

The February meeting of the West Penn 99'ers was started by editor in chief, John Willforth promptly at 7:03 sitting in for President Scott Coleman. After some opening remarks on label sheets, upgrading a Horizon Ram Disk to 1 Meg., comments on Birdwell's Disk Utilities Version 4.0, and C-MOS Chips (Jameco Electronics), the normal order of business, namely approval of the minutes, ensued.

The treasurers report was a healthy one in that dues for most of the current members have been paid, however, if you haven't, do it. We have indeed purchased a used club monitor for \$100 and have diskettes on order. Old business, which Willforth is good at, proceeded smoothly. First on the list was a discussion of PEB systems for which RS232/PIO cards are scarce. It is possible however to use an Axiom Printer Interface to do limited RS232 type functions (See John on this one). John also presented some of the results of a survey conducted by an Ohio Users group on the type of people (smart), age of people (old and young), and kind of people (humans), who use TIs. Interesting Results.

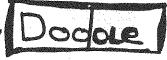
Eric Zeno is doing a fantastic job with the library. Delegation of authority seems to be working. I will attempt to give credits next month to all those involved in making the library a sucess. We now have a cassette library, diskette library, literature library, newsletter library, and module library.

Under new business John announced that old copies of BYTE magazine were available for members to take with them. Interest peaked when John announced that they were free. The membership passed a motion that the executive committee should study and recommend an action regarding insurance.

The raffle (alpha-com interface with printer) was won by Charlie W., who declined and chose a rare copy of Family Computing Magazine. The second prize winner, Rob Ekl, happily accepted the printer and interface with the third prize going to Walter Kazosky, an Extended Basic manual.

Classes in Basics-E. Kepes, Adventure-M Schmidt, C-James Conn (what an actor) and Potpourri-Hardware-Ram Disks(and anyone else who will talk to him)-John Willforth, were conducted immediately following the main meeting. Adjournment at 8:17.

Earlier than usually submitted, Scoops Bittner



PS: The cookies and cakes were exceptionally good. Also the Pepsi/Coke feud is hotter than ever.

SS. Editor Note! This is the

West Penn 99ér

TREASURER'S	REPORT	FOR	FEBRUARY	788
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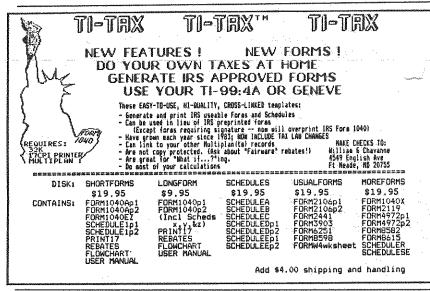
BALANCE

FOR THOSE OF YOU WHO HAVE NOT PAID YOUR DUES YET WHAT'S KEEPING YOU? THIS MARCH ISSUE WILL BE THE LAST ISSUE YOU WILL RECEIVE. JUST A REMINDER. OUR CLUB HAS GROWN AGAIN IN 1987, AND WILL DO SO AGAI' IN 1988, WITH YOU OR WITHOUT YOU. WE WOULD LIKE IT TO BE WITH YOU. WE HAVE FINALLY GOTTEN ALL ASPECTS OF OUR CLUB FUNCTIONING, AND CAN OFFER EVERYONE THE THINGS THAT WE SET OUT TO DO AT OUR FORMATION TWO YEARS AGO. IF YOUR LABEL DOESNT HAVE AN "88" ON IT THEN IT MEANS EITHER I SLIPPED UP (CONTACT ME OR JAN TRAYERS), OR YOU SLIPPED UP, AND I HOPE THAT YOU STILL CONTACT JAN OR MYSELF.

\* FULL FAMILY MEMBERSHIP IS \$15.00 PER YEAR. \* ASSOCIATE MEMBERSHIP IS \$10.00 PER YEAR.

THE ASSOCIATE MEMBERSHIP IS FOR THE NEWSLETTER ONLY. THE FULL FAMILY CARRIES ALL BENIFITS.

CONTACT ANY OF THE OFFICERS LISTED BELOW: (412) 271-6283 SCOTT COLEMAN PRESIDENT (412) 335-0163 V. PRESIDENT MICKEY SCHMITT (412) 863-1575 JAN TRAYERS (412) 829-0469 CORESP. SEC. GENE KELLY (412) 864-4924 ED BITTNER SECRETARY MAKE ALL CHECKS OUT TO WEST PENN 99'ERS JAN TRAYERS 2151 MICKANIN RD. N. HUNTINGDON PA 15642



NEW BI-MONTHLY NEWSLETTER DEDICATED TO THE TI-99/4A. AVAILABLE ON DISK FOR \$12.00 PER YEAR. HARD COPY IS AVAILABLE ALSO. CONTACT TID BITS Rt. 2 BOX 412 SUMERDUCK, VA 22742 SAMPLE \$1.00.

LINEAR AESTHETIC SYSTEMS POB 23 WEST CORNWALL, CT 06796 (203) 672-6360 has "THE CUBE" AND "QUADCUBE" FOR THE TI-99/4 AND THE 4A USING ONLY A CASSETE SYSTEM. THIS IS CURRENT INFO. AS OF FEB. 1988. SIMULATION OF ERNO RUBIK'S PUZZLE PLUS SPECIAL COMMANDS. \$14.95 EACH P/P.

ANNUAL COMPUTER AUCTION SPONSORED BY THE PENN-OHIO TI 99/4A USERS GROUP ON MARCH 14, 1988 AT 7:00 PM AT THE AMERICAN RED CROSS 266 WEST WOOD STREET YOUNGSTOWN, OHIO. YOU ARE TO COME TO BUY OR SALE. 10% AUCTION FEE. FOR MORE INFO CALL CHRIS PRATT (412) 964-8167

T.I.C.O.F.F.'88 THE EAST COAST COMPUTER SHOW ...SATURDAY, MARCH 26,1988..9:00 TO 4:00.

ADMISSION \$5.00. (PROCEEDS TO STUDENT SCHOLARSHIPS). PRE-PAID ADMISSIONS GRT FREE IBM/TI SOFTWARE ON DISK. SEND CHECK & SASE TO: TICOFF 185 W. WEBSTER AVE., ROSELLE, NJ 07204

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- 7 -

## MAKE YOUR OWN DATA DISK FOR CERTIFICATE99 MATT ANDEL - TI-CHIPS - CLEVELAND, OHIO

YOU NEED CERTIFICATE 99 AND TI-ARTIST TO DO THIS.

1) Copy the back side of Certificate99.

2) Use a disk manager program (DM1000) and rename the file name CDATA21 to CDATA21\_P and CDATA22 to CDATA22\_P.

Then Load TI-Artist and choose 1) TI-Artist from the main menu. Then press S for store. Then press L to Load Picture. Now the filename is CDATA21.

4) Now you should see 12 little graphics. Now you will have to draw 3 lines going down between the pictures and 2 lines going across between the pictures.

Now you can erase the LITTLE GRAPHICS BUT NOT THE LINES YOU DREW.

- 6) Then press FCTN Quit to return to the main menu. Then press 2) ENHANCEMENT. Then press S for slides. Press 6) to Load Instance. Now you can Load your own instances and put them in the boxes you drew before.
- 7) WHEN YOU HAVE PUT YOUR 12 INSTANCES IN THE BOXES, PRESS FCTN QUIT TO RETURN TO THE MAIN MENU. THEN PRESS 1) TI-ARTIST. WHEN TI-ARTIST COMES UP, GET THE ERASER AND ERASE THE LINES YOU DREW BEFORE.

8) Now you can press S for store and S for save. The filename you will save it as is CDATA21, and you are finished with that file.

 Now you will repeat steps 3-8, but the filename is CDATA22 and not CDATA21.

10) When you are done with CDATA22, you can exit TI-Artist and go back to your disk manager program and rename the file CDATA21\_P to CDATA21 and the file CDATA22\_P to CDATA22.

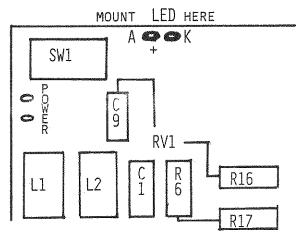
11) Now you can load Certificate 99 and when it tells you to flip the disk around, put in the disk you just made. Your border and font choices will be the same, but the graphics will be the ones you just made.

12) AND THAT'S ALL THERE IS TO IT!

B. J. Mathis writing in the Southwest Ninety-Niners (March 1988) issue, reports that many power supplies available from Radio Shack for the TI console, had a problem with unsteady +12 volts, jumping from 9.5 v. to 11.5 v. thus causing the console to lock-up as well as other annoying problems. The supplies affected had a part number on the board (above the serial number) of 1053214-2, the good ones had a part number of 1053201.

MR. Mathis goes on to say that ED Hallett, also of the SW 99'ers, discovered that by adding a 300 ohm resistor (R6 in diagram) and LED to the "BAD" power supplies, caused the +12 vdc to become steady. Those of you who bought some of the supplies affected, will now be able to use them.

THE RADIO SHACK PART NUMBER FOR THESE SUPPLIES IS 277-1016. THE DIODE CAN BE REMOVED FROM THE DEFECTIVE SUPPLU THAT YOU ARE REPLACING, AND PLACED INTO THE HOLES IN THE NEW SUPPLY EXACTLY AS IT CAME FROM THE OLD SUPPLY. THIS IS TO SAY KEEP THE LED POLARITY THE SAME. IF YOU DON'T HAVE ONE IN YOUR OLD SUPPLY, NEARLY ANY RED LED WILL DO, AS LONG AS IT IS INSERTED CORRECTLY. THE FLAT SIDE OF THE LED OR THE SHORT LEG GOES TO THE HOLE MARKED "K", AND BE SURE TO PUT A SHIELD ON AT LEAST ONE LEG OF THE LED TO INSULATE THE LEGS FROM EACH OTHER.



## PASCAL/p-CODE PART 4 STAN KATZMAN

What we have discussed in the three previous articles are the Filer and one or two

UTILITY PROGRAMS. LET US NOW GO INTO THE EDITOR.

Put the disk we made containing the Compiler, Editor, Filer etc. into drive #4 (let us call this the system disk). Put an empty formatted disk into drive #5. Turn on the P-BOX, then the console and then modify the printer for "PIO". Now call the Editor by entering "E". There will be a prompt that says "No workfile, File(<ret> for none)?". This prompt is asking for the name of an old file that you want to work on or if you want to create a new file press enter. Let us press enter. You will now see across the top of the screen a promptline that ends in a question mark. The question mark means that all of the selections cannot be shown and in order to see the rest of the choices, press Function I or the question mark (?) key. (This is true whenever the (?) shows in a promptline.) The choices that are available to use in the Editor are A(DJST, C(OPY, D(LET, F(IND, I(NSRT, J(MP, K(OL, M(ARGIN, P(AGE, Q(UIT, R(PLC, S(ET, X(CH, AND Z(AP. I do not use all of the above so I am only going to discuss those that I have used to create and edit programs.

In order to enter text in the Editor, press "I" (for Insert) and then start typing. When you get to the end of an 80 column line the cursor will stop and will not advance to the next line. In order to get to the next line you have to press the enter key. You do not have to be at the end of the line in order to press enter you can do it when ever you wish.

When you finish typing either all of your document or just a section of the document you want to save it. To do this first press Control C, (press the Control key and then press the C key.) This puts an invisible End of File marker in the document. This is necessary because the EOF tells the program to accept this text or any changes. After Control C, press "Q" (quit) and you will now see this menu;

U(PDATE THE WORKFILE AND LEAVE.

E(XIT WITHOUT UPDATING.

R(ETURN TO THE EDITOR, NO UPDATING.

W(RITE TO A FILENAME AND RETURN.

"E" AND "R" ARE MORE OR LESS SELF EXPLANATORY.

"U" WRITES TO A FILE ON THE #4 DRIVE AND TITLES IT.

"System.Wrk.Text". If you use this option while developing your programs you will not have to do anything when you enter the Editor. The file "System.wrk.text" will be loaded automatically so you can work on it. I personally do not use this option, but it has

SOME ADVANTAGES WITH SMALL PROGRAMS. I USE THE "W" OPTION.

If "W" is pressed you will see "Output file (<cr>
 to return)" at this point enter "#5 :Filename" and the text is stored on the #5 disk under the file name with a suffix of .TEXT added to it. For example if you called your file "Buffer" the Editor would store it as "Buffer.Text". After the file is saved you will see "E(xit or R(eturn to editor?". If you press "E" you will go to the main command line. If you press "R" you will be back in the editor and you can position the cursor using the cursor keys and then press "I" and continue typing in your document.

If there was a document on the disk that we wanted to modify when we entered the Editor, we would enter it's file name where it said "No workfile, File(<ret> for none)?", the file would then be loaded. We do not have to add the suffix .TEXT because the Editor will do that. When it comes time to save the document press "W", the file name is displayed and a statement saying that if we enter "\$" the file will be saved under the same file name, without having to type the entire file name. This assumes that we were not using System.wrk.text.

In order to get a printed copy of our document we leave the editor and go to the Filer. After entering the Filer press "T" (transfer), and after the prompt enter "#4:Filename.Text,#6:" and your file will be printed. In this situation you <u>must</u> add the suffix .TEXT or you will get an error message.

WELL THIS WAS ANOTHER LONG SESSION. MORE NEXT MONTH.

EDITORS NOTE: THIS SERIES IS COMPLETE UNTIL JANUARY 1989. I KNOW THAT FOR SOME OF YOU THE REQUIREMENTS FOR PASCAL WILL DEVELOP FASTER THAN THE ONCE A MONTH TIME INTERVALS THAT THESE ARTICLES WILL APPEAR IN THE WEST PENN 99"ER. IF YOU ARE IMPATIENT, PLEASE CONTACT ME. JOHN F. WILLFORTH (412) 527-6656

JIM PETERSON HAS SUPPORTED THE TI COMMUNITY FOR MANY YEARS IN A WAY THAT NO OTHER HAS. .. I DO NOT GENERALLY CARRY HIS TIPS FROM THE TIGERCUB IN THE NEWSLETTER SINCE THEY ARE IN MOST OF THE NEWSLETTERS WE RECEIVE, AND THESE ARE IN OUR NEWSLETTER LIBRARY FOR ALL TO VIEW. BUT FOR THOSE WHO DON'T MAKE THE MEETINGS, HERE IS A SAMPLE. YOU MAY WANT TO GET ALL THAT IS AVAILABLE FROM JIM. EVERYTHING YOU NEED TO KNOW TO ORDER IS IN THE TEXT.

TIPS FROM THE TIGERCUB

#43

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Over 130 original programs in Basic and Extended Basic, cassette or available on disk, now reduced to just \$2.00 each, plus \$1.50 per order for cassette or disk and PP&M. Cassette programs will not be available after my present stock of blanks is exhausted.

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GAMES, ELEMENTARY MATH, MID- 41, also \$10 postpaid. DLE/HIGH SCHOOL MATH, VOCAB-ULARY AND READING. MUSICAL EDUCATION, KALEIDOSCOPES AND DISPLAYS

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have as much you trouble as I do, trying to get the strip labels lined up in the printer, you'll like this one -

100 DISPLAY AT (4,7) ERASE ALL ; "TIGERCUB LABELER": : : " This label maker will allow" : "you to specify different": "printer codes for each line

110 DISPLAY AT(11.1): "of a 5 -line label.": : : " You may stop the program": "while lab els are printing": "by pressi ng any key, turn"

120 DISPLAY AT(17,1): "off th e printer to adjust": "the la bels, turn it back on, "; "and press any key to con-":"tin ue printing."

130 DISPLAY AT(23,1): "Printe r designation?": "PIO" :: ACC EPT AT (24.1) SIZE (-28) BEEP: PR \* :: OPEN #1:PR\* :: P\$.E\$.DS \$.CEN\$="Y" :: DW\$, I\$, SS\$, U\$= "N" :: P=1

140 CALL CHAR (95. "FF") 150 FOR J=1 TO 5 :: CALL KEY (3,K,S)

160 DISPLAY AT (2.1) ERASE ALL :"Line #":J:" - PRINT? "&P\$ :: CALL QUERY(2,20,P\$):: IF Ps="N" THEN L\$(J)="" :: GOTO 360

170 IF J>1 THEN DISPLAY AT (4 .1): "Change codes? N" :: CAL L QUERY(4,15,Q\$):: IF Q\$="N" THEN 300

180 DISPLAY AT(4.1): "Print p itch? ":P:" (1)pica":" (2)el ite":" (3)condensed" :: ACCE PT AT (4, 15) SIZE (-1) VALIDATE ( "123"):P

190 CI=(P=1) &-10+(P=2) \$-12+( P=3)x-17 :: L\$(J)=CHR\$(27)&" B"&CHR\$(P):: DISPLAY AT(5.1) 2 10 00 2 00 00 2 00 00 2

200 DISPLAY AT(6,1): "Double width? "&DWs :: CALL GUERY (6 .15. DW#):: IF DW#="Y" THEN C

### TIPS FROM THE TIGERCUB # 43

I=CI/2 :: L\$(J)=L\$(J)&CHR\$(1 4) ELSE Ls(J)=Ls(J)&CHRs(20) 210 DISPLAY AT(8.1): "Italics ? "&I\$ :: CALL QUERY(8,10,18 ):: IF Is="Y" THEN L\$(J)=L\$( J)&CHR\$(27)&"4" ELSE L\$(J)=L \$(J)&CHR\$(27)&"5" 220 DISPLAY AT(10,1): "Supers cript? "&SS\$ :: CALL QUERY(1 0.14.55\$):: IF 55\$="Y" THEN L \* (J) = L \* (J) & CHR \* (27) & CHR \* (83)) & CHR \$ (0) ELSE L \$ (J) = L \$ (J) & CH R\$(27)&CHR\$(84) 230 IF SS\*="Y" THEN 250 240 DISPLAY AT(12,1): "Double -strike? "&DS\$ :: CALL QUERY (12,16,DS\$):: IF DS\$="Y" THE N L\$(J)=L\$(J)&CHR\$(27)&"6" E LSE L\$(J)=L\$(J)&CHR\$(27)&"H" 250 IF P<>1 OR SS\$="Y" THEN 270 :: DISPLAY AT(14,1): "Emp hasized? "&E\$ :: CALL QUERY( 14.13.E\$) 260 IF Es="Y" THEN Ls(J)=Ls( J)&CHR\$(27)&"E" ELSE L\$(J)=L \$(J)&CHR\$(27)&"F" 270 DISPLAY AT (16.1): "Underl ine? "&U\$ :: CALL QUERY(16.1 2.U\$) 280 IF Us="N" THEN L\$(J)=L\$( J) &CHR\$ (27) &CHR\$ (45) &CHR\$ (0) 290 DISPLAY AT(18.1): "Center text? Y" :: CALL GUERY(18,1 4. CENS) 300 DISPLAY AT(18.1): "Type I ine"; J; ". Enter each": "scree n line, enter again": "when d one." :: DISPLAY AT(22,1):RP T\$("\_", INT(CI\*3.5)):: R=21 : : CALL KEY (5, K, S) 310 ACCEPT AT(R,1):M\$ :: IF MS="" THEN 320 :: AS=AS&MS : : R=R+1 :: GOTO 310 320 IF LEN(A\$)>INT(CI\$3.5)TH EN DISPLAY AT (16,1) I "LINE TO O LONG!" :: CALL SOUND (300.1 10.0.-4.0):: A\$="" :: R=21 : : GOTO 310 330 L=LEN(AS):: IF US="Y" TH EN AS=CHRS(27)&CHRS(45)&CHRS (1) &A\$&CHR\$ (27) &CHR\$ (45) &CHR \$(0) 340 IF CENS="Y" THEN AS=RPTS

(" ", (INT(CI\$3.5)-L)/2)&A\$

350 L\$(J)=L\$(J)&A\$ :: A\$="" 360 NEXT J 370 DISPLAY AT(12.1) ERASE AL LI "Print how many?" II ACCEP T AT(12,17):N 380 FOR J=1 TO N :: FOR K=1 TO 6 :: PRINT #1:L\*(K):: NEX 390 CALL KEY(0,K,S):: IF S=0 THEN 410 ELSE CLOSE #1 400 CALL KEY(0.K1.S1):: IF S 1<1 THEN 400 ELSE OPEN #1:PR 410 NEXT J 420 DISPLAY AT (12.8) ERASE AL L: "Another?" :: CALL QUERY(1 2,17,0\$):: IF Q\$="N" THEN ST OP ELSE 150 -430 SUB QUERY (R.C.Q\$):: ACCE PT AT(R,C)SIZE(-1)VALIDATE(" YN") BEEP: Q\$ :: SUBEND

More peculiarities of the TI computer -

90 CALL CLEAR :: PRINT TAB(7 ) : "SPRITE PUZZLE #1":" from Tigercub" 100 PRINT "A non-existent so rite can be" "created by CAL L MOTION. " I "It apparently starts in" 110 PRINT "dot-row 1, dot-co lumn 1, and": "has color 1, b ut its pattern": "is not that of any ASCII!" 120 !by Jim Peterson 130 FOR CH=0 TO 255 :: PRINT CHR# (CH) ::: NEXT CH 135 PRINT "CALL MOTION(#1,5, 5):: CALL COLOR(#1,16):: CAL

L MAGNIFY(4)"

140 CALL MOTION(#1,5,5):: CA
LL COLOR(#1,16):: CALL MAGNI
FY(4)

150 GOTO 150

And another -

100 DISPLAY AT(3,5) ERASE ALL
:"SPRITE PUZZLE #2": :"
from Tigercub"
110 DISPLAY AT(7,1): "Non-exi
stent sprites can be": "creat

ed by CALL COLOR.": : "Their existence can be con-" 120 DISPLAY AT(11.1): "firmed by CALL COINC. but": "CALL P OSITION reports that": "they have no position!" 130 CALL COLOR (#1.16):: CALL COLOR (#2, 16) 140 CALL COINC(#1, #2, 1, X):: DISPLAY AT(15.1): "COINC #1,# 2=":X :: CALL POSITION(#1.X. 150 CALL POSITION(#1, X, Y):: DISPLAY AT(17,1): "POSITION # 1=":X:Y 160 CALL POSITION(#2, X, Y):: DISPLAY AT(19.1): "POSITION # 2=":X:Y 170 IF FLAG=1 THEN 140 :: FL AG=1 180 DISPLAY AT(21,1): "PRESS ANY KEY" 190 CALL KEY(0,K,S):: IF S=0 THEN DISPLAY AT(21,1): "pres s any key" :: GOTO 180 200 DISPLAY AT(21,1): "Until they're set in motion!" 210 CALL MOTION(#1.5.5):: C LL MOTION(#2,-5,-5):: GOTO 1 50

If you have the Terminal Emulator II, Speech Synthesizer, and a pre-schooler in the house, this will help him to grasp the idea of spelling as well as letter recognition and keyboard familiarization-

100 REM PRE-SPELLER BY JIM
PETERSON
110 REM TI BASIC WITH TERMI
NAL EMULATOR II AND SPEECH S
YNTHESIZER
120 CALL CLEAR
130 DIM M\$(100), S\$(100)
140 OPEN \*1: "SPEECH", OUTPUT
150 PRINT " PRE-SPELL
ER":::::
160 PRINT "TYPE WORDS TO PRA
CTICE":: "TYPE 'END' WHEN FIN
ISHED"
170 X=X+1

### TIPS FROM THE TIGERCUB # 43

180 INPUT Ms(X) 190 IF Ms(X)="END" THEN 380 200 PRINT #1:M\$(X) 210 PRINT "PRONUNCIATION OK? (Y/N)" 220 CALL KEY (3.K.S) 230 IF S<1 THEN 220 240 IF K=78 THEN 280 250 IF K<>89 THEN 220 260 S\$(X)=M\$(X) 270 GOTO 170 280 PRINT "TRY SPELLING PHON ETICALLY" 290 INPUT S\$(X) 300 PRINT #1:5\$(X) 310 PRINT "PRONUNCIATION OK? (Y/N)" 320 CALL KEY (3.K.S) 330 IF S(1 THEN 320 340 IF K=89 THEN 170 350 IF K<>78 THEN 320 360 PRINT "TRY AGAIN" 370 GDTO 290 380 CALL CLEAR 390 FOR J=1 TO X-1 400 PRINT #1: "CAN YOU SPELL THIS?" 410 FOR A=1 TO LEN(M\$(J)) 420 CALL HCHAR (12,8+A,ASC (SE 6\$(M\$(J).A.1))) 430 NEXT A 440 FOR B=1 TO LEN(M\$(J)) 450 CALL KEY (3, K, S) 460 IF (S<1)+(K=32)THEN 450 470 IF K=ASC(SEG\*(M\*(J), B, 1) ) THEN 500 480 GOSUB 640 490 GOTO 450 500 C\$=C\$&CHR\$(K) 510 CALL HCHAR(14.8+B.K) 520 NEXT B 530 IF C\$<>M\$(J)THEN 640 540 PRINT #1:5#(J) 550 FOR D=1 TO 500 560 NEXT D 570 PRINT #1: "VEREE GOOD" 580 FOR D=1 TO 500 590 NEXT D 600 C\$="" 610 CALL HCHAR (12, 1, 32, 100) 620 NEXT J 630 GDTO 390 640 PRINT #1: "NO THAT IS NOT RIGHT"

650 PRINT #1: "TRY AGAIN" 660 RETURN

And, a simple little game that is a bit different than any I've seen -

100 !FORMATION by Jim Peters on - use the S and D keys 110 CALL CLEAR :: CALL CHAR ( 100."381010FEFE383810103838F EFE10103838"):: CALL SCREEN( 5):: CALL MAGNIFY(2):: RANDO MIZE 120 V,W,P=0 :: FOR J=1 TO 7 :: CALL SPRITE(#J,100,7,1,25 O#RND+1.10.4):: FOR D=1 TO 1 OO :: NEXT D :: NEXT J :: CA LL SPRITE(#11,101,16,160,128 130 CALL KEY(3,K,S):: W=W+1 II IF W=150 THEN 170 ELSE IF W=300 THEN 180 ELSE IF K=68 THEN V=V+2+(V>125) \$2 ELSE I F K=83 THEN V=V-2-(VK-125) \$2 140 IF P=0 THEN CALL MOTION( #11,0,V)ELSE IF P=1 THEN CAL L MOTION (#11.0, V, #12.0, V) ELS E CALL MOTION(#11,0,V,#12,0, V, \$13, 0, V) 150 CALL COINC (ALL, A):: IF A =0 THEN 130 160 CALL SOUND(1000,-4.0):: H=MAX(H,W):: DISPLAY AT(23.1 ): "SCORE"; W: "HIGH SCORE"; H: : CALL DELSPRITE (ALL) :: GOTO 170 P=1 :: CALL POSITION(#11 ,R.C):: CALL SPRITE(#12,101. 16,160,C-40-(C<40)\*256):: GD TO 140 180 P=2 :: CALL POSITION(#11 .R.C):: CALL SPRITE(#13,101. 16.160.C+40+(C>216)\$256):: G **OTO 140** 

If you can't figure out where all the money goes, this may be an eye-opener -

100 DISPLAY ERASE ALL AT (3.5): "THE COST OF CREDIT" ! by Jim Peterson 110 S.T.X=0 :: DISPLAY AT (8,

1): "AMOUNT OF PURCHASE?" :: ACCEPT AT(8.21): A :: B.T=A : : DISPLAY AT(10,1): "CREDIT C ARD INTEREST RATE?" :: ACCEP T AT(11.1):R 120 DISPLAY AT(13.1): "SAVING S ACCOUNT INT. RATE?" :: ACC EPT AT(14,1):SR 130 X=X+1 :: I=B\*R/100/12 :: B=B+I :: T=T+I :: P=B/10 :: B=B-P :: S=S+P+S\*SR/100/12 :: IF SKA THEN 130 140 Ds="\$"&STR\$(INT((T-A+S-A +.5) \$100) /100) 150 DISPLAY AT(17,1): "If you had saved the amount": "of y our minimum 10% of the": "bal ance credit card payment": "e ach month for"; X; "months." 160 DISPLAY AT(21,1): "and us ed it to pay cash, you": "wou 1d have saved ":D\$ :: GOTO 1

And this is one of the handiest routines I've seen in a long time -

10 !TURNS ALL NUMERALS AND P UNCTUATION WHITE! BY HARRY W ILHELM IN TWIN TIETS UG NEWS LETTER 20 !TURN IT OFF BY CALL LOAD (-31804,0)::TURN IT ON BY CA LL LOAD(-31804,63) 100 CALL INIT 110 CALL LOAD(16128,2,224,38,0,2,0,8,17,2,1,63,36,2,2,0,3,4,32,32,36,2,224,131,192,3,128) 120 CALL LOAD(16164,240,240,240,240) 130 CALL LOAD(-31804,63)

Memory full

Jim Peterson

### "TIPS FOR BEGINNERS"

#### -BY FRANK N. ZIC-

Here we go together-No.13. Little did I realize that over a year ago when I first started to write these articles, that I would still be at it today. Seems that it's like being long winded. Do you think that this trait is inherited from someone in our club? Hmmm, could be. Onward...From time to time I make notes of various items concerning TI-WRITER. Not that we need more on this well covered topic, but some of these tips are not well covered while still being quite useful. Look them over and give them a try.

\*\*-If you want to place a Carriage Return at the end of a shortened line, you might find that it does not always take. You can always place it there by holding CTRL/8, which places the Carriage Return where you want it, then you must use FCTN/3 to delete the extra line. So, try it first to see how it works and then think of it as one combined step of--CTRL/8 FCTN/3. By using it a few times in practice you gain the confidence to use it during your regular work without further questioning in your mind, does it or doesn't it work. You will know what it does and how it reacts.

\*\*-When in the Editor mode and printing out your message with the PF (Print File) command, you can also have the line numbers print out along with your text by simply placing an L then a space in front of PIO in the command instruction. Don't forget, however, you lose the last 6 characters at the end of each line. So, keep your line lengths to a maximum of 74, this includes the Right Margin.

\*\*-Remember that the normal page length allows for 66 numbered lines. This also includes any blank lines you have placed in your text. The normal page done by the Formatter also includes 6 automatically placed spaces at the top and 6 spaces at the bottom of each page for skipping over the perferations between tractor feed sheets. This means that you have an effective normal 54 lines for your text. Remember, too, that any lines of instructions to the Formatter do not take up a line space, nor do any of the .CO (Comment) commands. These are just reminders to yourself that will show only in the Editor mode.

\*\*-Are you annoyed with having to switch disks from the Editor to the Formatter? Well, with two disk drives and Funnelweb Ver.4.0, you now can go to the Formatter by executing the following: FCTN/9, Q-ENTER, E-ENTER. This will bring you back to the Menu screen. Press No.2 (Formatter) and you're there. This version also gives an audible beep at the end of each line that indicates there are only 4 spaces left to fill before you are shifted to the next line. Another nice new added feature is the numbered scale (0 to 79) at the bottom of your working line.

As always, may the good 4's be with you.

### LET'S TALK RAM DISKS PART IV By John F. WILLFORTH

FOR HIS INPUT TO THE PREPARATION OF THIS ARTICLE. SCOTT HAS THE 512K VERSION, AND THIS IS THE MODEL THAT MOST OF YOU WOULD PROBABLY MIGRATE TO

THE MEMORY EXPANSION CARD (AS MYARC calls it), comes in three sizes, THE BASIC 32K UNIT, THE 128K MODEL, AND THE 512K RAM DISK. THE CARD IS ARCHITECTURALLY SIMILAR TO THE 128K CARD FROM FOUNDATION, IN THAT IT USES 32K RAM SPACE. IT HAS UP TO 16 BANKS OF 32K, WITH THE ENTIRE 32K BLOCK BEING SWITCHED AT ONCE, VERSES THE 2K BANK SWITCHING OCCURING IN THE HRD.

THE MYARC UNIT IS SUPPORTED BETWEEN POWER FAILURES (INTENTIONAL AND NORMAL SHUT DOWNS) BY A 9 VDC SUPPLY WHICH IS PLUGGED INTO YOUR AC OUTLET. THIS IS WHY THE UNIT IS RELIABLE UNTIL THE AC

POWER TO THE HOUSE DROPS.

SINCE THE MYARC UNIT HAS THE BASIC 32K EXPANSION MEMORY ALREADY A PART OF ITSELF, THE 32K CARD IN THE PEB, OR A SIMILAR 32K IN THE CONSOLE, IN A SIDE CAR TYPE UNIT, STANDALONE, OR IN THE

SPEECH UNIT, WILL HAVE TO GO.

THE MYARC UNIT WILL FUNCTION WITH MYARC'S XBII TO ALLOW BASIC PROGRAMS UP TO 128K IN LENGTH. THIS COULD BE A MAJOR ADVANTAGE TO SOMEONE WHO WANTS TO WRITE A VERY LARGE PROGRAM IN BASIC AND UP TILL NOW BEEN FRUSTRATED IN THE ATTEMPT. REMEMBER ALSO THAT YOU WILL HAVE TREMENDOUS ENHANCEMENTS AT YOUR FINGER TIPS WITH THAT XBII, WHICH DOES REQUIRE THE 128K MEMORY, AND WITH THIS ADVANTAGE ALSO COMES THE WARNING THAT THERE ARE STILL SOME BUGS IN THAT XBII PROGRAM, AND THAT IF YOU DO DECIDE TO USE THIS PACKAGE, THE EFFORT SHOULD BE FOR YOURSELF, SINCE THERE IS NOT AN ABUNDANCE OF USERS WITH THIS SAME SET UP.

THE SPOOLING FEATURE IS REALLY A BIG PLUS FOR THIS RAM DISK. THE UNIT WILL ALWAYS HAVE AT LEAST 80K OF THE TELLS ME THAT THIS LEAVES 400K FOR A RAMDISK (512K - 32K - 80K = 400K). IT WILL DECREASE IN AVAILABILITY, AS THE SIZE OF THE SPOOLER INCREASES.

THE MYARC RAM DISK is one of the dost popular and versatile units on the market. My thanks to Scott Coleman The market. My thanks to Scott Coleman The Two the market are designed by the print spooler is used by replaced the print spooler is used to be printed THE PRINT SPOOLER IS USED BY RE-No connection exists between the two CARDS INVOLVED IN THE PRINTING PROC-ESS, THE RAM DISK AND THE RS232 CARD. THE MYARC CARD SPOOLS THE DATA TO BE PRINTED WHEN INSTRUCTED TO DO SO BY EITHER COMMAND ABOVE, AND SENDS IT TO THE RS232/PIO CARD ON AN INTERRUPT DRIVEN BASIS. THIS MEANS THAT DISK ACCESSES WILL SLOW DOWN THIS SPOOLING EITHER COMMAND ABOVE, AND SENDS IT TO PROCESS. NOTE THAT IF YOUR PRINTER IS EQUIPTED WITH A SMALL PRINTER BUFFER INTERNALLY, YOU WILL NEVER NOTICE A PAUSE. IN ANY CASE THE MACHINE WILL FUNCTION ESSENTIALLY AS IF IT WERE USED IN CONJUNCTION WITH A LARGE PRINT SPOOLER. THE CORCOMP RS232 UNIT IS NOT COMPATIBLE WITH THE MYARC RAMDISK.

THE RAMDISK CAN SUPERSEDE ANY OTHER DRIVE BY EXECUTING CALL EMDK(N) WHERE "N" IS THE DRIVE NUMBER. CALL EMDK(O) WILL DISABLE DISK EMULATION. THE RAM DISK can always be accessed through device name "RD"

OTHER CALLS INCLUDE CALL RDDIR, TO LIST THE RAM DISK DIRECTORY, CALL PART (400,80) or CALL PART (0,480) as Ex. TO PARTITION MEMORY BETWEEN THE RAM DISK AND THE PRINT SPOOLER, WHERE THE NUMBERS REPRESENT THOUSANDS (K) BYTES. CALL VOL ("NAME") TO RENAME THE VOLUME AS WELL AS OTHER USEFUL CALLS.

I WOULD LIKE TO BE ABLE TO TELL YOU ALL THE SOFTWARE THAT WILL RUN ON THIS CARD AS WELL AS ANY OTHER HARDWARE IT WILL NOT COOPERATE WITH, BUT IN TRYING TO KEEP THESE ARTICLES TO ONE PAGE AND COVER THE ESSENTIALS, I'VE DECIDED TO

STOP HERE BEFORE I HAVE THE OPPORTUNITY
TO GIVE YOU TOO MUCH INCORRECT INFO.
THE MYARC RAM DISK HAS BEEN VERY WELL
RECEIVED BY THE T.I. COMMUNITY, AND YOU
CAN'T GO WRONG IN GETTING ONE. THE IN-TENT IN THESE ARTICLES IS TO GIVE YOU AN OVERALL VIEW OF THE VARIOUS UNITS,

NOVERALL VIEW OF THE VARIOUS UNITS,
SO YOU MAY BE A LITTLE BETTER INFORMED
WHEN YOU DO BUY.

NEXT MONTH I'LL TRY TO COVER THE
CORCOMP "MEMORY PLUS". THAT IS IF ONE
OF THE PEOPLE USING ONE CAN GIVE ME SOME
FEED-BACK ON THE UNIT.

UNIT HEYT MONTH, KEEP THE TIME

UNTIL NEXT MONTH, KEEP THE TIME.

### 

Getting around the Version 2.2 console has not been much of a problem with fully equipped systems. One could use the Corcomp Disk Controller Card(\$150) to bypass the V2.2 operating system and run non-TI cartridges. The GRAM KRACKER(\$190) by MG can also run non-TI cartridges by using a non-v2.2 operating system in its gram 0. The other GRAM CARDS might also be used, but I am not sure. The Corcomp Grom-Buster(\$30) has been the most attractive alternative for the console only users.

All of the above work, but why not get to the heart of the problem: GROM 0 (CD2155NL). By ordering the CD2155NL chip from TI, you can upgrade your V2.2 console to the standard console. On most of the consoles, this chip is in a socket, but I have come across a few consoles in which this chip is soldered. This is all that has to be done.

The part number is 1015960-1155. The cost from TI is \$3.80 + TAX + \$3.00 SHIPPING. The phone number is 1-806-741-2265.

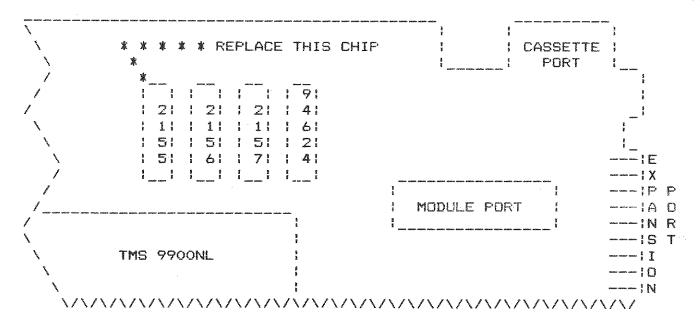
I have loaded the following modules and programs to confirm that this modification is complete and compatible with all software and hardware:

MINER 2049er(a side port module), PACMAN, DONKEY KONG, WORD WRITER, PDM 99, JUNKMAN JR., SUPER DUPER, PLATO, TUNNELS OF DOOM, ADVENTURE, MINIMEMORY, PERSONAL RECORD KEEPING, EDITOR ASSEMBLER, MULTIPLAN, TI-WRITER, EXTENDED BASIC, PAINT N PRINT, BIG FOOT, HOME CONTROL, Q\*BERT.

DM1000, NIGHT MISSION, STRUCTURAL ENGINEERING LIBRARY, ALL STAR BASEBALL, CUBIT, OLD DARK CAVES, ADVANCED DIAGNOSTICS, DISKASSEMBLER.

I have been using my converted console for about a month with no problems, either software or hardware. The hardware tested includes: TI and Corcomp disk controller cards, speech synthesizer, Gram Kracker, X-10 Powerhouse, Axiom Parallax, cassette recorder, Mechatronic Epromer.

The picture below will show you which chip to replace. The chip may be marked CD2155 8327 DCHY. The 8327 is the DATE CODE.



THIS ARTICLE PROVIDES YOU WITH THE MOST LOW COST WAY TO HAVE YOUR CONSOLE MONITOR YOUR HOME IN ANY NUMBER OF WAYS. SECURITY, POOL VIOLATION, OR COUNTING THE NUMBER OF TIMES SOMETHING IS USED ARE ONLY SOME OF THE WAYS THAT RICK'S IDEA CAN BE USED. READ ON! BURGLAR ALARM

The program listed allows you to use your spare TI console as a burglar alarm with very little investment except for a bit of time.

The actual program is very simple and can be modified to suit your own particular needs. This particular version has a lot of statements that allow you to see what is going on in the program-while running a demonstration, however they can be removed quite easily with no effect on the operation of the program. Just a few cautions though. Understand the program first before making any drastic changes. The other precaution is not to use your perimeter loop on the same joystick "direction" as the entry keyswitch. (eg. if you use the UP position for the keyswitch do not use this direction for the perimeter loop even if it is opposite joysticks) The program is set to use the UP position of joystick 2 for the entry keyswitch and the DOWN position of joystick 1 for the perimeter loop. It is also possible to use the other joystick directions(with appropiate program mods) to have more than one loop. Remember, this program will run as a standalone routine but is intended to be modified or totally rewritten by yourself to suit your particular job. The intention of this program was to be as simple as possible and not require any peripherals or modules. Most of us have a second console so here is a good use for it other than a paper weight.

To set up the alarm you will need the following:

1. TI console

2. Normally open magnetic or pushbutton switches for each door on the perimeter loop. (Radio Shack #49-495 or #49-497) With changes to the program (using the fire buttons and other positions) you may add other protection loops but you must insure that you have one switch per loop when using the normally closed switches. You may use as many switches of the normally open version on the loop as you wish.

3. Entry keyswitch (Radio Shack #49-515) or a hidden SPST toggle switch.

4. An audio amplifier and speaker(s) (Your stereo amplifier will work just fine but the alarm will only be sounded in the house)

5. A cable to hook the audio out port from the console to the amp. (If you have a monitor cable these will work fine. Some are available for the TI from Super Valu stores for \$10.95)

6. Joystick connector(Radio Shack #276-1538)

7. Hook-up wire

To run a simple demonstration of the program you will need two joysticks

and your TV or monitor.

First, you may want to set the delay variables in lines 150 and 160. Line 150 is the exit delay variable. This allows you time to leave the house after you turn on the keyswitch. If you mount the keyswitch outdoors, then set this variable to 1.

The variable in line 160 sets the entry delay. This one allows you time to enter your home and disarm the system with the keyswitch before the alarm sounds. Remember to set this one on the fast side because it also delays in the event of a break-in.

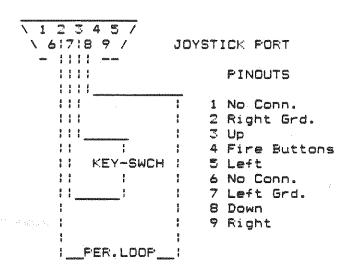
When you type RUN, the words "PLEASE REMOVE ALPHA LOCK" and "PRESS 'C' TO CONTINUE" appear. Follow the instructions and next comes "PERIMETER CHECK (Y/N)?". If you press "Y" the program jumps to line 700 and checks Joystick 1 for any openings in the protection loop. If an opening is found (such as J1 in the center position) the program sounds a warning and tells you too check and remedy the situation. Do this by moving J1 to the down position and holding it there. Now push the "R" key and the program goes back to line 310 and sounds the OK chime.

The word "UNARMED" appears and tells you that the system is now ready for input from the keyswitch. When you turn the keyswitch on by holding J2 in the UP position and J1 in the DOWN position) the program goes to the exit delay loop. This loop allows you to leave your home without triggering the system. Once this times out the program begins looping and checking each of the joysticks for a change in state.

If J1 suddenly becomes open the program moves to the entry delay loop. This delay allows you to enter your home and disarm the system with the keyswitch without setting it off. If the timer times out(eq. break-in)the program now sounds the alarm. You can simulate this by letting J1 return to the center position. Even if you were to close the door now it is too late, the timer is running down and the only way to stop it is too disarm the system.

Any number of changes and additions can be made to the program limited only by your imagination and your requirements. The intention of this routine was to give you an idea of what is possible and also to be as simple as possible. There are also heat detectors available that work on the normally open and normally closed switch principals so a fire alarm can also be added.

Try it out and if you have any questions, see me at the next meeting or call me at 253-0794. If you have any ideas on how to improve the program I would be interested to hear from you also.



Rick Lumsden 18 Corton Place Canada **R2N 1W6** 

THE PROGRAM TO THE RIGHT IS WRITTEN IN Winnipeg, Manitoba TI CONSOLE BASIC. 10 USE IT WITH BASIC, REMOVE ALL THE !XXX EITHER AS YOU ENTER

IT IN CONSOLE BASIC, OR AFTER YOU RUN THE CHECK SUM PROGRAM ON IT. (TOM FREEMAN OF THE L.A. GROUP PROVIDED THIS PROGRAM TO RUN A CHECK ON EACH LINE TO VERIFY ITS CORRECT ENTRY.) IT WILL NOT RUN IN BASIC. I RETYPED THE PROGRAM, INCLUDING CHECK SUM ENTRY, BUT DO NOT USE IT, AND THERE-CANNOT BE SURE THAT ALL IS WELL.

100 REM BURGLAR ALARM PROGRA 1046 110 REM FOR THE TI HOME COMP UTER #119 120 REM A PUBLIC DOMAIN PROG RAM 1074 130 REM WRITTEN BY R.A.LUMSD EN- WINNIPEG, MANITOBA, CANADA 140 REM 85/11 HUG-TIBBS 1093 150 ENDEL=1000 !179 160 EXDEL=1000 !189 170 SKIPD=1 1051 180 CALL CLEAR 1209 190 PRINT "PLEASE REMOVE ALP HA LOCK" !242 200 PRINT !156 210 PRINT 1156 220 PRINT "PRESS 'C' TO CON TINUE" 1031 230 CALL KEY(3, M, N) 1187 240 IF N=0 THEN 230 1232 250 IF M<>67 THEN 230 1230 260 CALL CLEAR 1209 270 PRINT "PERIMETER CHECK(Y /N)?" 1009 280 CALL KEY(3, L, T) !192 290 IF T=0 THEN 280 1033 300 IF L=89 THEN 730 1030 310 IF L()78 THEN 280 1026 320 CALL SOUND(1000, 440, 0, 33 0.5) (116 330 CALL CLEAR 1209 340 PRINT "UNARMED" !118 350 CALL JOYST(2, X, Y) !130 360 IF Y()4 THEN 350 1049 370 IF SKIPD)1 THEN 400 1195 380 GOSUB 660 1230 390 SKIPD=SKIPD+1 !111 400 CALL JOYST(1,A,B) 1083 410 IF B=-4 THEN 350 1027 420 CALL CLEAR !209 430 PRINT "ALARM TRIPPED" 10 21 440 PRINT 1156 450 PRINT "ENTRY DELAY INITI ATED" 1084 460 FOR ENTRDEL=1 TO ENDEL ! 470 NEXT ENTRDEL | 164 480 CALL JOYST(2, X, Y) 1130

490 IF Y=0 THEN 330 1088 500 FOR LOOP=1 TO 5 1045 510 FOR SIREN=700 TO 900 STE P 10 1031 520 CALL SOUND(-99, SIREN, 0) ! 530 NEXT SIREN 1023 540 FOR SIREN=900 TO 700 STE P -12 !227 550 CALL SOUND(-99, SIREN, 0) t 062 560 NEXT SIREN 1023 570 NEXT LOOP 1208 580 CALL CLEAR 1209 590 PRINT "ALERT !!!!!" !20 600 PRINT 1156 610 PRINT 1156 620 PRINT "ALARM TRIPPED" 10 21 630 PRINT 1156 640 PRINT "PLEASE RESET" 120 650 END 1139 660 CALL CLEAR 1209 670 PRINT "EXIT DELAY INITI 680 FOR DELAY=1 TO EXDEL 121 690 NEXT DELAY 1005 700 CALL CLEAR 1209 710 PRINT "ARMED" 1209 720 RETURN 1136 730 CALL CLEAR 1209
740 CALL JOYST(1,A,B) 1083
750 IF B=-4 THEN 320 1253
760 CALL SOUND(1000,-2,0) 100 770 PRINT "BREAK IN PERIMETE R CIRCUIT" !153 780 PRINT 1156 790 PRINT "PLEASE CHECK" 116 800 PRINT 1156 810 PRINT "PRESS 'R' TO REC HECK PERIMETER" 1090 820 CALL KEY(3, K, S) !190 830 IF S=0 THEN 820 1062 840 IF K=82 THEN 730 1022 850 IF K()82 THEN 820 1050

860 END !139

FORTH......

Carver Jr. has announced his intention of acting as a John. M. "clearing house" for Forth programmers. He asks that anyone "even remotely interested in Forth" write him at RR#1, Box 125-2, Bringhurst IN 18913 or leave messages for him on Genie, Compuserve, The Source or Delphi. He also asks that readers post this message on their local BBS. Carver said he would like to point out the existance of the TI-Forth International Information Center, 4122-Glenway St. Weuwatosa, WI 53222, which has public domain Forth applications and tutorials. The Forth Interest Group, P.O. Box 8231. San Jose, CA 95155, offers membership for \$30 per year.

Here is an inexpensive way
to list your programs by
using two and a quarter inch
wide adding machine tape in
your printer instead of
standard size eight and a
half inch wide paper.
(A one hundred and fifty
foot long roll of adding
machine paper tape costs
about thirty cents.) First
load and run this program:

100 OPEN #1:"PIO" 110 PRINT #1:CHR\$(15)&CHR\$(2 7)&CHR\$(48) 120 CLOSE #1

CHR\$(15) will set my printer to output at 16.7 characters per inch so that a twenty-eight character line that just fits on the monitor screen will be about one and three quarters of an inch wide on the paper.

CHR\$(27)&CHR\$(48) will set my printer to output eight lines of printing to the inch.

Now load your program into the computer and the paper tape into the printer. List your program to the printer with this command:

LIST "PIO.LL=28"

.LL=28 will set my printer to output twenty-eight characters on a line.

I have discovered two possible problems with this idea:

If you put the roll of adding machine paper in your printer so that the left edge of it is at the left end of the platten, and the paper will not advance but keeps printing over and over the same line, your printer may only have two or three

ED. NOTE:
HEY CHECK OUT THAT .LL=28 ABOVE!
AXIOM PARALLEL INTERFACE FEATURE.

friction feed pressure rollers. To find the location of the pressure rollers insert a narrow strip of paper (about one inch wide) into the printer and try to slide it sideways with the friction feed engaged. You will not be able to slide the paper past the pressure rollers. For best results check the width of the pressure rollers and insert the adding machine paper tape so that it is centered on one of the rollers. IMPORTANT NOTE.... If you have to adjust the position of the paper tape, you will also have to change the margin and line length settings of the printer so that the printing moves over onto the paper. (check your printer manual for the proper code) My printer requires this command:

LIST "PIO.LL=45.MA=17"

While you are experimenting with this positioning of the paper tape and setting of the margin and line length to position the printing properly, be sure to keep a eight inch wide piece of paper in the printer so that you don't accidently cause the print head to print on the bare plattin.

If the printer will not print at all, your printer may have an "OUT OF PAPER" sensing device and the narrow paper may not cover it. You can trick the sensor by inserting a narrow strip of paper (about one inch wide) at the extreme left side of the platten. There is probably no pressure roller there so this strip will not move at all when you are printing.

by BOB TRAUTMANN (WEST PENN 99'ERS)

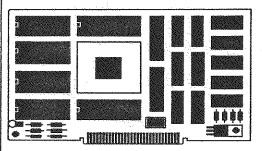
```
LIMA TI MULTI USERS GROUP CONFERENCE.
100 ! Instance Printer V1.5
                                       SATURDAY, MAY 21, 1988 (INCLUDES SWAP MEET) 8 AM
            08/06/87
110 !
                                       TO 6 PM ON THE LIMA CAMPUS OF THE OHIO STATE UNIV.
120 ! by Robert Coffey Jr.
                                       THIS IS A TOTALLY FREE EVENT FOR BOTH THOSE WHO
         102 Woodgate Road
130 !
         Tonawanda, NY 14150
                                       ATTEND AND THE EXHIBITORS (USERS GROUPS AND DE.
140 !
                                       ers). Pre-registration is required. (419)228-7109
150 !
                                       LIMA AREA TI 99/4A U.G. % DAVE SZIPPL (PRESIDENT)
160 ! Assembly Subroutine
170 ! Written 12/08/87
                                       4 POULSTON PLACE LIMA, OH 45805
180 ! by Harry Wilhelm
                                        THE LIMA CAMPUS IS JUST EAST OF LIMA ON STATE
190 !
                                       ROUTE 309. EXIT I-75 @ 309, EAST 2MILES, NORTH ON
200 CALL INIT
                                       MUMAUGH ROAD ABOUT .5 MILE.
210 CALL LOAD(8194.38,214,63,248)
220 CALL LOAD(16376,77,73,82,65,67,76,38,40)
230 CALL LOAD (9748.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.4.0.6.0.3.0.7)
240 CALL LOAD (9768.2,224,36,244,4,204,2,11,37,21,2,2,38,20,2,3,0,6,4,192)
250 CALL LOAD (9788, 2, 1, 0, 1, 4, 32, 32, 12, 4, 32, 32, 24, 18, 184, 204, 160, 131, 74, 5, 129)
260 CALL LOAD (9808.6.3.22.246.2.3.1.0,5,67,2,5,0,7.8,19,4,196,2,9)
270 CALL LOAD (9828, 3, 0, 2, 6, 0, 7, 9, 41, 193, 198, 2, 39, 255, 255, 194, 39, 38, 20, 66, 3)
280 CALL LOAD (9848, 194.8, 19, 1, 161, 9, 6, 70, 21, 244, 195, 96, 38, 28, 6, 13, 10, 29, 4, 206)
290 CALL LOAD (9868, 195, 197, 63, 160, 38, 30, 195, 207, 19, 2, 2, 45, 0, 4, 195, 109, 38, 32, 163,
13)
300 CALL LOAD (9888, 6, 196, 222, 196, 6, 13, 22, 253, 6, 5, 17, 1, 16, 216, 6, 204, 216, 12, 37, 20)
310 CALL LOAD (9908, 4, 192, 2, 1, 0, 7, 2, 2, 37, 20, 216, 32, 38, 32, 131, 124, 4, 32, 32, 16)
320 CALL LOAD(9928,216,32,38,32,131,124,2,224,131,224,4,96,0,112)
330 DIM F(32,8),P$(32)
340 T=1 :: ESC$=CHR$(27):: FILE$="DSK2.INSTANCE" :: LF$=ESC$&"3" :: ZERO$=CHR$(0
350 DISPLAY AT(1,4) ERASE ALL: "INSTANCE PRINTER V1.5" :: DISPLAY AT(3.5): "by Robe
rt Coffey Jr."
360 DISPLAY AT(5,5): "Assembly Subroutine" :: DISPLAY AT(6,6): "by Harry Wilhelm"
370 DISPLAY AT (9,4): "INSTANCE: "&FILE$ :: ACCEPT AT (9,13) SIZE (-13): FILE$
380 DISPLAY AT(13.7): "(1) DOUBLE DENSITY" :: DISPLAY AT(15.7): "(2) QUAD DENSITY"
390 CALL KEY (0, K, S):: IF K<49 OR K>50 THEN 390 ELSE DENSITY=VAL (CHR$ (K)):: CA
HCHAR (DENSITY*2+11,7,42):: DISPLAY AT(18,11): "Working...."
400 STRIKE-DENSITY+T :: LF=21*(STRIKE/3)+T :: FILLER=64*DENSITY :: TEMP=4/DENSIT
410 OPEN #1: "PIO.CR.LF" :: OPEN #2:FILE$&"_I", INPUT :: IF DENSITY=1 THEN FORMATS
=ESC$&"L"&CHR$(192)&CHR$(3)ELSE FORMAT$=ESC$&"Z"&CHR$(128)&CHR$(7)
420 PRINT #1:ESC$: "@";
430 INPUT #2:WIDTH, LENGTH :: J=(32-WIDTH)*(13*DENSITY)
440 FOR A=T TO LENGTH :: FOR B=T TO WIDTH :: INPUT #2:F(B,1),F(B,2),F(B,3),F(B,4
),F(8,5),F(B,6),F(B,7),F(B,8):: NEXT B
450 FOR Z=T TO 5 STEP 4
460 FOR B=T TO WIDTH :: P$(B)=""
470 CALL LINK ("MIRACL", F(B, Z+3), F(B, Z+2), F(B, Z+1), F(B, Z), DENSITY, TEMP, F$(B))
480 NEXT B
490 FOR ZZ=T TO STRIKE :: IF ZZ=STRIKE THEN PRINT #1:LF$; CHR$(LF); ELSE PRINT #1:
LFs: CHRs(T):
500 PRINT #1:FORMATS; RPTS (ZEROS, FILLER);:: CALL SPACE ((J), ZEROS)
510 FOR B=T TO WIDTH :: PRINT #1:P$(B);:: NEXT B :: CALL SPACE((J).ZERO$):: PRIN*
T #1:RPT$(ZERO$, FILLER); CHR$(10):: NEXT ZZ
520 NEXT Z :: NEXT A
530 PRINT #1:ESC$: "@" :: CLOSE #1 :: CLOSE #2
540 CALL HCHAR (5.T.32.500):: DISPLAY AT (11,12) BEEP: "DONE!" :: DISPLAY AT (15,5):"
Print another? (Y/N)"
550 CALL KEY (0, K, S):: IF S=0 THEN 550 ELSE S=POS ("YVNn", CHR$ (K), 1):: IF S=0 THEN
 550 ELSE IF SK3 THEN 350
560 CALL CLEAR :: END -
570 !
 580 SUB SPACE(J.ZERO$)
590 IF J<255 THEN PRINT #1:RFT$(ZERO$, J); ELSE PRINT #1:RPT$(ZERO$, 255);:: J=
 5 :: GOTO 590
 600 SUBEND
```

### MªConn Softwore

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# Aventi-99

forth cord



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 $\mathrm{I}^{\prime}$ M TRYING TO INCLUDE THINGS OF INTEREST TO A WIDE VARIETY OF USERS. BELIEVE ME THIS IS GETTING MORE DIFFICULT, AND IT IS NOT BECAUSE OF THE LACK OF THINGS TO INCLUDE IN THE NEWSLETTER, BUT BECAUSE OF THE ABUNDANCE OF INFO. FOR THE TI-99/4A. BELIEVE ME THE ONLY REASON FOR THE FAILURE OF SOME USERS GROUPS OUT THERE, IS BECAUSE EITHER ONLY ONE OR TWO ARE TRYING TO DO IT ALL, WHILE THE REST OF US "USERS" JUST SET AND COMPLAIN. IF USERS GROUPS OF ANY MACHINE FAIL TO KEEP THE "USERS" INFORMED, THE INTEREST WILL DISAPPEAR AND SO WILL THAT GROUP. I HOPE THAT THIS AMAZING MACHINE WILL SURVIVE ANOTHER 9 YEARS! YES, 1979 WAS WHEN THE TI-99/4 came out. Old technology YOU SAY, WELL TRY TO DO IT BETTER CHEAPER. YOU CAN'T. DON'T LOOK TO BIG BLUE TO SOLVE ALL YOUR PROBLEMS AND FILL ALL YOUR NEEDS. J.F.W. WEST PENN 99'ER

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