WORDPLAY VOLUME V, # 6
JUNE 1986

THE PUNN NEWSLETTER

Wordplay

P.O.BOX 15037
PORTLAND, OREGON 97215

POINTING THE WAY FOR
USERS OF TI's 99/4 COMPUTERS

TREASURER'S REPORT
by Keith Fast

Well, if you attended our last meeting, you probably are aware that we purchased a complete TI system, by vote of the membership, for $300.00. This has left a bit of a hole in the bank, but not as bad as you might think. Also, $200 worth of GROMS were ordered from TI about 4 weeks ago. They should be here by the club meeting, but we are dealing with TI, so no promises.

beginning balance	$864.41
income	282.00
expenses	741.90
balance as of 5/26	404.51

As usual, if you would like to pay the author of fairware programs, you may submit them to me with a note stating which program and the amount your paying (separate from check). See ya on the 3rd.

NEW SYSTEM!!!
by Duane Goodman

The new system that was voted on at the last meeting has been purchased and delivered to the librarians. Here is a list of what was included with the system for $300.00:

TI 99/4A Console
Corcomp Micro Expansion System
(Note: The Micro Expansion System includes the following:
DSDD disk controller,
32K memory,
RS232 and PIO
2 TEAC 55B disk drives with power supply.
TI Tape Recorder.
WICO joystick with TI adapter
1 cartridge box (holds 18 cartridges)
2 cartridge expanders (widgets)
Microsoft Multiplan
TI Writer
Editor Assembler
Tax Investment Record Keeping
Personal Report Generator
Personal Record Keeping
Touch Typing Tutor
Hangman
Adventure
Tronics Frog Jump
Addition Subtraction
Allien Addition
Early Reading
Alligator Mix
Beginning Grammar
Munch Man.

I checked the system out using the Miller Graphics Advanced Diagnostics, and every thing appeared to be in great working shape. It should provide the club with many years of service.

THE PUNN PROGRAM FOR JUNE
By Martin Crommie

This months program will be a demo of both Funnel Writer and BA-Writer. Plus a demo of the CORCOMP Triple Tech card. We'll be showing the merits of both.

RLE digitized pictures arrive!
By Martin Crommie

I think probably that RLE will be possibly the third biggest advance for the TI 99 4/A. The program RLE will allow us to use many pictures both made for and made on other computers thus allowing US to use thousands of pictures with GRAPHX and TI-ARTIST. This also allows us to use actual photos that have been digitized. On COMPUSERVE, the TI FORUM is dedicating one room just to digitized pictures. Hopefully, we will be able to download all the pictures and make them avalible to PUNN members.

FUN IN THE SUN?
by Martin Crommie

How about giving us some feedback on postponing one of our regular meetings this summer and instead having it on a Saturday or Sunday and making it a combo meeting and picnic. Let us know how you feel.

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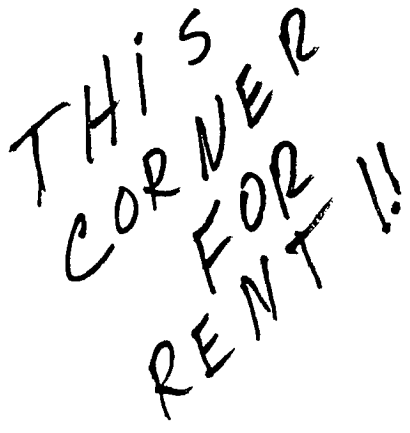
CRICKETS CORNER



SOFTWARE LIBRARY REPORT
MAY 20, 1986

Ron and I went over some of the programs a few days ago and this is what we found.

We have the C-99 op system disk (specify one for DSSD, two for SSSD) for those of you who like to experiment with new computer languages. As of this writing neither Ron nor myself have checked it out so maybe someone in the club can give us an overview of what it does. We will have printouts of the two document files -README1 and -README2 which comes with the program. $3.00 copy fee for either format. Uses 714 sectors.

Also available will be the New Axel-F with Space Bar Repeat function, all in one program (no extra file searching), CATLIB and associated files, a nifty BANNER program, all on one disk for $3.00 copy fee.

For those of you who have DSSD or better we also have a combo disk of FAST-TERM--V.1.16, DM-1000--V.3.1, BA-Writer, and CHECKBOOK-BALANCE, so you won't have to change disks too often. $3.00 copy fee.

The electronics wizards out there will like this next one. It has 6 programs on it dealing with everything from OHM'S LAW to Wavelength, AC and DC circuits, Matrixes and resistor values in circuits. There may be a few bugs in a couple of them but I'm sure the program hackers-(bad word) will be able to fix them. $3.00 copy fee. Call disk MARTENS-1.

We had FUNLWRITER at the last meeting and haven't had a chance to use it yet. Here is another one someone in the club could review for us.

If you missed any of the downloads on the BBS we will have copies at the meeting of them on one or two (however many we can put on one or two) disks for a nominal fee of $1.00 per copy (your disk, of course). We may come up with some more good stuff at the board meeting. Wait and see.

See you at the PUNN meeting,
Walt and Ron

TIPS FROM THE TIGERCUB

#34

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Over 13# original programs in Basic and Extended Basic, available on casette or disk, only $3.## each plus $1.5# per order for PPM. Entertainment, education, programmer's utilities.
Descriptive catalog $1.##, deductable from your first order.
Tips from The Tigercub, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 5# original programs and files, just $15 postpaid.
Tips from the Tigercub Vol. 2, another diskfull, complete contents of Nos. 15 through 24, over 6# files and programs, also just $15 postpaid. Or, both for $27 postpaid.
Nuts & Bolts (No. 1), a full disk of 1## Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. All for just $19.95 postpaid.
Nuts & Bolts No. 2, another full disk of 1#8 utility subprograms in merge format, all new and fully compatible with the last, and with 1# pages of documentation and examples. Also $19.95 postpaid, or both Nuts Bolts disks for $37 postpaid.
Tigercub Full Disk Collections, just $12 postpaid! Each of these contains either 5 or 6 of my regular $3 catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - my own programs on these disks are greatly discounted from their usual price, and the public domain is a FREE bonus!
TIGERCUB'S BEST
PROGRAMMING TUTOR
PROGRAMMER'S UTILITIES
BRAIN GAMES
BRAIN TEASERS
BRAIN BUSTERS!
MANEUVERING GAMES
ACTION GAMES
REFLEX AND CONCENTRATION
TWO-PLAYER GAMES
KID'S GAMES
MORE GAMES
WORD GAMES
ELEMENTARY MATH
MIDDLE/HIGH SCHOOL MATH
VOCABULARY AND READING
MUSICAL EDUCATION
KALEIDOSCOPES AND DISPLAYS
For descriptions of these send a dollar for my catalog!

While they last, and the supply is limited, I will sell a single Texas Instr. cassette interface cable for $2.## with any order for casssette software.

My sincere apologies for a serious goof in the Sort Watcher program in Tips #33. The GOSUB in line 12# should go to line 1#2#, not 32767! Also, in line 21# please change the 92# to 93#.

Steven Shouse of TIRUG sent this improvement to the GRAPHPAGE in Tips #33 -

```
1## OPEN #1:"DSK1.GRAPHPAGE",OUTPUT :: PRINT #1:TAB(4);RPT$("_",75):: FOR J=57 TO 1 STEP -1 :: J$=STR$(J)
```

The 99/4A National Assistance Group (which is a commercial enterprise, not a user's group, although they charge a fee to "join"), sells public domain programs at $3.## each - but you can't order individual programs, you have to buy a package deal.

I sell good copyrighted programs, written by myself, for $3.##, I let you pick and choose, even just one program if you want. I don't pretend to be a user's group (I know that Tigercub often gets misspelled as Tiger Club but I can't help that!), and I don't charge you to "join".

The reason for these remarks is that one of the public domain programs sold by that group is listed as SAMARKAND. It may be only an odd coincidence that I wrote a random music composer entitled SONG OF SAMARKAND and put it in public domain because I didn't think it was worth selling. Anyway, if you want it, here it is.

```
1## CALL CLEAR
11# REM - SONG OF SAMARKAND
programmed by Jim Peterson -
 Version 3
12# RANDOMIZE
13# CALL CHAR(94,"##")
14# CALL CHAR(95,"##")
15# CALL SCREEN(11)
16# PRINT "From the Third Movement of":"":"    THE NEVER-ENDING SONG":"":"          by Emir Abdul Aziz":"":"..... ....................."
17# PRINT : : : : : : : : : : : : : : :
18# FOR J=1 TO 23
19# CALL HCHAR(12,5+J,ASC(SEG$("^THE^SONG^OF^SAMARKAND^",J,1)))
2## NEXT J
21# CALL HCHAR(11,6,94,23)
22# CALL HCHAR(13,6,94,23)
23# M$="187EFF42668124C3DB665A18423C5AA542817E995A##18##24BDBD3C667E666681##243C##42187E5AA53CC3427E3C81817E5AE7669924187E42992488818IDBC3"
24# DIM N(3#),S(21)
25# F=22#
26# FOR J=# TO 36
27# X=X+1+(X=12)*12
28# IF (X=2)+(X=5)+(X=7)+(X=1#)+(X=12)THEN 31#
29# Y=Y+1
3## N(Y)=INT(F*1.#59463#94^J)
31# NEXT J
32# CALL HCHAR(1,1,32,32#)
33# CALL VCHAR(1,31,95,96)
34# CALL HCHAR(24,1,95,64)
35# CV=2
36# K=8
37# K=K-INT(5*RND+1)+INT(5*RND+1)+(K)21)*2-(K<1)*2
38# IF (K<1)+(K)21)THEN 37#
39# CALL SOUND(-999,N(K),#,N(K)*CV,#,N(K)*3.75,3#,-4,5)
4## X=INT(4#*RND)
41# IF X)12 THEN 37#
42# ON X+1 GOTO 43#,49#,54#,58#,66#,73#,77#,85#,87#,97#,99#,1#4#,1#6#
43# IF INT(4*RND)<3 THEN 39#
44# FOR T=K TO 2#
45# CALL SOUND(-999,N(T),#)
46# NEXT T
47# K=1
48# GOTO 39#
49# FOR T=K TO 1 STEP -1
5## CALL SOUND(-999,N(T),#)
51# NEXT T
52# K=T+1
53# GOTO 39#
54# FOR T=K TO 1 STEP -1
55# CALL SOUND(-999,3####,3#,3####,3#,N(T)*3.75,3#,-4,#)
56# NEXT T
57# GOTO 37#
58# FOR TT=K TO K-INT(5*RND+1)STEP -1
59# IF TT<2 THEN 37#
6## FOR T=1 TO INT(7*RND+3)
61# CALL SOUND(-999,N(TT),#,N(TT)*2,#)
62# CALL SOUND(-999,N(TT)*1.#3,#,N(TT)*2.#6,#)
63# NEXT T
64# NEXT TT
65# GOTO 37#
66# FOR T=K TO K-INT(3*RND+3)STEP -1
67# IF T<2 THEN 37#
68# FOR D=# TO 15 STEP 2
69# CALL SOUND(-999,N(T)*2,D,N(T)*3,D,N(T)*3.75,3#,-4,#)
```

```
700 NEXT D
710 NEXT T
720 GOTO 370
730 FOR X=1 TO 15
740 CALL SOUND(-999,N(X),0,N(16-X),0,N(1),30,-4,5)
750 NEXT X
760 GOTO 370
770 FOR T=K TO K-INT(4*RND+1)STEP -1
780 IF T<2 THEN 370
790 CALL SOUND(100,N(T),0,N(T)*2,0,N(T)*3.75,30,-4,5)
800 FOR TT=N(T)TO N(T-1)STEP -10
810 CALL SOUND(-999,TT,0,TT*2,0,TT*3.75,30,-4,5)
820 NEXT TT
830 NEXT T
840 GOTO 370
850 CALL CHAR(32,SEG$(M$,INT(57*RND+1)*2-1,16))
860 GOTO 370
870 IF INT(4*RND)<3 THEN 390
880 CALL SOUND(-3000,N(K),0,N(K)*2,0,N(K)*3.75,30,-4,0)
890 FOR J=1 TO INT(5*RND+5)
900 S(J)=INT(21*RND+1)
910 NEXT J
920 CALL SOUND(-1,30000,30)
930 FOR T=1 TO J-1
940 CALL SOUND(-999,N(S(T)),0,N(S(T))/1.68,0,N(S(T))*3.75,30,-4,0)
950 NEXT T
960 GOTO 370
970 CALL CHAR(95,SEG$(M$,INT(57*RND+1)*2-1,16))
980 GOTO 370
990 IF INT(4*RND)<3 THEN 390
1000 FOR J=220 TO 660 STEP 20
1010 CALL SOUND(-999,J,0,880-J,0,N(12)*3.75,30,-4,0)
1020 NEXT J
1030 GOTO 370
1040 CALL CHAR(32,"0")
1050 GOTO 390
1060 CV=CV+(CV=2)/2-(CV=1.5)*.5
1070 GOTO 370
```

If you are trying to exchange newsletters and are using the listings of user groups published by Texas Instruments and by others, you are finding that they are way out of date! Send me a disk and some return postage - or just send $1.50 - and I'll send you my address list of about 140 groups I exchange with. It is updated every month from return addresses on newsletters I receive.

For those of us who are still struggling along with one disk drive, this routine will transfer any number of D/V80 files, totalling up to about 42 sectors, from one disk to another in one pass, and will optionally save under changed names.

```
100 DIM M$(2000),F$(25),C$(25):: CALL CLEAR :: T$=CHR$(1)
110 DISPLAY AT(8,6):"TIGERCUB FILEMOVER" :: DISPLAY AT(15,1):"PRESS ENTER WHEN FINISHED"
120 F=F+1 :: IF F>25 THEN 130 :: DISPLAY AT(12,1):"FILENAME? DSK"&T$ :: ACCEPT AT(12,14)SIZE(-12)BEEP:F$(F):: IF F$(F)<>T$ THEN 120
130 F=F-1 :: FOR J=1 TO F :: ON ERROR 260 :: OPEN #1:"DSK"&F$(J),INPUT :: DISPLAY AT(12,1):"READING "&SEG$(F$(J),3,255)
140 X=X+1 :: LINPUT #1:M$(X) :: C=C+LEN(M$(X))
150 IF C>10000 THEN DISPLAY AT(20,1):"INSUFFICIENT MEMORY FOR "&SEG$(F$(J),3,255):: GOTO 190
160 IF EOF(1)<>1 THEN 140
170 X=X+1 :: M$(X)=T$ :: CLOSE #1
180 W=W+1 :: NEXT J
190 X=0 :: DISPLAY AT(15,1):"" :: DISPLAY AT(12,1):"INSERT COPY DISK AND PRESS":"ENTER"
200 CALL KEY(0,K,ST):: IF ST=0 THEN 200 :: DISPLAY AT(13,1):""
210 FOR J=1 TO W :: IF F$(J)=CHR$(2)THEN 230
220 DISPLAY AT(12,1):"FILENAME? DSK"&F$(J):: ACCEPT AT(12,14)SIZE(-12)BEEP:C$(J)230 NEXT J :: FOR J=1 TO W :: IF F$(J)=CHR$(2)THEN 250 :: OPEN #1:"DSK"&C$(J),OUTPUT :: DISPLAY AT(12,1):"SAVING "&SEG$(C$(J),3,255)
240 X=X+1 :: IF M$(X)<>T$ THEN PRINT #1:M$(X):: GOTO 240 ELSE CLOSE #1
250 NEXT J :: END
260 ON ERROR STOP :: DISPLAY AT(22,1):"CANNOT OPEN "&SEG$(F$(J),3,255):: F$(J)=CHR$(2):: RETURN 180
```

Here is a very ingenious idea published in the Corpus Christi UG newsletter by H. Macdonald. He could not find the author/newsletter which gave him the idea, so if you know, tell me and I'll print due credit.

I have modified it a bit. This short routine will load quickly and enable you to bypass loading and running the Menu Loader program on a disk when you already know the filename of the program you want to run.

Save the Menu Loader under the filename MENULOADER and save this routine under the filename LOAD - be sure to save it before you try it, because it erases itself!

```
100 CALL INIT :: CALL LOAD(-31806,16):: DISPLAY AT(12,1)ERASE ALL:"RUN MENULOADER? (Y/N)"
110 CALL KEY(3,K,S):: IF S=0 THEN 110 ELSE IF K=78 THEN 130 ELSE DISPLAY AT(12,1)ERASE ALL:"LOADING MENULOADER" :: RUN "DSK1.MENULOADER"
130 CALL CLEAR :: CALL LOAD(-31952,55,215,55,215):: END
```

Here is one with a bit of a surprise at the end. Key the v,A in line 190 as FCTN V, CTRL comma, CTRL A.

```
100 CALL CLEAR :: CALL SCREEN(16)
110 DATA 80C0A09088445269,0000000000007EB1,0103050911224A96,0000000101010100,21409C2A492A1CC0,9999336600001824
120 DATA 84B2395492543903,0000000000808080,E0B09880E7702010,18244281423C0000,0F19030 7E1020408,000000FF80808080
130 DATA 000F13E620221D00,0CFB34670A22DC00,814224FF,300F2CC641443B00,00F0C86F0447B87F,000000FF01F901F9
140 DATA 80FF808686808686,00FF006666006666,00FF003F3F3F3F3F3F,01FF01F9F9F9F9F9,80868680868680 93,0066660066660 0FF
150 DATA 006666006666 00E6,3F3F3F3F3F3F3F3F,F9F9F9F9F9F9F9F9,00000000E01C3AE2,9380FF,FF00FF,E600FF0007 0B0807
160 DATA 3F00FF00FF1988FF,F901FF00FF8744FF,1F0909 0FF3198AFC
170 FOR CH=96 TO 129 :: READ CH$ :: CALL CHAR(CH,CH$):: NEXT CH
180 DISPLAY AT(1,14)ERASE ALL:"'ab" :: DISPLAY AT(2,13):"cdefg" :: DISPLAY AT(3,14):"hij" :: DISPLAY AT(4,12):"klmnopq"
190 DISPLAY AT(5,12):"rsssstu" :: DISPLAY AT(6,12):"vwwwxyz{" :: DISPLAY AT(7,12):"|}}}~v,A" :: DISPLAY AT(9,12):"TIGERCUB"
200 DISPLAY AT(11,12):"SOFTWARE" :: DISPLAY AT(13,7):"156 COLLINGWOOD AVE." :: DISPLAY AT(15,7):" COLUMBUS OH 43213" :: CALL HIGHCHAR
210 GOTO 210
220 SUB HIGHCHAR :: FOR CH=32 TO 129 :: CALL CHARPAT(CH,CH$):: X$=SEG$(CH$,3,12)&SEG$(CH$,13,4):: CALL CHAR(CH,X$):: NEXT CH :: SUBEND
```

Thanks to Ramon Martinez in the Orange County UG newsletter - a double NEXT is accepted if the pre-scan is turned off.

```
100 J=1
110 !@P-
120 FOR J=1 TO 100 :: IF J/10<>INT(J/10)THEN NEXT J ELSE PRINT J :: NEXT J
```

A computer without a program is like a car without gas. If everyone who filled up at a self-service pump drove away without paying, how soon would all the gas stations be closed?

MEMORY FULL!

Jim Peterson

BA-WRITER and FUNLWRITER, A COMPARISON

Written by Tom Freeman
from "Topics - LA 99ers"

Those of you who do a lot of writing, either pure text, or assembly language, and therefore use either the EDITOR/ASSEMBLER or TI-WRITER modules a great deal, might be interested in one or both of these fine FAIRWARE programs. Addresses will follow at the end of the article. The versions I used are:

FUNLWRITER V 3.1

BA-WRITER V 1.1 (FX2B)

Both were modified in February, 1986 and therefore represent the latest versions, but as is usual with fairware, more modifications will probably come in the future. For notes on RAMdisk use, see end of article.

FUNLWRITER

FUNLWRITER was written by Tony and Will McGovern of the Hunter Valley User Group in Australia. It naturally requires memory expansion and it runs best with more than one disk drive, as the utility disk must be in Drive 1 when the programs are loaded (also true of TI-WRITER and E/A). It runs ONLY OUT OF EXTENDED BASIC. A seven page file called FUNNELDOC provides the documentation, and is sent to be printed by the formatter.

The initial program runs automatically ("DSK1.LOAD") and contains mostly a hidden assembly language program which does most of the work. The "list"able lines allow you to change the printer defaults for the Editor and the Formatter (separately), as well as adding up to five options that will be displayed on a menu screen for "LOAD AND RUN" or "RUN PROGRAM FILE" (= UTILITY OPTION of TI-WRITER). More about these below. Two of the options are predefined: FORTH and DPK (this is DISKO, or DPATCH, a sector editor of limited usefulness considering what else is now available). However they can be changed. There is also a CALL COLOR statement which can be edited to change the colors achieved by CTRL 3 in the Editor. These five plus an additional 3 which are fixed are also available at most menu screens by pressng one number higher than the last appearing on the screen. The altered program may be saved in place of the original (on a backup disk of course!).

When this program is run you will see a title screen, followed at the press of a key by the first menu: EDITOR, FORMATTER, UTILITY. The editor, formatter , and assembler files were present on my disk, as well as DM1000 (M6R1), CHARA1, E/A utilities (EAU) and the aforementioned DPK. There is a disclaimer about the non-presence of copyrighted files on the disk, so I am not sure about the status of all these files. The formatter is the FIX 1 version that was given to the user groups, but it and the editor have been modified to run only with this disk, and have been renamed EDITA3 and FORMA3.

In any case picking the EDITOR or FORMATTER options accomplish just what you would expect. One difference in the formatter is that at the end of a document you are not automatically returned to the main menu screen, but can print another document without reloading the formatter. Another very nice feature in both of these files, is that the last filename used in either one will appear as a default to start the other, so you don't have to remember the name. If none was used, DSK2 appears as a default.

Another feature of the editor is an incredible disk cataloger that runs with the SD command, rather than TI's GPL version. This program is not only VERY (VERY) fast, it is PAGED! This means that with a single key press (CTRL or SHIFT) you can page backwards or forwards, in case you forgot what already flashed by. In addition, fractured files are marked, and by presing = all program files that are sent to run in Basic, or with Option #5 of the E/A (and #3 of TI-WRITER) are marked as such. At the end, you do go back to your text for editing and have to re-enter SD to get the catalog again, but this is a small matter, considering the paging feature. I cannot praise this part of the program enough!

Choosing option #3 (UTILILTY) from the first menu screen will give you a new 9 item menu. Item #1 is the Editor (E/A version) and 2 the Assembler. The Editor is actually the same as the TI-WRITER Editor, but the default edit mode has been set to FIXED, the Tabs are set to those used by E/A, and SaveFile will NOT save the tabs in the last record. These are all very nice features, as the rest of the features from TI-WRITER are retained. Mainly, you can't by mistake reformat an entire file of source code to one grand paragraph!

Item #3 is DM1000 (if M6R1 is in drive 1) and 4-8 are the ones you set up in the LOAD program. The parameters needed with each program are poorly documented. As far as I can tell the variable K required refers to the same number as would be used in the next menu if item 9 is chosen from this menu, with an 8 added if a prompt is required to put in another disk. I could not always get this to work however.

Item #9 enables you to load almost any run program file, or load and run type program as would be loaded by the E/A module. First you must choose the environment, however (i.e. TI-WRITER with text mode enabled, or GPL, or one similar to that used by #5 of E/A, or Load and Run). These are also not well documented. There is an additional problem in that non-autoload Load and Run type programs cannot overwrite the FUNLWRITER loader at the high end of high memory around >FF00, and a program file also can't overwrite this area unless it is the last of the series. In this case the program also can't return to FUNLWRITER. In some cases, the XB utilities (or some of them) are left in place or an attempt to load the E/A utilities is made (if EAU is present on the disk). I have not used these features. An additional problem with this part of the program is that there appears to be no way to abort back to the main menu.

Finally, if and when you exit the editor (either one), formatter, or assembler, you will get a 6 item

menu. Three on this menu will give you DM1000, and 4 the same menu as #9 in the last paragraph. As far as I can tell there is no way to get back to the original utility menu that contained the 5 default programs you put in the LOAD program. Number 6 will allow you to "quit" the entire program back to TI's title screen.

An interesting feature of this menu is #5 SWITCH. When you press 5, item #2 toggles back and forth between FORMATTER and ASSEMBLER and, although you don't see it, the editor (item #1) also toggles between the TI-WRITER version, *and* the E/A version.

BA-WRITER

This program was written by Paolo Bagnaresi of Milan, Italy. Paolo was at the 99'FEST-WEST'86 in March, and it was quite enjoyable to meet him. This program is ment as a substitute only for the TI-WRITER. It has many excellent enhancements to the TI-WRITER (henceforth called TIW) however.

To begin with it can be loaded from TIW, EXTENDED BASIC (XB), EDITOR/ASSEMBLER (E/A), or MINI-MEMORY (M/M). The editor and formatter files have been extensively modified, but are still named EDITA1 and FORMA1 etc, so they will still load from options 1 2 of TIW. Programs named LOAD, BA-WRITER, and MINI-BA-WR will load the set-up program from XB, E/A (#5), and M/M respectively. LOAD is mostly a hidden assembly language program. As MINI-BA-WR is normal display/fixed 80 object code, it will also load from basic with the CORCOMP or MYARC disk controllers. (Ed. note: MINI-BA-WR will load and run from option 2 of the CORCOMP file utility screen with no cartridge of any kind inserted!!) The editor and formatter files appear to be self contained as far as all of the utilities peculiar to this program are concerned, and as they are normal program files as well, will also load from TIW #3 or E/A #5. Therefore if you are using one of these two modules, you don't need any of the loader programs.

A nice feature of all the loaders, as well as the cross references from editor to formatter and vice versa, is the ability to RETAIN in memory the number of the disk drive that the first program was in. This will be used for all future loads. This information is read from VDP ram for the TI and CORCOMP disk controllers, and from the DSR ram in the disk controller itself in the case of the MYARC (that was the main addition in the Feb. 86 version). Note that since the information is read from the disk controller, this will NOT work with a RAMdisk without modification (see end of article). There is however a Fail-safe in the program. If the proper programs cannot be found in the drive # that has been inserted in the code, ALL drives will be searched until the program is found.

Additional files included on the disk are: (1) FORMATDOC, PRACTICE, PRACTICE1 from the original TIW disk. Basically useless, as mentioned by the author! (2) W-READMY-O a file for the formatter that reads 4 additional files from DSK2 (can be changed of course) that provide simple but complete documentation. (Ed. Note: documentation was not on the disk I received. I have a hardcopy which I will type in and put in the club library). (3) MY-INSTALL This is actually another version of the loader (for TIW #3 or E/A #5) that provides an additional menu choice, namely CONFIGURATION. This option allows you to change the default colors (FG and BG) the printer names for formatter and editor, and the utility filename for option #3. You can then use the program right away, or permanently modify the disk (backup of course!) to include the changes. A direct sector access is used so a true sector copy of the disk must be present. This is checked, so that another disk will not be damaged. A caveat is in order here. With the TI or CORCOMP disk controllers either a regular file by file backup can be made (only the files through MY-INSTALL need to be copied) or a sector copy can be used. The MYARC controller is again non-standard here, as it begins copying files in sector 32 instead of 34. Therefore a sector copy MUST be used, or else the original disk should have ANY 3 sector file added to it and the name changed to "A" or some such name that will precede "BA-WRITER" in the alphabetical list. (4) W:DEUTSCH (ESPANOL, FRANCAIS, ITALIANO, SWEDISH) and CHARA2 Any of these six files, if renamed CHARA1 will load the appropriate international character set (or the usual CHARA1 with true descenders) into memory. Paolo will prpare additional ones for you if you send him the character definitions in a format that he specifies, but you could readily modify the file yourself with a sector editor. (5) W-FOUNDS-A, W-FOUNDS-B. These files are ment to enable the use of a RAMdisk for the editor and formatter files. I was unable to get these to work however, and have not yet contacted Paolo to find out why. (Ed. note: These files deal with the possibility of loading BA-WRITER from the 128 K Foundation expansion memory. As it is arranged now, the 128 K Foundation will not be able to do so. There are 4 programs that are needed by BA-WRITER to function properly: EDITA1, EDITA2, FORMA1, and FORMA2, (plus an optional fifth program CHARA1, if the small descending characters are desired). The 128 K Foundation can keep inside only 3 programs, not more. Plus if you could get all the programs loaded that you need, it would still have limited usefulness since the Foundation 128 K has no external power supply and dumps its memory when the PEB is powered down, thus requiring you to reload the programs everytime you powered up and wanted to wordprocess). (6) W:INITZ A disk initalizing program to obviate the need for another disk manager. Note however that you will lose whatever else you have in memory, and that 18 tracks cannot be obtained with a MYARC controller.

Now to the actual programs. The editor functions very similarly to the usual TIW with the following exceptions: first of all, if you exit the editor to the main menu, you can go directly back to the editor with all of your text intact. Thus if you have forgotten to save your file, all will not be lost (the RecoverEdit feature of TIW is not reliable). In addition, SD will give you a disk catalog that is much superior to that in

the TIW module. It is FAR faster, and allows a "redo" at the end instead of having to return to command mode and entering SD again. It does not scroll as such, but after the bottom of the screen is reached, the top is overwritten, so the effect is the same.

The formatter also has enhancements: First, if you have previously saved a file in the editor, this appears as the default for loading with the formatter (the reverse is also true - the last file loaded in the formatter will appear as the default for LF in the editor). Second, the CATALOG function is also available from any input line in the formatter - great if you have forgotten what's on the disk. And third, at the end of a printing job, you get the message "END OF JOB" and return to the top of the formatter without having to reload it.

COMPARISON:
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The basic question is whether you use mainly or solely TIW, or whether you also do a lot of assembly language programming (or modifying) and assembling. For the latter there is no choice, as BA-WRITER does not support E/A functions at all. FUNLWRITER has the additional advantage of a superior catalog disk function (the paging has to be seen to be believed!) and the ability to load various types of display/fixed 80 or program files in TIW, E/A, or XB environments. FUNLWRITER however has the following disadvantages: (1) it only runs out of one drive (#1) and one module (XB) and (2); if you exit the editor it must be reloaded and your text will be lost.

BA-WRITER on the other hand would be more useful for the text author. It can be loaded from practically any module and drive, and goes back and forth from editor to formatter more gracefully. The catalog feature from the formatter is very nice, as is the re-entry to the editor without loss of text. Its cataloger is midway in quality between FUNLWRITER and TIW.

Both of these programs are nicely, albeit briefly, documented, the exceptions I have detailed above notwithstanding. Neither of the programs appears to suffer much loss of buffer space for text. BA-WRITER claims to lose only 64 bytes (approx. one 80 col line; done by trading CPU ram for VDP ram when cataloging is done). FUNLWRITER claims no loss at all , although how they do it I cannot imagine as the EDITA programs take up 17 additional sectors! BA-WRITER has the additional advantage of pre-defined international character sets; however these are not really that useful unless your printer is also capable of printing them.

There you have it. It is difficult to choose between these two fine programs. Unless you feel you have absolutely no use for one of them, why not get both! They will be available at our meetings along with other FAIRWARE programs.

NOTES ON RAMDISK USAGE
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As noted above FUNLWRITER only loads from drive 1 and BA-WRITER only from floppy disks. Some of you may wish for the increased speed of loading from a RAMdisk, even though fewer accesses are needed with both of these programs. My GRAMKRACKER had enabled me to do this, and I have gotten used to lightning! Using DISkASSEMBLER (tm) however, I have determined the various routines in all the files of BA-WRITER that accomplish the assigning of a drive #, and have modified the code to load eveything from drive #4 (my RAMdisk) only. The changes are made with a sector editor. They are easier in FUNLWRITER, as one need only search for occurences of DSK1. If there is sufficient interest in this, I can send the instructions in a SASE, or perhaps publish them in a future issue of the newsletter.

A WISH
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Having seen the catalog feature of FUNLWRITER, I would like to see it in BA-WRITER as well, for those times when I am not involved in assembly language programming. If you get DISkASSEMBLER perhaps you can find the complete routine, and if there is enough room replace it! Now there's a project!

ADDRESSES
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FUNLWRITER:
Tony and Will Mcgovern
215 Grinsell ST.
Kotara, NSW 2289
Australia

BA-WRITER:
Paolo Bagnaresi
Via J.F.Kennedy 17
10087 San Donato Milanese
Italy

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TI WRITER MANUAL:

Here is a note which I found tucked away in the San Fernando 99er Times.

"If you need a TI Writer manual, for use with TK Writer, B/A Writer, or FUNLWRITER, they are available from Lubbock by calling 1-800-TICARES (yes, they are still there). The price is $3.00 plus postage."

You can't zerox one for that price, not to mention that it is copywritten material. So if you need a copy, be sure and call soon. At that price they won't last long.

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BBS REPORT
by Duane Goodman

Use of the BBS is still going strong. For those of you who are not on the BBS, there have been lots of

downloads available simply for the time involved in downloading. Ron will have a "BBS" disk available a the next meeting with some of the more popular programs from the download section.

The new software is getting closer to being ready to go online. One word of caution! There will be a short period of time (someone please define short) needed for working out the bugs that we put in the system just to try everyones patience. Once we go online with the new system, we will not be able to return to the old because of all the new hardware included in the new (such as the 128K card and the real time clock). So we ask for your patient and forgiving spirit during the initial debugging time (1 to 2 years). Actually I have a lot of confidence in Al's and Mike's programming ability. So if anything should go wrong, you know who to blame... Seriously, I feel very strongly that the new will be such an improvement that we would never want to return to the old anyway!!

GRAPHX "EXTRAS"
by Andy Lengyel

ASGARD SOFTWARE has just released a four disk graphics companion called GRAPHX PICTURES. This art package can be enjoyed without having to own any drawing program since it uses an included program by the assembly Wiz PAUL CHARLTON. This revolutionary gem for the TI is called GRAPHX SLIDESHOW.

GRAPHX Pictures contains 24 fully complete works of art, stored on disk in the popular GRAPHX format, and available for use by GRAPHX and TI-AARTIST owners in electronic greeting cards, as parts of business presentations, and for use within other art works. While other companion products give you little bits and pieces of art for use in your own work, GRAPHX Pictures contains full-size, highly detailed drawings with literally hundreds of computer and non-computer applications. These works aren't just useful, they are also aesthetically some of the best art work ever created on the TI-994A, or on any computer for that matter! Each is a veritable gold mine of techniques and ideas for creating your own masterpiece.

The slideshow portion of this program allows you to simply and easily create high quality graphics presentations. It gives you full control over the timing and order over your picture slideshow, but unlike other such programs, no programming knowledge is required to quickly and easily create complex business, commercial, home or school presentations.

Price for over 320K of artwork and a useful new assembly program is $16.95 shipping included. Asgard Software. P.O. BOX 10306, ROCKVILLE, MD 20850.

FOR SALE:

GRAM KRACKER----------> $160.00
SUPER MODULE----------> $ 50.00
(Super module is a three way module that includes TI-WRITER, Editor/ Assembler, and Super Disk Manager)

CALL ANDY LENGYEL
771-4427

PEEKS & POKES

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Decatur 99er Users' Group

Be sure to do a 'CALL INIT'. The variables P and Q are used for CALL PEEK, and the numbers are for CALL LOAD.

ADDRESS	VALUE	MEANING IN EXTENDED BASIC
CALL VERSION(X)		IF X=100 THEN NEWEST VERSION OF XB
8192	P	USE (PEEK,P) IF P IS NOT 70 OR 121, THEN DO A CALL INIT
8194		FIRST FREE ADDRESS IN LOW MEMORY
8196		LAST FREE ADDRESS IN LOW MEMORY
-28672	P	IF P=0 SPEECH NOT ATTACHED, IF P=96 OR 255, SPEECH IS ATTACHED
-31572	0 TO 255	VARY KEYBOARD RESPONSE
-31740	P, Q	TO CHANGE BEEPS, WARNINGS, ETC.
	192	NO AUTO SPRITE MOTION OR SOUND
	224	NORMAL OPERATION
	225	MAGNIFIED SPRITES
	226	DOUBLE SIZE SPRITES
	227	MAGNIFIED & DOUBLE SIZE SPRITES
	232	MULTICOLOR MODE 48 BY 64 SQUARES
-31794	P	CALL SOUND TIMER, COUNTS 255-0
-31804	X, Y	USE PEEK(2,X,Y) FOR TITLE SCREEN
	P	CHANGE CURSOR FLASH RATE 0-255
-31806	0	NORMAL OPERATION
	16	DISABLE QUIT KEY (FCTN =)
	32	DISABLE SOUND, USE NEGATIVE FOR CONTINOUS SOUND
	48	DISABLE SOUND & QUIT KEY
	64	DISABLE AUTO SPRITE MOTION
	80	DISABLE SPRITES AND QUIT KEY
	96	DISABLE SPRITES AND SOUND
	128	DISABLE SPRITES SOUND & QUIT KEY
-31808	P, Q	DOUBLE RANDOM NUMBERS (0 TO 255) NEED 'RANDOMIZE'
-31860	4	FROM X-BASIC TO BASIC NEED 'NEW'
	8	AUTO RUN OF DSK1.LOAD
-31866	P, Q	END OF CPU PRGM ADDRESS (P*256+Q)
-31868	0	NO 'RUN' OR 'LIST' AFTER 'BREAK'
	0, 0	TURNS OFF 32K MEMORY EXPANSION
	255, 231	TURNS ON THE 32K MEMORY EXPANSION
-31873	3 TO 30	'PRINT' SCREEN COLUMN TO START AT
-31877	P	P&32= SPRITE COINCIDENCE P&64= 5 SPRITES ON A LINE
-31878	P	HIGHEST NUMBER SPRITE IN MOTION,
	0	STOPS ALL SPRITES
-31879	P	TIMER FOR VDP INTERRUPTS EVERY 1/60 OF A SEC (0 TO 255)
-31880	P	RANDOM NUMBER (0 TO 99), NEED 'RANDOMIZE'
-31884	0 TO 5	KEYBOARD MODE LIKE 'CALL KEY(K,,)'
-31888	63, 255	DISABLE ALL DISK DRIVES, USE 'NEW' TO FREE MEMORY
	55, 215	ENABLE ALL DISK DRIVES, USE 'NEW' TO FREE MEMORY
-31931	0	UNPROTECT X-BASIC PROTECTION
	2	SET 'ON WARNING NEXT' COMMAND
	4	SET 'ON WARNING STOP' COMMAND
	14	SET 'UNTRACE' COMMAND
	15	SET 'UNTRACE' & 'NUMBER' COMMAND
	16	SET 'TRACE' COMMAND
	64	SET 'ON BREAK NEXT' COMMAND
	128	PROTECT X-BASIC PROGRAM
-31952	P	PEEK IF P=55 THEN 32K EXPANSION MEMORY IS OFF, P NOT 55 MEANS ON
-31962	32	RETURN TO THE TITLE SCREEN
	255	RESTART X-BASIC WITH 'DSK1.LOAD'
-31974	P, Q	END OF VDP STACK ADDR. (P*256+Q)
-32112	8	SEARCHES DISK FOR ?
-32114	2	RANDOM GARBAGE
	13	SCREEN GOES WILD
	119	PRODUCE LINES
-32116	2	RANDOM CHARACTERS ON SCREEN
	4	GO FROM X-BASIC TO BASIC
-32187	0	UNPROTECT X-BASIC PROGRAM
	2	SET 'ON WARNING NEXT' COMMAND
	4	SET 'ON WARNING STOP' COMMAND
	9	SET 0 LINE NUMBER
	14	SET 'UNTRACE' COMMAND
	15	SET 'UNTRACE' & 'NUMBER' COMMAND
	16	SET 'TRACE' COMMAND
	64	SET 'ON BREAK NEXT' COMMAND
	128	PROTECT X-BASIC PROGRAM
-32188	1	SET COLOR & RECEIVE SYNTAX ERROR
	127	SET COLOR & RECEIVE BREAKPOINT
-32630	128	RESET TO TITLE SCREEN
-32699	0	UNPROTECT X-BASIC PROGRAM
	2	SET 'ON WARNING NEXT' COMMAND
	4	SET 'ON WARNING STOP' COMMAND
	14	SET 'UNTRACE' COMMAND
	15	SET 'UNTRACE' & 'NUMBER' COMMAND
	16	SET 'TRACE' COMMAND
	64	SET 'ON BREAK NEXT' COMMAND
	128	PROTECT X-BASIC PROGRAM
-32700	0	CLEARS SCREEN FOR AN INSTANT
-32729	0	RUN 'DSK1.LOAD'
-32730	32	RESET TO TITLE SCREEN
-32961	51	RESET TO TITLE SCREEN
	149	SET 'ON BREAK GOTO', LOCKS SYSTEM

ADDRESS	VALUE	MEANING IN E/A OR MINI-MEM
784	P	USE 'POKEV(784,P)' P=16 TO 31 TO CHANGE CURSOR BACKGROUND
-24574	8	? 24K STORAGE WITH MINI-MEM ?
-30945	0	WHITE EDGES
-32272	0, ** , -30945, 0	WILL CHANGE TO TEXT MODE
-32766	0	BIT MAP MODE
-32768	0	GRAPHICS (NORMAL MODE)
-32280	0	MULTI-COLOR MODE
-32352	107	BLANKS SCREEN, ANY KEY RESTORES

ADDRESS	VALUE	MEANING IN PASCAL
14586	0, 0	ALLOWS YOU TO DO A RUN-TIME WARM START FROM PASCAL TO BASIC

P.O.BOX 15037
EAST PORTLAND STATION
PORTLAND, OR. 97215

ALL GENERAL MEETINGS ARE HELD ON THE FIRST TUESDAY OF EACH MONTH, AT THE PGE BLDG, 3700S. E. 17TH, PORTLAND, OR

--NEXT MEETING--

JUNE 3

7:00 P.M.

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