The February meeting of the West Penn 99ers was held as usual on the third Tuesday of the month at the United Pres. Church , Irwin Pa. President Mickey (we're on first name basis now since I brought Pepsi) called the meeting to order at 7:15 pm. She introduced as usual the characters, Minnie, our treasurer, Donald, the librarian, and Goofy, the recording secretary,oops that's me !!!!! Also, of honorable mention was Huey, Louie, and Dewey, that is Coleman, Taylor, and Kelly, respectively. Last but not least Chip, our newsletter editor, was out of town, perhaps in some other dale thus laughs were kept at a minimum. Back to business..

Donald has put more McFlix pictures into the library (36 new disks full) After discussion it was decided that additional Mcflix disks will be available directly from C. Pratt (Rochester , New York). If your interested , contact him directly. Gene Kelly (Dewey) announced our club contest and said he already had one submission. Scott Coleman (Huey) spoke on several upcoming shows, namely the Rochelle, N.J., (March 18), where much used TI equipment can be had.(watch out for ELOCONJOB, that's (el - o - con - job)) . Two other faires rapidly approaching are Boston (April 1) and Ottawa.

New classes being formed, or at least in the discussion phase are, TI Base- Scott and Cassette users class- Mickey, and Frank Zic would like someone in his software users class. He's tired of talking to himself. Chip's class willforth go on forever and ever. Gary Taylor (Louie) enlightened us on the value of the shows he has been to, including the Harrisburg/Carlisle shoe in the Fall. He is currently organizing users groups across the state to attend this show.

Demonstrations of TI TACKS and the Pittsburgh BBS went well I NO PRIZES, NO RAFFLE, NO CHIP but we still had Pepsi,Diet Pepsi, Coke and then some.........fun.

Submitted reluctanctly,
Goofy

WEST PENN 99'ERS CLUB INFORMATION

NEXT MEETING DATE: MARCH 21 1989

MEETING LOCATION: UNITED PRESBYTERIAN
CHURCH OF THE
COVENANT

CORNER OF 4TH AND OAK STREETS, IRWIN

TIME OF MEETING: 7:00 P.M.

LIST OF WEST PENN OFFICERS FOR 1989

PRESIDENT:	MICKEY	335-0163
VICE PRESIDENT:	SCOTT	523-3754
TREASURER:	JAN	863-1575
RECORDING SEC:	ED	864-4924
CORRESPONDING SEC:	GENE	829-0469
LIBRARIAN:	ROB	864-1233
NEWSLETTER EDITOR:	JOHN	527-6656

GENERAL ITINERARY OF THE CLUB'S MEETING

6:45 P.M.	DOORS OPEN
7:00 P.M.	GENERAL MEETING
7:45 P.M.	DEMOS AND NEW INFO
8:45 P.M.	HARDWARE CLASS
8:45 P.M.	INTRO TO FORTH
8:45 P.M.	TIPS FOR BEGINNERS
8:45 P.M.	USING YOUR CASSETTE
11:00 P.M.	DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

ASGARD'S TYPEWRITER, DEMO BY MIKE SEALY

RECIPE WRITER V.2.0, DEMO BY PAUL BROCK

LIBRARY "DEMO OF THE MONTH" BY ROB EKL

LATEST SOFTWARE DEMOS BY JOHN WILLFORTH

HELP AND INFORMATION FOR CASSETTE USERS

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$10.00 PER YEAR FOR JUST THE NEWSLETTER

TREASURER'S REPORT FOR FEBRUARY "89

FROM JAN TRAYERS

```
*****************************************
*                                       *
* 2/21   CASH ON HAND    $100.00        *
*                                       *
*   "    LIBRARY SALES     74.00        *
*                                       *
*   "    MICROPENDIUMS     39.50        *
*                                       *
*        TI BOOKS          25.00        *
*                                       *
*        DISK SALES        46.00        *
*                                       *
*        DUES             130.00        *
*                                       *
*        TI TAX            10.00        *
*                        --------       *
*        TOTAL           $424.50        *
*  3/3   DEPOSIT        - 368.00        *
*                        --------       *
*  3/3   CASH ON HAND      56.50        *
*****************************************
*                                       *
*  2/21 BANK BALANCE    $1471.76        *
*                                       *
*  2/21 C.PRATT MAX/FLIX - 15.00        *
*                        --------       *
*                         1456.76       *
*   "  MICKEY/EXPENSES -  17.68         *
*                        --------       *
*                         1439.08       *
*   "  T I BOOKS        - 134.84        *
*                        --------       *
*                         1304.24       *
*  3/3 MICROPENDIUMS    -  30.00        *
*                        --------       *
*                         1274.24       *
*   "  POSTAGE & TI TAX -147.14         *
*                        --------       *
*                         1127.10       *
*   "  RAFFLE PRIZES    -  75.00        *
*                        --------       *
*                         1052.10       *
* 3/3  DEPOSIT          + 368.00        *
*                        --------       *
*      TOTAL             1420.10        *
*****************************************
*  TOTAL CASH BALANCE  $1476.60         *
*****************************************
```

GROM EXTENDERS.... I may have a few new GROM EXTENDER BOARDS at the West Penn meeting in March. This will depend on how many are left after the PUG meeting. The cost will be $6.25 each. This is the first step for lock-ups. JFW

PASCAL/p-CODE PART 14
Stan Katzman

PROGRAM REDIRECTION. This is kind of complicated so let us take it stepwise. I cannot take credit for fleshing out this information it came from Robert Linn, 1442 N. 10th St., Reading, Pa. 19604. I would like to be a conduit for this information.

Let us take a redirection problem that is common and explain it. Let us change the printer output to PIO using program redirection.

The normal process is to boot the system and then "X)icute" the "#4:MODRS232" program and input a "P" and then "PIO<enter>". We can have the machine do all of this through program redirection.

We have to create a program and a file, so let us create the program first. The program is short;

```
Program Go;
Uses {$U Commadio.Code} Commandio;

Begin
   Chain('I= #4:Change.Text ');
   Chain(' ');
End.
```

Explanation . The "uses" line was explained earlier and it is a code file that the compiler must have in order to use the statement 'Chain'. In the 'Chain' statement the 'I' is calling for program Input according to whatever is called for in the 'Change.Text' file located on the #4 drive. (Of course we could call the file anything we wish besides Change.)

Let us now discuss the "Change.Text" file. First let us create it. Go to the Editor and enter the following;

```
X#4:MODRS232(enter)
PPIO(enter)
```

Now save the file as " Change". If you recall in order to modify the printer output you would type from the command line "X" and then "#4:MODRS232<enter>". That is what is entered in the first line of the text file above. It is the exact keystrokes used to enter the "MODSR232" program. Now when the program is running the exact set of keystrokes were "P" followed by "PIO<enter>" and that is what the second line is.

Now when you run the "GO" program it calls for the "Change" file and I_nputs this file into the machine automatically for you. You will see each symbol displayed on the screen.

You can call anything up just by entering the appropiate keystrokes in the "Change" file. For example let us expand the file;

```
X#4:MODRS232(enter)
PPIO(enter)
FE#5(enter)
```

What happens in the third line above is the Filer is called and then the Extensive directory listing, followed by the #5 drive.

If you think about it for a while you will see that this process is a little involved but not so difficult that it can't be mastered with a little thought.

I have created a SYSTEM.STARTUP file on disk which boots when the computer comes on. The program file is the following

```
Program Go;
Uses {$U Commandio.Code} Commandio;
Begin
Chain( 'I= #4:Change.text ');
Chain( ' ');
End.
```

The Text file (called Change.text) is the following;

```
X#4:MODRS232(enter)
PPIO(enter)
X#4:PRINTER(enter)
2(enter)
4(enter)
```

The last three lines refer to a program that I have on the #4 drive titled "printer". I like to set certain printer modifications, like skipping the last 6 lines of a page. The entire process is done without me touching the keyboard.

LETS TALK * RECIPE WRITER *

Frist of all Recipe Writer can be loaded through Editor/Assembler or TI-Writer or Extended Basic. I am useing Ext. Basic at the present time. The Recipe Writer I am referring to is the 2.0 version. I understand that there is an earlier version, in which I know nothing about.

The fourteen page manual is very well written and easy to understand. RW(Recipe Writer) is a menu-driven program. That I liked.

If you are saving a recipe,the frist thing that has to be done is to initialize a disk, with nothing else on it. Go to the Utilities, slect the second option "Prepare new data disk". When I frist saved a couple of new recipe, I didn't use this option and the Catalog option wouldn't work for me. Remember it pays toread the manual frist.

Another problem I had was getting my recipe instrutions spaced just right. Count the characters (38) per line and enter afterwards. You are allowed 23 lines, but only 7-8 lines will fit on a 3x5 card. So what to do! I have superscripe on my printer. I also have TI-Writer, I can turn the card over and complete the instruction. Maybe someone else will have a different idea later.

If you need to know the name of the recipe file just catalog the disk without leaving the RW. inviorment. I can't remember all the file names, so I have two choices-catalog to screen or catalog to printer. If you are in a hurry just use the screen. RW. also has a Keyword Word Search in which I am still playing with. I like the idea that I can get a lot of recipes on one disk.

I have only had RW. for a few months, and just started to unwind the possibilities. There is a lot more to RW. than I have mentioned. I just talked about a few stumbling blocks that I had frist encountered. I hope to be at the meeting to answer any question you might have. I am well Pleased with Recipe Writer.

PAUL A. BROCK

TI-TAX
By Art Gardner

There is a new tax program, written by William G. Chavanne of Ft. Meade, Md., that is the best I have run across. He has written a program that runs entirely in Multiplan, except for the DOCS, which run in Basic.

Before starting, copy onto a blank disk the "Initial" file and all other forms you will need. Then use this as your data disk. This must be kept in DSK1 while you do all forms and schedules.

There is a program you load in Basic first that is called "Print17." This is a short program that sets your printer to the correct compressed print settings. You then load in Multiplan. Next you load into Multiplan a file called "Initial." On this form, you put in all of your personal information, such as name, spouse's name, filing status, etc. This is then saved to DSK1.

The "Flow Chart" is then loaded in Multiplan and printed out. The chart is very easy to use, after you see how lines and arrows are used to connect each block. and takes you through the proper order of the forms. For example, on a fairly typical return, you start with Schedule B, then 1040 Page 1, then Schedule A, then 1040 Page 2. (Tip: It helps to print out each blank form to use as a guide in filling in the form on the screen.) As you follow the flow chart of forms, the information in the INITIAL file is pulled from it to be used in the proper places on the various forms. Other needed information is also pulled from the other forms and put into the proper place. All calculations are done for you.

Mr. Chavanne has such a good and accurate program here, that the IRS has given him approval for his schedules to be printed by computer and filed with your return in place of the forms from the IRS booklet. The only exceptions are those forms that require your

signature on them, such as 1040, 1040A, and 1040EZ. All others can be used right from your printer.

The program will print out the 1040 forms so that you can then just transpose the information to the form from the tax booklet. He also has a feature that will allow you to overprint the 1040 form with just the dollar figures. It takes a little patience to get the form lined up in your printer, but it will print information on both sides, and it puts it on the right lines. To do this, when you are ready to print, select PRINT, then OPTIONS. Where the line numbers to print are, just type "OVERPRINT" over the numbers; the program will then print only the data you have added.

We have found only one "bug" so far. This is on Schedule A. Where the data goes on line 5 for "State and Local Taxes," set your cursor on cell R16C10. Press "N" for name. Then type in "lines5thru7" (all in small letters). Use a "CTRL A" and type in "R16:19C10". This will enable the proper calculation for line 8.

I know that Mr. Chavanne has put in hundreds or thousands of hours writing these schedules, and I feel the small amount of money he wants for the forms is very reasnoable compared to his time involved. He askes a set amount for each disk, or $5.00 per side of form. The disk prices follow:

SHORTFORMS	$20.00
LONGFORM	$10.00
SCHEDULES	$15.00
USUAL FORMS	$15.00
MOREFORMS	$15.00

I am not an expert on this program, by any means, but I would be glad to answer any questions anyone may have about it.
HAPPY FILING

PS: If you want a copy of this program, please contact the West Penn 99'ers librarian:

Rob Ekl

920 Whitehead Lane
N. Huntingdon, Pa. 15642
412-864-1233

Continuing with problems from #6.

Common problem #9, deals with drives that are double-sided (2 heads). The drive exhibits problems when either reading or writing to a particular head. A head could be the problem, or that part of the logic that is asssociated with the head before the circuit becomes common to both. The easiest way to trouble-

shoot this problem to the head or to the board, is to switch the head wires as they connect to the logic board, and re-format then test the drive again. If the problem now moves to a new head/cylinder number, then the problem is in a HEAD, this is the more difficult and costly to fix, and will justify removing the drive from service for good. If the problem stays with same, a chip or other simple component may easily fix the problem. Here it might be wise to get

some as-is drives for about $5. each at a HAMFEST or other source of defective units, and use these as a source of some of the less commonly available items, such as the "CA3054" chip which is a hybrid driver chip for the read/write amp. in many logic boards, especially on MPI disk drives.

Common problem #10, is more of a hint to make it easier to select different unit and Head Load w/Motor On or Head Load w/Select jumpering without having to put a new Shunt Pack on the logic board. Just replace it with a 14 (or 16) pin switch pack assembly. You can now easily experiment with different settings.

Common problem #11, deals with the LED/PHOTO TRANSISTOR sensors that are used on many disk drives. These can cause various problems and because they are each functioniong in a different fashion, the problem will appear different. The LED is the part that issues a light that then is picked up by the PHOTO-TRANSISTOR and allows either FLOAT (+5V) or GROUND (0V) to be fed to the sensing circuit of this SENSOR SET. It may be possible to replace a suspected unit, but it may be easy using a micro-switch to troubleshoot to a defective sensor assembly.

EXAMPLE:

```
------------ (A) 200 ohm to +5 V.
!
!        ----- (B) To Amplifier  (B)(------      (B)--------
!       /                             !             !
!      !/ PHOTO-                    MICRO- 0      JUMPER !
^//    !TRANSISTOR                  SWITCH  /     WIRE   !
/  \   !                                  /            !
-----  !\                                0             !
  !      +                                !            !
  !        ----- (C)(GRND)      (C)(------'   (C)-------'
  !
    ------------ (D)(GRND)   Fig. 1
```

In Fig. 1 above, you might be looking at the TRACK 00, INDEX, or the WRITE PROTECT SENSOR assembly. The LED issues light in the spectrum where the human eye cannot see it, but the PHOTO-TRANSISTOR can pick it up. If something, let's say a write protect tab, fills the notched area that the manufacturer cut into the side of the diskette when it was made, then light will not be seen by the PHOTO/TRANS. and logic will tell the controller, and the controller in turn will let the DSR know at the appropriate time. If the LED is bad or the PHOTO-TRANS. is bad, the drive will think the write protect tab is over the notch, and as a result you will not be able to write to the disk. You could do a quick test of the PHOTO-TRANS. by shorting pins B and C together to see if the drive logic is good. If the unit is write enabled, then either the LED, or PHOTO-TRS. are bad. Again you can get these parts cheapest from AS-IS units.

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PLEASE NOTE: minimum shipping is $3.00 . If you order any albums please add $.50 each additional S&H due to size & weight of these items. OHIO RESIDENTS MUST ADD 7% SALES TAX.

Sale starts 3/18/89 and ends 4/15/89. THANK YOU.

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008 MUNCHMAN (4)	5.95	3.49	019 SUPER DEMON ATTACK (12)	9.95	4.99
022 MUNCHMOBILE (3)	6.95	3.99	061 SEWERMANIA (3)	8.95	4.99
006 CAR WARS (30)	4.95	2.49	004 TOMBSTONE CITY (7)	4.95	1.99
009 CHISHOLM TRAIL (5)	5.95	2.99	071 JAWBREAKER II (6)	4.95	2.49
011 MIND CHALLENGERS (1)	8.95	5.99	025 BUCK ROGERS (3)	15.95	10.99
142 M*A*S*H (1)	14.95	10.99	191 VIDEO GAMES I (3-GAMES IN 1) (2)	7.95	5.49
083 OLDIES BUT GOODIES II-TAPE (10)	4.95	2.49	084 MARKET SIMULATION-TAPE (10)	4.95	2.49
123 STRIKE FORCE 99-TAPE (I/B) (2)	11.95	5.99			
039 INTEGERS (GOOD MATH) (3)	9.95	3.99	036 MIKUS MISSION (AGE 5-11) (5)	6.95	3.49
046 DIVISION I (AGE 8-9) (4)	8.95	4.99	049 SPELLING 3 (SPEECH) (GR. 2-4) (1)	9.95	7.49
050 SPELLING 4 (SPEECH) (GR. 3-5) (1)	9.95	7.99	051 SPELLING 5 (SPEECH) (GR. 4-7) (1)	9.95	7.49
102 JOTTO (TAPE) (WORD GAME) (8)	7.95	3.99	101 TINY LOGO (TAPE) (9)	7.95	3.49

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* THE FOLLOWING ARE ADVENTURES ON CASSETTE TAPE AND ALL REQUIRE THE USE OF ADVENTURE MODULE #017 SOLD ABOVE

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074 VOODOO CASTLE (8)	4.95	2.99	075 THE COUNT (8)	4.95	2.49
076 STRANGE ODYSSEY (8)	4.95	2.49	078 GHOST TOWN (7)	4.95	2.49
079 SAVAGE ISLAND SERIES (2)	4.95	3.99	080 THE GOLDEN VOYAGE (7)	4.95	2.49

173   COMPUTER INTRODUCTORY PACKAGE (6) - TI ALBUM INCLUDES - MULTIPLICATION 1, HOUSEHOLD BUDGET MANAGEMENT, TI INVADERS - ALL IN A NICE LARGE 3 RING BINDER   REGULAR PRICE - $11.95   NOW ONLY - $5.99

171   FAMILY ENTERTAINER (12) - TI ALBUM INCLUDES - THE ATTACK, A-MAZE-ING, HUNT THE WUMPUS - ALL IN A NICE LARGE 3 RING BINDER   REGULAR PRICE - $14.95   NOW ONLY - $6.99

WE RESERVE THE RIGHT TO LIMIT QUANTITIES, PRICES GOOD ONLY WHILE LISTED SUPPLIES LASTS. FIRST COME, FIRST SERVE.

```
100 REM **************
110 REM * SUPER MAZE *
120 REM **************
130 REM
140 REM   ENTERED 12/23/83
150 REM   BY CHARLES BALL
160 REM
170 GOSUB 370
180 GOSUB 1330
190 GOSUB 630
200 GOSUB 1700
210 MSG$="@131"&STR$(ANSW)
220 GOSUB 2780
230 GOTO 260
240 CALL KEY(3,KY,ST)
250 IF ST=0 THEN 240
260 IF KY=65 THEN 300
270 IF KY=78 THEN 170
280 IF KY=82 THEN 340
290 GOTO 240
300 CALL CHAR(144,"00003C3C0
000FFFF")
310 CALL CHAR(145,"00003C3C"
)
320 CALL COLOR(15,16,11)
330 GOTO 240
340 GOSUB 1180
350 GOTO 200
360 REM   SET INITIAL VAR
370 CALL CLEAR
380 DIM MZ1(22,30)
390 FOR I=1 TO 15
400 CALL COLOR(I,4,4)
410 NEXT I
420 DATA 128,808030808060FFF
F,129,000000000000FFFF
430 DATA 130,808080808080808
0,131,0
440 DATA 132,0010107C1010FFF
F,133,809090FC9090FFFF
450 DATA 134,0010107C101,135
,809090FC90908000
460 DATA 136,FFFFFFFFFFFFFFFF
F,144,000000000000FFFF
470 DATA 145,0
480 RESTORE 420
490 FOR I=1 TO 11
500 READ A,B$
510 CALL CHAR(A,B$)
520 NEXT I
530 CSOL=-1
540 ANSW=1
550 KMOV=0
560 FOR I=1 TO 22
570 FOR J=1 TO 30
580 MZ1(I,J)=0
590 NEXT J
600 NEXT I
610 RETURN
620 REM   CREATES MAZE
630 RANDOMIZE
640 FOR J=1 TO 22
650 FOR I=1 TO 29 STEP 7
660 FOR K=130 TO 131
670 N=INT(((I+7)-I+1)*RND)+I
680 IF N>30 THEN 730
690 X=MZ1(J,N)
700 IF X=130 THEN 670
710 IF (X=144)+(X=145)THEN 7
30
720 MZ1(J,N)=K
730 NEXT K
740 NEXT I
750 NEXT J
760 FOR I=1 TO 22
770 FOR J=1 TO 30
780 X=MZ1(I,J)
790 IF (X=144)+(X=145)THEN 9
10
800 IF X=0 THEN 890
810 IF (X=128)+(X=130)THEN 9
20
820 IF I<13 THEN 920
830 IF (X=131)+(X1=1)THEN 88
0
840 X1=1
850 IF J-1<1 THEN 890
860 IF MZ1(I,J-1)=145 THEN 8
90
870 GOTO 920
880 X1=0
890 MZ1(I,J)=129
900 GOTO 920
910 CSOL=CSOL+1
920 CALL HCHAR(I+1,J+1,MZ1(I
,J))
930 NEXT J
940 NEXT I
950 CALL VCHAR(1,1,136,24)
960 CALL VCHAR(1,32,136,24)
970 CALL HCHAR(1,1,136,32)
980 CALL HCHAR(24,1,136,32)
990 MSG$="@103SCORE! TI="&ST
R$(CSOL)
1000 MSG$=MSG$&" KEYS-    A
NS-"
1010 GOSUB 2780
1020 MSG$="2403R-REPLAY   A
-ANSWER    N-NEW"
1030 GOSUB 2780
1040 FOR I=1 TO 12
1050 CALL COLOR(I,16,7)
1060 NEXT I
1070 CALL COLOR(14,7,7)
1080 CALL COLOR(13,16,4)
1090 CALL COLOR(15,16,4)
1100 CALL GCHAR(SR,SC,NR)
1110 IF NR=144 THEN 1140
1120 CALL HCHAR(SR,SC,134)
1130 GOTO 1150
1140 CALL HCHAR(SR,SC,132)
1150 CALL HCHAR(FR,FC,70)
1160 RETURN
1170 REM   REPLAY
1180 FOR I=1 TO 15
1190 CALL COLOR(I,4,4)
1200 NEXT I
1210 CALL CHAR(144,"00000000
0000FFFF")
1220 CALL CHAR(145,"0")
1230 FOR I=1 TO 22
1240 FOR J=1 TO 30
1250 CALL HCHAR(I+1,J+1,MZ1(
I,J))
1260 NEXT J
1270 NEXT I
1280 ANSW=1
1290 KMOV=0
1300 GOSUB 950
1310 RETURN
1320 REM   CREATES SOLUTION
1330 CALL CLEAR
1340 RANDOMIZE
1350 J=1
1360 K=INT(11*RND)+10
1370 SR=2
1380 SC=K+1
1390 L=INT(2*RND)+1
1400 IF J+1=23 THEN 1660
1410 IF J+1+L>22 THEN 1420 E
LSE 1430
1420 L=22-J
1430 FOR I=J TO J+L-1
1440 MZ1(I,K)=145
1450 NEXT I
1460 MZ1(I,K)=144
1470 J=J+L
1480 L=INT(10*RND)+1
1490 D=INT(2*RND)+1
1500 IF D=1 THEN 1580
1510 IF K+L>30 THEN 1580
1520 FOR G=K TO K+L-1
1530 MZ1(J,G)=144
1540 NEXT G
1550 MZ1(J,G)=145
1560 K=K+L
1570 GOTO 1390
1580 IF K-L<2 THEN 1510
1590 FOR G=K TO K-L+1 STEP -
1
1600 MZ1(J,G)=144
1610 NEXT G
1620 MZ1(J,G)=145
1630 K=K-L
1640 GOTO 1390
1650 MZ1(22,K+1)=144
1660 FR=23
1670 FC=K+1
1680 RETURN
1690 REM   CALL KEY MOVEMENT
1700 R=SR
1710 C=SC
1720 CALL KEY(3,KY,ST)
1730 IF ST=0 THEN 1720
1740 KMOV=KMOV+1
1750 MSG$=STR$(KMOV)
1760 IF KMOV<10 THEN 1800
1770 IF KMOV<100 THEN 1790
1780 CALL HCHAR(1,23,ASC(SEG
$(MSG$,3,1)))
1790 CALL HCHAR(1,22,ASC(SEG
$(MSG$,2,1)))
1800 CALL HCHAR(1,21,ASC(SEG
$(MSG$,1,1)))
1810 CALL SOUND(10,500,0)
1820 REM   CHECK UP
1830 IF KY<>69 THEN 2020
1840 CALL GCHAR(R-1,C,NR)
1850 IF NR=70 THEN 32767
1860 IF (NR=130)+(NR=131)THE
N 1890
1870 IF NR=145 THEN 1890
1880 IF (NR=134)+(NR=135)THE
N 1920 ELSE 1720
1890 R=R-1
1900 IF NR=130 THEN 1960
1910 IF (NR=131)+(NR=145)THE
N 1980
1920 CALL HCHAR(R,C,MZ1(R-1,
C-1))
1930 R=R-1
1940 ANSW=ANSW-1
1950 GOTO 1720
1960 CALL HCHAR(R,C,135)
1970 GOTO 1990
1980 CALL HCHAR(R,C,134)
1990 ANSW=ANSW+1
2000 GOTO 1720
2010 REM   DOWN
2020 IF KY<>88 THEN 2270
2030 CALL GCHAR(R,C,NR)
2040 IF (NR=132)+(NR=133)THE
N 1720
2050 CALL GCHAR(R+1,C,NR1)
2060 IF (NR1=136)+(NR1<128)T
HEN 1720
2070 R=R+1
2080 CALL GCHAR(R,C,NR)
2090 IF NR=70 THEN 2720
2100 IF (NR=144)+(NR=129)THE
N 2170
2110 IF (NR=145)+(NR=131)THE
N 2210
2120 IF NR=128 THEN 2190
2130 IF NR=130 THEN 2230
2140 CALL HCHAR(R-1,C,MZ1(R-
2,C-1))
2150 ANSW=ANSW-1
2160 GOTO 1720
2170 CALL HCHAR(R,C,132)
2180 GOTO 2240
2190 CALL HCHAR(R,C,133)
2200 GOTO 2240
2210 CALL HCHAR(R,C,134)
2220 GOTO 2240
2230 CALL HCHAR(R,C,135)
2240 ANSW=ANSW+1
2250 GOTO 1720
2260 REM   RIGHT
2270 IF KY<>68 THEN 2450
2280 CALL GCHAR(R,C+1,NR)
2290 IF (NR=128)+(NR=130)THE
N 1720
2300 IF (NR=133)+(NR=135)THE
N 1720
2310 IF NR=136 THEN 1720
2320 C=C+1
2330 IF NR=70 THEN 2720
2340 IF (NR=144)+(NR=129)THE
N 2390
2350 IF (NR=145)+(NR=131)THE
N 2410
2360 CALL HCHAR(R,C-1,MZ1(R-
1,C-2))
2370 ANSW=ANSW-1
2380 GOTO 1720
2390 CALL HCHAR(R,C,132)
2400 GOTO 2420
2410 CALL HCHAR(R,C,134)
2420 ANSW=ANSW+1
2430 GOTO 1720
2440 REM   LEFT
2450 IF KY<>83 THEN 2700
2460 CALL GCHAR(R,C,NR)
2470 IF (NR=133)+(NR=135)THE
N 1720
2480 IF (NR=128)+(NR=130)THE
N 1720
2490 CALL GCHAR(R,C-1,NR1)
2500 IF NR1=136 THEN 1720
2510 C=C-1
2520 CALL GCHAR(R,C,NR)
2530 IF NR=70 THEN 2720
2540 IF (NR=144)+(NR=129)THE
N 2610
2550 IF (NR=145)+(NR=131)THE
N 2650
2560 IF NR=128 THEN 2630
2570 IF NR=130 THEN 2670
2580 CALL HCHAR(R,C+1,MZ1(R-
1,C))
2590 ANSW=ANSW-1
2600 GOTO 1720
2610 CALL HCHAR(R,C,132)
2620 GOTO 2680
2630 CALL HCHAR(R,C,133)
2640 GOTO 2680
2650 CALL HCHAR(R,C,134)
2660 GOTO 2680
2670 CALL HCHAR(R,C,135)
```

The program above was written in December 1983 by Charles C. Ball for the base T.I. console user. It is very slow, perhapse over a minute and a half, to run, but the wait is worth while. I'd like to thank Charles for sending it to me on disk, since my eyes are going, I probably would never have keyed it in. J.F.W.

MAZE MAKER
by Steve Karasek

The program below will print mazes for you to solve. It asks for the number of mazes to print, then for the level of difficulty, from 0 to 9. Level 0 is a VERY trivial maze (a child's first maze, perhaps), while level 9 is fairly challenging. The level number is printed at the top of the maze.

No matter what level you select, the maze will be printed to fill as much of the page as possible, so the lower-level mazes will have wider pathways which are easier for young children. There will always be exactly one path from Start to Finish.

The higher-level mazes take a while to compute. In particular, level 9 mazes take over 20 minutes each. You can always start up the program and come back a few hours later. The program keeps track of how far it has gone in computing each maze by displaying a line of the form M / N on the screen, where N is the number of squares in the maze and M is the number of squares the program has computed a path to. When M equals N, the maze is done and sent to the printer.

If your printer is not named "PIO", change the name in line 110. The last part of this line sets the printer line spacing to 7/72 inch. If you do not have an EPSON compatible printer, you will have to change this to the codes needed by your printer to set the line spacing. If you can't set it to 7/72 inch, set it to 8 or (preferably) 10 lines per inch.

The !'s and numbers at the end of each line are checksums for Tom Freeman's CHECKSUM program, and are not needed by the maze program.

```
100 RANDOMIZE :: OPTION BASE
 1 :: DIM M(39,39)::: INPUT "
HOW MANY MAZES? ":Z :: PRINT
!223
110 INPUT "LEVEL OF DIFFICUL
TY(0-9)? ":L :: IF L<0 OR L>
9 THEN 110 ELSE OPEN #1:"PIO
",OUTPUT :: PRINT #1:CHR$(27
):"A";CHR$(7);!131
120 N=INT(L+1)*4+(L=4 OR L=9
):: X=80/N :: S=INT(X):: S=S
+(X=S)!138
130 PRINT #1:"Start";TAB(30)
;"Level";L :: FOR X=1 TO N :
: FOR Y=1 TO N :: M(X,Y)=0 :
: NEXT Y :: NEXT X :: IF N=3
9 THEN 150 !174

140 FOR X=1 TO N :: M(N+1,X)
,M(X,N+1)=16 :: NEXT X !203
150 C,X,Y=1 :: DISPLAY ERASE
ALL AT(12,12):"1 /";N*N ::
ON ERROR 290 !059
160 W=INT(RND*4):: DX=X+(W=0
)-(W=1):: DY=Y+(W=2)-(W=3)::
K=M(DX,DY):: IF K THEN 160
!229
170 M(X,Y)=M(X,Y)+2^W :: IF
INT(W/2)*2=W THEN W=W+1 ELSE
W=W-1 !125
180 X=DX :: Y=DY :: M(X,Y)=M
(X,Y)+2^W :: C=C+1 :: DISPLA
Y AT(12,9)SIZE(4):USING "###
#":C :: IF C=N*N THEN 240 !0
53

190 IF X<N THEN IF M(X+1,Y)=
0 THEN 160 !198
200 IF Y<N THEN IF M(X,Y+1)=
0 THEN 160 !199
210 IF Y>1 THEN IF M(X,Y-1)=
0 THEN 160 !117
220 IF X>1 THEN IF M(X-1,Y)=
0 THEN 160 !116
230 X=INT(RND*N)+1 :: Y=INT(
RND*N)+1 :: IF M(X,Y)THEN 19
0 ELSE 230 !248
240 ON ERROR STOP :: PRINT #
1 :: PRINT #1:"#";TAB(S+1);R
PT$("#",S*(N-1)+1)):: S=S-1 :
: S$=RPT$(" ",S):: X$=RPT$("
#",S)!069
250 M(N,N)=M(N,N)+8 :: FOR Y

=1 TO N :: FOR W=1 TO S :: P
RINT #1:"#";::: FOR X=1 TO N
:: PRINT #1:S$;!076
260 IF M(X,Y)AND 2 THEN PRIN
T #1:" ";ELSE PRINT #1:"#";!
084
270 NEXT X :: PRINT #1 :: NE
XT W :: PRINT #1:"#";::: FOR
X=1 TO N :: IF M(X,Y)AND 8 T
HEN PRINT #1:S$;ELSE PRINT #
1:X$;!244
280 PRINT #1:"#";::: NEXT X :
: PRINT #1 :: NEXT Y :: S=S+
1 :: PRINT #1: :TAB(S*N-4);"
Finish":CHR$(12);::: Z=Z-1 ::
IF Z>0 THEN 130 ELSE END !0
20
```

The program and description above for Maze Maker, by the author, Steve Karasek is incredibly short, yet amazingly capable. Since I included Super Maze by Charles Ball, on page 8 for the BASIC programmers, I thought that it would be an appropriate time to include this different maze program for you who prefer EXTENDED BASIC. I keyed the program into my console, and did not use the check sum program to verify it. The program works perfectly, and the check sums should verify if you do use Tom Freeman's program.

I'll have both programs for the West Penn Library in March, if you can't or don't want to key them in. That's much of the fun, isn't it?

TI-PD CATALOG

Tigercub Software
156 Collingwood Ave.
Columbus, OH 43213

During the past 7 years, a great many programmers have contributed a wealth of material to the public domain. Unfortunately, most of these programs have not been readily available to most of the TI users. Only a few of the user groups have really large public domain libraries, and even these are usually cataloged only by alphabetized abbreviated filenames. The more isolated users have even less access.

I have therefore decided to make the contents of my public domain library available to the TI world, at a copying fee so low that I hope no one will think I am unfairly profiting from the work of others (and I think you will note, in the following listings, that I have probably contributed more to the public domain than anyone else!), but if any author objects to my distributing his work I will certainly stop. My catalog contains the author's name for each program, when available, both in order to give due credit and to aid in distinguishing between programs of the same name. Regrettably, many of the IUG programs distributed by Amnion have had the author's name deleted.

Fairware authors may reasonably object to anyone charging to distribute their work. I will therefore not offer any fairware unless I receive the author's express permission. I will not offer anything which bears a copyright notice unless I have definite information that the copyright has been abandoned or was not intended to preclude distribution. It is entirely possible that I may have obtained programs from which a copyright or fairware notice had been deleted, and I would appreciate being informed of any such in my catalog.

I have gone through my library of over 3600 public domain programs and selected enough of the better ones to fill over 200 disks, arranged by category. Each SS/SD disk contains as many programs as I could fit onto it, if I had enough programs of that category - the number of filled sectors on each

disk is indicated in parentheses. All Basic-only programs have been converted to run in Extended Basic (except those which use the TEII speech), and an XBasic loader has been provided for assembly programs whenever possible. Each disk has been provided with an autoloader by full program name, not filename.

I have added instructions to a good many of these programs, and corrected any bugs that I noticed, but I cannot guarantee them in any way, and cannot offer to provide instructions, correct bugs or make modifications. I will of course replace any bad loads, and would appreciate being informed of any program which has serious flaws.

This public domain is offered only as a copying service, not as a sale of computer software, and I take no responsibility other than providing a copy equal to the original.

If I receive a worthwhile response to this offer, I will be adding more public domain and will be asking fairware authors if they want me to distribute their products. I am always willing to make exchanges for worthwhile public domain which is not in my catalog, and am particularly interested in getting more educational software above the primary level.

NOTE: Tigercub Software also publishes a catalog of over 120 original copyright entertainment, educational and utility programs at $1 each, plus full disk collections at $5, Nuts & Bolts of programmer's utilities, etc., etc. That catalog is $1, deductible from 1st order (specify TIGERCUB catalog).

DUES FOR 1989 ARE DUE!

If you haven't sent in or given Jan Trayers your 1989 dues yet, I would appreciate it if you could see to it as soon as possible for unless the executive committe has changed the rules, they have been due since January 1, 1989.

Send a check made out to:
WEST PENN 99'ERS, and mailed to:
    JANICE TRAYERS
    2151 MICKANIN ROAD
    N. HUNTINGDON, PA 15642
You can also give her cash at the March meeting. $15.00 for a full Family membership, $10.00 for an Associate membership. J.F.W.

SOME MISCELLANEOUS THINGS..
From the September 1988 issue of the San Francisco Newsletter, we get this:

FINDING THE START WORD E-A
        By Herbert Schlesinger (source unknown)
When the name of the E/A program is not known, one way to find the "START"
word is as follows:
   Using the E/A environment, load the PROGRAM into memory. Go back to the
title screen (the color bar screen), and select E/A BASIC. Then type in and
run the following program:

```
10 FOR I=16128 TO 16383      OPTIONAL:        5 OPEN #1:"PIO"
20 CALL PEEK(I,A)            (FOR PRINTER)
30 PRINT CHR$(A);                             35 PRINT #1:CHR$(A)
40 NEXT I
```

   Among the words, symbols and garbage you should find the word which will
start the E/A program. You could do this or get a copy of the Italian E/A
on disk which will provide you with the the START name. Either way!

GENEVE OWNERS, QBERT PATCH.   .
   HOW TO GET QBERT RUNNING ON GENEVE
        by Massimo Cariboni, Via Agadir, 2B 20097 San Donato Milanese Italy

   Here's a tip to modify QBERT to allow it to run on the GENEVE 9640 or
the TI99/4A.   (Editors note, I can't test this proceedure)
   1) Copy (onto a blank disk) the files QBERT and QBERT1 saved with GRAM-
      KRACKER or Peter Hoddie's program "CS".
   2) Using a sector editor, look for the following sequence:
      "02200100D8008C020280880016F7045B"
   Now change "8800" to "8700" in that sector and save it back to disk.
WARNING!

   This modification is only for personal use and for QBERT owners only.
Distributing modified copies of QBERT may infringe on Parker Brothers copy-
right. For any kind of further information, feel free to leave a message
for Massimo Cariboni through the mailbox "P APERINO" (Daniele Marini) on
DELPHI.

SOME OF THE EASIER TO CONVERT BASIC COMMANDS FROM OTHER BASICS TO TI.
        The following comes from the WASHINGTON D.C. AREA USERS GROUP

OTHER BASIC	TI
CLS	CALL CLEAR
FIX	INT
INKEY$	CALL KEY
LEFT$(A$,N)	SEG$(A$,1,N)
MID$(A$,N1,N2)	SEG$(A$,N1,N2)
RIGHT$(A$,N)	SEG$(A$,LEN(A$)-N+1,N)
RANDOM	RANDOMIZE
RND(N)	INT(N*RND+1)
STOP	BREAK
TAB	TAB,(WITH COMMA)
?	PRINT
'	REM

I'v been saving these for five years in a time capsule. I opened it the up
the other day. Thought you might be interested. I know that most of you do
not convert programs, but who knows, maybe someday you'll need to.   J.F.W

MAYBE YOU CAN HELP?

About a month ago, I received a letter from J. E. Evans who is with the L. B. Morris Elementary School, 150 West Tenth Street, Jim Thorpe, PA 18229. The following is the letter:

Dear Club Members,

Last week I was given a box of T.I. equiptment: T.I. 99/4A, disk controller (TI), Disk Drive (TI), Color monitor(TI), Modules - Disk Manager (with no documentation), and LOGO (with no documentation).

I have some experience in basic programming and have 2 - TI set-ups w/tape recorders only hooked up to T.V. sets. I use them for additional math support and reading concepts.

Any help with information or old disks that you have along with how to put tape data ondisks would be appreciated.

Thank You,
J.E. Evans

Some one out there might start a TI pen pal here, and help this teacher and kids at the L.B. Morris Elementary School. That's one of the reasons we are in an organization like TI clubs and users groups.

I hear from Frank Zic, that a Radio Shack store manager told him that the R.F. Modulators that they've been carrying for over four and a half years are about to dry up. In other words, you better spend the $4.95 and get yourself a spare one before there all gone. It would be a shame to have TI repair yours for $25.00 next month!

WEST PENN 99'ERS

% JOHN F. WILLFORTH
R.D. #1   BOX 73A
JEANNETTE,   PA
              15644
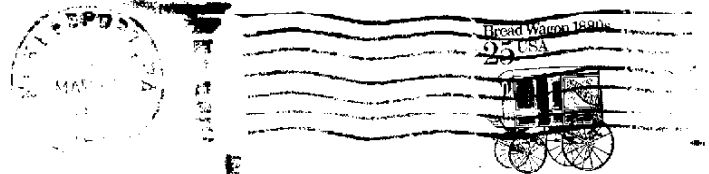
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DALLAS, TX 75229

DUES ARE DUE!