P.A.C.E. WORLD

NEWSLETTER OF THE

PENINSULA ATARI COMPUTER ENTHUSIASTS

MARCH 1987 VOLUME 7 NO. 3

DON BALDWIN DIDN'T WIN!

THE UNEXPLAINABLE....EXPLAINED!

It's Friday night....You think you are at a P.A.C.E meeting....but little do you realize....you have just stepped into....the Twilight Zone.

Let me introduce...a Mr. Don Baldwin....He looks like ordinary folk....but what looks ordinary really isn't....in the Twilight Zone.

Our story opens as a Mr. Joe Cullen announces "buy your raffle tickets now and get in on the great software, only 50 cents a ticket!!" Tonight's subject purchases one lone ticket....knowing it only takes one to win....and he normally does....However tonight the raffle is not at Gloria Dei, it's in my domain.

The club's treasurer.....a Mr. Kevin Johnson, is frantically handing out purchased tickets, while in the background a Mrs. Linda Marks smacks her husband Chester....but that is another story....The club's president, a Mr. Mike Fazzi, signifies the end of the ticket sale and starts the raffle....Cliff and Libby look at their tickets in anticipation.....not realizing the luck(?) of Don Baldwin. Mr. Baldwin flashes a confident leer at Maria, Steve, Jeff, Lynn and anyone else who thinks they have a chance....

Our story continues....as stories do...with a cute young girl picking the first raffle ticket...."Two-four-one-six-seven" she cries out....All eyes turn to Mr. Baldwin...He rises from his seat...he glances at his ticket....he sits back down..."I got it!" yells someone in the background. The raffle continues....each drawing bringing the same result....Suddenly...it's over....

All eyes again turn to Mr. Baldwin....as his torn ticket hits the floor...He then hears the words he thought would never pierce his ears...."Tough break, Don"...

Our story concludes with many smiling faces....however, one of them is not...yes, you guessed it, it's yours, the reader's, for having to wade through this story.

(I now return control of this newsletter to the members of P.A.C.E. ....until the next time....)-Rod S.

PRESIDENT'S REPORT
by Mike Fazzi

This month has gone by entirely too fast for me. I worked on the telecommunications demo for 3 weeks and then it didn't work at the business meeting. I brought it home and it worked on my system. I have an 800+ with 2 disk drives at home and I set it up on a standard 800 using 2 1050 drives at the school. I don't understand why it works at home and it wouldn't work at the meeting. Oh well, those are the breaks.

I went to Interface last week and dropped off some cards with info about our club. I also picked up two STATUS newsletters. I want to reprint something that was added to one of their newsletters:

1) If you bought a 1050 and got DOS 3.0 you can mail it back to Atari and get the DOS 2.5 version. The address is ATARI Customer Relations, Attn. DOS 3 Upgrade, PO box 61657, Sunnyvale, CA 94088.

2) You can exchange your 600XL for an 800XL by mailing your 600XL plus $35.00 to ATARI Customer Product Service, 390 Caribbean Dr., Door 17, Sunnyvale, CA 94089.

3) Lets not forget the ATARI Fair that is coming up, March 14 & 15. It is being held at the Hilton Hotel, Allentown, PA. We should try to send someone to represent us at this show (I volunteer if the club pays the way).

I recently became aware of the need to own a portable computer. I had to leave town on a moments notice and had this column and another to write. If I had had a portable I would not have worried about deadlines. I could have done all the typing in the car while travelling and when I arrived at my destination I could have uploaded the columns to our BBS. Then our editor would not have been upset with me for being late. As it was, however, I had to drive all the way to Orlando, Florida and for 15 hours look at all of the college kids from Canada as they drove to Ft. Lauderdale. I was disgusted by the thought of all these lovelies heading to sunny Fla while I had to go to a business convention in another town. I didn't have the time to follow them and make sure they didn't get sun burned. I got quite a lot of work accomplished in spite of the 85+ temp and sunny weather. I was really worried about this newsletter article and if it would ever get written.

I hope to get that giant screen monitor for our next business meeting so let me know if you have any demos you would like to see on the big screen. I am still open for suggestions for meeting topics. Please call me and let me know what you are interested in so I can make plans.

Hope to see you all at the meetings. Until next time I am ..... darn, I left my name badge home and can't remember.

FROM THE ST V-P

Greetings to All from the new ST VP! Now do I have a story to tell! A few months back, a strange event happened at my home. What you may ask? Our Maine Coon Cat, Kitty-Boo, got her TAIL caught in my Epson printer! And it didn't STOP printing!

Poor Kitty had to have the end-tip of her tail shaved and four stitches! She's all right now, of course, but if she hadn't been in the computer room, this accident would not have happend. Small children and pets should not be alloved near your computer peripherals at all, even though they seem to be "drawn" to them! (My Husky Sunny loves the sound of the printer, too!).

Even after all of this, I sometimes catch my pets near my equipment when they're running, and you better belive that I punish them good!

So if you have invested alot of money in you system *(and who hasn't!?), take care of it properly...* Better safe than sorry!

‡Maria‡‡

‡‡LIBRARIAN'S CORNER‡‡

Greetings to all Pacers' for the windy month of March. Okay, what did you give up for Lent? Computing?? Nah, no way... Popcorn... Maybe!

First, the good news... We have some new disks in the library for checkout; for the 8's we have the Jingle Disk and Heartware Disk that were generously donated to PACE by a gentleman (We thank you, Sir!), and the latest CompuClub disk to copy for your enjoyment. Also, the PACE new users' disk is quite a hit with the "newbies"; and "old-hands" as well!

For the 16's we have several new disks that will be available for copying ONLY! Among these are a great Monopoly game, (for color systems only), a great Chess game, (for monochrome only), a great terminal program (Uniterm) for all ST's, and the latest CompuClub disk for ST users' in 3.5 disk format!

Now for the 'bad' news... Please, if you are unsure on what to copy and what NOT to copy, ask any PACE officer. PACE will not support copying non-public domain files, disks, tapes, carts, or ANYTHING which isn't public domain, sharevare, or freevare.

Gloria Dei has graciously let PACE use all of its computers, peripherals, and other facilities of the church and school free of charge if we all 'behave' ourselves. When using any equipment, please use the MASTER switches; all of them are clearly marked. We all sometimes (even yours truly!), turn on the computer or drive from the back or front switches instead of using the masters switches. Before leaving, please check your switches; please leave them as you found them!

Well, enough lecturing for the time being! We wish everyone to have fun at the meetings; but please remember if you have problems with any of the equipment, or anything else, ask any officer; we are here to help YOU! And, please treat Gloria Dei's equipment as you would your OWN! Take care, I'll see you next time.

‡‡Maria‡‡

NEW USERS COLUMN

Welcome to the column for all the new Atari computer users. Feel free to send in any questions you need answers for or any ideas that you come up with.

Let's start out with some basic instructions. OK, have your computer turned on? Good. Insert your DOS disk into your disk drive. (Warning: Do not use the 3.0 version that may have come with your computer, get a copy of 2.0 or 2.5 from the club or a friend!) The DOS is the Disk Operating System. This will give you a variety of options at its menu; read up on this in your manual. Done reading? Good.

OK, you put your DOS disk in and turned on your computer. Hey, wait a minute. I didn't get a menu, I got a READY??? What you did was boot up the DOS with BASIC in. No problem, just type DOS and hit return.

Now for some tips. Buy stock. Seriously, first you should use your DOS to format a disk. Any copy of 3.0 is good to format over! Formatting a disk readies it to receive programs or files. In other words, a brand new disk is no good to you until it is formatted.

Your next step should be to experiment with all the DOS functions (remember nothing you can do will hurt your computer unless you are into whips and chains). NO SOFTWARE CAN DAMAGE YOUR COMPUTER!! THE WORST THAT CAN HAPPEN IS IT FORMATS YOUR DISK and write protect tabs will defeat that.

Ok, you are doing great! Hey, I copied a disk at the club meeting and don't understand what the extenders stand for as in "game.obj"? OK, good question, here is a list of extenders that you may run into:

.BAS = NEEDS BASIC TO RUN AT A READY TYPE:
RUN"D:FILENAME.BAS"
.OBJ = NEED TO BE LOADED FROM DOS
AT DOS, TYPE L FOR LOAD, AND TYPE THE FILE NAME
.BIN = SAME AS .OBJ (FOR NOW)
.EXE = SAME AS .OBJ (FOR NOW)
.DAT = THIS IS DATA FOR ANOTHER FILE, DON'T TRY TO LOAD THIS ONE
.MUS = MUSIC FILE, FOR USE WITH AMS MUSIC PLAYERS
.TXT = A TEXT FILE, YOU CAN COPY THIS TO YOUR PRINTER OR SCREEN. SEE BELOW.
.DOC = SAME AS .TXT
.SYS = SYSTEM FILES, THESE WORK BY THEMSELVES, LEAVE THEM ALONE.

There are more, but these should get you started. Now back to .TXT files and .DOC files. To print these out on your screen, go to DOS, and use the 'C' copy command. Type the following:

filename.txt,s:

this will print the text file across your screen. To stop it use the control and #1 key at the same time, and the same to restart it. To print it to your printer, type the following:

filename.txt,p:

Off it goes to the printer. OK, any questions? ..... OK. Do I have most of the bases covered?

What about files that do not have extenders? Hummmm. OK, you have to guess with these, first try running it from BASIC and if that doesn't work try loading it from DOS. IF still no success bring it to the meeting and let us look at it.

That is going to be it for this month, let me hear your questions.

Joe Cullen

DESIGNER LABELS
by Steve Fishbein

The current issue of Antic Magazine features a program called Designer Lablels which brings together Print Shop Icons and text in a variety of of fonts.

The combination of Print Shop icons and labels actually dates back to some Commodore programs that made it possible to print labels with graphics. Only four months ago a label program for the Atari was included as part of the Qwik Pix package which converts Print Shop icons into printer control codes for Atariwriter or Paper Clip. These labels could be used for mailing labels or for return address labels.

Designer Labels might be used for return addresses, but the compressed printing is difficult to read. What really makes this program so different is the capability to use different font sets for the text. I've included some examples in this issue. The program is available on the PACE/ODDX BBS and I have also uploaded a collection of fonts which can be used with this program as well as a program called Tablet Typist.

TABLET TYPIST

Many newer graphics programs permit use of text with the graphic, a feature that was left out of the Koala and Atari Artist programs. In Analog a couple of months ago a program called Tablet Typist was published which permits enhancement of such files.

Not only can text be added, but the Tablet Typist also accepts different fonts and can use different colors - even in the same graphic.

Any program saved using the greater than (>) key, which is saved as "picture," can be used.

Any pictures saved normally can be re-loaded and then re-saved using the (>) key and then used with the typist.

The program is on the PACE/ODDX board and requires both the main program and the typeset file.

ST TIPS AND HINTS: AUTOLOAD RAMDISK AND FILES
BY JOE EAST

Everyone who has used a ramdisk knows how useful it is. It is especially useful with those large programs that constantly have to access the disk for more data. Where I personally find the most use for a ramdisk is with telecommunications. It is very convenient to either receive data to the ramdisk or send a file from the ramdisk without the program going to the floppy disk every few seconds. Not only does the ramdisk save valuable time (which is very important if you are long distance), it also saves wear-and-tear on the floppy disk drive.

An excellent example of the efficient use of a ramdisk is with the adventure game "Ultima II". Every time you enter a time window in "Ultima II", the program accesses the floppy disk to grab a new map. This is very disconcerting especially when you are escaping from one of the many monsters that make up the adventure. It is much more exciting to escape though a time window and be able to proceed on your way immediately. You can do this by loading the entire "Ultima II" program into a ramdisk. Then, when you enter a time window, the time to load the new map is instantaneous. You proceed with your merry escape totally uninterupted.

So, what's the catch? The catch is having to create a ramdisk and load all those files into a ramdisk every time you want to run a game or application. Well, there is an easier way and that is to create a ramdisk and automatically load necessary files when you boot your computer. It sounds a little complicated at first but hang on for a second and let's see if we can make it easy. First, you will need a ramdisk program and a ramload program, both of which are on the ODDX BBS and in the PACE library. If you don't have them contact me or any of the PACE ST officers and they will be more than happy to assist you. Names of these files are: RAMDLD.PRG and FASTRAMD.PRG. Once you have these programs do the following: (Note: these procedures are a simplified version of the "docs" that come with the files.)

1. Take a formatted disk and create an "auto" folder. This is done by opening the disk window, dropping the "file" menu, clicking on "New Folder..." and typing "auto". Now you will have a folder in the disk window.

2. The next step is to load the two files into the "auto" folder in the proper sequence. This is very important. You must load the ramdisk program first. Files in an "auto" folder are executed in the order they are loaded, not in the sequence they appear in the window. Since you are going to load files into a ramdisk, the ramdisk must already be created. Therefore, load FASTRAMD.PRG first and then load RAMDLD.PRG.

3. Now comes the unfun part. You must load First Word or some other program that creates files and create a file called "FILE.LST". The ramload program is going to be looking in this file for all the names of the files you want loaded (they can be loaded in any order). It also wants to know where you want these files loaded. So, on the first line type "D:". This tells the program to take all the following files and put them in the ramdisk that has just been created.

Now on each of the lines type the name of the files to be loaded preceded by a backward slash "\".

They will looks like this...

```
D:\SAMPLE.PRG
D:\SAMPLE.RSC
 D:\etc,etc
```

4. Once you have created this file, all you have to do is load it on the disk with the auto folder. Do not put this file in the auto folder or any other folder. It must be in the root directory!

5. The final step is to load the files you have listed in FILE.LST on the disk. You may load any files you like on the disk, but they will not be loaded into the ramdisk unless they are listed in FILE.LST.

That's all there is to it. Now you are ready to run the program from the ramdisk without having to manually load files. All you have to do is put the disk in drive "A" and boot the system. You will have created a 100k ramdisk and automatically loaded your files. Once everything is loaded, you must install the ramdisk. This is done by clicking on drive "B" and using "Install Disk Drive..." in the "Options" menu (page 47 of your users manual). Be sure that once you have done this that you also save the desktop, so that you don't have to install the ramdisk every time you use it. Once the disk is installed, open it and click on your program. It will load almost immediately, and, from then on, there will be no waiting while the program accesses the disk for more data, or whatever. The ramdisk will function just like a floppy drive in that you can delete and add files at will. Of course, it will go away when you turn the computer off. (Note: you cannot copy "A" or "B" disks to a ramdisk or vice-versa by dragging the disk icons over the other. You must transfer by dragging files to the disk icons or to appropriate disk windows.) You may find that the 100k ramdisk is not large enough for some applications. There are other ramdisk programs out there that are much larger. But if you are working on a 520ST that has not been upgraded, the 100k drive may be all that you can efficiently handle. The procedure outlined above should work with any ramdisk that has a ".PRG" extender regardless of size.

Beyond The Basics
By Jeff Cleveland

Scope of Variables

The Random House College Dictionary defines scope as "the extent or range of operation." Action! variables have certain scope rules that determine where a variable may be used. A variable's scope is the area of code where the variable is defined can be referenced (used) in program statements.

Global and local variables

In BASIC, all variables can be accessed at any time by the program. Any variable in Action! defined at the beginning of a program, or any BASIC variable, is called a global variable. A global variable can be used in any statement anywhere in the program, hence its scope is the entire program.

Action! permits variables with a second type of scope, called local variables. Local variables are declared inside a procedure, and can only be referenced by the procedure where they are declared. Local variables have a limited scope -- they can only be used in the procedure where they are declared. If they are used anywhere else, the compiler will give error 8 - variable not declared.

Passing Parameters

But there is a way to get the value of local variables to other procedures. Passing parameters takes the value of a variable and puts it into a specified variable in the called procedure.

Parameters are declared inside the parenthesis of a procedure declaration.
Example:

```
PROC ADD(BYTE a,b) ;adds a and b
                   ;and prints result
BYTE c             ;c is a local variable


c=a+b                    ;basic math (notice: no LET in
Action!)
PRINTBE(C)         ;print a byte with end of line

RETURN

PROC MAIN()        ;main procedure has no parameters
BYTE x,y           ;main can also have local variables

x=100
y=50
ADD(x,y)           ;go add them
PRINTBE(x)
PRINTBE(y)

RETURN
```

Type in and run the above program. Notice that in the MAIN procedure, although no parameters are passed, there are still parenthesis. These are required in all procedure declarations.

When the procedure ADD is called, the values of the local variables x and y are put in the values of a and b. (a and b are declared in the parenthesis in the procedure declaration.) a and b are then used in the procedure ADD.

Also notice that after the procedure is called, the values of x an y are intact. If the value of of a parameter is changed in the called procedure, a or b in the above example, the corresponding variable in the calling procedure will not be changed (x and y in the above example).

Looping

Looping in Action! is much more flexible than in BASIC, because there are more loop statements.

The basic loop structure is the DO OD loop. When the OD is encountered during execution, the program loops back to the DO statement, and continues execution.

For example:

```
PROC MAIN()

DO
  PRINTE("looping in ACITON!")
OD

RETURN
```

This procedure would continuously print "looping in ACTION!" until you turn the computer off or press RESET. (Pressing the BREAK key does not always stop program execution.) This is called an infinite loop. A DO loop by itself is an infinte loop.

A DO loop may be restricted by using a FOR-NEXT statement before the DO loop. Action's FOR statement differs from BASIC's FOR, in that the NEXT used in BASIC is replaced with an OD. If a FOR statement is added to the procedure above, it can be limited to printing only a certain number of times.

```
PROC MAIN()
BYTE I       ;I is the loop control variable

FOR I=1 TO 10
DO  ;the DO is required in a FOR
```

```
  PRINTE("looping in ACTION!")
OD

RETURN
```

An Action! FOR statement can, like BASIC's FOR statement, have a STEP value for changing how much the loop control variable is incremented. If a STEP is added, the statement looks like this:

```
FOR I=1 TO 10 STEP 2 DO  ;note: the DO can be on the same line as the FOR
```

Next month...

Next month we'll finish looping statements and take a look at conditional statements. For those interested in 6502 machine language, we'll begin a series on the 6502 instruction set.

NEWS

Here are two news flashes that I've heard about:

STER'S: Tired of addressing envelopes the same old way? Well, no more... A Canadian firm (Quaid Software in Toronto) has a $39 program for ST and IBM called "THE ENVELOPE PLEASE". It's a 10K memory-resident utility that will capture a name and address of your choice and in a flash will print it on an envelope sideways! on your Epson/compat. dot-matrix printer. The program prints sideways so that you can feed the envelopes into your printer VERTICALLY. The program can also print your return address!

8-BITTER'S: Going to college soon? Then pick up "THE PERFECT COLLEGE" database program from Mindscape (in Illinois), for $19.95 (ATARI, IBM, C 64, APPLE II FAMILY, and soon ATARI ST!, and the MACINTOSH computers) that has more than 440,000 facts about 1,650 accredited four-year colleges and universities in the USA. The program let's you choose up to 26 criteria like cost, majors, location, overall competitiveness, and student/faculty ratios. What a deal! I wish I'd had this before I went to college!

‡‡Maria‡‡

BBS NEWS

by A.G. Bell

Keeping in touch with Atari BBS's at this time of the year can be especially frustrating. As one board goes down another may pop up, and in the short time between writing the article and publishing of the paper there can be even more changes.

On the Peninsula the Enchanted Forest remains in operation and John Crawford's Power Station (851-2643) is now back on-line. A part-time board, the Barracks, (898-4879) is also in operation, but RJ's Launch Pad is gone.

Short distance calling, available from C & P, makes it more economical to call Southside Boards. The Status board (468-1096) is open to PACE members (identify yourself as a member of PACE) and offers a large selection of PD files along with Koala Graphics and AMS files.

Temple Atari (486-4049) offers downloads of (hard to find) Analog articles as well as current Antic programs.

The Search and Replace Board (490-1348) operated by Status newsletter editor Gene Rodriguez is back on-line after computer repairs although it is primarily for the exchange of articles for newsletters.

A new Southside board is Surfboard II (399-3915) and in Portsmouth the "007" board operated by Don Pemberton (397-1007) remains active with a large selection of PD files.

Two ST boards, Future Flame on the Peninsula and Interface in Norfolk, are also active.

CUTTING THE COST OF RIBBONS

When I first got my Epson LX-86 printer, I thought that I had everything I ever wanted in a printer. Until it was time to buy replacement ribbons. At first the best price I could find was between five and eight dollars.

One day I was looking through a Computer Shopper magazine and I saw an add saying "Cut the ribbon costs!" and being the cheap person that I am, I decided to look into this article a little closer.

There they were, from Borg Industries, the INK MASTER and the E-ZEE INKER.

The INK MASTER was selling for $159. and the E-ZEE INKER for $39.50. As I said before, being the cheap person that I am, I decided to give the E-ZEE INKER a try. The inker took a period of two weeks to get to me. The machine comes with two ounces of ink which is enough to re-ink a total of 4 to 6 ribbons after the initial inking of the machine.

So far I have re-inked two ribbons and they work as good or better than new store-bought ones. I am very impressed with the results and savings that have befallen me from this purchase. For the price of 6 ribbons the E-ZEE INKER is a great bargain and well worth it! The machine is made of a sturdy steel construction and could last forever.

If you are interested in ordering one of these fine products, call Borg Industries toll free at 1-800-553-2404. Visa and Master card accepted. They also have a variety of colors to choose from.

Chris Tanner

A SERIAL PRINTER INTERFACE
USING A JOYSTICK PORT
By Don Baldwin

As long as I have had my 1200XL, I had longed for a printer, but for one reason or another I couldn't find one at a "bargain" price.

Last month I just happened to stumble over a real bargain. While making a trip to the WARDS outlet store in Suffolk I found a printer selling for under $60.00, well below the normal price. Needless to say I soon became the owner of a P-80 EPSON SERIAL printer.

That was the beginning of what turned out to be a major project, obtaining a serial interface. I discovered there are no interfaces for serial printers, and no software for non-existant devices.

I wound up, with great help from my son James, making the interface. Everything had to be done from scratch, both software and hardware.

Armed with some information we obtained from a book called HACKERBOOK for your Atari, we were able to build an RS232 interface and write some source code to make it work.

The information was limited but it was a start, which was all we really needed. The software allowed sending information to the printer but that was about it.

Sending information to the printer is one thing but having the printer and the computer work together is another so I designed and built a special interface to tell the computer that the printer was busy and stop sending until it was ready.

This way nothing would be lost going to the printer. I used a one chip interface, powered from the joy stick port. The interface converts the DTR siginal to a level the Atari computer can understand, zero volts or plus 5 volts.

The DTR signal went from -6 volts to +8 volts so I used was a 1489 Quad line receiver to do the translation. In addition I added two .1mf capacitors for switching and noise immunity, I used two of the receivers to produce the desired voltage translation, to .013 volts for zero and +4.9 volts for the higher signal.

Needless to say we were very pleased with the results. This was only one problem. Next we had to develop software that would make it all work.

Chuck Swiger had revised a BBS program so that it used the pokey timers to set the baud rate and eliminated unnecessary material from the program. All we had to do was add the part to check to see if the DTR signal was high or low so the computer would stop sending if the printer was busy.

After making the necessary changes to the software we came up a system that worked perfectly.

We have been able to use this handler with TEXTPRO and SCREEN DUMPS, and a large number of Basic programs.

For under $15.00 this interface can be built and using the software we've written, you can do just about do any printer project you might like to try.

At present we are using 300 baud, an area we are still working on. We would like to use a much higher baud rate but the software we are using is limited because the pokey timing is not exact.

THIS INTERFACE IS DESIGNED TO WORK AS AN RS-232 INTERFACE THROUGH THE JOYSTICK PORT DATA IS CONNECTED DIRECTLY TO THE PRINTER. DRAWINGS ARE AVAILABLE THROUGH P.A.C.E.

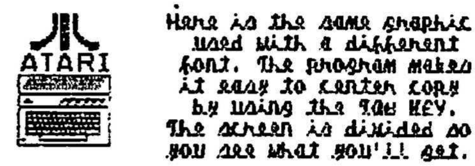
The source code was written using the ATARI ASSEMBLER EDITOR.

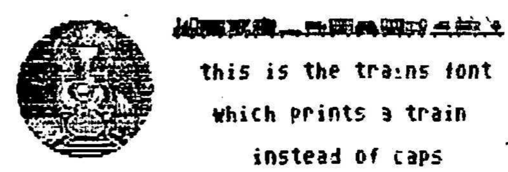
Parts required.

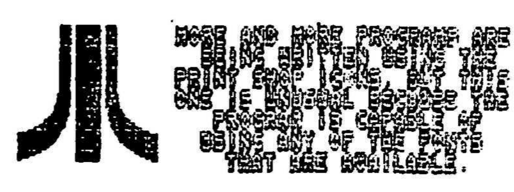
(1) 1489 chip
(1) Joystick connector.
(1) Circuit card.
Printer connector
(2) .1mf capacitors (smaller cap. can be used for faster switching.
(1) 180 ohm resistor
Wire for the connectors and for circuit assembly.
Holder for circuit card

```
10 ;***Serial Interface Handler*****
20 ;       For the P-80 Epson
30 ;Interfaced though the joystick
40 ;ports.10 ;***Serial Interface Handler*****
20 ;       For the P-80 Epson
30 ;Interfaced though the joystick
40 ;ports.
50 ;
60 ;Bit 1-Serial data out
70 ;Bit 2-Printer DTR
80 ;
90 ;Put handler on page 6, and have
0100 ;the INIT routine steal the
0110 ;CASINI vector to survive RESETS.
0120 ;
0130 PORTA=$D300
0140 PACTL=$D302
0150 EOL = $9B
0160 CR = $0D
0170 LF = $0A
0180 ;
0190  *=$5000
0200 HANDLTAB .WORD OPEN-1
0210          .WORD CLOSE-1
0220          .WORD GETBYTE-1
0230          .WORD PUTBYTE-1
0240          .WORD STATUS-1
0250          .WORD SPECIAL-1
0260          .BYTE 0,0,0,0
0270 ;
0280 ;THE OPEN ROUTINE, SET UP
0290 ;PORT FOR OUTPUT TO PRINTER.
0300 ;
0310 OPEN LDA #0
0320      STA PACTL
0330      LDA #$01
0340      STA PORTA
0350      LDA #$3C
0360      STA PACTL
0370 SUCS LDY #1
0380      RTS
```

```
0390 ;
0400 CLOSE = SUCS
0410 ;
0420 ;FUNCTIONS NOT IMPLEMENTED
0430 ;RETURN ERROR CODE...
0440 ;
0450 NOTIMPL LDY #146
0460         RTS
0470 ;
0480 GETBYTE = NOTIMPL
0490 STATUS  = NOTIMPL
0500 SPECIAL = NOTIMPL
0510 ;
0520 PUTBYTE  PHA
0530 BUSYLOOP
0540          LDY $278
0550          CPY #14
0560          BNE BUSYLOOP
0570          CMP #EOL   CHECK FOR
0580          BNE NOEOL  ATARI EOL
0590          LDA #CR    AND SEND CR
0600 NOEOL    JSR SEROUT IF NO, SEND
0610          PLA        BYTE..
0620          LDY #1
0630          RTS
0640 ;
0650 ;ROUTINE TO SEND BYTE
0660 ;
0670 SEROUT   EOR #$FF   REVERSE BYTE
0680          STA BUFFER AND SAVE..
0690          LDA #$01    STARTBIT
0700          STA PORTA
0710          JSR BITWAIT
0720          LDY #8
0730          STY COUNT   8 BITS
0740 SENDBY   LDA BUFFER  GET BYTE
0750          STA PORTA   SEND BIT
0760          ROR A
0770          STA BUFFER  AND SAVE
0780          JSR BITWAIT TIME
0790          DEC COUNT   DONE?
0800          BNE SENDBY  NO, LOOP
0810          LDA #0      STOP BITS
0820          STA PORTA   (2)
0830          JSR BITWAIT
0840          JSR BITWAIT
0850 ;
0860          RTS
0870 ;BITWAIT - ROUTINE TO WAIT 9.09
0880 ;Msec. USING POKEY TIMERS
0890 AUDCTL = $D20B
0900 AUDC1  = $D201
0910 AUDF1  = $D200
0920 VTIMR1 = $0210
0930 TIME   = $32
0940 IRQEN  = $D20E
0950 POKMSK = $10
0960 STIMER = $D209
0970 ;
0980 BITWAIT LDA #1
0990         STA AUDCTL
1000         LDA #0
1010         STA AUDC1
1020         LDA #TIME
1030         STA AUDF1
1040         LDA #DONE&255
1050         STA VTIMR1
1060         LDA #DONE/256
1070         STA VTIMR1+1
1080         LDA #$C1
1090         STA IRQEN
1100         STA POKMSK
1110         STA FLAG
1120         STA STIMER
1130 WAIT    LDA FLAG
1140         BNE WAIT
1150         LDA #$C0
1160         STA IRQEN
1170         STA POKMSK
1180         RTS
1190 DONE    LDA #0
1200         STA FLAG
1210         PLA
1220         RTI
1230 ;
1240 ;ROUTINES TO INSTALL THE
1250 ;DEVICE, AND KEEP IT IN!
1260 ;
1270 CASINI = $02
1280 BOOT = $09
1290 DEVRS = $031A
1300 ;
1310 INIT LDA #INIT&255
1320      STA CASINI
1330      LDA #INIT/256
1340      STA CASINI+1
1350 ;
1360      LDA #HANDLTAB&255
1370      STA DEVRS+1
1380      LDA #HANDLTAB/256
1390      STA DEVRS+2
1400 ;
1410      LDA BOOT
1420      ORA #$02
1430      STA BOOT
1440      RTS
1450 COUNT .BYTE 0
1460 BUFFER .BYTE 0
1470 FLAG .BYTE 0
1480 ;
1490 ;NOW SET UP TO RUN INIT ON LOAD
1500 ;
1510  *=$02E2
1520  .WORD INIT
1530 ;
```







TECHNICAL NOTES

BASEBALL

BASEBALL
by Steve Fishbein

With Spring in the air one thinks, too, of Baseball. And with the baseball season upon us a quick review of some baseball games for the Atari is in order.

The most recent release, Hardball, which was brought out by Accolade last year, is probably the best of the arcade style games. Hardball is designed for one or two players and is easy enough for the player to beat the computer. Line-ups may be changed and several options allow for some strategy as well as the arcade action.

An earlier arcade game was GameStar's "Star League Baseball." This game is much more difficult in terms of playing the computer and in fielding the ball, largely as a result of the perspective used. It is also only a two-player game.

A third arcade style game, simply titled "Baseball" was first released by a company called "In Home Software." It, too, is a two-player game, but finding a copy (originally a cartridge) could be difficult.

The "strategic" style game offers the player more of an opportunity to manage with little, if any, play action. The best three games of this type are the MicroLeague game, Monday Morning Manager and Computer Baseball.

MicroLeague Baseball is the most complete game of this type with several enhancements available as well as the game disk. MicroLeague has made a number of player disks available including teams from recent seasons, some all-star teams and some historical teams. A Stat disk, for compiling team stats is available, as well as the General Manager disk which permits trading of players.

A game called "Monday Morning Manager" was released by a company called TK products in 1985. It is similar to MicroLeague Baseball with the player making the decisions, but unlike MicroLeague, MMM includes the stat compiler and trading utility with the main program. Team disks are not readily available, though.

Computer Baseball by SSI lacks the enhancements of the other two games, but SSI has a much greater selection of team disks available. All three games provide printouts of the game statistics.

A few letters to Sub-Logic might interest them in releasing for the Atari the game they have for the Commodore. The Sub-Logic game has all the enhancements on the game disk, with one exception, a separate Stadium disk, which allows the players to play in any of the major league parks. The Sub-Logic game is my personal favorite because of the graphics and the speed which it plays, although the sound effects are horrendous.

‡‡ATARI WORD SEARCH PUZZLE‡‡

Find the words in the list below by looking across, up, down, forward, backward, and diagonally. After you find and circle all of the words on the list, the leftover letters will give you two (2) mystery words. HINT: It has to do with writing!

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L G N I M M A R G O R P D A
I S D I R E C T O R Y C I C
C T R E E D R A O B O M S K
O N A C T O K M O N O K K S
N E O A N M A S N N C R E M
V N B F I R C E I I E O T E
A O Y R R S C T T D S M T T
L P E E P T O S C A B L E S
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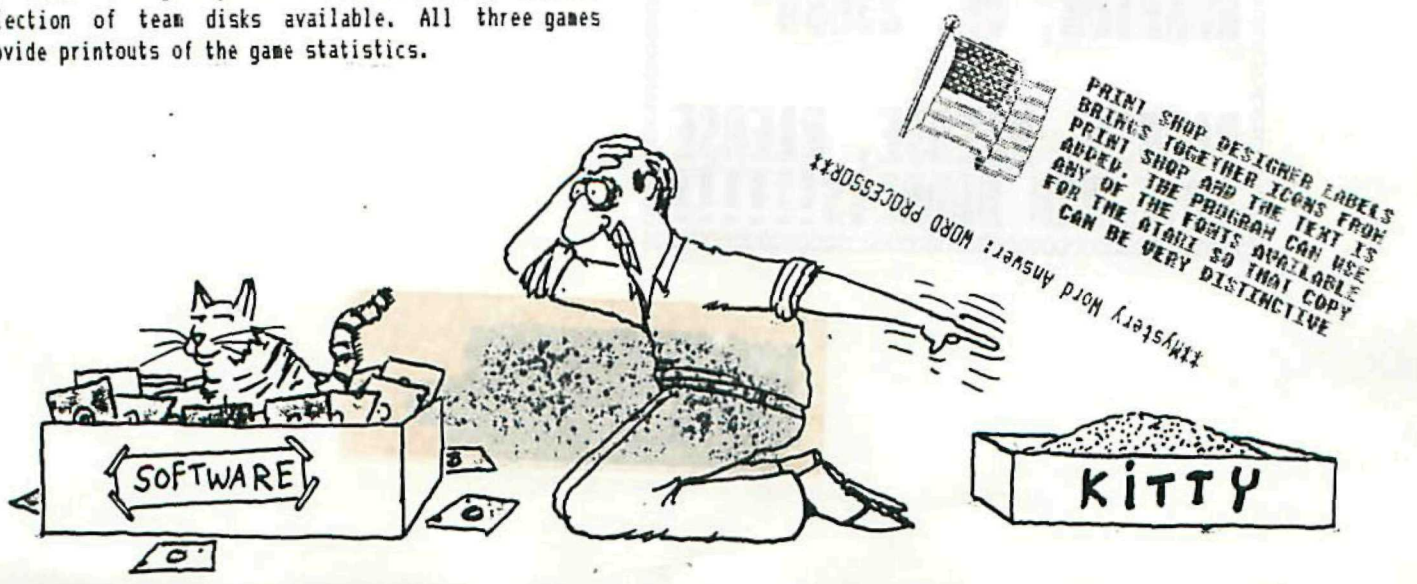
‡‡Maria‡‡



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