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HOCUS

Home Computer Users Spotlight

a monthly publication of the
Milwaukee Area 99/4 Users Group

JANUARY - 1987

MILWAUKEE AREA USER GROUP
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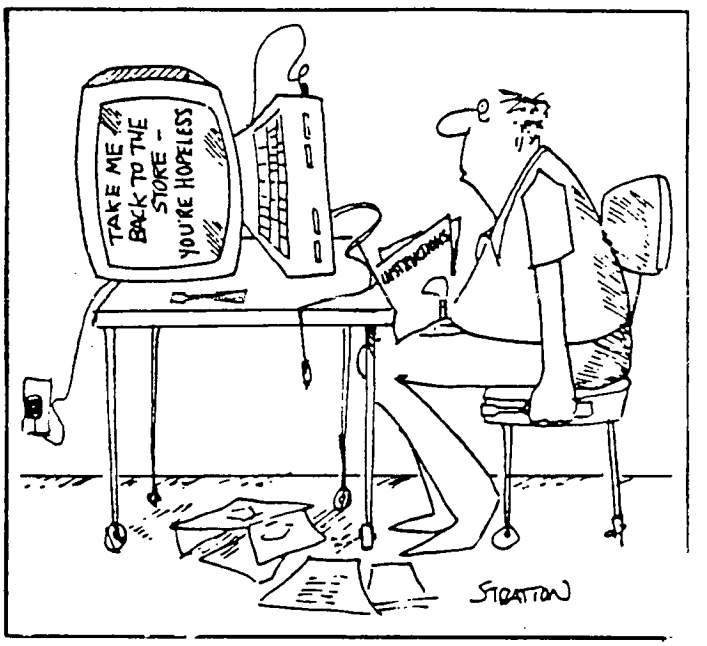
Next Group Meeting
February 14, 1987
Wauwatosa S&L 7500 W. State
12:00 Noon - 4:00 PM

Next S.I.G. Meeting
February 03, 1987
Security S&L 5555 Pt. Wash.
7:00PM - 10:00PM

Annual Membership Dues
Individual - $10
Family - $15

HOW TO HELP KILL ANY ORGANIZATION

1. Do not attend meetings; if you do arrive late.
2. Be sure to leave before the meeting is over.
3. Never offer your opinion at a meeting; wait until you get outside.
4. When at meetings, vote to do everything, then go home and do nothing.
5. Afterwards find fault with the officers and members.
6. Take no part in the organization's affairs.
7. Sit in the back and start up your own meeting with one or more members during discussion periods.
8. Get all the organization can give but give nothing.
9. Talk cooperation but never cooperate.
10. Never ask anyone to join the organization.
11. Threaten to quit at every opportunity; especially when things aren't going your way.
12. Always promise to help but be too busy when called.
13. Never accept an office: it's always better to criticize than to be criticized.
14. Never do more than you absolutely have to.
15. When others give freely and willingly of their time and talents to help, remind everyone:
'What's wrong with this group is that it's being run by a little clique!!'



HAPPY NEW YEAR TO ALL TI-PHILES

Well here it is, another year and the old TI orphan is still alive and kicking as hard as ever, if not harder. We've seen a lot of new and improved Freeware programs added to the growing list of topnotch software. I hope all satisfied users of these programs are sending in payments to keep these authors writing and producing even better versions. Remember when Funnelwriter Fasterm DM1000 etc. first hit the market? We thought they were great then, and it seems they keep coming out with newer, more advanced improved versions.

Quite a number of new hardware peripherals have also made an appearance and according to persistent rumors, much more is on the way. All in all the future still seems bright, so do stick around and enjoy the show!

Speaking of new software the library now has a public domain version of the famed Sargon chess program, a new freeware disk of machine language CALLs for extended basic named STAR, a bit map graphics demo from Germany amongst many other new goodies.

A new library policy is to go into effect this month. Copies of desired disks will be made available on the spot, no longer do you have to wait a month to get those coveted programs.

Election of officers will take place, nominees(draftees) for all positions are on the ballot but nominations are still open if anyone is interested.

According to a Chicago rumor, MG's supposed partner in their new IBM-TI compatible computer is none other then the Big Blue herself, IBM. Take it with a grain of salt.

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.....more gossip & tidbits

We have that VHS VCR of Craig Miller's demo-tutorial on the use of the Gram Kracker and the Explorer program. Any member wishing to borrow it can do so for a $3 deposit. The tape is almost two hours in length, and you are free to make your own copy of it for your own personal use.

Don't miss next month's meeting if you own or expect to own sometime in the future, you own printer. Ted Kieper, from our locally owned Competition Computers, will be giving a lecture demo on the use, care, cleaning, dissembling etc. of printers with several brands available.

We have the community room here reserved from noon til 4:00 on our meeting dates, but the meeting time is set at 1:00, so we have the first hour free for other use. This hour will be available for anyone with any type of problem or question, to get some help. This applies to ANYTHING from beginners trying to plug in their computer and getting started, through trying to load assembly programs, run TI-WRITER or interface a modem or printer, or debug a program of their own. So do come early and bring your problems and questions. We'll certainly try to solve them or find someone who can.

We would welcome more newsletter article writers. If you've ever used your TI computer and are interested in it, you most definitely have something to say about it, and quite a few of our other members would be interested in hearing it. We would be interested in hardware and software reviews, tutorials on Basic, Extended Basic, Forth, Assembly, c99 or whatever other language or program, hardcopy listings of any program routine or software trick you use. If it is of interest to you, then it'll be of interest to someone else too.

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Basic or Extended Basic?

...a nonfatal solution to determine language environment

```
100 REM Steve Chapman & Bill Wallbank
        Stone & Webster Engineering Corp.
110 RANDOMIZE (0)
120 V=INT(RND#100)
130 IF V<>21 THEN 160
140 V$="EXTENDED BASIC"
150 GOTO 170
160 V$="TI BASIC"
170 PRINT V,V$
```

Using a RANDOMIZE seed of 0,
BASIC returns 82, XBASIC returns 21

---------- TV NOISE SOLUTION ----------

When experiencing background noise, such as humming or buzzing, with the TI modulator and your TV, a very slight adjustment of the modulator will usually clear it up.

1.) Turn the volume of the television all the way down.
2.) Select the Master Title Screen on the computer.
3.) Fine tune the television for the best picture.
4.) Use a small screwdriver to carefully remove the cover from the modulator.
5.) Increase the television volume to 1/2 of the range.
6.) Insert the blade of the small screwdriver into the slotted core of the coil marked L3 on the printed circuit board. This core will crack if too much force is applied to it.
7.) While listening to the buzz on the television speaker slightly rotate the core no more than 1/8 turn in either direction until the buz is at a minimum.
8.) Replace the modulator cover.

>>> A NEW CALL LOAD <<<

Has your computer ever locked up while saving an Editor Assembler file? Try to avoid spikes by maybe using a spike suppressor, but if your computer does lock up, type in CALL LOAD(-31860,96,41) in TI BASIC to return to Ed/Assm without reinitializing the memory expansion. You can also use this to rerun a program that you loaded into Ed/Assm. [Note: this will only work with an Ed/Assm Cartridge located at GROM address >6000. This will not work with a moved Ed/Assm using a GRAM Kracker.]

Aaron W. West - Boston Computer Society

MODIFYING THE FUNLWRITER V3.3 LOAD AND UTIL1 FILE

Needless to say V3.3 of FUNLWRITER is fantastic and kudo's to the authors. The only problem I have found is in making the changes they recommend in the Patch files section of the DOC's. This brings us to the intent of this article, and that is to attempt to simplify their original instructions.

It is assumed you have a disk drive and the associated equipment to operate it. To begin you must have the following, a complete copy of FUNLWRITER V3.3, the two disks that accompany the editor assembler module (maybe you can borrow them). Use a Disk Manager program and Unprotect the following programs on the FUNLWRITER Disk, LOAD, UTIL1, DO NOT DELETE!! I used Extended Basic for everything from here on.

1. Select Extended Basic and load the Funlwriter load program using "OLD" or allow it to auto load and press fctn 4 repeatedly to "Break" the load program. Once this is done type in 120 and press fctn E, this will display line 120 for editing of color selections, from here refer to your Extended Basic manual page 199 to select colors of your choice. The numbers following the "Call Color" statement are grouped in three's, such as 10,16,6,11,4,13, etc,etc, with the 10 being identifier for the first color of (16, white letters), and (6, light blue background), the next number is 11 the identifier for the second color of (4 light green letters) and (13 dark green background), and so it goes for color identifiers 10 through 14. Simply change the two numbers following the color identifier numbers to the combinations of your own choice. When finished press enter. If your "colors" dont look right when you "RUN" the program start over, dont RUN it yet though.

NOTE: DO NOT USE THE SAME COLOR FOR LETTERS AND BACKGROUND! ALSO DO NOT RESEQUENCE! This will mess things up later.

IF YOUR USING A SERIAL RS232 PORT FOR YOUR PRINTER SKIP NUMBER 2.

2. PIO users only: Now type 130 and press fctn E this will display line 130 for Editing of the printer default for the Editor, which should be "PIO", where it now says "RS232 BA=9600", change to "PIO" now press fctn X, this will move you to line 140 where we will edit the printer default for the Formatter, here change RS232 BA=9600, to PIO.LF, and were finished editing the load program, simple right.

Press ENTER, type SAVE DSK1.LOAD and press ENTER, then type RUN and press ENTER. So far so good.

The purpose of the following instruction is to make the UTIL1 defaults match the new LOAD program defaults.

3. With FUNLWRITER loaded select menu item 2 E/A, and then select menu item 4 Utility, then select menu item 4 Load and Run, at the DSK1. prompt enter UPATCH press ENTER then insert E/A Disk 2 and at the second DSK1. prompt enter SAVE press ENTER, press ENTER again at the next prompt. Replace the Funlwriter disk in drive 1. We are now at the DEF table screen, use fctn D to move the cursor to SAVE and press fctn 6. A filename is now requested at the lower left of the screen at the filename prompt enter DSK1.UTIL1 and press ENTER. WE'RE DONE !! MADHUG

RICK ALSTON

SCREEN SQUASHER

by Steven Karasek

Did you ever wish you could have more than 28 characters on a line in BASIC? There are actually 32 columns that are accessible if you use CALL HCHAR instead of PRINT, but the extra 4 columns are often off the edge of the screen if you use an old TV. To print a string Y$ across the 32 columns at the top of the screen, do the following:

```
FOR I=1 TO LEN(Y$)::CALL HCHAR(1,I,ASC(SEG$(Y$,I,1)))::NEXT I
```

If you want to print a number, you have to convert it to a string with the STR$ function first, then use the same procedure.

We've gotten from 28 characters to 32, if your screen can accomodate it. There is also a 40-column mode on the TI (used in programs like TI-WRITER), but to get to this you have to have memory expansion, and you have to write an assembly language program. I won't get into that here.

How about more than 40 columns? The following Extended Basic subroutines will allow you to print up to 56 characters across one line using PRINT, or 64 characters using CALL HCHAR. This is done by redefining the characters using a 3 by 7 grid instead of a 5 by 7 grid, and stuffing 2 of these skinny characters into each 8 by 8 character location, with room left for a little space between characters. Believe it or not, the result is readable.

The subroutine INITPACK gets the character pattern for all of the printable characters (ASCII codes 33 through 126). This is an 8 by 8 dot pattern, but the top row is always blank, as are the first, seventh, and eighth columns, so it is really 5 by 7. It then strips away the second and fourth of the five columns, so the remaining pattern is 3 by 7.

Actually, the stripping is a little more complicated than that. In each row, if the middle of the five dots is not present, then a dot in either the first or second column will cause a dot to be placed in the first column of the new skinny character, and similarly for the fourth and fifth columns of the old and the third column of the new character. This scheme works well for most of the characters. For those characters which come out looking funny or were duplicates of other patterns, I figured out a better pattern, and put each character followed by its pattern in the DATA statements in INITPACK, which will use these patterns rather than generate new ones. You can add other patterns to this list, but remember that the characters must be in ASCII order.

INITPACK takes almost five minutes to run, so the new character patterns are written to the disk file "CHARPAT". The other routine reads this file the first time it is called by your program. Therefore, INITPACK only needs to be called once to create the file.

The subroutine PACK is called with two arguments. The first argument is the string to be packed, and the second is the packed string that the subroutine returns. Since a new character definition has to be created for each two characters in the string, and only ASCII codes 33 through 143 can be used for defining characters, the sum of the string lengths that you can pack is 222. ASCII code 32, the blank character, is left alone. Of course, these strings can be printed to the screen as often as you wish. If you try to pack more than 222 characters, the routine will start over again at 33, so the first characters will be overwritten.

The example program starting at line 100 will read a DIS/VAR 80 file and display it in packed form. The statement PRINT Y$ can be replaced with the CALL HCHAR loop given earlier. This program also shows how SLOOOW the procedure is (at least the file won't go by too fast for you to read it). The first time it is run, you should include the line "10 CALL INITPACK".

```
100 INPUT "FILE TO DISPLAY:
DSK1.":X$
110 OPEN #1:"DSK1."&X$,INPUT
 ,DISPLAY
120 CALL CLEAR
130 LINPUT #1:X$ :: CALL PAC
K(X$,Y$)
140 PRINT Y$
150 IF EOF(1)=0 THEN 130
160 END
30000 SUB INITPACK
30010 DATA 1,2622227,4,13557
11,<,0124210,>,0421240,B,655
6556,I,7222227,M,5775555
30020 DATA N,1577754,b,00656
56,i,0072227
30030 DATA k,0055655,m,00577
55,n,0015754,v,0055522,(,122
4221,),4221224,,
30040 READ CHAR$,PAT$
30050 OPEN #9:"DSK1.CHARPAT"
,OUTPUT,DISPLAY
30060 HEX$="0123456789ABCDEF
" :: DEF HTOD(X$)=POS(HEX$,X
$,1)-1 ! HEX TO DECIMAL
30070 FOR I=32 TO 126 :: T$=
CHR$(I):: PRINT T$;
30080 IF T$=CHAR$ THEN Y$=PA
T$ :: READ CHAR$,PAT$ :: GOT
O 30150
30090 CALL CHARPAT(I,X$):: Y
$=""
30100 FOR J=3 TO 16 STEP 2 :
: D=HTOD(SEG$(X$,J,1))*16+HT
OD(SEG$(X$,J+1,1))
30110 MID=(D AND 16)=0 :: K=
1 :: IF D AND 64 OR D AND 32
 AND MID THEN K=K+4
30120 IF D AND 16 THEN K=K+2
30130 IF D AND 4 OR D AND 8
AND MID THEN K=K+1
30140 Y$=Y$&SEG$(HEX$,K,1)::
 NEXT J
30150 IF I=34 THEN PRINT #9:
"QUOTE";ELSE IF I=44 THEN PR
INT #9:"COMMA";ELSE PRINT #9
:T$;
30160 PRINT #9:",";Y$ :: NEX
T I :: CLOSE #9 :: PRINT ::
SUBEND
30170 SUB PACK(X$,Z$)
30180 DIM CR$(126)
30190 IF NOTFIRST THEN 30230
30200 NOTFIRST=1 :: C=33 ::
OPEN #9:"DSK1.CHARPAT",INPUT
 ,DISPLAY
30210 FOR I=32 TO 126 :: INP
UT #9:Y$,CR$(I):: NEXT I ::
CLOSE #9
30220 FOR I=1 TO 31 :: CR$(I
)=CR$(32):: NEXT I
30230 Z$="" :: L=LEN(X$):: I
F INT(L/2)*2<L THEN X$=X$&"
" ! MAKE LENGTH EVEN
30240 FOR I=1 TO L STEP 2
30250 C$=CR$(ASC(SEG$(X$,I,1
))):: D$=CR$(ASC(SEG$(X$,I+1
,1))):: Y$="00"
30260 FOR J=1 TO 7 :: Y$=Y$&
SEG$(C$,J,1)&SEG$(D$,J,1)::
NEXT J
30270 CALL CHAR(C,Y$):: Z$=Z
$&CHR$(C):: C=C+1 :: IF C=14
4 THEN C=33
30280 NEXT I :: SUBEND
```

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TED, JIM, BILL & CHRIS

PRINTER COMMANDS

(energizes or turns on)

	10X	SG-10	MX-80	FX-80	KX-P1091	OKIDATA
ITALICS	27 52	27 52	##########	27 52	27 52	##########
ELITE	27 66 2	27 66 2	##########	27 77	27 77	28
CONDENSED	27 15	27 15	27 15	27 15	27 15	29
PICA	27 66 1	27 66 1	##########	##########	27 80	30
EXPANDED	27 87 1	27 87 1	27 14	27 87 1	27 87 1	31
SUPERSCRIPT	27 83 0	27 83 0	##########	27 83 0	27 83 0	27 74
SUBSCRIPT	27 83 1	27 83 1	##########	27 83 1	27 83 1	27 76
NEAR LETTER	##########	27 66 4	##########	27 120 1	27 110	27 49
EMPHASIZED	27 69	27 69	##########	27 69	27 69	27 84
UNDERLINE	27 45 1	27 45 1	##########	27 45 1	27 45 1	27 67
DOUBLE STRIKE	27 71	27 71	27 71	27 71	27 71	27 72
SLASHED ZERO	##########	27 92 1	##########	##########	##########	##########
1/8 LINE SP.	27 48	27 48	27 48	27 48	27 48	27 56
1/6 LINE SP.	27 50	27 50	27 50	27 50	27 50	27 54
7/72 LINE SP.	27 49	27 49	27 49	27 49	27 49	##########
n/72 LINE SP.	27 65 n	27 65 n	27 65 n	27 65 n	##########	##########
n/144 LINE SP.	27 51 n	27 51 n	##########	##########	##########	27 37 57 n
n/216 LINE SP.	##########	##########	##########	27 51 n	##########	##########
TOP MARGIN	27 82 n	27 82 n	##########	##########	##########	##########
BOTTOM MARGIN	27 78 n	27 78 n	27 78 n	27 78 n	##########	##########
LEFT MARGIN	27 77 n	27 77 n	##########	27 108 n	##########	##########
RIGHT MARGIN	27 81 n	27 81 n	##########	27 81 n	##########	##########
COLUMN WIDTH	##########	##########	27 81 n	##########	##########	##########
PAGE LTH. LINES	27 67 n	27 67 n	27 67 n	27 67 n	##########	##########
PAGE LTH. INCHES	27 67 0 n	27 67 0 n	##########	27 67 0 n	##########	##########
PAPER OUT "OFF"	27 56	27 56	27 56	27 56	27 56	##########
PROPORTIONAL	##########	27 112	##########	27 112	27 111	##########
RESET PRINTER	27 64	27 64	##########	27 64	##########	24

THE ABOVE ARTICLE COULD NOT HAVE COME AT A BETTER TIME. I HAVE RECEIVED MANY QUERIES ON HOW TO CONTROL A PARTICULAR PRINTER, WELL WHAT DO I KNOW ABOUT EVERY PRINTER UNDER THE SUN, SO WHEN THIS ARTICLE ARRIVED IN THE " **BRAZOS VALLEY 99'ERS** ", I WAS ELATED ! SO YOU HAVE ALONG WITH RICH SPRECHER'S ARTICLE QUITE A BIT OF NEW PRINTER INFO TO CHEW ON.

TIPS FROM THE TIGERCUB

#41

TIGERCUB SOFTWARE
156 Collingwood Ave.
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```

This will be the last issue of the Tips from the Tigercub.

I started this newsletter over 3 years ago, as a means of promoting my software business. It has never been a success for that purpose, but I have kept it going because of the many interesting newsletters that I have received in exchange, and the many friends that I have made around the world.

I know, from the editors' comments in many of your newsletters, that many of you are finding it difficult to finance a newsletter for your shrinking membership, and even more difficult to find the time, and the material to print. For a one-man user's group pretending to be a business which is getting very little business, it has become impossible. User group members have never been good customers for anyone's software, for reasons which you all know, and those who are remaining active in the TI world are wanting more sophisticated software than I have to offer.

Some of you have offered to subscribe to my Tips, but I just don't have the time to get involved in anything like that. I have had some other projects on the back burner for too long, and it's time I got to work on them - they can hardly turn out to be less profitable than trying to sell software!

I am NOT going out of business, and I am NOT releasing my programs to the public domain. I will continue to sell them, and will continue some classified advertising.

My heartfelt thanks to the many user group editors and officers who have tried in many ways to encourage and help me. Many thanks to those who have purchased my programs.

I will greatly miss your newsletters. I do hope to keep in contact with some of you. Perhaps now I can find time to browse in the TI sections of CompuServe or GENIE, and perhaps I will meet you there.

The answer to the challenge in the last Tips? For a clue, try -
DISPLAY AT(24,1):0 in Basic.

Still don't get it? In Basic, DISPLAY is the same as PRINT, but AT is not recognized, so the computer thinks you are telling it to print the variable AT(1,1) - which, being undefined, is 0 - and advance to the next line (the :) and print 0.

I have always wanted a pocket calculator with several memories and a window to display the contents of each one. So, since there is plenty of room for windows on a TV screen, I wrote one.

It does not require any use of the Enter key, but each CALL KEY input must be validated and processed, so don't type too fast. It will accept such inputs as M1=7= or M1=7+1= or M2=1-M1= to put a value in a memory, or 6+7= or 6+M2= to calculate and display, or 6+7M1 or M1-.M2M3 to calculate and put into memory, and will even do multiple calculations such as 1+2-3/4*5%6, subtotaling after the first two.

```
100 CALL CLEAR :: CALL SCREEN(5):: DEF S$(X)=SEG$(A$,X,1)&" = " :: CALL PEEK(8198,A) :: IF A<>170 THEN CALL INIT
110 CALL LOAD(-31806,16):: ON WARNING NEXT :: GOTO 140
120 SET,M$(),K,S,A$,S$(),R,C,N,N1,N2,N1F,N2F,M1F,M,MF,DF,FF,VF,EF,FL,N$,F2,T,M2,MEM(),ST,NX,ZF
130 CALL COLOR :: CALL CHAR :: CALL KEY :: CALL SOUND !@P-
140 FOR SET=0 TO 4 :: CALL C
```

```
OLOR(SET,16,1):: NEXT SET ::
 FOR SET=5 TO 8 :: CALL COLO
R(SET,5,16):: NEXT SET :: CA
LL CHAR(64,"0")
150 FOR SET=9 TO 12 :: CALL
COLOR(SET,16,1):: NEXT SET
160 DISPLAY AT(1,10):"TIGERC
UB":"   MULTIMEMORY@CALCULAT
OR": :"MEMORY #1": :"MEMORY
#2": :"MEMORY #3": :"MEMORY
#4": :"MEMORY #5"
170 M$(1)="0123456789.+-*/%=
CXM" :: M$(2)="0123456789.AS
MDPECXM" :: DISPLAY AT(20,1)
:"use ?":"(1) symbols":"(2)
alpha characters"
180 CALL KEY(0,K,S):: IF S=0
 OR K<49 OR K>50 THEN 180 ::
 A$=M$(K-48)
190 DISPLAY AT(20,1):S$(12);
"add";TAB(16);S$(16);"percen
t" :: DISPLAY AT(21,1):S$(13
);"subtract";TAB(16);S$(17);
"equals"
200 DISPLAY AT(22,1):S$(14);
"multiply";TAB(16);S$(18);"c
ancel" :: DISPLAY AT(23,1):S
$(15);"divide by";TAB(16);S$
(19);"clear all"
210 DISPLAY AT(24,1):"M1 to
M5 = memories #1 to #5"
220 R=15 :: C=1 :: N,N1,N2,N
1F,N2F,M1F,M,MF,DF,FF,VF,EF,
FL,ZF=0 :: N$="" :: DISPLAY
AT(18,1):""
230 CALL KEY(3,K,S):: IF S<1
 THEN 230 :: CALL SOUND(50,5
00,5):: DISPLAY AT(R,C):CHR$
(K):: C=C+1
240 ON POS(A$,CHR$(K),1)+1 G
OTO 260,270,270,270,270,270,
270,270,270,270,270,280,290,
250,290,290,290,340,410,420,
430
250 IF VF=1 OR MF=1 THEN 290
 :: ZF=1 :: N$="-" :: GOTO 2
30
260 DISPLAY AT(R,C-1):"?" ::
 C=C-1 :: GOTO 230
270 IF MF=1 THEN 260 :: FL=0
 :: VF=1 :: IF DF=0 AND ZF=0
 THEN N=N*10+K-48 :: GOTO 23
0 ELSE N$=N$&CHR$(K):: GOTO
230
280 IF DF=1 THEN 260 :: DF=1
 :: MF,FL=0 :: IF ZF=1 THEN
N$=N$&"." :: GOTO 230 ELSE N
$=STR$(N)&"." :: GOTO 230
290 IF C=2 OR FL=1 THEN 260
:: FL=1 :: IF FF=0 THEN 320
300 F2=POS(A$,CHR$(K),1)-11
:: IF VF=1 THEN GOSUB 480
310 GOSUB 520 :: N1=T :: DIS
PLAY AT(18,1):"SUBTOTAL";T :
: N2F,N2=0 :: FF=F2 :: GOTO
230
320 IF VF=0 THEN 330 :: VF,M
F=0 :: GOSUB 480
330 MF=0 :: FF=POS(A$,CHR$(K
),1)-11 :: GOTO 230
340 IF C=2 OR(FF=0 AND M1F=0
)OR(C=4 AND M1F=0)OR FL=1 TH
EN 260
350 IF C=4 THEN EF=1 :: M2=M
 :: N1F,MF=0 :: GOTO 230
360 IF VF=1 THEN GOSUB 480
370 IF EF=0 THEN 400
380 IF N2F=0 THEN MEM(M2)=N1
 :: DISPLAY AT(M2*2+2,11):N1
 :: GOTO 220
390 GOSUB 520 :: MEM(M2)=T :
: DISPLAY AT(M2*2+2,11):T ::
 GOTO 220
400 GOSUB 520 :: DISPLAY AT(
15,C):T :: GOTO 220
410 DISPLAY AT(R,1):"":"":""
:"" :: GOTO 220
420 MEM(1),MEM(2),MEM(3),MEM
(4),MEM(5)=0 :: FOR R=4 TO 1
2 STEP 2 :: DISPLAY AT(R,18)
:"" :: NEXT R :: GOTO 410
430 IF EF=1 AND MF=1 THEN 26
0
440 CALL KEY(3,K,ST):: IF ST
<1 OR K<49 OR K>53 THEN 430
ELSE CALL SOUND(50,500,5)::
M=K-48 :: DISPLAY AT(R,C):CH
R$(K);:: C=C+1 :: MF=1 :: FL
=0 :: IF VF=1 THEN GOSUB 480
450 IF N1F=0 THEN M1F,N1F=1
:: N1=MEM(M):: IF ZF=1 OR DF
=1 THEN N1=VAL(N$&STR$(N1)):
: DF,ZF=0 :: GOTO 230 ELSE 2
30
460 IF N2F=0 THEN N2F=1 :: N
2=MEM(M):: IF ZF=1 OR DF=1 T
HEN N2=VAL(N$&STR$(N2)):: DF
,ZF=0 :: GOTO 230 ELSE 230
470 GOSUB 520 :: MEM(M)=T ::
 DISPLAY AT(M*2+2,11):T :: G
OTO 220
480 IF DF=0 AND ZF=0 THEN NX
=N ELSE NX=VAL(N$):: DF,ZF=0
490 IF N1F=0 THEN N1=NX :: N
1F=1 :: GOTO 510
500 N2=NX :: N2F=1
510 VF,N=0 :: N$="" :: RETUR
N
520 IF FF=1 THEN T=N1+N2 ELS
E IF FF=2 THEN T=N1-N2 ELSE
IF FF=3 THEN T=N1*N2 ELSE IF
 FF=4 THEN T=N1/N2 ELSE T=N1
*N2/100
530 RETURN
```

I have always been annoyed by the difficulty of hyphenating with TI-Writer, when I want to avoid the gaping holes that wraparound and Fill and Adjust can cause. Manually filling and adjusting with carets is slow, and leaving a space after the hyphen is unreliable, so I wrote this program.

```
100 DISPLAY AT(2,10)ERASE AL
L:"TIGERCUB":" HYPHENATED F
ILL AND ADJUST"
110 DISPLAY AT(6,1):" Prepar
e text with TI-Writer":"Edit
or. Leave left TAB at 0,":"s
et right TAB  at the actual"
:"value of the line length d
e-"
120 DISPLAY AT(10,1):"sired
(i.e.,  for  a 28-char":"lin
e, set it at 28)."
130 DISPLAY AT(12,1):" Inden
t  as  desired. Center":"hea
dings  as desired but be":"
sure  to  follow them with a
":"line feed (Enter). Hyphen
ate"
140 DISPLAY AT(16,1):"as  de
sired  and  follow the":"hyp
hen  immediately  with  a":"
line feed (Enter)."
150 ON ERROR 160 :: GOTO 170
160 ON ERROR 160 :: RETURN 1
70
170 DISPLAY AT(20,1):"INPUT
 FILE? DSK" :: ACCEPT AT(20,1
6)BEEP:F$ :: OPEN #1:"DSK"&F
$,INPUT
180 DISPLAY AT(22,1):"OUTPUT
 FILE? DSK" :: ACCEPT AT(22,
17)BEEP:NF$ :: OPEN #2:"DSK"
&NF$,OUTPUT
190 DISPLAY AT(24,1):"LINE L
ENGTH?" :: ACCEPT AT(24,14)V
ALIDATE(DIGIT):L
200 LF$=CHR$(13):: H$="-"&CH
R$(13)
210 ON ERROR 210 :: GOTO 220
220 ON ERROR 210 :: RETURN 3
10
230 LINPUT #1:M$ :: IF M$="
" OR M$=LF$ OR M$="" OR ASC(
M$)>127 OR(LEN(M$)=L AND POS
(M$,LF$,1)=0)OR POS(M$," ",1
)=0 THEN 310
240 IF POS(M$,LF$,1)<>0 AND
POS(M$,H$,1)=0 THEN 310
250 IF POS(M$,H$,1)<>0 THEN
M$=SEG$(M$,1,LEN(M$)-1)
260 IF LEN(M$)=L THEN 310
270 P=1
280 X=POS(M$," ",P):: IF X=P
 THEN P=P+1 :: GOTO 280 ELSE
 Y,P=X :: IF POS(M$," ",P)=0
 OR P=L THEN 310
290 M$=SEG$(M$,1,X)&" "&SEG$
(M$,X+1,255):: IF LEN(M$)>=L
 THEN 310 ELSE P=X+2
300 X=POS(M$," ",P):: IF X=0
 THEN P=Y :: GOTO 300 ELSE G
OTO 290
310 PRINT #2:M$ :: IF EOF(1)
<>1 THEN 230 ELSE CLOSE #1 :
: CLOSE #2
```

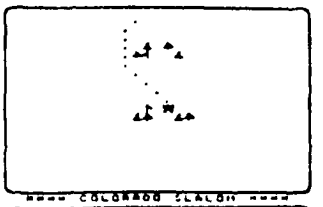
Here is one for the preschoolers -

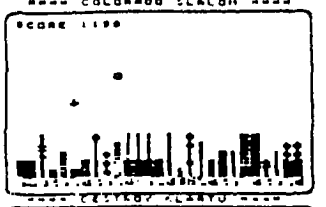
```
100 CALL CLEAR :: CALL SCREE
N(14):: CALL COLOR(1,11,11,1
2,5,5):: DISPLAY AT(3,10):"S
EE-N-SAY": : :"PRESS ANY KEY
" !by Jim Peterson based on
a routine by Michael Lyons
110 DIM E$(16),PAT$(16):: CA
LL CHAR(123,RPT$("F",16))
120 DATA "    ","   {","  {
","  {{","  {  ","  {  {","  {{
","  {{{","{   ","{   {","{  {
","{  {{","{{   ","{{  {","{{{
","{{{{"
130 FOR J=0 TO 15 :: READ PA
T$(J):: NEXT J
140 CALL KEY(0,K,S):: IF S=0
 THEN 140
150 CALL CHARPAT(K,CP$):: FO
R X=1 TO 16 :: Y=ASC(SEG$(CP
$,X,1)):: E$(X)=PAT$(Y+(Y>57
)*7-48):: NEXT X :: IF K>96
AND K<123 THEN K=K-32
160 CALL CLEAR :: CALL SAY(C
HR$(K)):: FOR X=2 TO 16 STEP
 2 :: DISPLAY AT(8+(X/2),12)
:E$(X-1);E$(X):: NEXT X
170 CALL SAY(CHR$(K)):: GOTO
 140
```

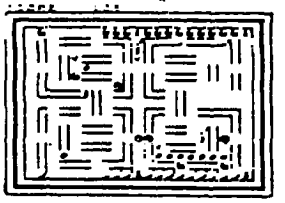
And so, one more time

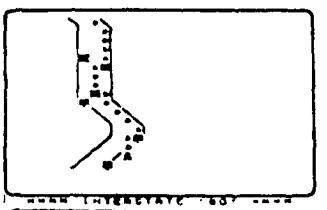
MEMORY FULL

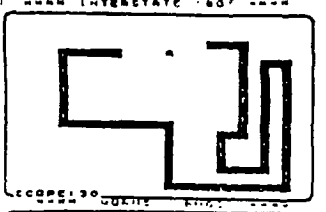
Jim Peterson

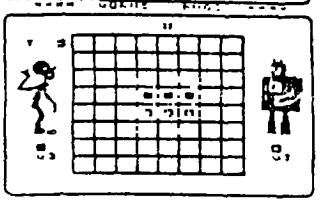


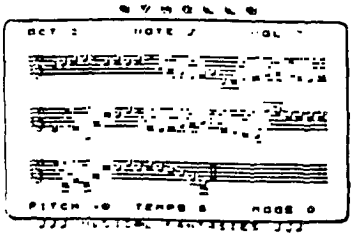












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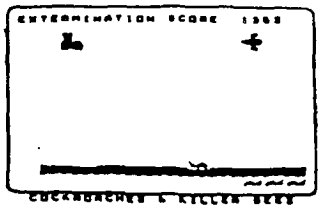

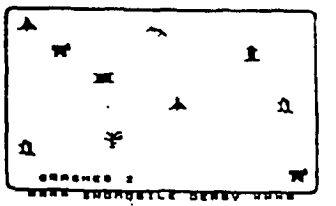

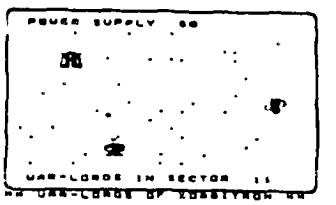

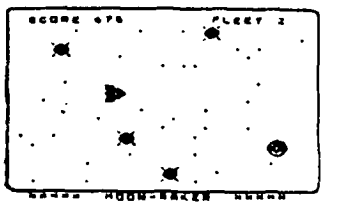

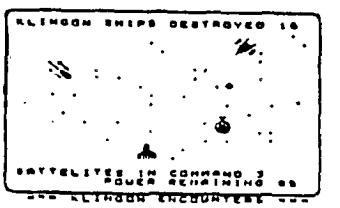

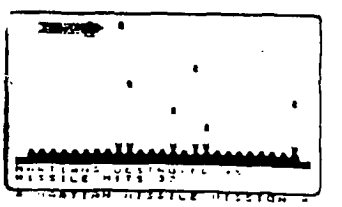

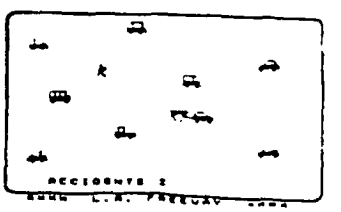

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