8905

CLUB NEWS
by Paul Bendeck, President

At the April meeting we reviewed results from the recent TI Fair and discussed things we might do better next year. Some suggestions for improvement included: getting 2 tables instead of one, developing a more profesional looking software catalog, offering a wider variety of software for sale using our software library, and teaming up with one of the TI product vendors. The software catalog semed to be a big issue and that is something the club can work on over the next year as a club project. That means that we will need people to review programs and write up descriptions, which should be fun and interesting.

Due to the increasing number of members taking advantage of our Micropendium offer (50% discount), we have had to increase our order. This is a positive sign that our TI-99/4A is still alive and well. Let's try to keep it that way. By supporting the TI advertisers and vendors we help to insure long term support for the TI user community.

Elections are coming up in June. At the May meeting we will be taking nominations for a new slate of officers and newsletter editor. Please think about what you might be able to do to contribute something back to the club. The jobs are not difficult and only take a small amount of time each month. It has been a rewarding experience for me to serve as your president these past 2 years. But now it is time for a change and a chance for someone new to take over. Although I do not plan to run for office again due to increasing commitments at work, I will continue to support the club in any way that I can.

SCHEDULE OF MEETINGS
======================

The next club meeting is scheduled for Monday May 15 starting at 6:30 PM. Meetings are held the third Monday of each month at the Science Enrichment Encounter (SEE) Center, 324 Commercial Street, Manchester, NH. Below is a list of dates for upcoming meetings.

    June 19
    July 17
    August 21
    September 18
    October 16
    November 20
    December 18

CONTROL CODES FOR

EPSON COMPATABLE PRINTERS

by ALLEN BIGGS

These are some of the control codes for Epson printers to be used with **TI-Writer**. These codes should work with any "Epson Compatable" printer. The first ones are to be used in the format of CTRL&U, the key you type, then CTRL&U again. When you are in the CTRL&U mode the cursor will appear as an underline. The character you see on the screen will appear to be quite different from the character you typed, this is because the character set doesn't include characters below the ASCII value of 32. I'll only include the ones that you need (the program will take care of things like tab, carriage return, line feed, etc.).

Mode	Key	Function
CTRL U	N	TURNS ONE LINE EXPANDED ON
CTRL U	O	TURNS COMPRESSED MODE ON
CTRL U	R	TURNS COMPRESSED MODE OFF
CTRL U	T	TURNS ONE-LINE EXPANDED OFF
CTRL U	FCTN R	ESCAPE (KNOWN FROM HERE ON AS ESC)
ESC	O(ZERO)	SETS LINE SPACING TO 1/8 INCH
ESC	1	SETS LINE SPACING TO 7/72 INCH
ESC	2	SETS LINE SPACING TO 1/6 INCH (DEFAULT)
ESC	4	TURNS ITALIC MODE ON
ESC	5	TURNS ITALIC MODE OFF
ESC	SHIFT 2	MASTER RESET (RESETS ALL DEFAULTS TO POWER UP STATE AND RESETS TOP OF FORM)
ESC	E	TURNS EMPHASIZED MODE ON
ESC	F	TURNS EMPHASIZED MODE OFF
ESC	G	TURNS DOUBLE STRIKE MODE ON
ESC	H	TURNS DOUBLE STRIKE MODE OFF
ESC	M	TURNS ELITE MODE ON
ESC	P	TURNS ELITE MODE OFF
ESC	S1	TURNS SUB-SCRIPT MODE ON
ESC	SO	TURNS SUPER-SCRIPT MODE ON
ESC	T	TURNS SUB AND SUPER SCRIPT MODE OFF
ESC	U1	TURNS UNIDIRECTIONAL MODE ON
ESC	UO	TURNS UNIDIRECTIONAL MODE OFF
ESC	W1	TURNS EXPANDED MODE ON
ESC	WO	TURNS EXPANDED MODE OFF

EDITORS NOTE: The above is an excerpt from Allen Bigg's "INSTRUCTION MANUAL FOR TI-WRITER AND DISKETTE BASED CLONES". Disk and hard copies of the manual are available through the club libraries. Additional excerpts will appear in future issues of the COMPUTER BRIDGE.

#56

Tigercub Software
156 Collingwood Ave.
Columbus OH 43213

I am still offering over 120 original and unique entertainment, educational and utility programs at just $1.00 each, or on collection disks at $5.00 per disk.

The contents of the first 52 issues of this newsletter are available as ready-to-run programs on 5 Tips Disks at $10 each.

And my three Nuts & Bolts Disk, $15 each, each contain over 100 subprograms for you to merge into your own programs to do all kinds of wonderful things.

My catalog is available for $1, deductable from your first order (specify TIGERCUB catalog).

#######################
TI-PD LIBRARY

I have selected public domain programs, by category, to fill over 200 disks, as full as possible if I had enough programs of the category, with all the Basic-only programs converted to XBasic, with an E/A loader provided for assembly programs if possible, instructions added and any obvious bugs corrected, and with an autoloader by full program name on each disk. These are available as a copying service for just $1.50 postpaid in U.S. and Canada. No fairware will be offered without the author's permission. Send SASE for list or $1, refundable, for 9-page catalog listing all titles and authors. Be sure to specify TI-PD catalog.
#######################

In Tips #55, I showed you some quick and easy ways to create new character sets. Since folks nowadays don't like to key in long programs, let's continue with "tinygram" programming, and at the same time show you how to manipulate strings, and teach you the value of using MERGE format.

First, let's make a screen to display our new characters. Some of them will have to be double-spaced horizontally or vertically, so -

```
100 CALL CLEAR :: X=1 :: FOR
 CH=48 TO 159 :: PRINT CHR$(
CH)&" ";::: X=X+2 :: IF X<29
THEN 110 ELSE PRINT "";"";""
;::: X=1
110 NEXT CH
```

Save it- SAVE DSK1.100,MERGE

Now, you might like to move the common punctuation marks into the same character sets as the characters, so that you will not have to reidentify so many sets, also so you can color them easier.

```
120 DATA 32,33,34,44,46
130 FOR J=1 TO 5 :: READ CH
:: CALL CHARPAT(CH,CH$):: CA
LL CHAR(J+90,CH$):: CALL CHA
R(J+122,CH$)
140 NEXT J :: CALL CHARPAT(6
3,CH$):: CALL CHAR(64,CH$)::
:: CALL CHAR(96,CH$)
```

If you want to program in Basic, or use BXB with characters all the way up to ASCII 159, add CALL CHAR(J+154,CH$) to the end of line 130 and CALL CHAR(128,CH$) to the end of line 140.

Save by SAVE DSK1.120,MERGE

If you are using that transliteration, you must remember that with upper case characters the ? is @, space is [, ! is \, " is], comma is , period is _. With the lower case they are FCTN keys C, F, A, G, W and V and

for the 3rd set (ASCII 129 to 154) they are CTRL comma, period,;,=,$ and (.

You can transfer upper case to lower by -
CALL CHARPAT(CH,CH$) and then CALL CHAR(CH+32,CH$) or the opposite by CH-32 and if you have BXB merged in you can create a 3rd set by CH+64.

The following are all incompatible with each other, so give them all line number 150 and save them in merge format as 150A, 150B, etc.

The numerals and the upper case letters all have the topmost pixel row blank to provide spacing between lines of text. We can make taller letters by deleting the top row and doubling the 7th row -
```
150 FOR CH=48 TO 126 :: CALL
 CHARPAT(CH,CH$):: CALL CHAR
(CH,SEG$(CH$,3,12)&SEG$(CH$,
13,4)):: NEXT CH
151 REM
```

Or, you can double the 3rd row -
```
150 FOR CH=48 TO 95 :: CALL
CHARPAT(CH,CH$):: CALL CHAR(
CH,SEG$(CH$,3,4)&SEG$(CH$,5,
12)):: NEXT CH
151 REM
```

The lower case letters are really small upper case with the upper 3 rows blank. All their vertical bars are in the 4th, 6th and 8th rows, so let's drop the first 3 rows and quadruple the 7th.

```
150 FOR CH=97 TO 127 :: CALL
 CHARPAT(CH,CH$):: CALL CHAR
(CH,SEG$(CH$,7,6)&RPT$(SEG$(
CH$,13,2),4)&SEG$(CH$,15,2))
:: NEXT CH
151 REM
```

Or, for topheavy letters, quadruple the 5th row -

```
150 FOR CH=97 TO 127 :: CALL
 CHARPAT(CH,CH$):: CALL CHAR
```

```
(CH,SEG$(CH$,7,2)&RPT$(SEG$(
CH$,9,2),4)&SEG$(CH$,11,6)):
: NEXT CH
151 REM
```

Or, if you want line spacing -

```
150 FOR CH=97 TO 122 :: CALL
 CHARPAT(CH,CH$):: CH$=SEG$(
CH$,5,8)&RPT$(SEG$(CH$,13,2)
,3)&SEG$(CH$,15,2):: CALL CH
AR(CH,CH$):: NEXT CH
151 REM
```

Or, for something silly -

```
150 FOR CH=48 TO 90 :: CALL
CHARPAT(CH,CH$):: CALL CHAR(
CH,SEG$(CH$,3,2)&RPT$(SEG$(C
H$,5,2),4)&SEG$(CH$,9,4)&SEG
$(CH$,15,2)):: NEXT CH
151 REM
```

For some good blocky characters -

```
150 FOR CH=48 TO 90 :: CALL
CHARPAT(CH,CH$):: CALL CHAR(
CH,RPT$(SEG$(CH$,3,2),2)&SEG
$(CH$,5,8)&RPT$(SEG$(CH$,15,
2),2)):: NEXT CH
151 REM
```

Or, if you would prefer them shorter for single-line spacing -

```
150 FOR CH=48 TO 90 :: CALL
CHARPAT(CH,CH$):: CALL CHAR(
CH,"00"&RPT$(SEG$(CH$,3,2),2
)&SEG$(CH$,7,6)&RPT$(SEG$(CH
$,15,2),2)):: NEXT CH
151 REM
```

If you would like numerals the same size as lower case,

```
150 FOR CH=48 TO 57 :: CALL
CHARPAT(CH,CH$):: CALL CHAR(
CH,"0000"&SEG$(CH$,1,6)&SEG$
(CH$,9,4)&SEG$(CH$,15,2))::
NEXT CH
151 REM
```

You can even shrink the lower case to only 4 rows high, although some letters are not very legible -

```
150 FOR CH=97 TO 122 :: CALL
   CHARPAT(CH,CH$):: CALL CHAR
   (CH,SEG$(CH$,1,6)&SEG$(CH$,5
   ,4)&SEG$(CH$,11,6)):: NEXT C
   H
151 REM
```

   Something modernistic -

```
150 A$="00" :: FOR CH=48 TO
90 :: CALL CHARPAT(CH,CH$)::
   CALL CHAR(CH,SEG$(CH$,1,4)&
   A$&SEG$(CH$,7,6)&A$&SEG$(CH$
   ,15,2)):: NEXT CH
151 REM
```

   Or perhaps even better -

```
150 A$="00" :: FOR CH=48 TO
90 :: CALL CHARPAT(CH,CH$)::
   CH$=SEG$(CH$,3,10)&RPT$(SEG
   $(CH$,13,2),2)&SEG$(CH$,15,2
   )
151 CALL CHAR(CH,SEG$(CH$,1,
   4)&A$&SEG$(CH$,7,2)&A$&SEG$(
   CH$,11,2)&A$&SEG$(CH$,15,2))
   :: NEXT CH
```

   I call this one "Spooky".

```
150 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: CH$=SEG$(
   CH$,3,14)&SEG$(CH$,1,2):: X$
   =SEG$(CH$,1,1)&"0"
151 FOR J=3 TO 15 STEP 2 ::
   X$=X$&SEG$(CH$,J,1)&SEG$(CH$
   ,J-1,1):: NEXT J :: CALL CHA
   R(CH,X$):: X$="" :: NEXT CH
```

   And "Spooky" backward -

```
150 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2 :: CH2$=CH2$&SEG
$(CH$,J,1)&SEG$(CH$,J+3,1)::
   NEXT J :: CALL CHAR(CH,CH2$
   ):: CH2$="" :: NEXT CH
151 REM
```

   Now, clear the memory with
NEW, then -
MERGE DSK1.100
MERGE DSK1.120
Add a line 500 GOTO 500
   And start MERGEing in your
series of "150" routines and
running them to see what you
have created.
   Then, save these next
routines in MERGE format as
160A, 160B, etc.
   All normal characters have
the leftmost column of
pixels and the two right-
most columns blank, for
spacing between letters. We
can widen the character into
the left column -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2
161 CH2$=CH2$&SEG$("014589CD
",POS("01234567",SEG$(CH$,J,
1),1),1)&SEG$("028A",POS("04
8C",SEG$(CH$,J+1,1),1),1)
162 NEXT J :: CALL CHAR(CH,C
H2$):: CH2$="" :: NEXT CH
163 REM
```

   Or widen it both left and
right -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2
161 CH2$=CH2$&SEG$("014589CD
",POS("01234567",SEG$(CH$,J,
1),1),1)&SEG$("028A",POS("04
8C",SEG$(CH$,J+1,1),1),1)
162 NEXT J :: CALL CHAR(CH,C
H2$):: CH2$="" :: NEXT CH
163 REM
```

   Or even a full 8 columns
wide by just changing the
"028A" in line 161 to "0129"

   For darker characters, we
can shade them into the 7th
column -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=2 T
O 16 STEP 2 :: IF SEG$(CH$,J
-1,1)="1" THEN CH2$=CH2$&"18
" :: GOTO 163
161 IF CH=67 OR CH=71 OR CH=
99 OR CH=103 THEN 162 :: IF
SEG$(CH$,J-1,1)="4" AND SEG$
(CH$,J,1)="0" THEN CH2$=CH2$
&"60" :: GOTO 163
162 CH2$=CH2$&SEG$(CH$,J-1,1
)&SEG$("0367CBEF",POS("02468
ACE",SEG$(CH$,J,1),1),1)
163 NEXT J :: CALL CHAR(CH,C
H2$):: CH2$="" :: NEXT CH
```

   Or shade them both left
and right -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2 :: A$=SEG$(CH$,J
,1):: P=POS("0123456789ABCDE
F",A$,1)
161 A$=SEG$("0367CDEFB9ABCDE
F",P,1):: B$=SEG$(CH$,J+1,1)
:: P=POS("02468ACE",B$,1)::
B$=SEG$("0367CBEF",P,1):: CH
2$=CH2$&A$&B$
162 NEXT J :: CALL CHAR(CH,C
H2$):: CH2$="" :: NEXT CH
163 CALL CHAR(74,"000C0C0C0C
0C4C3B"):: CALL CHAR(106,"00
00000C0C0C4C38")
```

   Or shaded into both of the
rightmost columns -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=2 T
O 16 STEP 2 :: CH2$=CH2$&SEG
$(CH$,J-1,1)&SEG$("0377EBFF"
,POS("02468ACE",SEG$(CH$,J,1
),1),1):: NEXT J :: CALL CHA
R(CH,CH2$):: CH2$="" :: NEXT
CH
161 REM
162 REM
163 REM
```

   Or into all 8 columns -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2 :: P=POS("012345
6789ABCDEF",SEG$(CH$,J,1),1)
161 A$=SEG$("0367CDEF89ABCDE
F",P,1):: P=POS("02468ACE",S
EG$(CH$,J+1,1),1):: B$=SEG$(
"0367EBFF",P,1):: CH2$=CH2$&
A$&B$
162 NEXT J :: CALL CHAR(CH,C
H2$):: CH2$="" :: NEXT CH
163 REM
```

   More neatly, shaded inward
at right -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$)
161 FOR J=1 TO 15 STEP 2 ::
CH2$=CH2$&SEG$(CH$,J,1)&SEG$
("0C8C",POS("048C",SEG$(CH$,
J+1,1),1),1):: NEXT J
162 CALL CHAR(CH,CH2$):: CH2
$="" :: NEXT CH
163 REM
```

   Or inward at right, out-
ward at left -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 15 STEP 2
161 CH2$=CH2$&SEG$("0367CBEF
",POS("01234567",SEG$(CH$,J,
1),1),1)&SEG$("0C8C",POS("04
8C",SEG$(CH$,J+1,1),1),1)::
NEXT J
162 CALL CHAR(CH,CH2$):: CH2
$="" :: NEXT CH
163 REM
```

   Here's a weirdo -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=9 T
O 15 STEP 2
161 CH2$=CH2$&SEG$("014589CD
",POS("01234567",SEG$(CH$,J,
1),1),1)&SEG$("028A",POS("04
8C",SEG$(CH$,J+1,1),1),1)
162 NEXT J :: CALL CHAR(CH,S
EG$(CH$,1,8)&CH2$):: CH2$=""
:: NEXT CH
163 REM
```

   Try changing that to FOR J
=1 TO 7 and CALL CHAR(CH,CH2
$&SEG$(CH$,9,8))

   And one more -

```
160 FOR CH=48 TO 122 :: CALL
   CHARPAT(CH,CH$):: FOR J=1 T
O 7 STEP 2
161 A$=SEG$("02468ACE",POS("
01234567",SEG$(CH$,J,1),1),1
):: B$=SEG$("0808",POS("048C
",SEG$(CH$,J+1,1),1),1):: CH
2$=CH2$&A$&B$ :: NEXT J
162 CALL CHAR(CH,CH2$&SEG$(C
H$,9,8)):: CH2$="" :: NEXT C
H
163 REM
```

   Now, clear the memory,
MERGE in 100 and 120, put in
a holding line 500 GOTO 500
and start MERGEing in all of
the different combinations
of the 150 and 160 lines and
see how many different char-
acter sets you can make!

   Memory full,

   Jim Peterson

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 O.(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 SU
BSCRIPT 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 5

10 DATA #@,#M,#M1,#,#E,#4,#G
,#-1,QUICK BROWN FOX JUMPS O
VER THE LAZY RED DOG 1234567
890 TIMES,,#S0,#S1,#1,#QC,#l
```

In LINE 10:
#=CONTROL PERIOD
#=CONTROL O (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 equivelants (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$(3),P$(
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 T
EST","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,G,-1," QU
ICK BROWN FOX JUMPS OVER THE
 LAZY RED DOG 1234567890 TIM
ES",,S0,S1,1,1,QC
```

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

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 1/
2 LINE SP6 ITALIC      14 L
MARGIN 137 D'BLE STRIK 15 R
MARGIN 678 UNDERLINE   16 NR
 LTR QUALSELECT ONE:   ? ":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 @,N,W1,E,4,6,-1," QU
ICK BROWN FOX JUMPS OVER THE
 LAZY RED DOG 1234567890 TIM
ES",,S0,S1,1,1,QC,xl
```

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 SUPERSCRPT"

5 INPUT "5 ITALIC      13 SU
BSCRIPT 6 CORSP PICA 14 1/
2 LINE SP7 CORSP ELITE 15 EX
IT       8 BOLD        ?":I

6 PRINT #1:CHR$(27)&P$(I)

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,Q,$,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 desireable 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$(27)&P$(I)

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,Q,$,X,P,
*QUICK BROWN FOX JUMPS OVER
THE LAZY RED DOG 1234567890
TIMES,U,D,*,6,8,7,$,Y,
```

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

TURNING PRINTERS INTO TYPEWRITERS..........by Ed Machonis

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 orogram. (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 by 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 desireable 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.
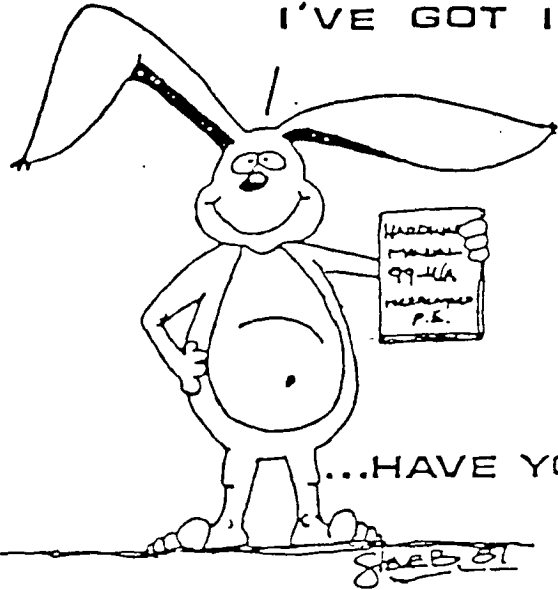
NEW HAMPSHIRE 99'ers
PO BOX 5991
MANCHESTER, NH 03108