

MAD HUC

MINNESOTA AND DAKOTA
HOME USER GROUP
GRAND FORKS, ND

MEETINGS
AT THE G.F.
PUBLIC
LIBRARY

June, 1989

MINNESOTA AND DAKOTA HOME USERS GROUP for TI 99/4R meets every second Tuesday in the upstairs meeting room, and every fourth Tuesday in the Electronic Room of the Grand Forks Public Library. Yearly dues are \$15.00. Members can use the group's hardware and software by presenting the library reference librarian with their membership card and asking for the keys to the MAD HUC files.

Anyone interested in the TI 99/4R is welcome to attend.



Bread Wagon 1880s



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PUBLIC
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DALLAS TI 2 USERS GROUP
P.O. BOX 29863
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MINUTES, MAY 9, 1989

Meeting was entirely informal. It began in the Electronics Room, moved to an upstairs meeting room, and returned to the Electronics Room. Only five members were present. Discussions were quite general. Most of the time was devoted to perusing exchange newsletters.

Considerable attention was given to the proposal by the Winnipeg Users Group to stop exchanging newsletters with other groups. The alternative is for the group to join a few of the larger groups and, as members, receive their newsletters. Important articles, programs, and news items seem finally to be published in most of the newsletters and would not be missed with a reduction in the number of newsletters that are circulated.

Treasurer Rich Jurgens reported a treasury balance of \$181.49. All obligations have been paid. Due to the limited attendance at recent meetings, he has not held a raffle; after all, the Group can't afford to lose money. The meeting actually lasted from 7 pm to 9 pm. HWE

SIG MEETING, MAY 23, 1989

Five members attended; they were not all the same ones who were present at the regular May meeting. By following the documentation, we were able to use Rich Jurgens' DUMPIT disk and to dump the programs of an Editor/Assembler cartridge to disk.

Another main item of interest was my copy of Home Publishing on the 99/4A by Harry Thomas Brashear. Some of the attendees were more interested in this book than in learning to dump cartridges to disks. In addition, TI BASE was not forgotten. HWE



There are often times when we just want to type a short note or letter and rather than load in a full blown word processing program, we settle for writing it out with such low tech implements as pens and pencils.

It is very easy to turn your printer into an electric typewriter. Four lines of Basic code will do it.

```
1 OPEN #1:"PIO"
2 INPUT A$
3 PRINT #1:A$
4 GO TO 2
```

This program enables the user to type a line of text, edit it as desired, and then print it by hitting the enter key.

Whenever a line of text is to be indented or contains a comma, that line must begin and end with a quotation mark ("). The quotes will not be printed nor will they be counted in the width of the line of text.

To skip a line, just hit enter.

This program allows sending of print codes directly to an Epson RX-80 printer provided they are in the the same form as in the previously described RX-80 program. (i.e., CHR\$(27)= CONTROL PERIOD) By pressing CONTROL PERIOD, then SHIFT E, and then <ENTER>, the print control code for emphasized type is sent to the RX-80 printer. Other codes, of course, can be sent in the same manner.

By adding a few more lines, the program can be made more useful. We can require an input as to the maximum line width to be printed and use this information to set equal right and left margins. A check has been added to insure that the maximum line width is not exceeded and it includes a prompt to display what a overly long line can be shortened to. User instructions have also been added. The expanded 10 Line Basic program looks like this.

PRINTALINE

```
1 PRINT :::"TO INDENT TEXT
OR TO USE A COMMA, BEGIN &
END THAT LINEWITH QUOTATION
MARKS":
2 INPUT "PRESS ENTER TO SKIP
A LINE.          HOW WIDE?(80 CHARAC
TERS MAX)":WIDTH
3 MARGIN=INT((80-WIDTH)/2)
4 OPEN #1:"PIO"
5 INPUT "
INPUT LINE A LINE O
F TEXT:
":TEXT$
6 IF LEN(TEXT$)>WIDTH THEN 7
ELSE 9
7 PRINT : "LINE TOO LONG! SH
ORTEN TO":WIDTH;"CHARACTERS
MAX.":SEG$(TEXT$,1,WIDTH):
:
8 GOTO 5
9 PRINT #1:TAB(MARGIN);TEXT$
10 GOTO 5
```

When typing notes, etc., where it is desirable to start printing at column one, input a line width of 80 and monitor the line width on the screen.

A simple way to use this program for correspondence is to use a line width of 56. This will fill exactly two lines of the TI screen. Right margin justification can be accomplished by inserting spaces between words until the second line of text is completely filled.

The OPEN statement in Line 4 should be changed as required for the particular printer in use. The line width feature is designed for PICA print. Line 3 can be changed to accomodate ELITE or CONDENSED type styles.

ME MISCELLANEOUS THINGS.....
rom 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!

TI-BASE- From INSCEROT

IMPORTANT TIPS

Northcoast 99'ers - Oct 21, 1988
Late Information by Martin A. Smoley



I was just reminded of this small but extremely important tip. It concerns automatic page eject when it reaches the number which the page directive is set equal too. The TIB software comes with PAGE=56 already in the system. If you type in **SET PAGE=000** at the dot prompt, or enter this line in the SETUP CF, no page eject will be issued. This is absolutely necessary when printing labels. I put this command in my SETUP file when I first started working with TIB and completely forgot about it until now. I'm sorry about that one folks. Some people probably wasted hours on this problem.

SPIRIT OF 99

APR. 1989

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've 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

MENU SELECTION OF TYPE STYLES.....by Ed Machonis



This 10 line TI BASIC program enables selection of any of the 128 type styles available on the Epson RX-80 printer. If line spacing and margin combinations are included, more than 1024 variations are available. It will also print a test line of print, showing the appearance of the selected style.

Selections should always start by pressing 1 for RESET to insure that previous selections are canceled. Printers that do not support a master reset should be turned off and then back on at this point.

Styles are combined by successive selections, i.e., COMPRESSED EXPANDED UNDERLINED DOUBLE STRIKE is obtained by selecting: 1 <ENTER> 4 <ENTER> 3 <ENTER> 8 <ENTER> 7 <ENTER>

The control codes are entered in LINE 10. CHR\$(27), the ESCAPE code is obtained by pressing CONTROL and PERIOD at the same time. CHR\$(15), turning on Compressed style, is obtained by pressing CONTROL AND 0. (Not Zero)

Due to its short length, the program loads quickly and can be placed on the TI-WRITER and MULTIPLAN disks to enable selection of different type styles before printing. (Compressed Underlined is great for printing MULTIPLAN files, making 132 columns available on 8-1/2" paper.)

It can also be placed at the beginning of other programs which utilize a printer, where it will permit setting up the printer each time the program is run.

RX-80

```

1 DIM P$(15)
2 READ P$(1),P$(2),P$(3),P$(4),P$(5),P$(6),P$(7),P$(8),P$(9),P$(10),P$(11),P$(12),P$(13),P$(14),P$(15)
3 OPEN #1:"PIO"
4 PRINT : "COMBINE STYLES BY SUCCESSIVESELECTIONS- I.E. C

```

```

OMPRESSED EXPANDED UNDERLINE
D DOUBLE STRIKE=1-4-3-8-7"

```

```

5 PRINT : "1 PICA/RESET", "8 UNDERLINE", "2 ELITE", "9 TEST", "3 EXPANDED", "10 EXIT", "4 COMPRESSED", "11 SUPERScript"

```

```

6 INPUT "5 EMPHASIZED 12 SUBSCRIPT 6 ITALIC 13 1/2 LINE SP7 D'BLE STRIK 14 R MARGIN 6715 L MARGIN 13 ?":I

```

```

7 IF (I(1)+(I)15)THEN 5

```

```

8 PRINT #1:P$(I)

```

```

9 IF P$(I)<>" THEN 3

```

```

10 DATA #0,#M,#M1,#E,#4,#8,-1,QUICK BROWN FOX JUMPS OVER THE LAZY RED DOG 1234567890 TIMES,,#S0,#S1,#1,#QC,#I

```

In LINE 10:
#=CONTROL PERIOD
0=CONTROL 0 (Not Zero).
The last character is a lower case L, NOT the figure 1.

NOTE: when program is listed to a printer, LINE 10 will not print properly and will send control codes to the printer.

When listed to screen, and when entering, a graphic symbol or a blank space will appear in place of the CONTROL character.

The program can be adapted to other printers by changing the OPEN statement in LINE 3 and the codes in LINES 8 & 10 as required. Refer to pg III-2 in TI's User's Reference Guide for the CONTROL KEY equivalents (Pascal Mode) of the printer's control codes. Appropriate changes should also be made in LINES 5 and 6. The sequence of the printer control codes in LINE 10 must match the numerical sequence of the style names. Note that EXIT is accomplished with a comma immediately following the comma after TIMES

Certain printers, such as the AXIOM, will not recognize CONTROL PERIOD as an escape code. For these printers the program must be modified to send the ESCAPE code as CHR\$(27), etc.

The following program shows such a modification for the RX-80 printer. We have to give up the instruction display and the test for a valid input in order to hold the program down to 10 lines.

Please note the space immediately following the first quotation mark in Line 10. The space is important and the program will not work properly without it. (Can you tell why?)

PRINTSTYLE (For RX-80)

```

1 DIM P$(15)
2 READ P$(1),P$(2),P$(3),P$(4),P$(5),P$(6),P$(7),P$(8),P$(9),P$(10),P$(11),P$(12),P$(13),P$(14),P$(15)
3 OPEN #1:"PIO"
4 PRINT : "1 PICA/RESET", "9 TEST", "2 ELITE", "10 EXIT", "3 EXPANDED", "11 SUPERScript", "4 COMPRESSED", "12 SUBSCRIPT"
5 INPUT "5 EMPHASIZED 13 1/2 LINE SP6 ITALIC 14 L MARGIN 137 D'BLE STRIK 15 R MARGIN 678 UNDERLINE ?":I
6 PRINT #1:CHR$(27)&P$(I)
7 IF I<>4 THEN 9
8 PRINT #1:CHR$(27)&CHR$(15)
9 IF I<>10 THEN 4
10 DATA #,M,M1,E,4,6,-1," QUICK BROWN FOX JUMPS OVER THE LAZY RED DOG 1234567890 TIMES",,S0,S1,I,1,BC

```

Note: P\$(14), the next to last data item, is a lower case letter L, not the figure 1.

MENU SELECTION OF TYPE STYLES.....CONTINUED

Both of the above programs were tested on the Gemini 15 printer and operated without any problems.

The following program incorporates the control codes required for the letter quality mode on the Epson LX-80 printer. It has been successfully tested on that printer.

LX-80

```

1 DIM P$(16)
2 READ P$(1),P$(2),P$(3),P$(
5),P$(6),P$(7),P$(8),P$(9),P
$(10),P$(11),P$(12),P$(13),P
$(14),P$(15),P$(16)
3 OPEN #1:"PIO"
4 PRINT : "1 PICA/RESET", "9 T
EST", "2 ELITE", "10 EXIT", "3
EXPANDED", "11 SUPERSCRIPT", "
4 COMPRESSED", "12 SUBSCRIPT"
5 INPUT "5 EMPHASIZED 13 I/
2 LINE SP6 ITALIC 14 L
MARGIN 137 B'BLE STRIK 15 R
MARGIN 678 UNDERLINE 16 MR
LTR QUALSELECT ONE: ? ":I
6 PRINT #1:CHR$(27)&P$(1)
7 IF I(<>)4 THEN 9
8 PRINT #1:CHR$(27)&CHR$(15)
9 IF I(<>)10 THEN 4
10 DATA #,N,M,I,E,A,G,-1," QU
ICK BROWN FOX JUMPS OVER THE
LAZY RED DOG 1234567890 TIM
ES",,S0,S1,1,1,BC,x1
    
```

NOTE: P\$(14), the third data item from the end in line 10, is a lower case L, not the figure 1.

As mentioned above, the Axiom printer would not accept CONTROL PERIOD as an escape code. The following program is a modification of PRINTSTYLE using the control codes required for the Axiom GP550 printer. It has been successfully

tested on that printer.

AXIOM

```

1 DIM P$(15)
2 READ P$(1),P$(2),P$(3),P$(
5),P$(6),P$(7),P$(8),P$(9),P
$(10),P$(11),P$(12),P$(13),P
$(14),P$(15)
3 OPEN #1:"PIO"
4 PRINT : "1 PICA", "9 UNDERLI
NE", "2 ELITE", "10 PROPORT'NA
L", "3 CONDENSED", "11 TEST", "
4 ELONGATED", "12 SUPERSCRIPT"
5 INPUT "5 ITALIC 13 SU
BSCRIPT 6 CORSP PICA 14 I/
2 LINE SP7 CORSP ELITE 15 EX
IT 8 BOLD ? ":I
6 PRINT #1:CHR$(27)&P$(1)
7 IF I(<>)4 THEN 9
8 PRINT #1:CHR$(27)&CHR$(14)
9 IF I(<>)15 THEN 4
10 DATA N,E,C,B,H,D,*,X,P,*Q
UICK BROWN FOX JUMPS OVER TH
E LAZY RED DOG 1234567890 TI
MES,U,D,*,7,
    
```

The asterisk before the word QUICK in line 10 should not be omitted.

As the Axiom GP550 does not support a master reset code, it may be desirable to include the control codes for ending a selected style. (Although this can always be done by turning the printer OFF and then ON.) A tested version of the above program that includes the codes for ending selected styles follows.

AXIOM 2

```

1 DIM P$(20)
2 READ P$(1),P$(2),P$(3),P$(
    
```

```

4),P$(5),P$(6),P$(7),P$(8),P
$(9),P$(10),P$(11),P$(12),P$(
13),P$(14),P$(15),P$(16)
    
```

```

3 READ P$(17),P$(18),P$(19),
P$(20)
    
```

```

4 OPEN #1:"PIO"
    
```

```

5 PRINT : "1 PICA", "11 TEST"
, "2 ELITE", "12 SUPERSCRIPT",
"3 CONDENSED", "13 SUBSCRIPT"
, "4 ELONGATED", "14 END ELONG
AT"
    
```

```

6 PRINT "5 ITALIC", "15 6 LIN
ES/IN.", "6 CORSP PICA", "16 8
LINES/IN.", "7 CORSP ELITE",
"17 12 LINES/IN", "8 BOLD", "1
8 END BOLD"
    
```

```

7 INPUT "9 UNDERLINE 19 EN
D UNDERLN10 PROPORT'NL 20 EX
IT -SELECT ONE: ? ":I
    
```

```

8 PRINT #1:CHR$(27)&P$(1)
    
```

```

9 IF I(<>)4 THEN 11
    
```

```

10 PRINT #1:CHR$(27)&CHR$(14)
)
    
```

```

11 IF I(<>)14 THEN 13
    
```

```

12 PRINT #1:CHR$(27)&CHR$(15)
)
    
```

```

13 IF I(<>)20 THEN 5
    
```

```

14 DATA N,E,C,*,B,H,D,*,X,P,
*QUICK BROWN FOX JUMPS OVER
THE LAZY RED DOG 1234567890
TIMES,U,D,*,6,8,7,*,Y,
    
```

The author gratefully acknowledges the helpful assistance of QB-99'er members in testing these programs on their various printers.

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MULTIPLAN

By Audrey Bucher
Part 8

One of the most useful features of Multiplan is Windows. It took me a long time to try this, but once I did, I don't know how I managed without them. I think it is somewhat difficult to try to clearly explain them in an article but I'll give it a try. I suggest though that you play around with them yourself. DOING is the best way to learn.

The command I use most often is the Window Split Title command. In a spreadsheet such as our Expenses for 1988, there are Titles both in the first row and in the first column. Once you move the cell pointer past the third column or the twentieth row, you can no longer see the Titles. You can "fix" those Titles in place.

Place the cell pointer in the column to the right of the title column and in the row beneath the row which contains your Titles. Press W for window. You will see the following Command line:

WINDOW: Split Border Close Link

You want to split the Titles from the figures so choose Split by pressing S or Enter. Now you see:

WINDOW SPLIT: Horiz Vertical Title.

Choose T for Title. You will now be presented with two fields.

WINDOW SPLIT TITLES:# of Rows:3
of columns:1

Notice that MP proposes the correct response for the number of rows and columns to be split so you can just press Enter. When you use the Split Titles Command the windows are automatically linked so now you may move your cell pointer wherever you wish and the Titles will always be in sight. You probably will not use the windowing for Expenses for 1988 spreadsheet as this is filled in by the Xcopy Command. I merely used it as an example of a spreadsheet that has Titles in both the Rows and Columns.

But now let's look at our Checks for January spreadsheet. We had only put sixteen rows in our example to make it short. However, I'm sure you will have more than ten entries in any given month. Notice that when you move the cell pointer down past Row 20, you will lose the Column Titles. Even though we use the Go to Name command to get to a particular column and I trust MP completely to go to the correct column, I still like to see the Title on the screen. So for this spreadsheet, I would use the Split Horiz Command. Again, place the cell pointer beneath the row which contains your Titles (in this case, row 4). Press W for window, S for split and H

for horiz. You will see the following:
WINDOW SPLIT HORIZONTAL at Row:4
linked:yes (no)

Tab over to the next field and select Y to link the windows. Now whenever you scroll one of the windows horizontally, both windows scroll together. The active window is split horizontally. The area used by the given row and the rows below it becomes the new window. The area above the given row remains part of the original window. You may move your cell pointer between windows by using Control 6 (change window), which makes a different window the active window. Control 6 again will take you back to the original window.

Let's sum up the Window Split Command. You are given three choices. Window Split Horizontal splits the active window across the screen, giving two windows, one above the other. Window Split Vertical splits the active window between columns, one to the left of the other. Window Split Titles splits the screen both vertically and horizontally to display titles in separate windows. Up to eight windows may be opened using the Window Split Commands (if you can get them to fit and still show you anything).

To close a window, simply press W for Window and C for close. You will see the following:

WINDOW CLOSE window number:n

The active window is the proposed response.

Just a few words now about the remaining commands.

Window Border will draw a line around the active window that sets it off from the surrounding worksheet. Try this command to see what a bordered window looks like. A border takes up one screen position on each side of the window, reducing the area for the display of data by two screen lines and two screen columns. To remove a border use the same commands: W and C.

Last of all, the Window Link Command. This is used to change the link status of windows that are already split. Press W for Window and L for Link. MP proposes linking the active window with the window from which it was split, so just press Enter and tab over to the third field and press Y for yes or N for no, depending on which you would like. When windows are not linked, you can scroll them separately to view different parts of the worksheet simultaneously. However note that Windows split by the Window Split Titles Command cannot be unlinked.

I hope I have not totally confused you at this point. As I said in the beginning, it's not an easy subject to describe. TRY IT, I think you'll like it and if you have any questions just give me a call.

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.

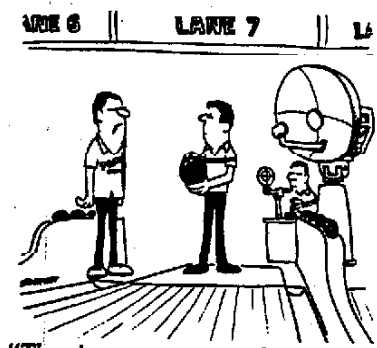
If your printer is not named "PIO", change the name in line 110. The last part of this line sets the printer line spacing to 7/72 inch. If you do not have an EPSON compatible printer, you will have to change this to the codes needed by your printer to set the line spacing. If you can't set it to 7/72 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 140 FOR X=1 TO N :: M(N+1,X) 190 IF X<N THEN IF M(X+1,Y)= =1 TO N :: FOR V=1 TO 6 :: P
1 :: DIM M(39,39):: INPUT "  ,M(X,N+1)=16 :: NEXT X 1203 0 THEN 160 1190 RINT #1:"#";: FOR X=1 TO N
HOW MANY MAZES? ":Z :: PRINT 150 C,X,Y=1 :: DISPLAY ERASE 200 IF Y<N THEN IF M(X,Y+1)= :: PRINT #1:S0;1076
1223 ALL AT(12,12):"! /":M*N :: 0 THEN 160 1199 260 IF M(X,Y)AND 2 THEN PRIN
110 INPUT "LEVEL OF DIFFICUL ON ERROR 290 1059 210 IF Y! THEN IF M(X,Y-1)= T #1:" ";ELSE PRINT #1:"#";}
TY(0-9)? ":L :: IF L(0 OR L) 160 W=INT(RND*4):: DX=X+(W=0 0 THEN 160 1117 270 NEXT X :: PRINT #1 :: ME
9 THEN 110 ELSE OPEN #1:"PIO )-(W=1):: DY=Y+(W=2)-(W=3):: 0 THEN 160 1116 280 PRINT #1:"#";: NEXT X :
",OUTPUT :: PRINT #1:CHR$(27 X=M(DX,DY):: IF K THEN 160 230 X=INT(RND*N)+1 :: Y=INT( 1 :: PRINT #1:"#";TAB(S+1);R
);"A";CHR$(7);1131 1229 240 ON ERROR STOP :: PRINT # 1 :: PRINT #1:"#";TAB(S+1);R
120 M=INT(L+1)*4+(L=4 OR L=9 170 M(X,Y)=M(X,Y)+2*W :: IF INT(W/2)*2=W THEN W=W+1 ELSE 0 ELSE 230 1248 : S=S-1 :
): X=80/N :: S=INT(X):: S=S Y AT(12,9)SIZE(4):USING "### : S=RPT$( " ",S):: X=RPT$( "
+(X=S)1130 #*":C :: IF C=N*N THEN 240 10 #",S)1069
130 PRINT #1:"Start";TAB(30) 180 X=DX :: Y=DY :: M(X,Y)=M (X,Y)+2*W :: C=C+1 :: DISPLA 250 M(N,N)=M(N,N)+8 :: FOR Y 20
:"Level";L :: FOR X=1 TO N : : FOR Y=1 TO N :: M(X,Y)=0 : Y AT(12,9)SIZE(4):USING "### : S=RPT$( " ",S):: X=RPT$( "
: NEXT Y :: NEXT X :: IF M=3 #*":C :: IF C=N*N THEN 240 10 #",S)1069
9 THEN 150 1174 53
```

From West Penn 99'ers

Finis



"There's a rumor around that some of your guys are using an electronically controlled ball..."