MADHUG

Good TI-W Files!

MAY 1986

MONTHLY MEETING!

Minnesota And Dakota Home User's Group meets every second Tuesday in the upstairs meeting rooms of the Grand Forks Public Library. Yearly dues are $12.00. Members can use the group's software collection by presenting the Librarian with a membership card and asking for the keys to the files.

TI WRITER SIG

On April 22, a TI Writer Special Interest Group met at the Public Library to play with the TI - TK Writers. The main thing discovered was that there was more than one way to operate this versitile tool.

Mark Gibson covered his method of using CTRL U to send codes to the printer either through the Editor or the Formater. Dennis Schjeldahl presented the transliterate method of sending control codes to the printer through the formater only. Together, they quickly covered some of the other functions of TABs, INSert, REFORMAT, and enlarged print.

Next month should be just as informative. They will cover Spell Checker, Mailing lists, and compressed print. See you there May 27th?

FAST TERM

Mark Gibson has donated a copy of Fast Term to the group's library. This is a try it before you buy it type of software. According to Mark and Rick Alston Fast Term is the best of the terminal emulators on the market. If you have a modem, or are thinking of buying one, this program at $10.00 will run circles around TI's $19.95 Terminal Emulator II.

HOME COMPUTER MAGAZINE DIES

Those of you who stayed with Home Computer Magazine have hopefully gotten a card asking you to indicate your preference of computer for the quarterly magazine that will fill out your subscription. YOU CAN STILL GET TI. They will send you a disk each month.

If you haven't received this yet, I suggest that you write immediately. At the last meeting some subscribers had letters and return cards, but others didn't.

MILLER'S GRAPHICS ABSORBED

Miller's Graphics will be taken over by Super 99 Monthly. The last issue of Smart Programmer in our files at the library is dated August 1985, so we should be getting some of the new publication.

SUMMER DECISIONS

Mad Hug is going to need some more help during the summer.

Dr. Evans takes care of the printing of the newsletter, Rich Jurgens handles the distribution, and I do the assembling and writing. Here's the catch for the summer. I can handle the assembling of June's newsletter, but not the typing. If all of you that are working with the TI Writer each type something, there will be a newsletter.

I will be teaching summer school and going to summer classes in June, so if you want a newsletter, YOU need to contribute. I will miss the June meeting, as I have a class Tuesday evenings in June.

The next kicker for this summer is that I'll be gone to Boy Scout Summer in July and won't be here for either the Newsletter or the Meeting. I will also miss both the Newsletter and the Meeting in August because my family and I will be on vacation.

If you are willing to write something for the June newsletter, please save it to a disk and drop it off at my house, 509 Reeves Drive, by June 1st. That will give me two days to assemble it, Doc two days to print it, and Rich two days to distribute it.

I will return your disk as soon as I am done with it.

PROGRAM REVIEW
BEGINNING GRAMMAR

Reviewed by Dan Boyce

Another cartridge I just recently purchased is beginning grammar. It will run on a bare consule with no expansion system needed. It is aimed at the early Elementary school ages.

I have tried some but not all of the selections with my pre-schoolers. They enjoy the colorful graphics and the nice sound effects which go with the activities. It did require someone who can read to operate the program.

The activities offered cover seven of the eight "parts of speech" including nouns, verbs, adjectives, adverbs, pre positions, conjunctions, and pronouns. The most colorful graphics and the simplest operation are found in the noun, verb, pronoun, and prepositon choices. These allow the child to choose the part of speech by using the space bar to position an underline or move the word about with the enter key selecting the final choice. Visual and sound rewards for correct choices were used in the noun and verb activities I tried.

Dennis, this sounds like one for your underachievers at Jr. High. perhaps it would be a good review for any of us parents too, as we try to help our kids.

PROGRAM REVIEW
EARLY LOGO

LEARNING FUN

Reviewed by Dan Boyce

I recently bought this cartridge to have something more advanced than Early Learning Fun for my 5 year old daughter. The cartridge has a sampling of several LOGO procedures. They are :
1 Directions (for parents)
2 Build - This places blocks on the screen,lets the child move them using the arrow keys, and change the color using the first letter of several common colors.
3 Park - This involves placing cars and/or garages at different locations on the screen. The color of each can be chosen from several selections.
4 People - This lets the child build a "person" by choosing and placing body parts together.
5 Draw - This involves making a design on the screen using a small triangle called a "Turtle". The child can have the turtle draw or not draw, and can command it to go Forward, Right, Left, or Back. This is good preparation for the similar exercises in LOGO.
6 Dallas - This is my favorite. One can put trucks and planes on the screen, change their colors, set them in motion and select both direction and speed. It seems to work best if direction and speed are chosen first, then color choice made, and then any changes made. Once one calls for another truck or plane, the choice for the previous one are fixed. You can get a screen just full of truck and planes moving all four directions at all speeds.
7 MOVE - for many of the above choices (except Draw) one can construct a figure and then direct it to MOVE. It can be stopped by typing HALT. My kids like to see the car chase the garage across the screen.

Along with the normal directions is supplied a booklet c simple cue cards with directions for each activity. This should be easy enough for early Primary school kids

to understand. I just wish they did that for some of the adult modules.

Oh, and least I forget, the title screen does a very nice little display of "The Insy-Winsy Spider" with action and music. Yes, you can replay it from the menu, which I have to do several times before we start anything else.

If you are looking for something new and nice for your kids, this may be it. It will run on a bare consule.

Expansion Box

George Montgomery is needing to borrow an expansion box from someone. He has been trying to track down a problem in his system by substituting parts. He went to the library and swapped all of his cards, one by one. They all worked there. So that leaves the box.

If you can help him out, call him at home at 696-2395. Thanks.

32K Problem

Ernie Taus in Crookston is having difficulties with his 32K card. He bought a used system with a Cor-Comp Disk Drive controller and a DS/DD Drive and hasn't been able to get it to work yet.

He took all of his cards to the library to do the musical swap with them, and he discovered the culpert was the 32K card. His request is to buy a card from someone who has up graded to 128K, or to borrow one, until TI-CARES can repair this one. He'll be at the meeting, or at 218-281-1748

Extra Strips

I added a couple of strips for those of you that have lost or your kids have trashed the ones that came with the computer and TI-Writer.

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by Rick Niemeier
(Cin-Day UG)

A MATT'S DANDY TI-WRITER

Dave Renkenberger of the Miami County, 99/4A, HCUG uses the following procedure to see what a formatted document will look like, without actually printing it.

1. Save Editor version to disk, e.g. DSK2.12/85.
2. Enter Formatter and load the same file, but print to disk instead of the printer e.g. DSK2.12/85VIEW.
3. Reload the Editor and do LF DSK2.12/85VIEW.
4. You can now look the file over to see what it looks like. You will see the margins, the page breaks, the .CE's will be centered, etc.
5. This will print from the Editor, if you wish (using PF PIO), but if editing is required, be

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For those of you that use the TI-Writer word processing program, here are a few tips. The transliterate command, as described on page 107 of the Manual, is somewhat confusing but very useful. For instance if you would like to change the line feed characteristics of your printer (I use the Gemini-15), for example), to use more than or less than one full line space this can easily be accomplished by using the following command which I have enclosed in quotation marks: ".TL 35:27,65,5(carriage return)". The ".TL" signals the formatting program of TI-Writer that you are going to redefine an ASCII character. It can be any character, but one that appears on the screen monitor is preferable if you want to keep track of what you have done. In this example I have chosen ASCII character code 35, the number or pound sign. Please try to plan ahead by not using codes that will appear in your document. (If you insist on using the same codes, however, it is possible to not confuse the printer by using the following trick - redefine the character in a line immediately preceeding the paragraph where you need to use it. For example, I would use the ".TL 35:35(carriage return)" to reset the meaning of the # sign back to its default value.) The next set of digits following the colon represent the ASCII character codes that the printer needs in order to change the line feed from the default value of 8/72 to 5/72; this would be the same as using the following program command in basic or extended basic: "PRINT #1: CHR$(27),CHR$(65),CHR$(5)". Remember to place this entire transliterate command on a separate line of your document. I find it very convenient to place the majority of my transliterate commands at the very beginning. You might also want to try the following transliterate examples or invent your own custom commands. (Remember these work on the Gemini-15 and they will probably work on your printer with few or no changes!). ".IL 92:27,69(carriage return)" uses the backslash (\)to signal the printer to begin printing in the emphasized print mode. ".TL 123:15(carriage return)" uses the left brace (<) to tell the printer to begin printing condensed type. Please remember that if you want to change printing modes in the middle of your document, there may be special printer commands to turn off the previous mode. If you have problems with any of this, give me a call.

SO YOU SAY THAT YOU CAN'T MAKE YOUR GEMINI PRINTER UNDERLINE WITH THE "&" COMMAND?!! The transliterate command can solve your problems. The command ".TL 95:27,45,1(carriage return)" signals the the formatting program. In this example, I have chosen ASCII character 95, the underline character to mark the beginning of the underline task. Since you also need to turn the underlining command off, I use the following ".TL 126:27,45,0(carriage return)", where the tilde is placed at the end of the underlining task to cancel the underline command. One other helpful hint is that when you are in the FORMAT MODE to begin printing, enter PIO when you are prompted with 'enter device name'. By the way the switches on the back of my Gemini-15 printer are set the following way: 1-on, 2-on, 3-off, and 4-on.

TI-WRITER PRINTER CODES

TRANSLITERATE CODE	FUNCTION		SPECIAL CHARACTER MODE		
0	Terminate Tabulation	CTRL U	SHIFT 2	CTRL U	
7	Sound the buzzer	CTRL U	SHIFT G	CTLR U	
8	Backspace	CTRL U	SHIFT H	CTRL U	
9	Horizontal Tabulation	CTRL U	SHIFT I	CTRL U	
10	Line Feed	CTRL U	SHIFT J	CTRL U	
11	Vertical Tabulation	CTRL U	SHIFT K	CTRL U	
12	Form Feed	CTRL U	SHIFT L	CTRL U	
13	Carriage Return	CTRL U	SHIFT M	CTRL U	
14	Print Enlarged Characters	CTRL U	SHIFT N	CTRL U	
15	Print Condensed Characters	CTRL U	SHIFT O	CTRL U	
17	Select Printer	CTRL U	SHIFT Q	CTRL U	
18	Turn OFF Condensed Printing	CTRL U	SHIFT R	CTRL U	
19	Disable Printer	CTRL U	SHIFT S	CTRL U	
20	Turn OFF Enlarged Printing	CTRL U	SHIFT Y	CTRL U	
27	Escape	CTRL U	FCTN R	CTRL U	
27,48	Set Line Spacing To 8 Per Inch	CTRL U	FCTN R	CTRL U	0
27,49	Set Line Spacing To 7/72 Per Inch	CTRL U	FCTN R	CTRL U	1
27,50	Set Line Spacing To 6 Per Inch (Normal)	CTRL U	FCTN R	CTRL U	2
27,51	Set Line Spacing to n/216 Per Inch	CTRL U	FCTN R	CTRL U	3,n
27,52	Turn Italic Character Set ON	CTRL U	FCTN R	CTRL U	4
27,53	Turn Italic Character Set OFF	CTRL U	FCTN R	CTRL U	5
27,56	Disable Paper-End Detector	CTRL U	FCTN R	CTRL U	8
27,57	Select Paper-End Detector	CTRL U	FCTN R	CTRL U	9
27,65	Set Line Spacing To n/72 Per Inch	CTRL U	FCTN R	CTRL U	A,n
27,66	Set Up 8 Vertical Tab Settings	CTRL U	FCTN R	CTRL U	B,n1,n2
27,67	Set Form Length n To 127 Lines	CTRL U	FCTN R	CTRL U	C,n
27,68	Set Up To 12 Horizontal Tab Settings	CTRL U	FCTN R	CTRL U	D,n1,n2
27,69	Turn ON Emphasized Printing	CTRL U	FCTN R	CTRL U	E
27,70	Turn OFF Emphasized Printing	CTRL U	FCTN R	CTRL U	F
27,71	Turn ON Double-Strike Printing	CTRL U	FCTN R	CTRL U	G
27,72	Turn OFF Double-Strike Printing	CTRL U	FCTN R	CTRL U	H
27,75	Turn On Single Density Graphic Printing	CTRL U	FCTN R	CTRL U	K
27,76	Turn On Dbl. Density Graphic Printing	CTRL U	FCTN R	CTRL U	L
27,77	Turn Elite Mode ON	CTRL U	FCTN R	CTRL U	M
27,78	Set Skip-Over Perforation	CTRL U	FCTN R	CTRL U	N
27,79	Release Skip-Over Perforation	CTRL U	FCTN R	CTRL U	O
27,80	Turn Elite Mode OFF	CTRL U	FCTN R	CTRL U	P
27,81	Set Right Margin at n	CTRL U	FCTN R	CTRL U	Q,n
27,82	Select n of 8 International Char sets	CTRL U	FCTN R	CTRL U	R,n

Your TI-WRITER word processor has two ways of outputting codes to your printer. The above codes work for EPSON compatible printers. The following is a explanation of how to use these codes.

TRANSLITERATE CODES:

These codes can only be used when you print your file through the FORMATTER of TI-WRITER. The main purpose of these codes are if you want to have specific print changes within your text. For example, if I wanted to have a line of text to be printed in ITALICS. I would do the following: On a seperate line I would enter .TL 94;27;52 The 94 is the ASCII code for the circumflex symbol (SHIFT 6). This tells the FORMATTER that whenever it runs into the ^ symbol to output the ITALICS code (27;52) to the printer. To turn off the ITALIC mode, we would have to have another transliterate code to do it. AGAIN on a seperate line we would enter .TL 126;27;53 The 126 is the ASCII code for the TILDE symbol (FCTN W). When the FORMATTER sees this symbol, it outputs the ITALIC OFF code to your printer and returns to normal PICA type. The line of text would look like this on your screen: Printer set for ITALICS.~
Each TRANSLITERATION must be on a line by itself followed by a carriage return. It is best to have your codes at the begining of your file. Or a seperate file can be created and then used with the .IF (Include File) command at the start of your text file.

SPECIAL CHARACTER MODE:

This mode can be used in either the EDITOR or FORMATTER. Its purpose is to send a PERMANENT printer control code to your printer. To enter these codes into a text file, you would enter whatever codes are desired on a seperate line with the file. All of your codes may be entered onto the same line ending with a carriage return. Just as with the Transliterate codes, you can have a seperate file set up for whatever codes you require. You can also combine transliterate codes with Special Character Codes. The transliterations still must be on a line by themselves.

```
()()()()()()()()()()()()()()()()()()()()()()
()                                         ()
()          TI-WRITER HELPER               ()
()                                         ()
  .)()()()()()()()()()()()()()()()()()()()()
```

Here is a nifty little helper for all of you who have the TI-WRITER
word processor. When printed out, all of the most used commands and
their descriptions fit on one sheet of paper for handy access.

EDITOR COMMAND	FCTN	CTRL	EDITOR COMMAND	FCTN	CRTL	EDITOR COMMAND	FCTN	CTRl
Back tab		T	Ins. Blank line	8	O	Quit		=
Beginning/line		V	Insert character	2	G	Reformat		2orI
Command/escape	9	C	Last paragrapph		6orH	Right arrow	D	D
Delete character	1	F	Left arrow	S	S	Roll down	4	A
Del. end of line		K	Left margin rel.		Y	Roll up	6	B
Delete line	3	N	New page		9orP	Screen color		3
Line #'s(on/off)	O		New paragraph		8orM	Tab	7	I
Down arrow	X	A	Next paragraph		4orJ	Up arrow	E	E
Duplicate line		5	Next window	5		Word tab		7orI
Home cursor		L	Oops!		1orZ	Word wrap/fixed		O

Load files: LF (enter) DSK1.FILENAME   (load entire file)
            LF (enter) 3 DSK1.FILENAME   (merges filename with data in memory
                                     after line 3)
            LF (enter) 3 1 10 DSK1.FILENAME   (lines 1 thru 10 of filename are
                                        merged after line 3 in memory)
            LF (enter) 1 10 DSK1.FILENAME   (loads lines 1 thru 10 of filename)
==

Save files: SF (enter) DSK1.FILENAME   (save entire file)
            SF (enter) 1 10 DSK1.FILENAME (save lines 1 thru 10)
==

Print Files:PF (enter) PIO (prints control characters and line numbers)
            PF (enter) C PIO (prints with no control characters)
            PF (enter) L PIO (prints 74 characters with line numbers)
            PF (enter) F PIO (prints fixed 80 format)
            PF (enter) 1 10 PIO (prints lines 1 thru 10)
NOTE: The above assumes PIO. DSK1.FILENAME, and RS232 are also valid!
      To cancel the print command press FCTN 4.
==

Delete file:DF (enter) DSK1.FILENAME
==

Setting Margins and Tabs: (16 tabs maximum)
      L - Left margin   R - Right margin   I - Indent   T - Tab
        Use ENTER to execute or COMMAND/ESCAPE to terminate command.
==

Recover Edit: RE (enter) Y or N
==

Line move: M (enter) 2 6 10   (moves lines 2 thru 6 after line 10)
            M (enter) 2 2 10   (moves line 2 after line 10)
==

Copy: same as move except use C instead of M.
==

Find String: FS (enter) /string/   (will look for string in entire file)
             FS (enter) 1 15 /string/   will look for string in lines 2 thru 15
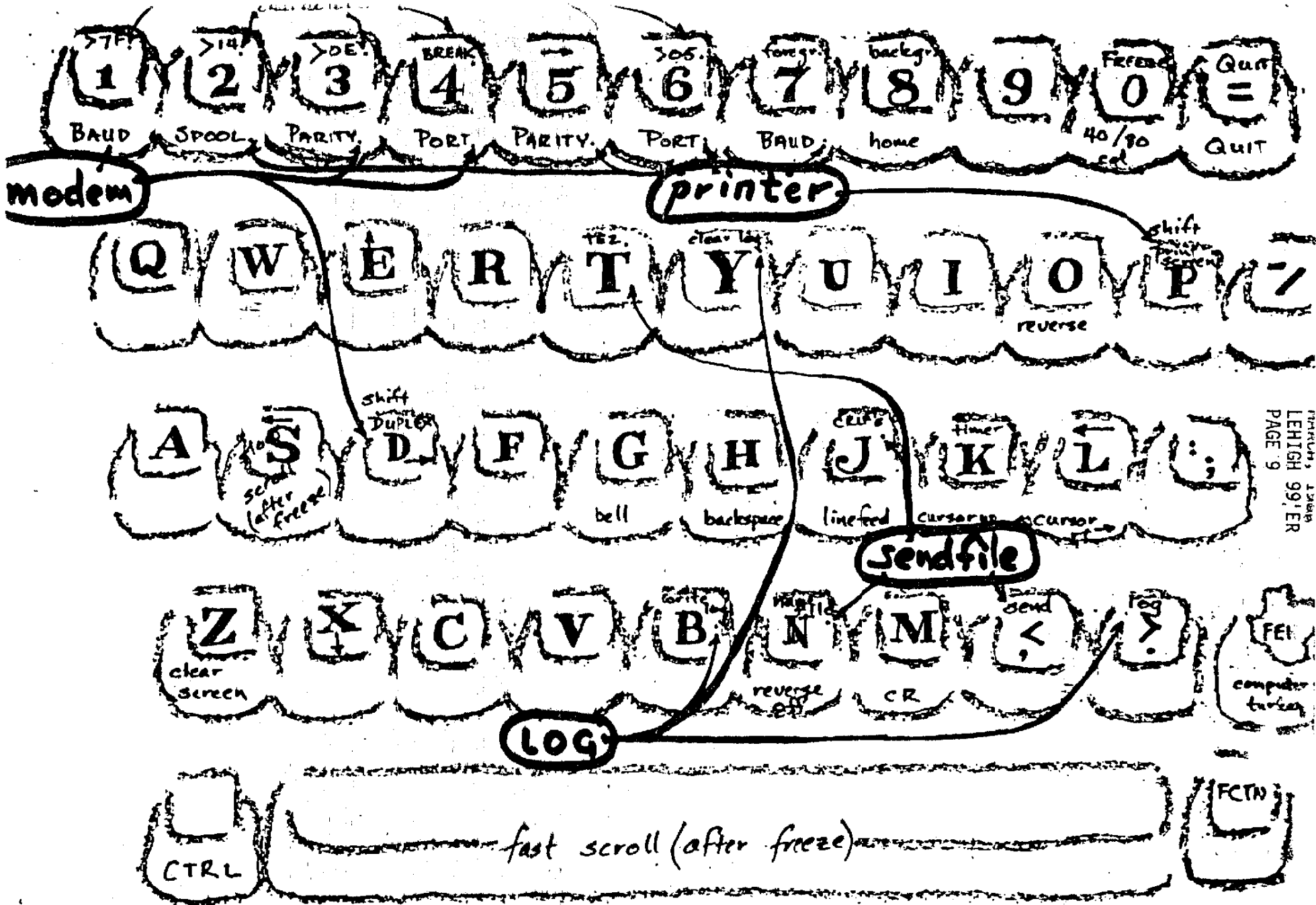==

Delete: D (enter) 10 15 (deletes lines 10 thru 15 in memory)
==

```
***********************************************************************
OOPS!      * CTRL 1 *     This can be a real ll.        It r      "r  back  up"
          *(CTRL Z)* a function that you didn't mean to hit.       won command
          *         * and hit "Delete Line" instead of "Insert ,   ...er", you
          *         * just hit "OOPS!" and the line comes back.
Del Char  * FCTN 1 *     This is the same as "DEL" in console BASIC. It deletes
          *(CTRL F)* one character under the cursor and pulls the rest of the
          *         * line up to fill.
Reformat  * CTRL 2 *     This is used to close up the text after using Insert
          *(CTRL R)* Character. It deletes all spaces between the cursor and the
          *         * next word in the text. Then it draws all subsequent words up
          *         * through the paragraph until it encounters a Carriage Return.
Ins Char  * FCTN 2 *     In the Word Wrap mode (solid cursor), thirty two blank
          *(CTRL G)* characters are inserted after the cursor and the bulk of the
          *         * text is pushed down the line. After insertion of new text,
          *         * you hit Reformat and any remaining spaces are removed. In
          *         * the Fixed mode (hollow cursor), this operates the same as in
          *         * console BASIC.
Screen    * CTRL 3 *     This allows you to choose which of the five color
  Color   *         * combinations of text/screen you prefer. The default, for no
          *         * good reason, is white on dark blue. But I find this hard on
          *         * the eyes. I prefer to turn down the color on my monitor and
          *         * use either black on green or black on light blue.
Del Line  * FCTN 3 *     Deletes the entire line that the cursor is on, including
          *(CTRL N)* the space of the line.
Next      * CRTL 4 *     This advances the cursor to the beginning of the
Paragraph*(CTRL J)* following paragraph and puts the first line at the top of
          *         * the page.
Roll Down* FCTN 4 *     This is called a "vertical block scroll", which means
          *         * that the next 24 lines of text are shown. This is handy for
          *         * scanning quickly down the text to get to some point.
Dupe Line* CTRL 5 *     This creates an exact duplicate of the line the cursor
          *         * is on and places it directly below. Some have questioned
          *         * it's value in writing text, especially since the Move/Copy
          *         * function can do the same, but this key makes it faster and
          *         * easier to create repetitive lines such as a double row of
          *         * asterisks under a title.
Next      * FCTN 5 *     This is a "horizontal block scroll". It jumps across to
  Window *          * display the next block of 40 characters, in increments of
          *         * 20. For example, the screen starts out on column one to
          *         * forty, then twenty to sixty, then forty to eighty.
Last      * CTRL 6 * The opposite of "Next Paragraph"
Paragraph*(CTRL H)*
Roll up  * FCTN 6 * The opposite of "Roll Down"
          *(CTRL B)*
Word Tab * CTRL 7 *     This moves the cursor down the line to the first letter
          *(CTRL W)* of each word.
Tab       * FCTN 7 *     Just like on a typewriter, this moves the cursor to next
          *(CTRL I)* setting, defined using the Tab function on the command line.
New       * CTRL 8 *     This places a Carriage Return symbol at the end of the
Paragraph*          * line you're on and skips down to the next line. If you have
          *         * preset an auto-indent, (by using an "I" in Tabs) then it
          *         * also indents over to the proper column.
Ins Line  * FCTN 8 *     Inserts a blank line above the line the cursor is on.
          *(CTRL O)*
New Page  * CTRL 9 *     Inserts a blank line with a Np and Cr symbol at the
          *         * beginning. This causes the printer to feed to the next page.
Command/  * FCTN 9 *     This is how you exit from the edit mode to get to the
  Escape *(CTRL C)* command line and the functions above it. It also is used to
          *         * cancel a command already in progress.
Word Wrap* CTRL 0 *     This switches from the "Word Wrap" mode to the "Fixed"
          *         * mode. In Word Wrap, when you reach the end of the line the
          *         * cursor jumps to the next line. If you're in the middle of
          *         * a word at the end of the line, the whole word you were on
          *         * moves down too. This allows you to just type continuously
          *         * without looking up to see when to hit enter. In the fixed
          *         * mode, when you reach the end of the line your letters just
          *         * pile on top of each other and you hit enter to move to the
          *         * next line.
Line      * FCTN 0 *     This removes or displays the four-digit line numbers
  Numbers *         * at the left side of the screen. The numbers are used for
          *         * reference when manipulating blocks or lines of text, just
          *         * like when you're editing a BASIC program. You need line
          *         * numbers to refer to where changes will be made.
Quit      * FCTN = *     Quit is the same as in console BASIC. Use Quit option
          *         * of the Command line to safely exit TI-WRITER.
Back Tab * CTRL T *     The same as Tab except it backs up one setting.
          *         *
Beginning* CTRL V *     Moves the cursor to the beginning of the line you're on.
of Line   *         *
Del.End  * CTRL K *     This is just like Delete Character (FCTN 1), except it
of Line   *         * takes out everything to the right of the cursor.
Home      * CTRL L *     This moves the cursor to row 1, column 1, on the screen
  Cursor *          * only. Unfortunately, it doesn't move to first line of text,
          *         * which would be more convenient when you were at the a long
          *         * document and wanted to jump to the top.
Left Mrgn* CTRL Y *     Allows you to temporarily back-arrow beyond the left
  Release*          * margin when it has been set past zero.
***********************************************************************
```

a keymap for
PAUL CHARLTON'S   FAST-TERM

keytops are all FCTNs
bottoms are CTRLs

PRACTICAL PROGRAMMING PRACTICES

LABEL SIZE DISK CATALOG

```
100 !+++++++++++++-++!
110 ! "Label Maker" !
120 !By John Behnke !
130 ! Chicago Times !
140 !Requires XB and!
150 !    Printer    !
160 !+++++++++++++++!
170 CALL CLEAR
180 TYPE$(1)="DIS/FIX"
190 TYPE$(2)="DIS/VAR"
200 TYPE$(3)="INT/FIX"
210 TYPE$(4)="INT/VAR"
220 TYPE$(5)="PROGRAM"
230 OPEN #2:"PIO"
240 PRINT #2:CHR$(27);"S";CHR$(0)
250 PRINT #2:CHR$(27);CHR$(15)
250 PRINT #2:CHR$(27);"3";CHR$(9)
270 PRINT "PLACE DISKETTE IN DRIVE:"     AND HIT <ENTER>"
280 CALL KEY(0,K,S):: IF S=0 THEN 280
290 W=0
300 OPEN #1:"DSK1.",INPUT ,RELATIVE,INTERNAL
310 INPUT #1:A$,J,J,K
320 PRINT #2:"      Diskette: ";A$;"  Available=";K;" Used=";J-K
330 PRINT "Diskette: ";A$;"Available=";K;" Used=";J-K
340 PRINT #2
350 PRINT #2:"  Name   Size   Type   P   Name   Size   Type   P"
360 PRINT #2:"---------- ---- ----------- - ---------- ---- ---------- -"
370 PRINT "---------- ---- ---------- -"
380 FOR I=1 TO 127
390 IF I/2=INT(I/2)THEN Q=31 ELSE Q=1 :: W=W+1
400 INPUT #1:A$,A,J,K
410 IF LEN(A$)=0 THEN 530
420 PRINT #2:TAB(Q);A$;TAB(11+Q);J;TAB(16+Q);TYPE$(ABS(A));
430 PRINT A$;TAB(12);J;TAB(17);TYPE$(ABS(A));
440 IF ABS(A)=5 THEN 480
450 B$="   "&STR$(K)
460 PRINT #2:SEG$(B$,LEN(B$)-2,3);
470 PRINT SEG$(B$,LEN(B$)-2,3);
480 IF A>0 THEN 510
490 PRINT #2:TAB(27+Q);"Y";
500 PRINT TAB(28);"Y";
510 IF Q=31 THEN PRINT #2:"" :: PRINT
520 NEXT I
530 FOR I=1 TO 13-W
540 PRINT #2
550 NEXT I
560 CLOSE #1 :: GOTO 270
570 END
```