

Sprite Chaser

#9

Official Newsletter of the #1 ADAM USERS' GROUP

The Sprite Chaser is published by the #1 Adam Users' Group for the enjoyment and furthering the knowledge of its members, in the use of the Adam Computer. Address all correspondence to the Editor, #1 Adam Users' Group, P.O. Box 3761, Cherry Hill, NJ 08034.

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Editor's Desk

We have many interesting articles in this issue. We are focusing on MUSIC and BASIC and have included some new nice little music programs from the guys over at Digital Express. Instructions are included and hopefully they will format better than "ROADER.BAS" in the last issue. Please be sure to save your work before you run it! If you had any problems with ROADER, please send a SASE to my address (see Software Exchange) and I will send you a print out. Greg Daro has continued writing superb articles and I hope you support him with suggestions and comments. Please write to him at his address (see his Review article).

I also have included an excerpt from the "doc" file supplied with ADAMLINK III patch. It creates a new version of ADAMLINK II and enables it to download files

with the modem using XMODEM protocol!

On the lighter side (although not to him!), member Paul Donnelly reports a leak in his roof filled his ADAM printer with water. He dried it out and in several hours powered it up and it worked!

DARO BITS

A number of people have written in for the instructions to add 64K memory to the motherboard. Many asked about using one of the 256K expanders with the motherboard modification and according to a representative from In House Service Reps, Adam does not recognize the 64K when the 256 is in place. In House Service Reps. has promised to send me one of the new boards and a double sided disk drive; I hope to review these for the next issue. Both products are available through M W Ruth.

Speaking of memory expansion, rumor has it that Walters Software is working on some patches for the 256K expander. The two I heard about would increase the storage space of SmartWriter and AdamCalc. I will check into this and let you know what I find out.

I received many interesting letters from new users as well as old pros. One letter was from a reader in Ohio who has an older brother in Pennsylvania. By accident, they both discovered that the other was using an Adam. After 60 plus years of conversation, they now have something new to talk about. The brother in Pa removed the two pins from his tape drive to make it easier to use audio tapes. He reports that it works fine. The primary purpose of the pins is to insure tape alignment during read and write functions. I hope to have more information on this modification for the next issue.

Questions have come up concerning revision #80 of the operating system. Honeywell is no longer providing this upgrade. I found someone in NJ who has the chips and will sell them for \$35 for the set. You can contact him directly: Fred Vicente, PO Box 7266, North Bergen NJ 07047.

Now that the Adam has been orphaned, users have to work a bit harder to keep Adam going. There are several things that you can do:

1. You are already doing number one by subscribing to an Adam newsletter. This gives you a way to find about new products and information. If you are having problems, you can write in for help. If you have solved problems, you can share that with others.
2. Get a modem! By calling Adam Bulletin Boards, you can share your experiences and learn from others. Here are some of the boards that I know are currently supporting the Adam:

Hudson AdamLink NJ
(201) 224-5764
Adam SmartLink Ga
(404) 424-6258
Tony's Corner Mi
(313) 754-1131
FCAU Ontario, CANADA
(416) 427-0682
Windover Tn
(615) 344-2163
Florida (I don't have the names)
(904) 862-9156
(904) 373-5864

If you know of any active Bulletin Boards supporting the Adam, please drop me a line and I will include the phone numbers in Daro Bits.

3. Get CP/M. Boy have I turned some people off. CP/M is misunderstood by many. It is the BEST way to keep Adam alive through the wealth of software that will run under CP/M. With CP/M you can download binary programs from Bulletin Boards, something you can not do using AdamLink or BASIC. Starting in this issue, I will do a series of articles on CP/M in English.

In case you did not know, you can use an IBM clone to format Adam disks. The IBM is much faster and verifies as it formats. It will not put the boot block or

directory, but Adam will write to the disk using a block copier. I use these disks to make archival copies and if I need an Adam disk, I use Backup +3 or JKL to initialize the disk. I have also made copies of Adam disks using a program called CopyIIPC on an IBM clone.

For this issue, I looked at several word processing programs and also at a spell checker from Strategic Software. I hope these reviews are helpful to our readers. Please let me hear from you about your problems and about your solutions. The best thing we can all do to keep Adam going is to share what we know. There are many new readers and Adam users, so there is plenty of opportunity. If you would like a direct answer, please include a SASE. Till next issue...

Gregory R. Daro
925 Chisholm Court
Toms River, NJ 08753

ADAMLink III

This is an interesting text file describing the features of ADAMLink II patched to use XMODEM transfers! From the Orphanware BBS, the missing DOC file for using; TOM Clary's XMODEM Patches to ADAMLink II now known as; ADAMLink III

ADAMLink III Xmodem Patch Documentation:

The patch allows the uploading and downloading of files using xmodem protocol. This allows the transfer of binary files with error checking.

Use:

Initiate file transfer on the source system and choose xmodem file transfer protocol. The source will say something to the effect that xmodem is now starting. Now press <WILDCARD> to return to command mode. Press Smart key VI for file option. Choose key III, Xmodem Send, if uploading or key IV, Xmodem Receive, if downloading a file. Now the program will now prompt for choice of tape/disk drive. Choose a desired drive for the file. Next enter the name of the file. The next choice is for file type 'A' or 'H'. Choose 'A' for general text or basic programs. Choose H for SmartWriter files or binary files. The program will now attempt to start the xmodem file transfer. A cancel option is available by pressing key VI. The program will display a counter of the number of records transferred. The cancel option may take up to 5 seconds to respond. If all goes well, the program will display "File successfully DL'ed" or "UL'ed" as appropriate. Press <WILDCARD> to get back to terminal mode.

Notes:

The cancel key when pressed will send to the source five control-X's to signify cancellation of downloading. This is not actually part of the standard but is a normally accepted by most xmodem implementations. In case of error, xmodem will abort and save the partial file.

To use a dot-matrix printer with ADAMLink, before starting AdamLink, first use Fastpatch or the like. Due to software constraints, the online timer will no longer reflect the correct connect time. It does not count the time spent during xmodem.

A downloaded file may contain at the end control-Z's to fill up the last record. This is a standard part of xmodem. In SmartWriter they will appear as quarter notes. They can be deleted with no problems. Please report any problems or bugs to the author at:

Tom Clary

9015 Eshter Dr.

Loveland, Ohio 45140

Include S.A.S.E. for reply

The xmodem patch copyright 1988 Thomas E. Clary.

CP/M FOR BEGINNERS By Greg Daro

CP/M! Boy can those three letters strike fear into the hearts of many a computer buff. If you have CP/M for the Adam and you tried reading the manual from Coleco, the DDP is probably sitting collecting dust somewhere. CP/M is not that difficult to master once you understand what it is designed to do and also what it will not do. Back in the olden days of micro-computers (that's what my son calls them), many machines were based on the Intel 8080 or the Zilog Z80 processor. Each machine manufacturer had a different operating system. As a result, each software package had to be customized for the particular machine. For example, Adam SmartWriter runs on a Z80 processor, but will not work with any other machine even if it has a Z80. What was needed was a standard that all software would be designed to. Each machine manufacturer could customize his equipment, but maintain compatibility with the standard allowing the use of different software. Digital Research developed that standard and called it CP/M (Control Program for Microcomputers). Until IBM selected MS DOS, CP/M was the international standard. In fact, CP/M is still widely used in Europe and the Orient.

That's great, but who wants to learn how to program CP/M? That is the first misconception. CP/M is not a programming language, it is an operating system. When you boot CP/M, you have an advanced operating system at your disposal. The primary computer functions of data input and output are handled by CP/M the system. There are four main areas to CP/M: CCP is the Console Control Processor and handles the keyboard input and video output. This part is specific to the computer; BDOS is the Basic Disk Operating System and again is machine specific; BIOS is Basic Input Output System and is the heart of CP/M; TPA is the Transient Program area and is where programs are loaded and executed. These are what allow standardization. Unless you are going to do machine language programming for the CP/M environment, you will not need to know the details of these four areas. In today terms, CP/M is like having "clones" or "compatibles". Any program written to run under CP/M 2.2 will most likely run on the Adam. I use WordStar 3.3 on my Adam, the same program that runs on a variety of different machines. The software uses the BIOS to interact with the hardware. When the program wants to read a file, it calls specific BIOS functions which are in the same memory location regardless of the computer used.

Since data input, output and data storage are the most important features of a computer, CP/M provides commands

and programs to manage both data and program files. Unlike BASIC, CP/M is not a programming language. It is truly an operating system that allows user interface. The main operating system of the Adam does not permit direct user access, rather, you must load and run a program in order to use the computer. CP/M gives you direct access to the operating system's built in functions. For example, you see a file on your disk or DDP but you cannot remember what it is or does.

Executing a TYPE command at the CP/M prompt will cause the contents of the file to be displayed on the screen. You can then figure out what it is. Making copies of data files is difficult at best using BASIC. Loading the File Manager from disk helps, but is time consuming. You can make backup copies easily with CP/M with a utility program called COPY. It supports both mass file copy and individual file copy, but works only with CP/M disks or DDP's.

The Adam CP/M package was called CP/M 2.2 and Assembler. The Assembler part of this package is for machine language programming. This is beyond the scope of this article and is not needed to take advantage of CP/M. In the coming issues, I will get into the nitty gritty of CP/M and how to use the many functions. Keep in mind that programs that run under the CP/M environment are machine code programs like the ones that boot directly from DDP or disk. They are not programs that you "LOAD" or "RUN" like in BASIC. To do that, you need BASIC (also available for CP/M).

I had trouble understanding CP/M just reading the manual from Coleco. In my quest to expand the capabilities of Adam, I learned more about CP/M and now I could not do without it. There are programs that run in the CP/M environment that support binary protocol transfer. This allows you to download (transfer) files through your modem. Many of the Coleco Vision carts are now in the public domain and are available on many Bulletin Boards.

In the next issue I will begin to get into some detail. With this background information you will better understand what CP/M can do for you.

Disk Drive Transformer

It is a reasonably good chance that if your Disk Drive Power Transformer fails, the problem will be the blown fuse. This is a 5AMP 250VOLT "Pigtail" fuse. Below is a procedure for replacing this fuse. This procedure applies to both COLECO Part Number 42871 and TRAK Part Number C017945 Transformers

- [1]Secure the transformer in a vise with the footpads up.
- [2]Make four cuts with a hacksaw immediately adjacent to the outside of footpads. The cuts will be about 3/16" but you will be able to feel when cut is through.
- [3]Remove the internal parts and locate the fuse.
- [4]If you are handy with small soldering irons, remove and replace the fuse.
- [5] If you had rather not use a soldering iron, you might be able to procure Radio Shack Part Number 270-1219 (Pigtail Fuse Adapter Clip).

This clip was not available at the Radio Shack near my house. Remove the old protective sleeve and use the above clip.

[6] Place a band around the transformer to hold it together. After repairing the cause of the blown fuse, this procedure should make your transformer as good as new.

```
O.....O
>         <
>         <
>         <
>         <
O.....O
```

"O" = FOOTPADS

Cut outside dotted lines at top and bottom. Cut between "O" and arrow points on the sides.

SmartTUNES

For some time DIGITAL EXPRESS had planned to introduce a music composition program for ADAM entitled "SmartTUNES". With several other projects in the works, we decided to donate the machine language routine for SmartTUNES into the public domain. Our commercial software is written in machine language totally; but the files on this medium are in BASIC for the facility of changes and study (accessing just this one simple Z80 routine).

The routine can generate some very pleasing music. Even more discriminating music lovers will admit that these songs bring out the best in ADAM's sound chip. The tunes are not quite as complex as those created with VideoTUNES (by FutureVision); but, the potential is there. The prime benefit of SmartTUNES is portability. The songs may easily be incorporated into your own BASIC or Z80 programs.

The routine gives you access to all three voices. You can create some interesting simultaneous sounds and music sweeps with this feature. But, you'll generally find music more pleasing by using the second and third voices for harmony. For instance, the first voice could be used for the score sheet note and the other two voices could each be one octave higher and lower of the same note. This gives a certain richness to the sound quality. You could also use the other voices for sounding chords.

You can set the tempo, select an octave offset, and set the volume. Also, you can exit at any point during a song by tapping the <ESCAPE> key. To play a tune, you first need to Run the program entitled SmartTUNES. This sets up the Z80 routine in BASIC. Next, just select a song from the CATALOG and RUN it. Each song is stored in two versions: BASIC ASCII with DATA statements (just RUN this file) and binary Z80 format (stored just like a shape table). With the binary Z80 format the filename ends with "BIN". Just enter BLOAD and the filename. Then CALL 27800 to start the tune.

The BASIC ASCII version of a song allows you to see the actual notes and durations as displayed with a BASIC LIST

command. You can DELETE line numbers 1000 thru 2500 to create your own songs by entering new line numbers (in that range) with the notes included in DATA statements.

Each note has values for three voices. The note "F5F6F48" plays "F" of the fifth octave with the first voice, "F" of the sixth octave with the second voice, and "F" of the fourth octave with the third voice. The last number, "8", specifies a duration equal to a quarter note. Here are more explicit correspondences.

DURATION:
whole note = 32
half note = 16
quarter = 8
eighth = 4
16th = 2
32nd = 1

Of course, the dotted counterparts are computed as the mean of two consecutive durations. For example, a dotted quarter note has a duration of 12, or $(16+8)/2$. 32 is the highest acceptable duration and 1 is the lowest.

NOTES:

A = A
A# = a
B = B
C = C
C# = c
D = D
D# = d
E = E
F = F
F# = f
G = G
G# = g

"A sharp" is the same note as "B flat", "C sharp" is the same note as "D flat", and so on. Using letters for the notes makes them very easy to remember. The octave range is "3" thru "8". With ADAM a scale starts with the "A" note rather than the "C" note, as in a typical chromatic scale. For this reason, you'll need to offset "A", "A#", and "B" to one octave higher. For example, if you want to sound an "A" in the TRUE fifth octave, you would use "A6" rather than "A5".

Additionally, each voice may be turned off individually during the course of a song. "X" turns off the first voice, "Y" turns off the second voice, and "Z" turns off the third voice. These notations are used to supplant the usual note and octave -- there is no octave specification. A duration (same as with the actual notes) should be specified. For example, to turn off all three voices (as with a rest), the sequence "XYZ8" could be used (the "8" indicating a rest the duration of one quarter note). It is also useful to insert a rest with the duration of one 32nd note (XYZ1) between consecutive identical notes. This is because the sound chip does NOT independently turn off a sound. Consider this example: C4C5C68, XYZ1, C4C5C616. If you didn't include the very brief rest, you'd harmonized "C" note.

Although the SmartTUNES routine is setup to handle three voices, you can use just one or two voices. For example, a one voice tune would look like this: C4YZ8, E4YZ4, D4YZ8. A two voice tune would look like this: C4C5Z8, E4E5Z4, D4D5Z8. You should turn voices off in sequence, ie, don't turn off the first and second voices and play the third voice. Instead, play the first and turn off the other two.

The SmartTUNES routine is used much like a BASIC shapetable. In essence, you create a song table. You can specify your own address in RAM to store this table. Our song program use address 29000 as the starting byte address. To set your own address pointer, POKE the low order integer byte into address 27794 and POKE the high order integer byte into address 27795. POKE the volume (1 - 15) into address 27793. POKE the tempo into address 27792. The best ranges for the tempo are about 225 to 250, the higher the tempo value the faster the song is played with respect to individual note durations. POKE the octave offset (1, 2, or 3) into address 27946. To use the offset function, your song should not play any notes in the third or eighth octaves.

We have included a file on the medium entitled "MusicBox#1" which demonstrates the PLAY features of all

the songs on the medium. You can change the volume, offset, tempo, and song. This lets you experiment with the included songs. The medium is self-booting, just insert it into a drive and pull the computer reset. After you've used this program, you'll probably want to start creating or transcribing your own songs.

It will take a little getting used to, but you'll probably find that SmartTUNES provides the easiest and most user friendly access to playing songs available on the ADAM computer. And, you can use the songs in YOUR OWN programs. We hope that you enjoy and find useful this DIGITAL EXPRESS innovation for the ADAM computer. We have a widely acclaimed reputation as being the innovative software development leader for ADAM. And, we've donated more than 400K of software into the public domain. Public domain software may be given away and traded freely. All we ask is that you give credit in REMark statements or in the documentation of your software --private, public domain, or copyrighted.

Nibbles & Bits
DIGITAL EXPRESS
P.O. Box 37
Oak Hill, WV 25901

```

1 REMNibbles & Bits November 1987 Vol# 2, Issue# 5 Page #19 *
2 REMSmartTUNES Player routine *
3 REM*****
4 REMDOWNLOADED FROM; AMERICAN PEOPLE LINK COMPUTER CLUB
5 REMSection SIX COLECO ADAM
6 REM*****
7 REMProgram listings typed into ADAM by; David E. Carmichael
60 REM #####
62 REM # You MUST run #
64 REM # this program #
68 REM # BEFORE running #
70 REM # any tune module #
72 REM #####
100 LOMEM : 32000: TEXT: ? " one moment ..."
105 REM set up note table
110 ff=110: sf=1.05946309: mh=3597545: st=27648
120 FOR oc=0 TO 5: FOR nt=1 TO 12
130 IF nt=1 THEN fq=(2^oc)*110: GOTO 150
140 fq=fq*sf: fq=(fq*1000+.5)/1000
150 tb=mh/(32*fq): sb%=tb/16: fb%=tb-16*sb%
160 POKE st,fb%: POKE st+1,sb%: st=st+2: NEXT: NEXT
300 DATA 229,213,197,245,42,146,108,126
305 DATA 245,175,50,148,108,241,254,87,32,17
310 DATA 62,159,211,224,198,32,211,224,198,32,211,224
320 DATA 241,193,209,225,201
330 DATA 254,88,32,7,62,159,205,207,109,195,94,109
340 DATA 254,89,32,7,62,191,205,207,109,195,94,109
350 DATA 254,90,32,7,62,223,205,207,109,195,144,109
360 DATA 254,65,32,2,14,0,254,97,32,2,14,1,254,66,32,2,14,2
370 DATA 254,67,32,2,14,3,254,99,32,2,14,4,254,68,32,2,14,5
380 DATA 254,100,32,2,14,6,254,69,32,2,14,7,254,70,32,2,14,8
390 DATA 254,102,32,2,14,9,254,71,32,2,14,10,254,103,32,2,14,11
400 DATA 35,126,214,2,71,229,33,232,107,17,24,0,25,16,253
410 DATA 121,135,95,22,0,25,0,0,0,58,148,108,254,0,32,29
420 DATA 126,6,128,128,211,240,35,126,211,240,58,145,108
430 DATA 71,62,159,144,211,240,33,148,108,52,225,35,126,195,166,108
440 DATA 254,1,32,21

```

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450 DATA 126,6,160,128,211,240,35,126,211,240,58,145,108
460 DATA 71,62,191,144,211,240,24,221
470 DATA 126,6,192,128,211,240,35,126,211,240,58,145,108
480 DATA 71,62,223,144,211,240,225,175,50,148,108,35,126
485 DATA 254,33,48,4,254,0,32,6,34,149,108,195,170,108,71
490 DATA 237,91,143,108,30,0,19,122,179,32,251
492 DATA 245,197,205,168,252,56,12,58,117,253,254,27,32,8
494 DATA 193,241,34,149,108,195,170,108,193,241,16,219
496 DATA 35,126,195,166,108
498 DATA 213,245,58,145,108,71,241,79,121,144,211,240
499 DATA 17,12,0,27,122,179,32,251,16,242,209,201,-1
500 be = 27800: tt = 0
510 READ mc: IF mc = -1 GOTO 530
520 POKE be,mc: be = be + 1: tt = tt + mc: GOTO 510
530 IF be = 28135 AND tt = 38506 GOTO 600
540 ? : ? " data entry error! ": END
600 ? : ? " SmartTUNES routine in RAM. ": ?
610 ? " Now, just RUN a TUNE module. "
9999 REM END OF FILE FROM PLINK

```

```

1 REM Nibbles & Bits November 1987 Vol# 2, Issue# 5 Page #23 *
2 REM SmartTUNES Player Keyboard *
3 REM *****
4 REM DOWNLOADED FROM; AMERICAN PEOPLE LINK COMPUTER CLUB
5 REM Section SIX COLECO ADAM
6 REM *****

```

```

7 REM Program listings typed into ADAM by; David E . Carmichael
60 REM #####
62 REM # You must run #
64 REM # the SmartTUNES #
66 REM # program file #
68 REM # BEFORE running #
70 REM # any tune module #
72 REM #####

```

```

100 LOMEM : 32000
4000 tempo = 235 : volume = 15 : pointer = 29000 : offset = 2
4010 POKE 27946,offset: REM (39,109)
4020 POKE 27792,tempo: REM (144,108)
4030 POKE 27793,volume: REM (145,108)
4040 POKE 27795,pointer/256: REM (147,108)
4050 POKE 27794,pointer: PEEK(27795)*256: REM (146,108)
4100 IF PEEK(27800)229 GOTO 4200
4110 IF PEEK(28000)195 GOTO 4200
4120 IF PEEK(28110)108 GOTO 4200
4130 GOTO 5000
4200 ? : ? " ERROR!!! SmartTUNES"
4210 ? " routine not detected. ": END
5000 HOME : ? " SIMPLE ORGAN"
5010 VTAB 4 ? " qwer uio"
5020 ? " asdf jkl"
5030 VTAB 8 ? "<ESCAPE> = END"
5040 GET k$ : IF k$ <> CHR$(27) GOTO 6000
5050 HOME: ? " end of program.": END
5000 IF k$ = "q" THEN nt$ = "A": 0c = 5: GOSUB 7000: GOTO 5040
5010 IF k$ = "w" THEN nt$ = "B": 0c = 5: GOSUB 7000: GOTO 5040
5020 IF k$ = "e" THEN nt$ = "C": 0c = 5: GOSUB 7000: GOTO 5040
5030 IF k$ = "r" THEN nt$ = "D": 0c = 5: GOSUB 7000: GOTO 5040
5040 IF k$ = "u" THEN nt$ = "E": 0c = 5: GOSUB 7000: GOTO 5040
5050 IF k$ = "i" THEN nt$ = "F": 0c = 5: GOSUB 7000: GOTO 5040
5060 IF k$ = "o" THEN nt$ = "G": 0c = 5: GOSUB 7000: GOTO 5040
100 IF k$ = "a" THEN nt$ = "A": 0c = 4: GOSUB 7000: GOTO 5040
110 IF k$ = "s" THEN nt$ = "B": 0c = 4: GOSUB 7000: GOTO 5040

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6120 IF k$="d" THEN nt$="C": oc=4: GOSUB 7000: GOTO 5040
6130 IF k$="f" THEN nt$="D": oc=4: GOSUB 7000: GOTO 5040
6140 IF k$="j" THEN nt$="E": oc=4: GOSUB 7000: GOTO 5040
6150 IF k$="k" THEN nt$="F": oc=4: GOSUB 7000: GOTO 5040
6160 IF k$="l" THEN nt$="G": oc=4: GOSUB 7000: GOTO 5040
6500 GOTO 5040
7000 nt=ASC(nt$): POKE 29000,nt: POKE 29002,nt: POKE 29004,nt
7010 POKE 29001,oc: POKE 29003,oc+1: POKE 29005,oc-1
7020 POKE 29006,4: POKE 29007,87: CALL 27800: RETURN
9999 REM END OF FILE FROM PLINK

```

"NOTE CHART":

This short program will print out the needed information on ADAM's musical frequencies.

```

1 REMNibbles & Bits November 1987 Vol# 2, Issue# 5 Page #16 *
2 REMSmartTUNES Musical Note Chart Program Listing *
3 REM*****
4 REMDOWNLOADED FROM; AMERICAN PEOPLE LINK COMPUTER CLUB
5 REMSection SIX COLECO ADAM
6 REM*****
7 REMProgram listings typed into ADAM by; David E. Carmichael
60 REM #####
62 REM # You must run #
64 REM # the SmartTUNES #
66 REM # program file #
68 REM # BEFORE running #
70 REM # any tune module #
72 REM #####
110 DIM nt$(12)
200 DATA A,A#,B,C,C#,D,D#,E,F,F#,G,G#
210 FOR x=1 TO 12: READ nt$(x): NEXT
220 ff=110: sf=1.05946309: mh=3597545
230 FOR x=1 TO 6: sp$=sp$+CHR$(32): NEXT
300 DATA 245,219,64,203,71,40,250,241,211,64,201
310 DATA 205,11,47,205,78,4,254,13,192,62,10,24,2,62,0,195,78,4
320 FOR x=0 TO 28: READ mc: POKE x+1102,mc: NEXT
330 POKE 16217,89: POKE 16218,4: POKE 16219,92: POKE 16220,4
400 TEXT: INVERSE: ? " MUSICAL NOTE CHART ": NORMAL
410 ? : ? " 1 = print chart": ? " 2 = exit pgm."
420 GET k$: IF k$="1" GOTO 500
430 TEXT: ? " end of program.": END
500 HOME: ? " 1 = ADAM printer": ? " 2 = Dot matrix"
510 GET k$: k%=VAL(k$): IF k%<1 OR k%>2 GOTO 430
600 PR#k%: q$="MUSICAL NOTE CHART FOR ADAM"
610 ? : ? SPC(40-LEN(q$)/2); q$;
612 FOR x=1 TO LEN(q$): ? CHR$(8); : NEXT
614 FOR x=1 TO LEN(q$): ? CHR$(95); : NEXT: ? : ?
620 q2$="OCTAVE NOTE FREQUENCY 10bit# BYTE#1 BYTE#2 "
625 q2$=q2$+"V1/B2 V2/B1 V3/B1"
630 ? sp$; q2$: ?
700 FOR oc=0 TO 3: FOR nt=1 TO 12
710 GOSUB 900: NEXT: ? : NEXT: PR #0
720 HOME: ? " insert 2nd page,"
730 ? " press <return> to print..."
740 GET k$: ON k$<>CHR$(13) GOTO 430: PR #k%
750 q3$="- page 2 -": ? SPC(40-LEN(q3$)/2); q3$: ?
755 ? : ? sp$; q2$: ?
760 FOR oc=4 TO 5: FOR nt=1 TO 12: GOSUB 900: NEXT: ?
770 NEXT: PR #o: GOTO 430
900 ? sp$; SPC(2); oc+3; SPC(6); nt$(nt); SPC(6-LEN(nt$(nt)))
910 IF nt=1 THEN fq=(2^oc)*110: GOTO 930
920 fq=fq*sf: fq=(fq*1000+.5)/1000
930 fq$=STR$(fq): IF fq<1000 THEN fq$=" "+fq$

```

```

935 IF LEN(fq$)>7 THEN fq$=LEFT$(fq$,7)
936 IF RIGHT$(fq$,2)="00" THEN fq$=LEFT$(fq$,4)
940 ? fq$; SPC(11-LEN(fq$));
950 tb=mh/(32*fq): sb%=tb/16: fb%=tb-16*sb%
960 fb$=STR$(fb%): IF fb%<10 THEN fb$=" "+fb$
970 sb$=STR$(sb%): IF sb%<10 THEN sb$=" "+sb$
975 tb$=STR$(INT(tb)): IF tb<1000 THEN tb$=" "+tb$
976 IF tb<100 THEN tb$=" "+tb$
977 IF tb<10 THEN tb$=" "+tb$
980 ? tb$; SPC(5); fb$; SPC(6); sb$; SPC(5);
990 ? fb%+128; SPC(4); fb%+160; SPC(4); fb%+192: RETURN
9999 REM END OF FILE FROM PLINK

```

Tune

```

100 LOMEM : 32000: be=29000
110 ? " one moment please ...": ?
1000 REM "Take Me Out to the Ball Game"
1010 REM must load SmartTUNES player routine first
1020 DATA C5C6C416,C6C7C58,A6A7A58,G5G6G48,E5E6E48
1030 DATA G5G6G424,D5D6D424,C5C6C416,C6C7C58
1040 DATA A6A7A58,G5G6G48,E5E6E48,G5G6G432,g5g6g48
1050 DATA A6A7A58,g5g6g48,A6A7A58,E5E6E48,F5F6F48
1060 DATA G5G6G48,A6A7A516,F5F6F48,D5D6D424,A6A7A516,XYZ1
1070 DATA A6A7A58,XYZ1,A6A7A58,B6B7B58,C6C7C58
1080 DATA D6D7D58,B6B7B58,A6A7A58,G5G6G48,E5E6E48
1090 DATA D5D6D48,C5C6C416,C6C7C58,A6A7A58,G5G6G48
1100 DATA E5E6E48,G5G6G424,D5D6D424,C5C6C48,XYZ1
1110 DATA C5C6C48,D5D6D48,E5E6E48,F5F6F48,G5G6G48
1120 DATA A6A7A524,XYZ8,A6A7A58,B6B7B58,C6C7C524,XYZ1
1130 DATA C6C7C524,C6C7C58,B6B7B58,A6A7A58,G5G6G48
1140 DATA f5f6f48,G5G6G48,A6A7A524,B6B7B524,C6C7C524
2599 DATA W
2900 READ nt$: IF nt$="W" THEN GOSUB 3000: GOTO 4000
2910 GOSUB 3000: GOTO 2900
3000 FOR x=1 TO LEN(nt$): ak=ASC(MID$(nt$, x, 1))
3010 IF ak>64 THEN POKE be, ak: GOTO 3100
3015 pk=PEEK(be-1): IF pk=88 OR pk=89 OR pk=90 GOTO 3030
3020 IF PEEK(be-1)>64 GOTO 3200
3030 IF x=LEN(nt$) GOTO 3200
3040 a1=VAL(MID$(nt$, x, 1)): a2=VAL(RIGHT$(nt$, 1))
3050 POKE be, a1*10+a2: x=x+1: GOTO 3100
3100 be=be+1: NEXT x: RETURN
3200 POKE be, VAL(MID$(nt$, x, 1)): GOTO 3100
4000 tempo=235: volume=15: pointer=29000: offset=2
4010 POKE 27946, offset: REM (39,109)
4020 POKE 27792, tempo: REM (144,108)
4030 POKE 27793, volume: REM (145,108)
4040 POKE 27795, pointer/256: REM (147,108)
4050 POKE 27794, pointer: PEEK(27795)*256: REM (146,108)
4100 IF PEEK(27800)<>229 GOTO 4200
4110 IF PEEK(28000)<>195 GOTO 4200
4120 IF PEEK(28110)<>108 GOTO 4200
4130 GOTO 5000
4200 ? : ? " ERROR!!! SmartTUNES"
4210 ? " routine not detected.": END
5000 CALL 27800: END

```

REVIEWS

The product reviews continue in this issue. I am working on getting a double sided disk drive and a 256K expander to review in the next issue. If there are particular products you would like to see reviewed, please drop me a line and I will try to accommodate your requests. Several people have written in requesting some software reviews and I will get to them in future issues.

This issue's reviews include a look at four different word processors for the Adam and a spell checker by Strategic Software. I hope you find this information helpful.

Gregory R. Daro
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Toms River, NJ 08753

Product: ShowOFF II & IIa

By: Digital Express

Price: \$17.95

Media: DDP or Disk

NOTE: You must have a dot matrix printer and a 64K memory expander to use this product. The internal 64K memory modification works fine. The two products are essentially the same but ShowOFF II is for Panasonic KX1080 and compatible printers and IIa is for Epson FX and compatible printers. Be sure to specify your printer when ordering. ShowOFF II or WriterMate as it is called on the title screen, is not a new word processor. This product is a patched version of the Coleco SmartWriter that fixes several bugs (the extra half line feed is gone) and provides direct access to your dot matrix printer features. The package includes a 13 page manual that is well written and easy to follow. The program is self booting and begins with a file utility screen. From the opening screen you can delete files, rename files, change the Volume name, change the default drive and of course exit to the word processor. Exiting to the WP puts you in the electronic typewrite mode; pressing the ESCAPE key puts you in the WP mode. You will notice that both the screen color and SmartKey label color are different. The default margin is set so that your document will not scroll left and right if you select the Moving Window mode. You must remember to reset the margins before printing. The operation is exactly the same as SmartWriter with all the key functions preserved. Seventeen different printer commands have been added, but you will only be able to use the commands that your particular printer supports. My Epson does not do pica type so the command for this feature had no effect. All of the printer enhancements are activated using a combination of the "\ " key and then the feature character. The keys selected to activate the features were done with human beings in mind. They are very easy to remember. For example, bold face is turned on by "\B" and turned off by "\b": uppercase turns it on, lower case turns it off. The documentation used an example with a centering command, but when I tried the command it had no effect. Most of the commands are done in the same way. If you like SmartWriter but are tired of loading print drivers and not being able to fancy up those documents, than this product will do the job. I did find two bugs that occurred with my particular setup (Epson MX-80 with Dots Perfect upgrade and the 64K internal memory modification). Selecting auto page number from the SmartKey caused the screen to display random characters.

The page printed fine (although the pages were not numbered) and the program continued to function properly, but I could not tell what was going on because of the screen problem. Don't try autonumbering unless you have saved the document. The other bug occurred when I tested setting the right margin at I, this causes the Adam to scroll the text to the left as it prints. With ShowOff, it started to do the same thing, but suddenly the system

reset to the Adam Electronic typewriter. I always save my documents before I print, so this was no real problem. Since this is the Adam SmartWRITER, all files created in SmartWRITER can be directly read into ShowOFF. You can then add the printer controls to improve the appearance of your document. You can also read ShowOff documents into SmartWriter. Along with ShowOFF and the file utility, there are several dot matrix printer patches that create PR#2 and PR#3 commands for BASIC. There are patches for SmartBASIC V1.0 and for both modes of SmartBASIC V2.0. There is also a patch that lets you use the printer control codes in BASIC.

Product: SmartTYPE 2

By: Reedy Software

Price: \$19.95 DDP \$17.95 D

Media: DDP and Disk

Although called a word processor, this product is more accurately called a text editor: there is a differences. The documentation consists of a 15 page manual that is well written and easy to follow. The product is done in BASIC (supplied on DDP or disk) and is self-booting by the use of a HELLO program. According to the manual, the version of BASIC has been modified to work with SmartTYPE and should not be used to run other programs. The product supports both the Adam and dot matrix printers. The manual suggests that SmartTYPE and the Adam SmartWriter compliment each other and each has its own advantages. I find limited uses for SmartTYPE. Since the product is done in BASIC, it is quite slow. Instead of the usual block entry mode for text, SmartTYPE uses a line entry mode. There is no word wrap, so you must hit ENTER or one of the formatting SmartKeys at the end of each line. Four lines of text are displayed and each line wraps on the screen if the line width is set to more than 39. Entering text is simple and quick, the problem arises when the screen scrolls to bring up the next blank line. This takes almost 6 seconds. If you have a long document, it will take a long time to enter the text. Memory is limited to about one page of text, you must therefore save each page as you go. The product does not have a MOVE or COPY function for text, the MOVE/COPY key is used to move quickly between lines. When you create a document, you establish the width of the document and it can not be changed. This product does have one nice feature: column printing. You can create a document that has two equally sized columns on the page. The program takes the number of lines of text and divides it in half and prints column one and column two at the same time. If you enter a half page of text, you will get a half page of text, but in two columns. A driver for dot matrix printers is built in to allow direct output. One printer control code can be used, but it effects the entire document. This would be useful for setting near letter quality mode. Files created in SmartWRITER are not compatible with SmartTYPE and no conversion program is provided. This product is very limited in nature. If you have a need for two column printing and can

put up with the slowness of the product, then SmartTYPE may be useful.

Product:MultiWRITE
By: Strategic Software
Price:\$39.95
Media: DDP

MultiWRITE has been around for some time and has a bit of a following among Adam users. The program is done in BASIC (not included on the DDP), so you can make a disk version. Included with the software is a 12 page instruction manual. The manual is clear and to the point. Since the product is done in BASIC it is quite slow to load. You can save it using one of the Turbo Load programs and shorten the load time. The program starts up with a menu screen that lets you create a new document, edit an old document or convert a SmartWriter file. You can use any combination of the four drives and MultiWRITE will give you a directory listing, this is helpful. If you are like me, you use names that identify the file but are not always easy to remember. The edit screen is the most notable feature of this software. It displays 64 characters across the screen. The edit screen is actually the high resolution graphics mode of the Adam and uses a special font developed by Strategic. It will take some time to recognize all the characters since they are quite small and are made up of only a few dots. If you can master this, then you will see what your document will look like. I found that I could type much faster than MultiWRITE could display, so be careful with DELETE functions etc. The product is a baseline word processor and includes the usual features like copy, move and word wrap. It does useful features sorely lacking with SmartWRITER. Text can be automatically centered and right margin justification is supported so both left and right margins are straight. Text is set up according to the current margin settings. If the margin is changed, text already entered will not be effected unless you reformat the paragraph. While this may seem bothersome, it allows for creating a professional looking document. For example: you have a paragraph that should be indented more than the previous paragraph and the right margin should be set in more. Before entering the text, set the margin for the desired setting. Enter the text and it will be set according to the current margin setup. When you are finished, reset the margins and you will have a paragraph that is fully indented. There is just no way to do this with the Adam WP. If you want to change the margins for existing text, move to the paragraph and do [CONTROL F] this reformats the paragraph to the new settings. Most of the features are accessed by the use of the CONTROL key and then the feature key. Most are easy to remember, but keep the manual handy. When it comes time to print the document, you MUST first save it. Printing is done by exiting the word processor and RUNNING a program called PRINTFILE. The main MultiWRITE menu will do this for you, but there is no warning about saving the document. This method provides more memory for documents, but I find it tedious to

switch back and forth, saving the document each time. When I write, I usually do two to three drafts before I am satisfied. Using MultiWRITE just takes too much time. I would rather have less document room and be able to print the document in memory. Turbo Loading both programs helps, but it is still tedious even with the disk drives. If Strategic decides to update this software, I hope they make this change. SmartWRITER files must be converted to use them with MultiWrite and the instructions are clear and easy to follow. I had some minor problems saving files. There seems to be very little error checking on file names so duplicate files can occur.

Product: SpeedyWRITE
By: White Co.
Price: \$39.95
Media: DDP/D

SpeedyWRITE is a full featured word processing package for the Adam. At the present time it does not support parallel printers, but a driver for this is in the works. The software is done in machine code so it loads quickly. The manual is 47 pages long in small type on 8.5 x 11 inch paper. There is a lot to this software. I found several mistakes and confusing areas in the documentation, but more on that later. In general the documentation is clear and easy to follow. Since there are many advanced features not found in most word processor, much of the documentation deals with new concepts. SpeedyWRITE starts up in the edit mode and you are presented with a blank screen. It has a capacity for about 14 to 16 pages of text depending what features are utilized. In the edit mode there is a byte counter displayed that lets you know how much memory is left. You can chain documents together at print time so this limitation is not severe. The display screen uses the Adam 40 column mode so your document is always visible. Margin settings only effect the document at print time. This presents a minor inconvenience since you will not be able to tell what text will appear on what line. If you do a lot of column work, this could make it a little confusing. To overcome this minor detail, there is a preview function which displays the document as it will be printed. You can change the scroll rate of the preview, stop it or toggle between the right 40 cols and the left 40 cols. The preview is available anytime from the edit mode. The product has the usual features like COPY, MOVE, and word wrap. Margins can be set anywhere in the document and text responds to the previous margin settings. This allows for full indentation of a paragraph. If you change a margin setting, no reformatting is required since the actual location is done at print time. There are 28 print formatting functions including some very sophisticated features. Boldface is now available on the Adam printer and you can change the intensity. This worked very well and produced some very good looking results. If you do not want to use margins to create an indentation, you can use a built in Auto Indent command.

You select the number of spaces to indent, then turn off the feature when you are done. You can center, right justify or both margin justify your text and you can use them in combination to produce some very dramatic results. Examples are included to both center and right justify different text on the same line. There are a couple of advanced features which deserve some notation. You can define both headers and footers in your document. Once defined, they will print out on each page even though they were only entered once. They can be turned on and off, so if some pages should not have the header it will not print. Auto page numbering is provided and can be done at the top or bottom by using the header or footer feature. This is very useful when you are doing reports and the title and page number should appear on each page. There is an "autonumeration" feature that automatically increments a number and prints it on the document. The number is represented by the "%" symbol in the document and SpeedyWRITE calculates the proper value. If you add or delete a section using the autonumeration the proper number is calculated for you at print time. Of course you can set the starting value and increment. One feature that is not well documented in the manual but is documented in a supplement provided is a "comment" feature. This allows you to add comments to your documents (Post It notes) that will not print. If that were not enough, the product has the ability to read files that change the setup of the software. The files are called Configuration files and can redefine many things.

Included with the package are files that produce five alternate keyboards. Four of these are for foreign languages and will produce the specialty characters on the Adam printer. You can toggle between the normal keyboard and the special keyboard quite easily. The Adam SmartKeys have a special; use and are not labeled. Keys I and II are for changing the text and background colors. The other unshifted keys are used to access several unique features. There are two "windows" that can be brought up and used to display different parts of your document. They can be used to hold particular information so that you can refer to it as you go. There is a Copy and Text window which have quite different uses and this is documented with examples. The shifted SmartKeys have separate functions which you can change. They act a keyboard macros and can be used for any combination of keystrokes. If you have a word or phrase that you use frequently, that can be put into a macro so instead of typing it in, you just hit the correct SmartKey. The macros can be stored as files and brought in anytime so you can have customized macro files. It is very easy to define a macro and save the file. Included are several keyboard macro files for your use. If you are concerned with how long your document is, that is how many words or pages, some simple key strokes and

SpededyWrite will tell you. You can easily home in on those 500 word reports! It has a very flexible Find/Replace functions that can be global (entire document) or local. This can speed up the replace function if you want to change a word or phrase where ever it appears in the document. It even allows for wild card characters to help find occurrences of letters or part words. Again, examples are given on how to use this feature. In addition to the keyboard macros, document macros can be defined. This allows you to insert any word or phrase anywhere in the document. This is how the mail merge function is accomplished. Instructions and auxiliary programs are provided to create and use a mailing list file with a SpeedyWrite document. There are a number of special function files that let you use the standard features to produce striking results. One of the more useful is two column printing. The file that is loaded uses the macro feature to alternate margin settings between pages. Page one prints on the left side. You reinsert the paper and page two prints on the right side.

This is not the best method since you must line up the paper correctly, but with a little care you can have column mode. printing is done directly from SpeedyWRITE so the document stays in memory while it prints. You can stop the printing or reprint the last page. You can also skip pages and only print part of the document. I mentioned before that there were several errors in the documentation. The documentation shows two different commands to set the left margin, this is a typo. The left margin is set using CONTROL V L not CONTROL V U as mentioned in one place. The delete buffer is turned off using CONTROL N not CONTROL ^ as mentioned in one place. I also found the section on headers and footers to be a bit confusing. What is not clear is that the definition must end with a CONTROL V "" otherwise when you print, the system will keep printing blank lines. There is a reference to a "pretend space" I found this very confusing until I read the back of the book. This feature is referred to as the "hard space" in most WP programs and acts as a character. This prevents the justification command from opening the space on printing. It also inures proper alignment with some of the formatting commands. The more features that are provided the more complex and difficult it can be to use a product. This is not really true with SpeedyWRITE. If you want to use the advanced features you can, but you will be up and running using most of the format commands in a matter of minutes. The special function keys on the Adam work as labeled. the print key pops up the print menu and you select from there. Hitting CONTROL P also pops up the same menu. If you can't remember the proper keystrokes for a feature, hit the WildCard key and a menu appears at the top of the screen. The main menu branches to 9 submenus depending on what you selected.

The print menu is part of the nine. So for some features you can access them in any one of three ways. Not all commands are part of the menu system, some can only be done though the keyboard. I found this menu system to be the most useful yet. For the features I use frequently, I will remember the proper keystrokes. If I want a feature and can't remember how to do it, I just call up the menu. SpeedyWRITE adapts to my needs and allows me to progress and not have to slow down for menus. It is difficult for me to properly explain this product in such a limited space. When I started these reviews I promised myself that I would remain objective and try not to rate products. I just can not do this with SpeedyWRITE. This is one of the finest products currently available for the Adam and is better than many I have seen for the Big Blue machines. I have used WordStar for years because I want to be able to produce good looking documents easily. I have just not seen anything for the Adam that is better. That is until now. David White, the author of SpedyWRITE is currently working on print drivers for parallel printers. Once I cannot put to my dot matrix printer, I am switching.

Product: ProofREADER
By: Strategic Software
Price: \$34.95
Media DDP

ProofREADER is a spell checker and correction program, the first quality program of this type for the Adam. Strategic has incorporated a copy protection scheme, so you will not be able to make a disk version or a DDP backup in the usual way. The documentation consists of a 8 page manual that is clear and to the point. The product is self booting and is done in machine code. Once I got past the frustration of the DDP (I have two disk drives), I was impressed with the speed of this product. When you boot the software it loads a dictionary file of about 5000 words. The dictionary and program remain in RAM and parts of the document file are brought in and checked. The dictionary file is indexed so it works very quickly. The dictionary is limited by the memory limitations of the Adam (64K available). You can add words to the dictionary or create new dictionary files in several different ways, more on that later. The start up screen presents a menu of items. You can do dictionary maintenance, load an alternate dictionary from any drive or check a document. The product will work with any ASCII type file. I tested it with the WP programs reviewed in this issue and it worked with all of them. I tried a BASIC program and it worked with that as well. When you select a document to check, you are asked for a file name for the corrected version. ProofREADER does not just flag misspellings, it allows you to correct them and then writes a corrected version of your document. The program reads the document a piece at a time. It scans the dictionary for every word in the document. When it finds a word in the document that is not in the dictionary, it displays the edit screen. The

word is shown and below it is a place for the new spelling. Keep in mind that the the word may be properly spelled, but it is not in the ProofREADER dictionary. Also, incorrect uses of words will not be found, for example using "to" instead of "too". The new spelling defaults to how the word was spelled. This field is what ProofREADER uses to write the corrected version. At this point you have several choices; you can select one of the 9 displayed alternate spellings, you can type in a new spelling, or you can accept the spelling as listed. If the word will be used frequently, you can also add it to the dictionary. Because of the memory limitations of the Adam, many derivative forms of words, such as plural forms, are not in the dictionary. The root word will be there so you can double check the spelling. When you have finished the document scan, the system shows you the total number of words and the number of misspelled words. The document is automatically saved as it is checked. Once completed, you are returned to the main menu where you can check another document or do dictionary maintenance. If you have added words to the dictionary, you can save it to DDP or disk for future use. The documentation suggests that you save dictionaries to other than the program DDP, this is very important. One of the ways to add words to a dictionary is through reading a file. If you do specialty work with some technical or unusual terms, you could create a file containing those words.

ProofREADER can then read that file and automatically create a dictionary that includes those terms. Since you can save dictionaries, you can create specialty dictionaries for different uses. The software worked well except for one serious problem. There is no checking for duplicate file names so you can create many files with the identical name. Once you have done this, you will only be able to access the first one created, Adam will not get past the first one in the Directory. Be careful! In spite of the fact that this product loads from DDP, it is very fast in operation. Using a disk drive for your documents and auxiliary dictionary files will help speed up that process.

Product: Writer's Dictionary
By: Origin Books
Price: \$35.00
Media: DDP/D

The Writer's Dictionary is a set of dictionaries designed to work with ProofREADER by Strategic Software. The documentation consists of one page and is clear. The product consists of many disks or DDP's each containing several dictionary files corresponding to the letters of the alphabet. Each file has the core dictionary from ProofREADER but adds words in each letter category. This product is intended to expand greatly the number of words available to check. The disadvantage is that you must check your document each time you load a new dictionary. The disk version is 8 disks each with 3 or more files. Each dictionary file must be loaded then the document checked.

It will take quite some time to check a document with these expanded dictionary files, especially if you are using a data drive. The intent was to provide more complete spell checking for ProofREADER.

Software Exchange

As you can see from the list there have been many more disks added along with some new pricing. We only have from to list from #47 up. If you are a new member and have not seen the list from #1-46. I will be happy to send you that list if you send me SASE. I have lots of "rules" only to make it EASY for you to get some nice disks to experiment with, increase your productivity, or to start your own library! Read them carefully...this library has taken lots of work!

Be aware that some of the volumes have repeat files. Some of the reasons that I have included them are: To maintain continuity for those who like to have all the volumes from a certain groups' library and to keep compiling original volumes has gotten tedious and unwieldy. I would like to thank again Dick Stensrud, Joe Waters, Dan Decker and Ed Costello for the wonderful contributions of disks to the Exchange (and to any of you who I have forgotten...thanks) .

A brief explanation of "Public Domain" means these programs can be freely modified and exchanged. Under no circumstances can they be "sold" for profit. Usually, programs MUST retain a "remark" statement crediting the source of the program. Common sources of public domain software are large databases (i.e. "Compuserve", "The Source", People's Link), other PD Exchanges (NIAD, Digital Express, ECN, AUG), listings from magazines, newsletters, and from individual users contributing to the exchange. Our Exchange includes elements from all of the above. Because of space I cannot describe all the programs. I will try to highlight the few that one should really have. If you have any questions about individual programs you may call me at 201 679 6102 (please do not call collect). You may also send me a SASE to:

STEVE GEORGE
67 STEVENS AVENUE
OLD BRIDGE, NJ 08857

SmartWriter HELP files have an "H" designation. CP/M help files have a ".DOC" or ".TXT" extension. These can be read by using the "type" command. You can print them out by hitting the Control key + the P key (this toggles the printer on and off in CP/M).

Following is an example.

A.> type filename.ext <return>

On BASIC disks any file with an "H" designation can be read in SmartWriter. These are usually "README" files.

Rules

- 1.) Make all checks payable to "STEVE GEORGE". Postal or Money orders are filled immediately. If you send a personal check expect a 3-8 day delay. Stamps are also accepted. Most disks will go out NEXT DAY! (I hate to wait for software too!)
- 2.) Questions about programs will be only answered if you send me a SASE. Or call me and specify "CALL COLLECT" on my answering machine. Best time to catch me in person is after 5PM EST.
- 3.) For an updated list of programs available send a SASE + \$1 (to cover xerox costs).
- 4.) If you have nothing to contribute and would like me to supply the disk, a \$5 donation is required for each disk ordered. If you want me to supply the tape, send \$8. This covers handling, postage, and purchase of disk or DDP. Volume discounts: order 5-9 and take 5% off, order 10 and up take 15% off.
- 5.) If you want to send disks or DDPs you can save some money. Please make sure the disks are formatted (EOS or CP/M-it does not matter). Send \$3 for each disk or DDP sent. Please send a LORAN, M.W. Ruth "PLAIN LABEL", or COLECO DDP (Victory and FastForward DDPs are unreliable). I will also include an updated disk list with your order. The Same volume discount applies.
- 5.) If you have programs to donate, include a README file + \$2 to cover postage and handling. I will copy your files off and then put the requested disk/DDP on YOUR disk.
- 6.) You will not always get the same disk you sent. We use single-sided, double-density disks only.
- 7.) Volume discounts: Order 5-9 and take 10% off, order 10 and up take 15% off....

New Adam Public Domain Disks

In the past year we have received many disks from other libraries and have decided to include them in our current offering. Be careful though, on some disks there are files that are repeated. For the sake of continuity, we have decided to leave these disks *AS IS*. Please read descriptions carefully....

Disk #48 Pascal II..This disk goes along with #47

Disk #49New CP/M- You must have CP/M to use this. It is an improved CCP for CP/M 2.2Several bug fixes, copy command built in!

Expandable Computer News' Library

- Disk #50 Basic 1..Graphics demos, Piano, Grading program, mailist, envelopeprinting, joystick demo
- Disk #51 Basic 2..File system, clock, shapemaker, snakerider,musicplayer color changer, spritedemo
- Disk #52 Basic 4..Football game, Evil adventure, Dungeons and dragons game, 8 ball game
- Disk #53 CP/M 1...CP/M Adventure, Screen.com (to convert screen to 32 col.)
- Disk #54 CP/M 2...TinyBASIC (A 3K BASIC for CP/M!!) Full disk
- Disk #55 CP/M 3...PILOT (an authoring language)Full disk
- Disk #56CP/M 4...a very nice Text Formatter Full disk
- Disk #57CP/M 5a..EBASIC..A PD CP/M Basic similar to C or MBASIC
- Disk #58CP/M 5b..EBASIC..Floating Point Package goes with #57
- Disk #59CP/M 5c..EBASIC Compiler..changes your program to an "executable" form.
- Disk #60CP/M 5d..EBASIC Compiler II (companion disk to #59) plus Othello game
- Disk #61CP/M 5e..EBASIC Misc..(companion disk to #59, 60)
- Disk #62CP/M 6...EBASIC Games..Blackjack, Gunner, Civil War, Football, Golf Poker, Lunar Lander
- Disk #63CP/M 7...EBASIC GamesII..StarTrek..Tweety, Snoopy picture..STMASTER
- Disk #64CP/M 8a..EBASIC GamesIII..Animal, Bagels, AMAZE, BioRhythm, Mathematical equation solvers, Wumpus, Loan, Keno and many more!
- Disk #65CP/M 8b..Ebasic GamesIV..BagelsII, Cannons, Chomp, LEM, Poet, Craps Hangman
- Disk #66CP/M 9...EBASIC GamesV..23Match, Bullseye, Kingdom, SWARMS, Rocket, Checkers
- Disk #67CP/M 11a.Resource (a CP/M assembler)
- Disk #68CP/M 11b.A disassembler for Z80 CPU (CP/M and includes SOURCE CODE)
- Disk #69CP/M Express 1.0 a CP/M full featured Word Processor..80 columns online help files....

Puget Sound Adam Users

- Disk #70Toolkit I Musicmaker, TuneMaker, Pcopy, includes some songs, all four disks contain pertinent text files on the operation of your ADAM..all four are 90% full
- Disk #71Toolkit II..CartCopy, Cruncher, EaselPaint, AlphaSort..more
- Disk #72Toolkit III..Lazarus (recovers deleted files) various patches to fix bugs, shapetable docs, new directory utilities
- Disk #73Toolkit IV..a BASIC Z80 disassembler, LabelMaker, CopyFast, more

FCAUG Library

- Disk #74#1)100% full disk of BASIC programs (some repeats) 28 programs in all many new!
- Disk #75#2)Also 100% full MoonBase, StarPatrol, 3D Ripple, StarWars, MultiDraw, Jet, many others (30 programs in all)
- Disk #76#3)More games, graphics demos, quatrain, tictactoe, poker, valentine polygon, math, kaliedoscope, barrier, spiral, others..
- Disk #77VideoTunes Data Disk..a full disk of songs to use with VideoTunes
- Disk #78AUG BASIC Games..Ski, Tron, Eliminator, Horses, Cannon, Missile Walloons, WildWest, more..
- Disk #79CP/M PL/I Disk 1(A programming environment) Full disk!
- Disk #80CP/M PL/I Disk 2 (goes with #78 includes some examples)
- Disk #81CP/M Misc..Areacode, FTNOTE1.2, Find5.1, FindBad5.4, WASH, more..
- Disk #82CP/M MiscII..NSWP2.07, QWKEY1.2, Make
- Disk #83CP/M ProLINK Terminal program, Check Balancer
- Disk #84CP/M Clone, Image (creates file of disk or DDP tracks) TapeUtil2.2 (an in-house Coleco copier)
- Disk #85CP/M MADAM7 Version 1.3 Terminal Program
- Disk #86CP/M Coleco In-House Utilities..DiskTest, BurnIn, Gensave, BuckRogers Test, Blank
- Disk #87Misc BASIC Games..Cobra, PACPerson, Minotaur, CoinToss, SlotMachine Obstacle, ShellGame, others
- Disk #88HiRes Pictures#1 *Must be 18 years old*..Includes three utilities. a printer program, a viewer (in BASIC) to see them on screen Includes some nudes! A must have disk!
- Disk #89HiRes Pictures#2 Same three utilities (you do not need #88 to purchase this) All different pictures!
- Disk #90MBASIC games.you must have MicroSoft BASIC to use this disk Checkers, CivilWar, Goldmine, Trucker, Chess, Poker
- Disk #91CP/M Nudes...ASCII Pinups! *Must be 18 years old* Includes TRS2Adam CP/M Transfer utility
- Disk #92BASIC Check filer, Envelope printer utility
- Disk #93Temple of Asphai #1 Beta..Has bugs but is playable..a never released version of the EPYX game. Must Have the two disks and a RIGHT directory DDP This disk contains blocks 0-127
- Disk #94Temple of Asphai #2 Beta..Must go with disk #93..Has bugs but is playable..a never released version of the EPYX game this disk contains blocks 128-255..

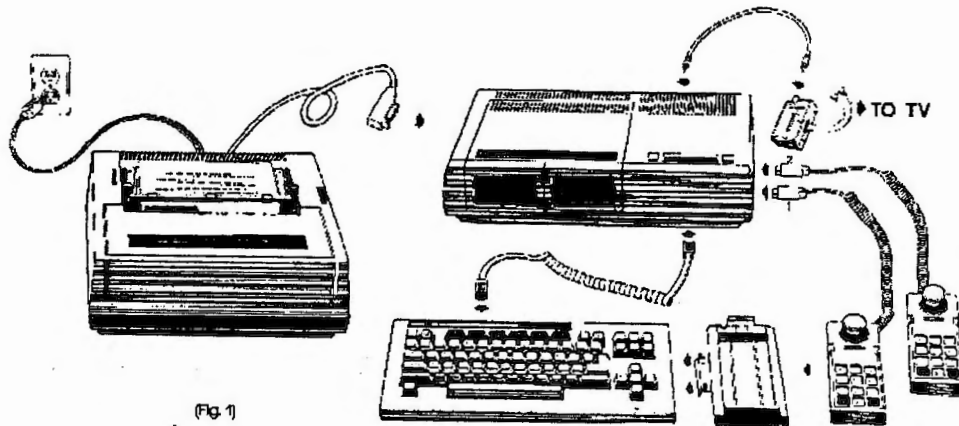
NIAD Library

- Disk #95Pinball #1..A disk full of Pinball games to use with Pinball Construction Set- Thunder, Demon, Ricochet, MadMan, others
- Disk #96LOGO #1 Not a full disk but has 14 or so LOGO files on it about 10 new files
- Disk #97ADAMCalc #1..A disk full of templates to use with ADAMCalc: FamilyBudget, Inventory, CheckBook, CISLog, TaxForm, others...

- Disk #98BASIC #1 UtilDUMP, UtilCopy..A very nice copier, disassembler that is SmartKey generated
- Disk #99BASIC #2 Many utilities, tutorials on the operation of your ADAM ViewRAM, DirEdit, SpriteEditor, AddressREAD, Renumber, more
- Disk #100BASIC #4 GRLocator, HGRLocator, PANDORA, Gravity, Animation, QUIZ, WordSEARCH, Fan, LetterChase, more.
- Disk #101BASIC #5 Budget, Changer, Preschool, Gliders, Interest, Payroll, Roulette, Ratios, GRPaint, DragonLair, Get 'Em, BreakEven, more...
- Disk #102BASIC #7 DK+TapeEdit, DemoColor, Calculator, AdamKite, Web, PigFeeder, SolveXYZ, MultiDrill, Phonebook, WordScram, Mortgage MagicSqr, others....
- Disk #103BASIC #10 Mileage, Chomp, YourAGE, Bomber, Baccarat, GOMOKU, Jitterbug, AdamChat, Motherlode, Joy, Haunting, Defuse, others....
- Disk #104BASIC #16 Gravatar, Cube, Survive, Puzzle, fireplace, Blastoff, mandala, polyhedron, Tolkien adventure, AFILEREADEr, Strain, others
- Disk #105BASIC #17 WordGame, EctoBlaster, Chateau, Colorbar, Banner, Mosquitoes, help files on : pokes, peeks, bsaving...
- Disk #106BASIC #18 Catch It, Galaxyhgr, lottery, 24hrClock, HomeCalc, RayGun, Flagpole, Focalength, starburst, lazer, binomial, others...
- Disk #107CP/M#1 (Some repeats) UNERA19, /, Display, SDDU, Create30, Inventory, Modem7, SQZ, USQ, Market, ADAMBOOT, others..
- Disk #108CP/M #2 CatPage, LRUN2.0, BaseBall, Ucat, Split, FMAP, Find, Common, Lu300, I/O Map, others
- Disk #109CP/M#3 CPMUtil, Dirr, Edit 1.1, NSWP, PrintSq, Sq1.11, Sq 1.10 MultiCopy, NullLu, MakeSub2, SLOAD, LASM, DDTX3A, Sort, Usq1.20 Others...
- Disk #110CP/M #5 DUU, SDCPY, VDO2.5, Z80, XMODEM8, others..
- Disk #111CP/M #7 DU8.9, MMerge, XCCP, WID30, ELIZA, DELIB, XCCPUtil, others
- Disk #112CP/M #8 Curly, CV2COR, CV2EXM, ZIP, UNIXTOOL, CV2ST
- Disk #113CP/M #9 MBUtil, NSWP2.07, RENEXT, RESOURCE, TYPEL2.3, TypeL3.4A
- Disk #114CP/M #12 Flisp, GameSave (Saves Carts to a file that can be run CP/M) Pilot80, L, VF, F83, F83Tool
- Disk #115CP/M#13 GeneralHospital, DUPUSER, LOCK, Phone, Null, SortDir, Vfiler, Survey4, WASH, VfilerSc, WSFAST15, UNLOCK, UNERA, MKEY, X, others...
- Disk #116CP/M #15 Othello, RCPM1st, Castle, COBOL,
- Disk #117CP/M #16 ModemEXecutive (terminal prog)1.28, XModem1.06
- Disk #118CP/M #18 AreaCode, Banner, BISHOW, LIST, CPMHelp, TinyBas, Probe, EPro, DBL, SAP4.3, XF, others...
- Disk #119CP/M #19 CkBook2.0, Guessit, SwapCopy, TypeSqueeze, Scoll, Alloc, Barcode, ADAMDir, others..
- Disk #120Animator1.2..A full blown Sprite Animation program to be used under BASIC 1.2
- Disk #121Coleco's Personal CP/M and SimpleCalc.FOR HACKERS AND COLLECTORS ONLY! These are not working properly but probably can be made to work with some "pokeing" around.
- Disk #122CP/M Arcade Games..Use with 80 Col. monitor for best results. PACMAN, ALIENS (like Space Invaders), others...uses ASCII graphics
- Disk #123CP/M Arcade Games...MCHASE (pretty nice)
- Disk #124CP/M Utilities...2 disk formatter..Format EOS or CP/M..UNPROT allows you to view the source code of protected MBASIC or CBASIC files..ACOPY-better than COPY.COM, copies, verifies and copies using function keys..TOWS- a utility to convert DBASEII to MEX files
- Disk #125Label Printer..Designed by our own Greg Daro, will print most ADAM formats (written in BASIC, yet will print CP/M formatted disks!)
- Disk #126Gamma Debug Test Util-A Coleco In-House Test cart that will test CPU and ROM states...Does not need to generate a picture to work...Docs included
- Disk #127New Pinball Games..by Joe Waters.Twinspace, Madness, Hot Rod, Trapper
- Disk #128Misc Basic..Graphic Fantasy, Mathematic Graphics, Jumble Spell, yet another LabelMaker, and some misc pics...
- Disk #129CPU SYSTEM TEST..Another CPU Tester used for assembly line testing Unlike any previous testers, this one generate video test patterns, hand controllers, data drive, 64K expander, and boot ROMS.
- Disk #130ColecoVision Final Test..used by Coleco to test stand alone CV or the CV through an expansion ADAM.
- Disk #131MACAdam..What was going to be a MacroAssembler for the Adam in cartridge form. Probably a beta copy....
- Disk #132CP/M Games-Adventure (Not the same as Disk#12)
- Disk #133Temple of Asphai..Patch #2 Disk Version!!
- Disk #134Super FrontLine Demo....What was to have been a VERY nice version of Frontline!
- Disk #135CP/M...Arcade...Maze Chase...a color version with nicer graphics
- Disk #136Misc Utilities...a couple of tape editor utilities, a sprite creator
- Disk #137RLE Pics #1..11 great graphics converted from other computers using "RLE" format: Alien, Dragon, Poison, Julie, others.. A RLEviewer included.
- Disk #138RLE Pics #2..5 great "R-rated" graphics converted from other computers using "RLE" format..YOU MUST BE 18!! RLEviewer included.
- Disk #139RLE Pics #3..5 different great "R -RATED" graphics converted from other computer using "RLE" format..YOU MUST BE 18!! RLEviewer included.
- Disk #140RLE Pics #4..10 great "R-RATED" graphics converted from other computer using "RLE" format..YOU MUST BE 18!! RLEviewer included.

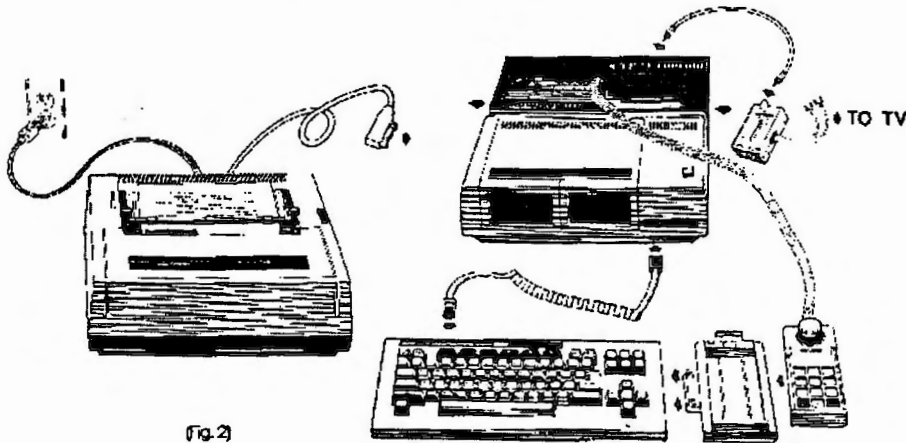
- Disk #141RLE Pics #5 (Portraits)...8 great graphics of faces converted from other computer using "RLE" format...RLEviewer included.
- Disk #143BASIC #3...Calendar generator, WildWest adventure, Crossfire, Easel many other programs...
- Disk #144BASIC #6...PianoPlus, DiskPuzzle, OilDriller, ShipBattle, EvilOne, Nuclear, many others...
- Disk #145BASIC #8...MineField, JewelHunt, Deviation, Craps, CoinToss, others..
- Disk #146BASIC #9...Bounce, LoanPayment, ShapeDemo, Birthstone, Elf, StarTrek2 Valentine, others....
- Disk #147BASIC #14..Turkey, BackSpell,King, Clock, Vectors, GaussSimulation Derivative, Cross Words, others...
- Disk #148BASIC #15..Poison Ivy, Hanoi, Bounceball, Skiing, HiddenWord WordBounce, Metric, Quiz, others...
- Disk #149BASIC #19..Panther, InchWorm, Ghosts, BlueJays, Clown, BlockEdit, VCR, Averaging, 2WayPrint, others...
- Disk #150BASIC #21..Announce, SlotMachine, ThreeK, Football, Arcade, Scrunch DirSizer, Music...others

ADAM™ SET-UP PROCEDURE



(Fig. 1)

EXPANSION MODULE #3 SET-UP PROCEDURE



(Fig. 2)



COMPUTER LABELS/ACCESSORIES/SUPPLIES

5 1/4" DISKS (SS,DD 25/\$13.25-10/\$6.40) or (DD,DD 25/\$15.00-10/\$7.50)
 3 1/2" DISKS (SS,DD 25/\$37.50-10/\$18.50) or (DD,DD 25/\$42.25-10/\$17.85)
 Disk Holder - Holds up to 50 disks - anti/static - 3 1/4" or 5 1/2" disks \$9.95
 Disk Drive Head Cleaning System 5 1/4" \$12.95
 Disk Drive Head Cleaning System 3 1/2" \$19.95
 Paper T/F-F/F White clean edge 9 1/2" x 11", 20lb. 1000/\$15.95
 Paper T/F-F/F White clean edge 9 1/2" x 11", 20lb. 200/\$4.99
 Labels T/F-F/F (Address Regular) 1000/\$5.95
 Labels T/F-F/F (Address Square Cut) 1000/\$8.95
 Labels T/F-F/F (Data pack and/or cassette tape) 1000/\$5.95
 Labels T/F-F/F for 3 1/2" disks that wrap around disk 100/\$8.95
 Labels T/F-F/F for 5 1/4" disks that cover full top of disk 100/\$4.95
 Index Cards - T/F-F/F - 3" x 5" 500/\$7.95
 Rolodex Cards - T/F-F/F - 2 1/8" x 4" 500/\$6.95
 Monitor/TV Stand-360 rotation, up to 12.5 angle \$21.85
 PRINTER STAND - Universal fit all printers \$13.99
 Copy Holder with spring balance arm \$29.95
 Copy Stand & Clipboard \$6.95

ADAM

DATA PACK (Adam) Manufactured by Lorain 1/\$3.95 - 10/\$34.50
 RIBBON CART. (Adam) Fresh-in your hand within 60 days of mfg 1/\$5.50 - 3/\$15.00
 DAISY WHEEL (Adam) - Italic, Script, Elite, Bookface, Dual Gothic, etc. 1/\$5.50
 ADAM COVERS - Set with Logo for system \$18.95
 ADAM DISK COVER - To match above \$9.95
 TRACTOR FEED for Adam printer \$68.95
 REMOTE - Front ON/OFF switch \$12.95
 POWER PACK - To separate printer/use CPU alone \$29.95
 DIABLO (DP/D) - Great Game \$19.95
 BLACK GOLD (DP/D) - Look for oil. Survey-profits-fun \$19.95
 SACRIFICE to the SPIDER QUEEN (DP/D) - Super Text Adventure \$14.95
 SpeedyWRITE (DP/D) - Most advanced wordprocessor for ADAM \$29.95
 SpeedyWRITE 2(DP/D) All above + new features include dot matrix printer \$39.95
 ADAM LINK 111 (DP/D) - Improved version of ADAMLINK 11 \$19.95
 BOUNTY HUNTER (DP/D) - Text adventure \$14.95
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 HACKER'S GUIDE TO ADAM - Disk or DP - Vol I or II \$17.95
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