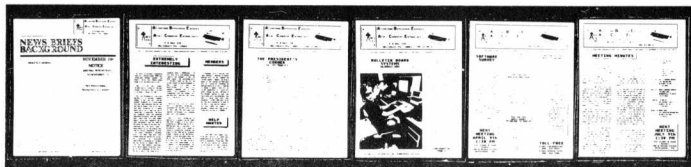




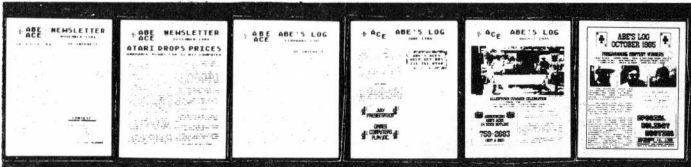
ABE'S ACE'S
HOLIDAY ISSUE
DECEMBER 1986



OUR



27th



ISSUE



FROM THE EDITOR'S DESK

Our club's been around for quite a while now. The first meeting was in April of 1982. After only a few short months, the club published it's first newsletter in August of 1982. We've had an issue just about every-other month since.

We've now printed twenty-seven issues. They include over two hundred and seventy-five pages and yet, other than members of the E-Board, only nineteen club members have ever written an article.

We've tried to make it easy for anyone to see their name in print. If you have a modem, you can upload to the club's BBS or directly to the editor. If you don't, we offer free, pre-addressed, pre-stamped disk mailers and formatted disks at just about every meeting.

Easy didn't make it so we'll try bribery...

NEWSLETTER CONTEST TIME

First, the up-front part. At the top of this page, is a graphic block with 24 newsletter covers. Not counting the issue you're reading, two issues are missing. One of the missing issues is the first one printed, the August 1982 issue. The other missing issue is.... oops! That's part of the contest! What's the cover date (month/year) of the other missing issue? (Hint: All of the covers are in order from upper left to lower right) You did save all of the old issues didn't you? No? Time to dust off the crystal ball.

Now the not so up-front part. Just picking the correct issue isn't going to make it. Along with your choice, we're looking for an original newsletter article. Any Atari Computer-related topic is fine. It has to be between one-half and two pages long and must be submitted by January 10th. Reviews? How-tos? Tips? Almost anything goes and with all of those new software/hardware items Santa will be leaving under the tree, you should have no problem coming up with a topic.

As with almost everything, current members of the E-Board are excluded. (Boo-hoo) As for the rest of you, pound those keys! The winner will be randomly selected from among those submissions with the correct answer. If by some chance, nobody manages to find the missing issue, the winner will be randomly selected from among the incorrect submissions. (We're not proud. We'll take 'em any way we can get 'em.)

The prize will be awarded at the February meeting. Oops! Almost forgot the prize. The winner will receive a \$50.00 gift certificate at GEMINI. A gift certificate is better than money. Why? If we gave you fifty bucks, your spouse could find fifty "better" things to do with the money. By giving a gift certificate we're "forcing" you to spend the money on your computer. [grin]



It snowed late last night, you probably missed it...but it was just enough to remind me that Christmas is almost here, which means New Years is right behind. New Years is a time when we traditionally look back over the past year and try to evaluate what we have accomplished. I'd like you to do just that, however instead of evaluating your personal, or business accomplishments, I'd like to have you evaluate your computer accomplishments.

What are you able to do now, that you were not able to do when the year began? I know many club members who are now doing advanced applications that they were not even dreaming about last year. There are members who are now using modems and have made many friends on various BBS's, there are members who now clean their drives. There are many of us who now use word processors to do our correspondence instead of writing things out in longhand. Some members who were previously very active have been unable to use their computers....why? Because their wives are now on the computer and the former computer monopolizers are vying for time themselves.

Hopefully the reasons that our members are able to do these things is because of the information they receive through our club, whether at regular meetings, SIG meetings, or through contacts made at the club. But now for

another question...What have you done for your club? What program have you demoed? Which meeting did you help set up at, or help with admissions, even sell raffle tickets at? What programs have you uploaded to the BBS? When did you tell the E-board that they actually did something right?

There are so many things that our club is involved in and so many other things that we would like to be involved with. It takes a lot of work by our members and if we want to continue to have the kind of club that we all joined, we must all pitch in to help. I'd like to ask each of you to make a New Years resolution to help out at least once during 1987, there are plenty of things that we can use you to help with.

Let me be the first to wish you a
SAFE AND HAPPY HOLIDAY!!!

Shirley Bickert
President
ABE's ACEs



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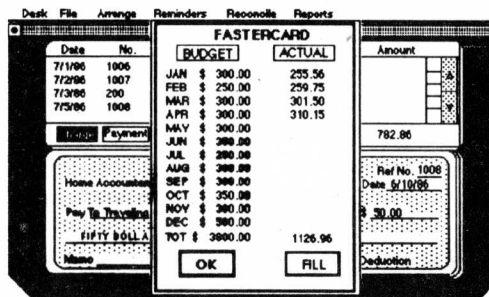
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\$74⁹⁵

MEETING HIGHLIGHTS

October 11, 1986

Our October meeting was our first attempt at an Atari Safari (thank you JACG!). The meeting was held in the cafeteria. About a dozen members brought in computer systems, or portions of systems, and demonstrated a wide range of software and hardware. Since this was new to us, a few problems were encountered. For one thing, NCACC told us we would have a phone line (we did) and that it would be working (it was) and we assumed we could get an outside line on it (we couldn't). This made the telecommunications demos just a tad difficult. Also, after the meeting we heard from a few members who were not sure what the safari was all about. We've learned our lesson... don't assume, do explain.

Even so, it was nice to see so many members willing to help out and to see a number of children working with Atari computers.

Our president, Shirley Bickert, made several announcements and guided us thru the question and answer session. This was followed by the selection of the winner of the door prize. The prize at the October meeting was Word Magic and Spell Magic, both donated by GEMINI in E. Stroudsburg.

November 8, 1986

President Bickert called November's meeting to order at 2:05. Announcements were made about the new board members, the Pittsburgh Atari Expo, plans for December and our own Atari Expo.

Next came our 50/50 drawing and a short (and for a change, sweet) question and answer session.

Our annual Christmas Buyer's Guide presentation included 115 color slides showing most of the new products on dealer shelves. Both 8-bit and 16-bit hardware and software were covered and a good deal of input from members attending, made this an enjoyable and informative meeting.

Next came a short video tape showing some programs that couldn't receive justice with slides. Also on the video tape was a first look at a new product for the ST. Ralph Fenner heard about Deskart on 11/3. In the few days remaining prior to the meeting, he was able to contact QMI and get a demo copy of the software just in time for us to add it to our video presentation. Our thanks to John Demar of QMI for sending the software and for taking the time to answer our questions about DeskCart over the phone. The product caused quite a stir at the meeting and was a topic for discussion after the meeting was over. For those of you who could not attend, see the DeskCart ad elsewhere in this issue.

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PITTSBURGH EDITION - ATARI COMPUTER PRODUCTS SHOW



No bones about it, the Pittsburgh Edition of the 1986 Atari Computer Product Show was a smash hit! Congratulations are in order for PACE, WACO, SAGE and MAGIC, the sponsoring user groups. Those of us who went to the show had an opportunity to meet several of the user group volunteers. We were treated royally and hope to get a chance to see you again at the Eastern Pennsylvania Atari Expo in March.

As for the show... Doors opened at 10AM on Saturday, November 22nd. People started pouring in right from the start. Here's an overview of what they saw:

Atari had the largest display area with nine ST systems and four 130XE's up and running. Several Atari representatives were on hand to answer questions including Neil Harris and Sandi Austin. Also manning the Atari display were two Atari Explorer staffers and a number of user group volunteers.

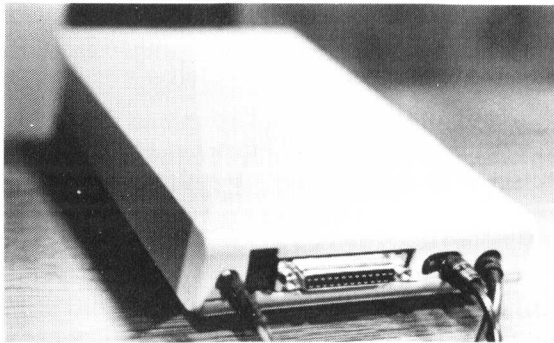
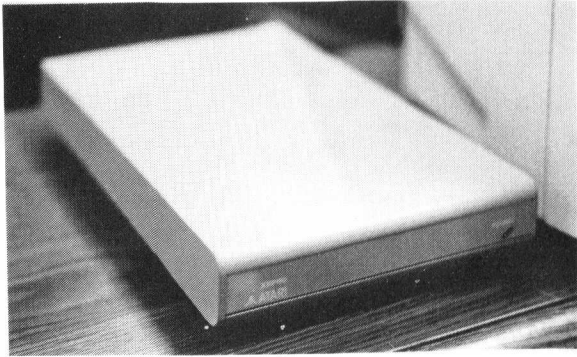
Visitors were encouraged to sit at a computer and get involved with hands-on participation. All sorts of software was being shown that ran the gamut from games to professional business applications.

A side-by-side comparison of two ST's with and without the BLITTER chip was an eye-opener.

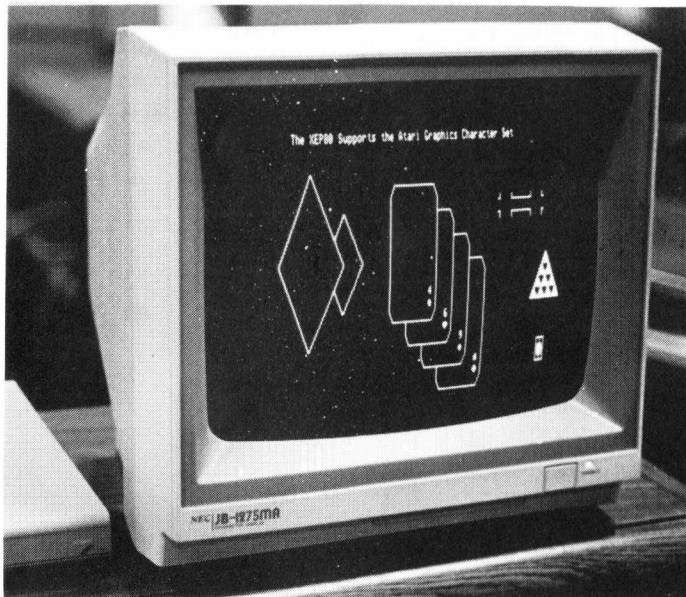


The BLITTER chip. (Note how much faster the picture on the right is moving.)

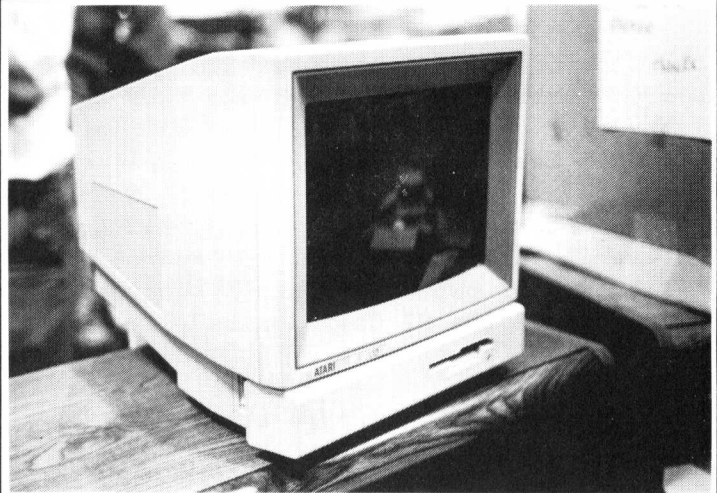
The big draw for 8-bit owners was the XEP80. It was producing a razor sharp 80-column display. The screen photo on this page does not do justice to the output from this little gray box. That brings me to the bad news. The little grey box on display, we were informed, was not the same box that would be on the production units. Does this sound like a product that will be ready for Christmas?



Front and rear views of the XEP80. Plastic still being changed.



In addition to 80-column displays, the XEP80 supports Atari's graphic character set.



An interesting piece of ST hardware was also on display. The Atari PS3000 is a color monitor with built-in 3 1/2" disk drive.

The new 300/1200 baud Atari modem, shown at COMDEX earlier in the month, was not at the Pittsburgh show. Why? We were told only two exist and that they were needed at R&D. Again, if this was on your Christmas list for someone, break out Print Shop and make up a rain check.

CONTINUED ON NEXT PAGE

DeskCart!

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Of course, there was much more at the show than Atari's impressive display. Hybrid Arts was putting on a show that literally knocked your socks off. Several Casio and Yamaha synthesizers were being controlled by both 8 and 16-bit Atari computers via Hybrid Arts software (and hardware). CZ-Android is targeted for owners of both ST computers and any of the CZ Casio units. It's an under \$100 patch librarian, editor and sound generator. We'll have a short videotape of this software at the next ST SIG.

XLEnt Software was showcasing their complete line of Atari software. Typesetter Elite was most impressive. Before we left the booth, Ralph and I both purchased copies. Expect a review in the next issue.



XLEnt Software's Mike Barns runs a demo of TYPESETTER ELITE

Alpha Systems brought a host of low-cost 8-bit support products. We were treated to a demonstration of the PARROT, an 8-bit sound digitizer. We taped the demo and hope to show it in December. They also showed us results obtained with the new digitizer from Digital Vision, ST Color ComputerEyes. WOW! This one "might" make Christmas. Retail is about \$250. Worth it!

I'm running out of space so let me go into brief mode... Timeworks had several new products for the ST.



SwiftCalc is ready for release. John Demar from QMI was taking orders for his soon to be released DeskCart. He also showed us the hardware he used to develop it. MichTron's customer service director, Mark Bruttell was at the MichTron booth showing the complete line of software they produce. Mathew Zobian was showing his new super RAT for the 8-bit ATARI line. VERY NICE! Smooth control and two buttons. His new windowing software was also being shown. Not yet ready for shipment. Magic Sac+ (formerly known as the Mac Emulator) was everywhere. Three dealers had them and all three had the ROMS to make them operational. Best price at the show? \$159 including ROMS!

We're working to sign many of these same people (plus a number of others) for our club's own Eastern Pennsylvania Atari Expo, set for March 14th & 15th.



The Magic Sac+ cart that allows an ST to run Mac software.

SIG NEWS

WOMAN'S SIG/BEGINNER'S SIG

The last Woman's SIG meeting was held on November 10th. At that meeting, a decision was made to reorganize the SIG and rename it the Beginner's SIG.

As any member who has attended one of the Woman's SIG's meetings over the last year can tell you, the warm, cordial, one-on-one approach evident at these SIG meetings, will fit perfectly into a beginner's theme.

It will take some time to work out all the details so no meetings are planned until February. In the meantime, Glenn Snyder would like any new club members (six months or less) who feel they need some help with the basics, to contact him either at a meeting or via phone. He would also like to hear from anyone willing to help him organize some sort of support group for new members. This may take the form of a separate SIG or it may tie in with the Beginner's SIG. Please don't put it off. If you can help in any way, contact Glenn now.

ST SIG BACK ON TRACK

Our newly reorganized ST SIG held it's first meeting on November 15th at Chris Andrew's home in Bethlehem. Twelve of our ST owners attended and saw (heard?) a live demo of Hippopotamus Software's Hippo Audio Digitizer. The unit produced sounds that were indistinguishable from the original. Thru the supplied software, the Hippo-equipped ST was connected to a MIDI keyboard. The keyboard then played back a digitized flute, guitar and human voice in the full range of the keyboard. Instant sampling keyboard!

SIG leader Greg Bendokus brought his Okimate 20 color printer and produced some graphic printouts. He then opened the meeting to suggestions of future

topics. As a result, some meetings will include a programming session after the SIG meeting. Those interested in ST programming can stay and get hands-on help.

The next two ST SIG meetings have been scheduled as follows:

DATE: Saturday December 20th at 2PM
LOCATION: Dennis John's home
ADDRESS: 4367 Christian Springs Road
Nazareth, PA
TOPICS: Among other things, the use of dialog boxes from ST BASIC will be covered.

DATE: Saturday January 17th at 2PM
LOCATION: Chris Andrew's home
ADDRESS: 2410 Covington Avenue
Bethlehem, PA
TOPICS: To be decided at December's meeting.

Complete directions to both SIG meetings can be found on our club's BBS or you may request a map at the next general meeting.

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SPEEDCALC

Atari machine language spreadsheet
March 1986 COMPUTE! page 65

An 8-bit review by Gary A. Hilbert

Let's make no bones about it, SpeedCalc is not as impressive a spreadsheet as its sister program, Speedscript, is as a word processor. Although this is no Syncalc or Multiplan... IT IS a fast, capable, error-free spreadsheet which is worth every bit of the price of a magazine. There is plenty of power here (w/o the price) for most home applications; budget, taxes etc. If you are running a business this program will probably be too limited in size but can still serve to learn about spreadsheets so you can better choose which commercial program you want to buy.

This program is for Atari 400, 800, XL, & XE's with at least 48k RAM. A disk drive is required and a printer is a highly desirable option. Your BASIC language must be removed (or disabled during booting). DOS 2.0, 2.5, 3.0 (uugggh!) and OS/A+ are all acceptable per COMPUTE...perhaps others as well, but they don't say.

This high speed, all machine language program, contains most of the features you would expect from a commercial program. Its data files can be merged with the Atari SpeedScript word processor reviewed in the August ABE's ACE's Newsletter, but that was another story!

A program to create machine language "patches" to add several improvements was published in the September 1986 COMPUTE!. The improvements enhance the ability to "print" any block of cells to your printer, disk, or screen.

When you run SpeedCalc the top line is the command line, lines 2-4 are the work area (the input buffer), and the next 19 lines are for your "window into the spreadsheet". Four columns are

visible on one screen for a total of 19 x 4 cells, 76 cells/screen. There are a total of 50 vertical columns (AA,AB...BX) and 100 horizontal rows for a total of 5,000 available cells (locations) The memory limitation (the program only uses 48k no matter how much you have) only allows entering formulas, numbers, or text in about 1/3 of the cells.

Scrolling around the spreadsheet utilizes the ctrl-arrow keys as in Atari Basic; ctrl-H "homes" you into the upper left VISIBLE cell and pressing ctrl-H again takes you to AAl. Ctrl-G invokes a goto feature that lets you jump to any cell you designate, although I've always found the cursor keys to be quite fast enough.

Math operations include addition, subtraction, multiplication, division, and exponentiation... all in the standard mathematical order of precedence. Parentheses can be used as in most hand calculators to control the sequence of math operations within a formula entered into a spreadsheet cell.

Special functions include: absolute value, average of a block of cells, natural exponent, integer, natural logarithm, round to nearest integer, sign, square root, sum of a block of cells, and PI. Although none of the special financial functions (present value, annuity, etc) are included specifically, they can be pieced together using the functions which ARE included. Even trigonometric functions can be built this way, with sufficient patience.

Session control commands include: available memory check, copy or move block of cells w/o alteration, copy or move cells with formulas adjusted to the new location, toggle auto recalculation, disk directory, edit current cell, change cell format or global format change, modify background color or text luminance, clear cell, load a saved SpeedCalc file, save a SpeedCalc file, print cells from AAl to cursor location NOTE: the patches added in Sept 86 allow printing any block of cells, change column widths, exit to DOS, change # of decimal places, clear entire spreadsheet. ALL OF THESE ARE OPERATED USING THE

CONTROL KEY AND ONE OR TWO PRETTY OBVIOUS LETTERS...CTRL-C is for copy, CTRL-P is for print...etc.

CTRL-P with D:filename causes an all-ASCII save to your disk which can then be merged into the Speedscript word processor, pretty neat huh? Now if only they would get to work on something like Speedfile, but at present that's a vaporware story!

TEXT PRO

Abacus Software \$49.95

16-bit software review by Ralph Fenner

All of the word processors that I've seen to date have been excellent and Text Pro is no exception. It has all the features that I had been looking for. And I'm sure that it will more than satisfy the average user.

The workscreen is a standard GEM window with drop down menus and title line. They've added a status line. This line shows which features are active and also current column, line, and page number. The window has slider bars on both side and bottom. NOTE: It's not possible to step a line at a time with the slider bars. They only work for paging. Single stepping must be done with the cursor keys.

The program holds all text as unformatted. Similar to Atari or ST Writer. To see what the printed text will look like, you output (print) the document to the screen. Word wrap is available and can be toggled on or off.

Text Pro has three text modes. First is Non-Doc-Mode, this is for text files. Files saved in this mode will be ASCII only text files. The second mode is the standard Document-Mode. Mode saves text with all formatting and control characters. The final mode is C-Source. This mode supports auto formatting for source code.

The program supports up to thirty function key macros. Each can be up to

160 characters long and support many commands for formatting and editing. Also supported are Auto Indexing, Auto Table of Contents, Form Letter merging from any database that can print ASCII information to disk, Auto Hyphenation, Search and Replace, Auto Date and Time stamping during printout, Copy, Cut and Paste, and Sorting columns of text or tables.

Printer drivers can be set up for any printer. The program allows for 8 different fonts, 10 special printer control strings, and markers for 10, 12, and 15 pitch. Multiple documents can be batched for printout, Even/Odd headers and footers are supported, and up to 5 columns can be printed across a page.

I'm running out of space just listing features and haven't covered them all. Text Pro has just about everything but spell checking. But it works well for me with Thunder. Because of its ability to do form letters I have been using Text Pro for the Expo mailings and haven't had any trouble.

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Season's Greetings
FROM
GEMINI

WORD WRITER ST

16-bit software review
by Ralph Fenner

Timeworks has just released Word Writer and Data Manager, two really terrific software packages for the ST. Both are GREAT! But for the moment we'll concentrate on Word Writer.

The Timeworks packages carry a \$89.95 price tag, but I've seen them discounted by retailers for less. From the moment you get your hands on the package you can see someone spent some time on this one. The documentation and program come packaged in a padded vinyl ring-binder in a matching case. The documentation is clear, understandable, well illustrated. The bottom line is, I wish all program docs looked like this.

When you load the program your first thought will be, "Where have I seen this before?" Word Writer does look a lot like First Word. In fact it can load First Word files. The ten familiar function key click boxes are there on the bottom with two additional. One for Caps lock and the other toggles insert/overwrite mode. While we're on the subject of click boxes, let's slide the window up with the sizing button. Surprise! Two more rows of eleven click boxes each. These are the most commonly used functions in the program. They can be accessed from the keyboard but the click boxes make it easier for the beginner to get started.

Well, I guess by now you've pretty much realized that I like the program. So let's see what it can do. First, Word Writer is of the "what you see is what you get" variety. This means that boldface, underlining, page formatting, ect. appear on screen as they would on paper. It has all the "normal" features one would expect in a good word processor. Such as insert/overwrite modes, move/copy, cut/paste, word wrapping, and a good search & replace.

So let's get into the heavy-duty stuff like a built in 85,000 word spelling checker. The spelling checker looks very close to Thunder, only this one allows you to scroll thru the dictionary. It can spell check a document as a continuous spell checker or just check a word you select while you're typing it in. Or, if you prefer, it can spell check the entire document after you've finished.

Finally, it has a built in outline processor and help files. I haven't noticed any bugs or problems with the program. There are a few things you should know before you buy.

First with a 520 ST you will have over 200K free for text, unless you load the dictionary. Which will drop you down to around 40K. It's still enough memory to be useful to the average user. Understand, I don't fault the programmers. I'm beginning to see more and more good software requiring 1 meg.

Now for what I don't like. Where's the Mail Merge??? Word Writer is too nice and works too well not to have it. Second, I'd like to see a separate dictionary program added to the package. Which would allow 520 ST users to create large documents then spell check them outside of the main program thus eliminating memory conflicts. These improvements could easily be added to future versions.

Even with these limitations, Word Writer is a very good package and an outstanding value. I give it high marks.

ABE'S ACE'S MEETINGS

JANUARY 10TH
(THEATER)

FEBRUARY 14TH
(CAFETERIA)

SOUND PROGRAMMING

OF BASIC AND BANJOS

by J.D. Craig

Here's some more on 8 bit public domain software - a utility disk from the ABES ACEs library and a music program on the Help Key II BBS.

As many of you already know, Atari is supposedly very hot in Europe. You may also know that our library acquired a set of Frank Ostrowski's TURBO-BASIC XL 1.5 files from Holland by way of the Western New York Atari Users Group. Unfortunately, this software works only with the XL and XE series computers. (Owners of other machines might want to skip ahead to paragraph 7.) Some documentation has been provided by Dave Arlington, Dave and Laura Yearke, and Mike Stoliker. (Mike translated a Paper Clip file to 40 column ATASCII format and added it and a README text file to disk side 2.) Here are a few features of that disk:

The DOS used is 2.5, and side one autoboots TURBO-BASIC as an AUTORUN.SYS file, with or without the OPTION key pressed. A title screen tells you what's loading. Since the next screen and READY prompt look the same as that of Atari BASIC, you might want to type DIR and hit RETURN to see that you are, in fact, in TURBO. As you see the screen display the disk contents, you'll know you got it. If you now load and run one of your slowest Atari BASIC programs, you'll see one good reason for using TURBO - it's about 3 times faster. And if that isn't fast enough, side 1 contains a compiler (COMPILER.COM) that can squeeze most BASIC programs into machine language COM files for even greater speed. Also on side one are Magic Painter (MAGIC.TUR), a text file "cleaner" (TIDIAR.TUR), a RAMDISK file, and some demo programs.

Side 2 might be an even better place to start. This AUTORUN.SYS file boots in a text file reader that allows you to see or print out a lot of documentation for

the COMPILER, TIDIAR, and the other BASIC programs. Side 2 also contains a demo program by ACEs member Tom Reichard called PMGJOY.TUR, that demonstrates Player-Missile Graphics using the joystick. But to use it, you should first reboot from side one. Tom has shown his professional educator side here, by creating a demo that is not only easy to use, but also an easy to read exercise in good programming.

I have not even begun to use many of the features on this great disk, and may never take advantage of some of them. TURBO-BASIC will not run all Atari Basic programs, and a memory map would be most helpful for serious programmers. But it is fast, and saves 1603 bytes of program space by using an area under the XL or XE OS. It adds 42 commands and 22 functions to the BASIC command list, including most DOS commands. Wanna lock a file? Just type LOCK "D:filename", and you're done - without ever having to go to DOS. And you already know about DIR.

—CONTINUED ON NEXT PAGE—

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In our house, son Kurt is the most frequent user of TURBO-BASIC. He runs a 4 minute math drill, and was challenging the top end of the program's speed, largely due to the time the program uses in flashing the "correct" or "incorrect" messages with appropriate sound effects. I could've easily speeded things up by changing just a few variables, but I saw a way to get the boy to expand (even slightly) his use of the computer. Now he must load TURBO-BASIC before he loads and runs the drill. His previous high score was 95 correct - it's now 126, mainly from the difference in routine runtimes.

The BANJO file is #160 on the 8 bit download section of Help Key II. To discuss this properly, we will have to examine a little of how traditional tonal music works. We will also have to differentiate between a key - a physical switch on the computer's keyboard, and a Key - the sense of a tonal center, as characterized by DO in solfeggio's DO, RE, MI.

The program attempts to simulate a 5 string banjo with the first four strings tuned high to low on these successive pitches: *1st=D, 2nd=B, 3rd=G, 4th=D. The 5th string is a "drone" which, in normal use, would not be "fretted" - it would play the same pitch throughout a tune, usually a G or A above the pitch of string 1. Accompaniment patterns are played by fretting the notes of appropriate chords and plucking different strings in rotation. It is this accompaniment style that the program seeks to emulate, and it does reasonably well.

The program is SAVED in BASIC, and should be LOADED from disk (or CLOADED from tape). It has been made relatively easy to examine and modify, even though at least one machine language subroutine is in use during execution.

When the program is RUN, a banjo neck is displayed under the message, "TUNING - PLEASE WAIT", while the program initializes. A few seconds later, the top line changes to show what chord and pick patterns are selected, and a diagram

appears below the neck graphic showing the keys to be used.

The computer's keyboard is used very efficiently, and is laid out in 3 blocks: The OPTION and SELECT keys are used for tempo control while START is used to begin and end playing. The keys 7, 8, 9, 0, U, I, O, P, and J, K, L are used to select pick patterns. The 1, 2, 3, 4, Q, W, E, R, A, S, D, F, and Z, X, C, V keys are used to select chords. The START key acts as a 2 state toggle: To begin playing, press START; to stop, press again. If you want to use a chord or pick pattern other than the one displayed, press the appropriate keys while playing. While silent, one key press in either the chord or pattern block can be retained in memory, and the display will update as soon as playing begins: The Atari "last key pressed" rule holds. Holding down the OPTION key will speed up the pattern, and holding SELECT will slow it down. This works only while playing. Interestingly, pressing OPTION while at top speed causes a slight but noticeable slowing of the pattern, as one more routine is being used. This effect can be used to expressive advantage.

The chord block is especially well thought out. If a musician was limited to only three chords to accompany any song in a Major Key, those chords would probably be (using Roman numerals) I, IV, and V (or V7). These contain all the notes in the Major scale. Pick a letter name to be your Key (in a continuum from A through G, then starting over at A for successively higher pitches), call it I, and count up to find IV and V. Here is the block layout - notice the first three columns (vertical) on the left:

F	C	G7	Am
C	G	D7	Em
G	D	A7	Bm
D	A	E7	F#m

Any chord in the second column, C, G, D, and A, would usually be used as the Key you're playing in. To the left is IV, to the right is V7. (The horizontal rows are spaced in a "cycle of 5ths" layout.) The rightmost chord in each row is VI, the "relative minor" chord of each

row's Key, and would be the musician's next choice for an available chord. The duplication of chords (C, G, and D) allows the player to concentrate upon any one row at a time, thus dealing with only one Key. So each row's layout is IV, I, V7, VI - for the Keys of C, G, D, and A Major.

There are 11 picking patterns in the right-hand block, all based on 8 note rotations, although 2 of them (keys J and L) are written out repeats of 4 note patterns. The patterns show up during play as a diamond shaped cursor appearing next to each played banjo string. Since most "good" music is a blend of unity and variety, the proper handling of these patterns during play can favorably effect the sound in performance. The START/stop function always begins with the first note of the pattern chosen, and ends whenever START is pressed.

The picking patterns are -

key: strings:

7	3 2 5 1 4 2 5 1
8	3 2 1 5 1 2 3 1
9	3 1 5 3 1 3 4 1
Ø	3 2 1 5 3 1 5 1
U	3 1 5 3 1 5 3 1
I	2 1 2 1 5 2 1 5
O	1 2 3 1 5 2 1 5
P	1 2 5 1 2 5 2 1
J	1 2 1 5 1 2 1 5
K	3 5 3 1 5 3 1 5
L	2 3 2 1 2 3 2 1

- all repeating until interrupted.

Any program is the result of certain decisions being made. It is easy to think of things that could improve it, not so easy to impliment those changes in many cases. Let's examine some of BANJO's tradeoffs.

First, let's realize that BANJO is a semi-automated accompaniment generator. To play a particular song requires user intervention. The old bluegrass standard, "Mama 'Don't Allow" might look like this on a "fake sheet":

C / / / / / G7 /
C / F / C G7 C /

Here, each symbol could represent 8 eighth notes (1 pattern cycle) with each slash (/) a repeat of the preceding chord. BANJO only allows 8 note patterns. If you want to play a waltz (triple pattern) or a shuffle (sextuple pattern) you're out of luck. Fortunately, the 8 note pattern is the most common in popular music.

BANJO allows only a 4 of the 12 possible Major Keys, and, with understanding, only one or two more minor Keys. This isn't too bad, as most musicians favor a particular Key for a particular tune, and this program uses the most common banjo Keys. A really flexible musician might be able to play almost anything on his instrument in any Key, but there will be one or two that will sound best, if only because they agree with the basic pitch range of his instrument.

If the entire pantheon of chords had been made available, the keying could have gotten very complex.

CONTINUED ON NEXT PAGE



SEASON'S GREETINGS

BLACK MOON SYSTEMS

759-6898

With a longer program and the Atari OS' use of the 6502 chip, this could have made it run much more slowly. By restricting himself to a few chords in a logical keyboard sequence, the programmer has also made the player's part easier, and thus more easily controlled.

A "real" banjo playing these kinds of patterns would not produce the sound of one string alone at a time. So, except for the very first note after a RUN, the user always hears an overlapping of the different strings' sounds. This is a convincing effect while it's running, but sounds a little strange when the patterns are stopped then started again. The first notes in a restarted pattern contain the overlap from the last sequence.

The "drone" string, as mentioned, would usually not change pitch within a song unless the player was fairly far up the neck. BANJO's drone changes rather unconvincingly from G to A in the Keys of D (on D, A, and Bm) and A (on A, E, and F#m).

But these are minor cavils indeed. The program is well worth your time, for the fun of playing it as well as a model for programming. It is wonderfully easy to expand upon or change. And its pitches are very nicely in tune with an A=440 Hz standard.

Should an XL or XE owner modify BANJO to the point where it slows down too much, it can always be run under TURBO-BASIC. (Using TURBO, if the program seems to "get stuck", just hit any valid chord or pattern key to free it.)

There are many more things that could be said about music in general and this program specifically, but (...Here comes the commercial, Harriet!) that kind of detail will have to be discussed in private consultation. As you probably know, my phone number is in the Yellow Pages under Music Instruction.

If anyone knows more about these programs, send info to this newsletter or put it on the Help Key II - I'll pass it along in future articles with credit where due.

CHIPMUNK

An 8-bit review by Joe Souder

Chipmunk is a new back-up program published by Microdaft for the Atari 8-bit computers.

Written by Eli Tomlinson, it has 2 sector copiers (one for X1 and 800, and one for 128K 130 XE), and the parameters utility on the first side, and three utilities on the back. The utilities are Unlist, Undelete, and Autorun. On both sides, there are parameters needed for copying the disks. Surprisingly, it needs no hardware modifications.

You first make a copy, using the program's sector copiers (or you may use your own if you have one), then, run the parameters over the copy. It is that simple! Now you have a back-up of the piece of software. Two things however; 1) The sector copiers load in, and when they are done, they must boot up the main menu again, meaning you have to constantly swap disks. 2) The software you want to back-up, must be on the parameters list. (A good deal of the good software out though, is listed, so your particular software shouldn't be too hard to find.)

There are also three utilities on the back of the Chipmunk disk. They are 'Unlist', 'Undelete', and 'Autorun'. Unlist is a utility to list a basic program, that is on a full side disk. Undelete is like the Atari utility, that will undelete a file that was deleted before, as long as something was not written over it. Autorun, is my personal favorite, it creates an autorun file that loads a basic program on boot up. To get to the utilities, you must just boot up the program on the second side.

NEEDED: INFORMATION ABOUT THE USE OF R-DOS WITH BASIC XL CARTRIDGE. PLEASE CONTACT CRAIG ABRUZZESE AT 215-437-2664.

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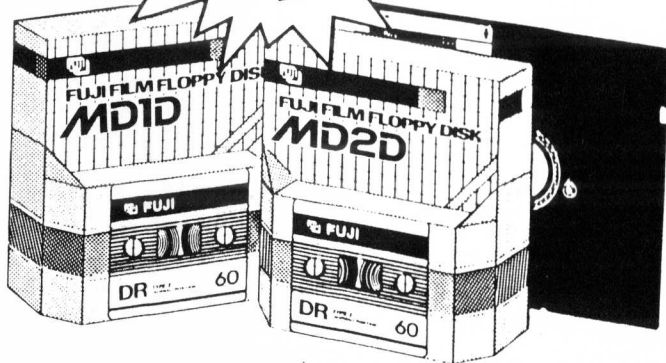


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**ASK FOR
OUR
SOFTWARE
CATALOG**



ASK MS. RUTH

Dear Ms. Ruth,

A few months ago, my husband started insisting that the kids and I get involved with his computer hobby. The kids are now hooked on computer games (although many of them are educational) and I've started to do a lot of work for our church with AtariWriter Plus. Now, all of a sudden, my husband is complaining that the family is on "his" Atari so often, that he gets very little chance to use it. His solution? Purchase a new Atari ST for him to use. I'm beginning to suspect he had this in mind from the start. Am I imagining things, and if not, what should I do?

Suspicious

Dear Suspicious,

I'm sure you're not imagining things! Most Computer People are devious! But, DON'T STOP him! Just make sure he understands, this is a "HIS and HER" purchase. Then, buy the best word processing program to go with it!

Why limit yourself? Ask Hubby, to tell you about computerized home finance programs, art and music programs, spreadsheets, databases to keep track of

addresses, recipes, home inventory, medical information, and much, much more!

If it seems you have little time on the ST--COMPLAIN! It worked for your husband.....

Good Luck,
Ms. Ruth

Dear Ms. Ruth,

I attended an ABE's ACEs general meeting several months ago, and had a ringing in my ears for about three hours afterwards. DOS, boot, binary, format, sectors, bytes, bits, RAM, ROM, operating systems, RS-232, and on and on. I'm still not sure what language they were speaking. What's a novice to do?

Confused

Dear Confused,

First, you are to be commended for braving your first Abe's Aces meeting. I know how frightening it can be! It does, however, get better. Each meeting, will bring a little more understanding, until one day you'll find yourself using the language, without even thinking about it. (In a store recently, I asked a young clerk about their return policy, because Atari was famous for it's bugs (mistakes in hardware or software) in their Products! (the poor girl took her hands off my almost purchased item, and looked around for little CRAWLING things)

Get out any books that came with your system, and after the house is quiet, read, study, and reread, starting at page one. As soon as something makes sense, turn on the computer, and try it! When it doesn't work, make note of it, to ask someone who knows.

Next, if you're a female, ABE's Aces has a wonderful Woman's Sig. It's run entirely by women (with only a little outside help from men), so any questions you have will be answered in a way EVERYONE can understand. (Women have this talent) If you're a male, you're out of luck! There is no Men's Sig.*

There is one more place you can turn to with your questions! The Club Hotline

215-837-1046, can be called any time of the day or night, because it's an answering machine. This takes away a little of the fun, in waking an E-Board member at 2:00 in the morning, but it serves it's purpose.

Good Luck and Happy computing!
Ms. Ruth

Dear Ms. Ruth,

HELP! My seven-year-old just came home from first grade, and informed me that she is now getting two hours of LOGO programming each week at school. She wants to know if we can get LOGO for our Atari, and if I can help her program the turtle(?) to draw like it does at school. I think I'm in over my head.

Does Not Compute

Dear Not Compute,

Tell your little Angel, that MAYBE she'll get it for her next birthday, or Christmas (whichever is farther away). Then, rush out and buy it. As soon as Angel is tucked in, read, study, practice. Call the above mentioned Hotline with any problems and questions. (they REALLY do like the calls--it makes them feel needed)

Then, on the promised event, hand "Logo" over, all wrapped and pretty. Show your daughter how to use it (ignore, "I can do it myself!") This will probably be the last time you get to play with LOGO, until bedtime! (Who said Mothering was easy?)

Another Mother
Ms. Ruth

Dear Ms. Ruth,

In a few weeks our family is flying to a week-long vacation at Walt Disney World. Yesterday, I overheard my husband tell a friend of his, that he was sure he could pack his Atari, disk drive, power supplies, and all cables in just one suitcase. This isn't what I had in mind, when I made our reservations. (Although, I suppose I should have been suspicious, when I found Dave looking at the motel's brochure with a magnifying glass,

counting power outlets in the room photos.) How can I save this vacation?

Worried Traveler

Dear Traveler,

The only way you can save your vacation, is to make a deal with Hubby. (preferably in writing, with witnesses) Make You the Party of the First Part. Promise to let him use his computer every night at the motel from 9:00PM till whenever he wants. You're Hubby, being Party of the Second Part, promises to take you to every attraction, ride, restaurant, etc, that you want, happily, with no complaining about lines, food, tiredness, or anything, until you get back to the motel. (If you run him around enough he probably won't last more than an hour or two.)

And, hey, if he's a regular caller to a Florida BBS, he'll be saving you a lot of money...maybe enough for another vacation?

Wish I was there,
Ms. Ruth

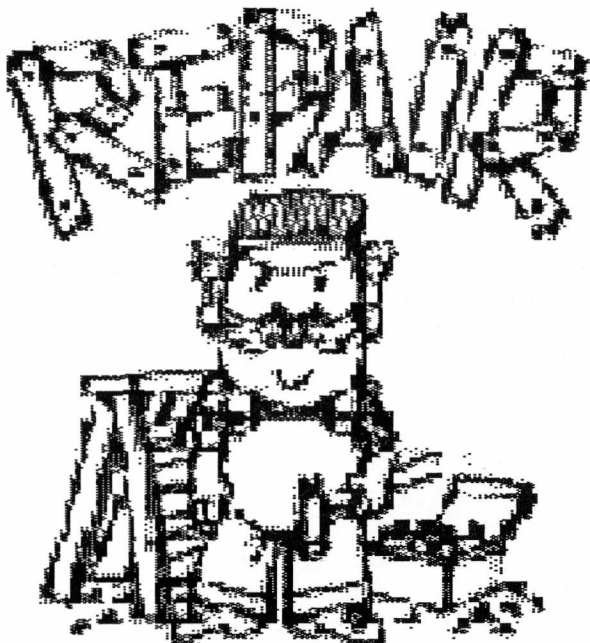
ps Before the trip, have Hubby call the Airlines to make sure his equipment will travel well. I doubt a suitcase is good packaging for hardware, and definitely not good for software! (electromagnetic scanners)

Ms. Ruth is an active club member who wishes to remain anonymous. She is not on the E-Board.

If you have a question for Ms. Ruth, address it to:

Ms. Ruth
c/o ABE's ACEs Newsletter Editor
P.O.Box 2830
Lehigh Valley, PA 18001

* Ms. Ruth wrote her column before the Woman's SIG changed to the Beginner's SIG. See related story on page 9.



130XE CONSOLE KEY FIX

by John Nagy

Reprinted from Mile High Atari Magazine

I found that I was not alone when I started having trouble getting my console keys to work on my 130XE. It seems that very many of the machines develop this problem.

I asked around and found several others that had done as I did, opened the keyboard and cleaned the button contacts, only to get good results for a week or so before losing them again. I then received a couple of reprints of articles suggesting hardware fixes. I tried a couple that did not work, but one that worked the best came from Alan Haskell (printed in the SBACF GAZETTE).

Here's how, with a small modification to save you the trouble I made for myself trying his recommended installation.

You will need a small Phillips head screwdriver, needle nose pliers, a small soldering iron, and three 3k (3,000 ohm) quarter-watt resistors. The smaller the resistors are physically, the better.

1) Turn over the XE computer and remove the four screws that hold it together. Turn the computer over again and remove the top half of the case.

2) Lift out the keyboard and gently pull the ribbon out of its connector. DO NOT OPEN THE KEYBOARD as cleaning internally will not help, and you may damage the carbon tracks on the baking sheet inside.

3) Remove the motherboard from the lower half of the case by removing the Phillips screws holding it.

4) Remove the top and bottom metal shields from the motherboard by carefully straghtening the bent tabs that go through the board.

5) Observe the top and underside of the connector you pulled the keyboard ribbon out of. As seen from the top as you would look at the computer normally, there are 24 connectors, with connection #1 at the left and #24 at the right. Connection #3 (from the left) is the ground connection. The last four, #21, #22, #23 and #24 are the START, SELECT, OPTION and RESET connections. When a connection is made from one of these points to the ground, the computer will know one or several of the keys are being pushed. Due to a design problem, the console keys have a bit too much resistance to always register, even when you really lean on them. So, we will install the three resistors between the connections and ground so as to "leak" a bit more ground signal to the computer. That way, not nearly so good a connection is required by the actual keys when pressed.

6) Identify the proper pins on the bottom side of the circuit board. We will install the resistors under the board.

7) Solder one end of all three resistors together, then connect this common end to the ground connection (pin 3). Next, solder the free end of the resistors, one each, to pins 21, 22 and 23. (The RESET system never seems affected.)

8) Be certain that the wires on the resistors do not touch each other nor any other circuitry! Use as little solder and as short a heating time as possible. Tape the resistors to prevent shorting if needed and press them close to the circuitboard.

9) Re-assemble the shields to the board, bending back the tabs to hold it all together. Look inside to be sure the resistors do not touch the lower shield.

10) Complete the re-assembly, taking extra care not to stress or insert the keyboard ribbon too many times. The spring contacts bend easily, and the conductive coating on the ribbon, if scratched through, will cause the keyboard to be useless. Don't worry too much, that's hard to do if you are careful.

11) Test the repair. Power up the machine and type in this one line BASIC program:

```
10 PRINT PEEK(53279):GOTO 10
```

Then type RUN. You will see a row of 7's down your screen. Push OPTION. They should turn to 3's. SELECT will give you 5's, and START will give you 6's. If each key responds, you have finished your repair. This has permanently fixed the problem on dozens of XE's.

NICE WORK KEITH!

One of four recipients on the Allentown Campus of the Penn State University Scholars Program and the Freshman Excellence Award is our own Keith Bingaman.

The University Scholars Program gives the recipients several academic opportunities including honors courses, independent study and research, access to graduate courses, study abroad and an honors advisor. The program also qualifies a student for the Freshman Excellence Award which is a renewable scholarship worth one-half of Penn State's tuition.

Keith's major is computer engineering.

Our thanks to Gene Celebuskie for passing along this information.



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If you would like more information about ABE's ACEs, write us at the club's address or call the club HOTLINE at the number listed on this page.

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Submissions to the newsletter may be made via the HELP KEY II, at the general meetings, or transmitted directly to the editor at 300 or 1200 baud. Call the editor for more information.

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