Systems) are set up to allow the computer to boot from the hard disk. The speed of the hard disk combined with the ability to load the DOS from the hard disk allows the computer to come up running in any user selected environment. If you normally use your computer to track inventory for a small business, the use of auto-run files (or batch files in MS-DOS or SPARTA-DOS) will allow the computer to automatically load and execute your application. This is not much different from what the Atari is capable of now, but, with the application, data files, and configuration files all on the hard disk you can be "up and running" (often right where you left off in your last session) without the usual time wasted doing the "floppy shuffle". Just power up the system and you're on your way.

The other main advantage is the nearly unlimited size of your data files. With floppy disks the limit of 90k (or 127k w/DOS 2.5) could only be by-passed by resorting to multiple-disk files (great if you have multiple drives!). With a hard disk the limit for a single file is the physical size of the disk or until your file gets so large that it slows data access. So you can see that an 8-bit computer can gain quite a bit of capability simply by adding a hard disk than by resorting to other hardware or software fixes such as bank selecting extra RAM.

If it's so great why shouldn't I buy one?

Although I think hard disks are wonderful, there are many reasons not to get one. These are the most important reasons why you should hesitate to spend your hard earned money.

Reason #1 - Software support. Unless the hard disk you buy includes a DOS that's reasonably compatable with Atari's DOS 2.0 it's unlikely that any software you are using now will support the drive. Physical file size limitations and input/output routines designed for the Atari 810 (and there are few programs that don't use the 810 as a standard) will limit the usefulness of a hard drive. Until enough hard drives are sold to make it worth their while only a few adventurous software companies will produce software that will use these drives to best advantage. (Conversely, few hard disks are likely to be sold until there is a reasonable amount of software. How's that for a nice "Catch 22".)

This particular problem and the following one will be pretty much restricted to the 8-bit Atari systems as the 520ST and any new Atari systems are likely to include hard disk support.

The other side of the software problem is the DOS itself. Very few DOS's for the Atari are capable of a clean recovery when leaving a machine language program.

Part of the problem lies in the type of copy protection that software companies are fond of using. The idea is to have the software lock-up the computer on exit from the program to prevent someone from snooping in memory. That's if the program even allows you an exit short of shutting off the machine. This is no problem when quitting a game, but, could be very aggrevating if you just wanted to switch from your word processor to your spreadsheet. Obviously a change would have to be made to most Atari software to allow a smooth return to DOS so that another program could be run immediately.

Reason #2 - Fragility. Although many businesses wouldn't be without a hard drive, the biggest worry among business users is the dreaded "head crash". This bogeyman of the hard disk user is an unfortunate reality. Many users have lost valuable data to a tiny scratch on the surface of the disk.

A head crash on a hard disk refers to the event where the read/write head (floating on a cushion of air just above the surface of the disk) actually comes in contact with the disk surface. If this happens just once it's possible that all the information on the drive could suddenly become inaccessable. This isn't a problem if it's just a matter of a public domain game or two, (or two hundred) but, it's a major catastrophe if it's all of your tax records for 1986! This is all beside the cost of replacing your suddenly very expensive conversation piece.

A head crash can be avoided by treating the hard disk with respect. In most cases that means never bumping the drive while it's spinning and just as a precaution, never smoking near it. (A particle of cigarette smoke is something like 4 times the size of the gap between the head and disk surface.) If you smoke, have pets, or worse yet, small children, you have all the chances you'll ever want for a head crash.

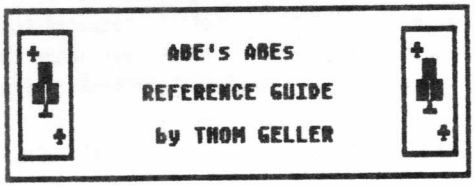
Reason #3 - (the last) Back-up. All I can say on this point is try to imagine how many DOS 2.0S formatted disks you would need to back-up your 10 mega-bytes of data in preparation for an event as described above. A single mega-byte is 1024K of memory. That alone would take over 10 single density floppies not to mention the time involved in a file-by-file transfer!

Would I buy a Hard Disk?

Just as soon as I can afford one!!! For the serious user it's the only answer until write-able laser disks become available. (But that's another story.) If proper precautions are taken, a hard disk will live a long time and add a dimension of utility to your Atari that no other peripheral can.

As for whether you should buy one, you'll just have to weigh the benefits and hazards based on the information you now have and make that decision for yourself.

CORRECTION TO:



AS FOLLOWS:

GR.1 & 2 INCORRECT:

```
COLOR OF ? #6;"abcd"
SE.3,___,___ or POKE 709
```

CORRECT:

```
COLOR OF ? #6;"abcd"
SE.3,___,___ or POKE 711
```

PRESIDENT'S VIEW

by Dennis John

The club is doing well on all fronts. Membership, income and participation is up. Our first meeting at NCACC went better than I had expected.

When we arrived at the theater at noon and tested the projection TV, we were in for a real shock. Above the fourth row, the picture was almost invisible. A three inch tilt of the screen made a dramatic improvement providing a bright image right to the top row.

We will be making a few changes to improve flow in the lobby. Specifically, we will move the club library to the far end of the lobby and spread the vendors more evenly.

There was one sour note to this first NCACC meeting. Several of our younger members were running up and down the theater steps. Others were found in areas of the theater where they should not have been. We will post signs starting this month. Some also came very close, in my opinion, to being rude to our guest speaker. We will not allow a few members to spoil things for our club. If you can't behave, don't attend.

Starting with this meeting, we will offer help to new users or any member with a problem, prior to the general meeting. If you have an equipment or software problem or question, get to the meeting when the doors open and head for the stage area. One or more members will be there to help you.

Finally, when we began looking for a new meeting hall, we found that most potential locations required that we be an "offical" non-profit group. NCACC was among them, but allowed us some time to complete the task. The club's attorney has indicated that ABE's ACEs should be a non-profit corportaion by the end of February, barring unexpected problems.

In addition to the benefits of access to NCACC facilities, the club will be able to get a much better postage rate for our newsletter. I'll keep you posted on our progress in this area.

COMMAND YOUR PRINTER

DR. BOB LOUX

AtariWriter, being a powerful word processor, allows you to command your printer using printer controls. This method of printer control can be found on p. 43 of the manual. By using CTRL-O and the decimal equivalent of the printer control, you can command any printer control the printer accepts, regardless of the type of printer.

For my EPSON RX-80, if i want compressed type, i type a CTRL-O 15 before the word or group of words i want compressed.

About this time you are saying, "Well what's new". Wellllll, if you want different line spacing you must enter CTRL-O 27 CTRL-O 52 and etc. Not only does this becomes a hassle, I never remember the decimals. Sooooo, use OPTION L; an option that allows you to enter another file into your text where the cursor resides. Then, save these printer codes as, each, a separate file. Give each a simple file name and the hassle is gone.

MORE SPECIFIC DIRECTIONS

1. Create a new file. Go to C on the menu.
2. Delete the formatting line at the top. I use SHIFT-DELETE.
3. Type a CTRL-O. Now that will come up on the screen as an INVERSE-O.
4. Without skipping a space, type the decimal for the command. (EPSON RX-80 uses decimal 15 to turn on compressed.) This will look like an INVERSE-O with a 15 next to it.
5. Do not, DO NOT type a RETURN.
6. Save as a file named C1, then you will be able to save the compressed off as C2.

Now when you want a word in compressed, press OPTION and L at the same time. When it asks for the filename, type C1, and continue typing the words you want compressed.

Little known is the fact that you can control line spacing. This allows you to use forms or lined paper you could not use before.

If you give me a sheet of paper with your decimals for the specific command, and the name of your printer, I will attempt to put together a listing for a future newsletter. I might even put an already programmed disk on the HELP KEY.

SEE YOU AT THE NEXT MEETING.

ANNOUNCING A NEW CLUB CONTEST
GET YOUR ENTRY IN BY MARCH 8, 1986

SET THE ARTIST IN YOU FREE!

One of the Atari Computer's strong points has always been its graphics capabilities. For our second club-wide contest, we'd like to explore this area.

HERE ARE THE RULES:

> The contest is open to members of ABE's ACEs only.
> Only one entry per membership (individual/family/student).
> Use any commmercial graphic software you wish on your Atari.
> ORIGINAL ARTWORK ONLY!
> NO ANIMATION WILL BE ALLOWED.
> The name "ABE's ACEs" must be included in your picture.
> ABE's ACEs retains rights to use any or all submissions for promotional purposes.
> Your final screen image will be judged.
> Judging will be by an outside panel of art professionals.
> Prizes will be awarded in two categories, 8-bit and 16-bit.
> Picture files must be on DOS 2, single-density disks (8-bit) or single-sided format (16-bit).
> A completed entry form (see below) must be sent with your disk. Your disk will be returned.
> All entries must be in our hands by March 8, 1986.

Up to five prizes will be awarded in each category. The winners will receive a color displa enlargement of their masterpiece. Winning creations will be on display at our May eneral meeting. Some winning screens will be published in our newsletter.

----------CUT HERE----------

COMPUTER ART CONTEST ENTRY FORM

DEADLINE - 3/8/86

ARTIST'S NAME: _____ PHONE NUMBER: _____

FILENAME: _____ GRAPHIC PROGRAM USED: _____

LOADING INSTRUCTIONS: _____

_____

ABE'S ACES

Allentown-Bethlehem-Easton's Atari Computer Enthusiasts is an independent users' group organized and run by owners of Atari Home Computers. Atari is a trademark of Atari, Inc.; all references to Atari should be so noted.

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