

Bayou 99 Users Group, P.O. Box 921, Lake Charles, La. 70602

# BAYOU BYTE



BAYOU 99 USERS GROUP

Price One Dollar

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## MEETING NOTICE

The January meeting of the Bayou 99 Users' Group will be at 7:00 p.m., on January 9, at the Nelson Elementary School. Anyone interested in learning to use the capabilities of the TI 99/4A is invited. If you know someone who owns a TI computer, please invite them to our meeting.

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### Articles

- Printer Commands
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## EDITOR'S COLUMN

Last month, we distributed ballots for officers for the Club for the upcoming year. The ballots are in and it appears that the nominations submitted by the Nominating Committee have been accepted. Our congratulations to Roger Hickerson, President; Noel Moss, Vice President; John Singleton, Secretary; and Bob Nordan, Treasurer. These gentlemen deserve our gratitude for accepting these positions. More than that, they deserve our support. As you know, being an officer of any organization requires time and dedication. It means spending at least some of their free time to insure that you get what you want or expect out of the group. It is their job to insure that this letter gets out, that we have a program each month, a place to meet, machines available to demonstrate with, that our money is well spent, and that the library has a good supply of programs for us to copy. Those are not easy tasks we have charged them with.

It is incumbent upon us to lend our talents to the organization, as well. There are several standing committees - those committees and their current chairmen are listed on the last page of this newsletter. If you can help by chairing a committee or by serving as a member, you should do so. We have asked our officers to do quite alot on our behalf; let us assist them in that effort by volunteering a little of our time or whatever resources we have to make this club a little better for us all.

While looking at the mailing label on my last issue of the BYTE, I noticed that there was a date staring me in the face. The date on your label is the date your membership expires. Please remember to renew your membership in the Users' Group so that you continue receiving the BYTE and are able to continue to get programs from the Library.

Last month, we published a sheet containing TI-Writer commands. This generated a request from a member that our meeting in January have a program dealing with TI-Writer. Consider that done! Not only that, but quite a bit of this issue deals with the use of this popular word-processing program. Be sure to attend the January meeting to see some of what has been written here demonstrated and put into practice.

Rumor has it that one of the other User Groups in town is trying to set up an exposition at the Prien Lake Mall. It is my understanding that all of the Groups in town will be asked to attend and set up booths to demonstrate what home computers can do. If this comes to pass - and I hope to have more details soon - it will give us a great opportunity to reach some TI owners who haven't surfaced yet. Not to mention the fact that we will have a chance to show publicly what these little machines are capable of.

One last note, we are going to try something new at the meeting in January. John Singleton is going to videotape the meeting. We would then make the tape available to other user groups or to members of our group who are unable to attend the meetings. We haven't quite worked out all of the details, but we will formulate them at the next meeting and publish them here and on the Bayou TIBBS (318-474-6144). If you are interested in seeing a tape of our meetings, drop us a line at the address on the masthead or contact John Singleton.

## PRINTER COMMANDS

from TI-Writer

By R. N. Hickerson

The easiest method for setting or changing fonts, line spacing and other printer output is to set up the printer prior to its intended use. The second easiest way is to purchase an external keypad (available for some printers) which allows changing the dip switches in the printer from outside the case. One such control panel is sold under the "Fingerprint" trademark.

Lacking either the foresight or the price of the extra cost, there are still a number of means for changing pinter output. Programming to send the printer the necessary control codes can be written into your favorite program with a minimum of effort.

Some environments do not lend themselves to quick and easy changes in fonts, spacing, line lengths and the other features of most of today's dot matrix printers. TI-Writer is one which does

not permit a user to interrupt the program for inserting the printer control codes. However, the Transliterate Command works well in permitting the user to imbed such codes in a file which are activated when printing with Formatter.

Printer changes from the Text Editor are more difficult, but possible, by using the Special Character mode available by pressing the CTRL key and "U" simultaneously. The term "special character" comes from the fact that after entering this mode, the next series of characters you type will generate unusual characters on the screen. When the processor in your printer encounters these codes, it interprets them as instructions. These instructions will be followed until other instructions are given

Since the Text Editor does not support formatting commands as the Formatter does, it is necessary to insure that the text is entered the way you want to see it when printed. All margins, indentations, centering, and tabulations must be set manually before printing. Once the layout is arranged, the variations attainable with your make of printer can be entered.

Elsewhere in this issue is a chart of the control codes for an Epson printer. These codes will be similar for many other printers, such as Gemini. You should consult your manual to see what codes generate what actions for your printer. This chart should be kept near your computer for ready reference.

## TYPING THE BYTE

By Doug Hargett

As Editor of the Bayou BYTE, I have learned how to make more effective use of TI-Writer than I did when I was just a casual user of word processing. I learned how to combine files, print only portions of files, and I think I have learned how to use most of its features, including the dreaded Transliterate Command.

I'm going to tell you how I type the newsletter, some of the things I do and why, and give you some samples of what files might look like. Perhaps these samples will assist you in using TI-Writer.

I type the BYTE in sections. Generally, each major heading that you see is typed separately. Some of that is because I receive it at different times and typing them separately makes it easier for me to work on it. Also, I feel like working on different sections at different times, depending on my moods. Working on it in sections keeps me from running out of space in the buffer. One issue of the BYTE frequently runs in excess of 100 disk sectors.

When I type it, I set the left margin at 0 and the right margin at about 32. I leave the line numbers visible since I do frequent changes and line moves. Since I know that I am going to print from the Formatter, I really don't worry about the lengths

of the lines; the Formatter is going to take care of that for me. Additionally, the number of lines I have typed is roughly twice the number of lines a section is going to be when it prints. I will explain the reason for this later.

Each major section is typed with very few Format Commands. I use the center (.CE) Command for sections headings, and I use an "at sign" (SHIFT 2) for double strike when appropriate or an ampersand (SHIFT 7) when I want something underscored. I seldom indent things, but if I do, I am careful to remember to reset both left and right margins within that section once I have finished with indentations.

With the at sign and ampersand, you must be very careful. If you have a legitimate need to print those two characters, you must be sure to type them twice since the Formatter recognizes them as printer control characters. For example, if I am plugging R&H Associates, it must be typed with two ampersands. With the double ampersand, it reads correctly; without it, the line would read, "R H" and the H would be underlined. If you are going to use an at sign in your document, you must enter it twice or that which follows will be double struck until the next space is encountered.

Spacing of lines in which you want to print text with underscores or double strikes is also important. The at sign and ampersand will do their thing until they encounter a space. TI-Writer requires that you place a carat (SHIFT 6) in place of spaces if you wish to continue the print action for more than one word. For example, if you want to underscore DOUG HARGETT, you must place a carat between the words; otherwise, DOUG will be underlined, and HARGETT would not be.

If you have a long line or a line that wraps around, this can present a significant problem. Word wrap does funny things. It will sometimes break the ^ sign and it does not always print correctly. I try to keep the length of such a line no longer than one typed line on the screen (usually 32 characters) and I am very careful to type the entire line at one time paying very close attention to insure that I insert the ^ between each word.

I save each section of the BYTE with a different file name, preceded by the month of the issue that I am typing: DSK1.DECOPEN would be the opening of the December issue.

Once I have it all typed and each file saved, I am ready to print. To print the BYTE, I create a file that is made up of nearly all of the format commands I intend to use, followed by INCLUDE FILE (.IF) Format Commands which will print the section files in the order I want them printed. Here is a sample of what such a file would look like.

```
~~~~~  
.LM 8  
.RM 72  
.FI  
.AD  
.CO MAKES \ PRINT
```

```
.CO THE DOCUMENT IN
.CO EMPHASIZED MODE
.TL 92:27;69
.IF DSK1.DECOPEN
.IF DSK1.DECBASIC
.IF DSK1.DECMINUTES
.IF DSK1.DECLAG
.IF DSK1.DECTIBBS
```

~~~~~  
Here is what each line means:

(.LM 8) sets the left margin at 8 characters. (.RM 72) sets the margin at 72 characters. A normal line is 80 characters across. Your printer certainly has default settings that may differ from these. When printing in the default mode, your printer probably prints in PICA characters, which are 10 characters per inch (ELITE is 12 cpi - consult your printer manual for other available types).

72 minus 8 means that I will print a line that is 64 characters wide with approximately 1/2 inch margins on each side (if you are measuring your latest copy of the BYTE, I should warn you that I use reduction mode when copying). Since I type on a screen which holds 32 characters and I print on a line which holds 64 characters, the number of lines that I have typed is approximately double the number of lines I will print. That way, I can keep a rough running total of how many pages a file will consume when printed.

I hope you have noticed that the BYTE is printed with even margins on both the right and left sides. This is accomplished with the (.FI) and (.AD) format commands, which mean fill and adjust. These commands fill each line from left to right, after inserting sufficient spaces to insure that the right margin will be justified (that is - even all the way down the page). I do this because I think it presents a neater, more professional appearance. The additional spaces that are inserted by these commands will come between words and are barely noticeable when you are reading.

The format command (.CO) means "comment" and is similar to a REM statement in a program. It allows you to enter text that will be ignored by the Formatter. Such comments are frequently invaluable to remind you of something you have done. In this case, it defines the Transliterate Command which follows.

I have a Star Gemini 10X printer. Based on what I have seen in an Epson book and the fact that a TI printer is made by Epson, these instructions should work with those printers, as well. Commands to change print types, set margins, double strike, etc., are done by sending signals to the processor in the printer. In TI-Writer, one way of doing this is by using the (.TL) command. To do this effectively, you need to have in your hand a copy of your printer manual and a conversion chart of the ASCII character codes (such as the reference card that came with TI-Writer or the chart in your computer manuals). You need these reference materials to select the parameters of the command. (The chart printed elsewhere in this issue contains the most common printer

control codes. If your printer is "Epson compatible", the chart should be sufficient.)

The command shown here, (.TL 92:27:69) says: When you see the character that has a numeric value of 92, tell the printer to do what it is supposed to do when it receives codes 27 and 69. As the Comment line implies, when the Formatter encounters a backslash (FCTN Z), it will cause the printer to print in emphasized mode.

Each file that contains a section of the BYTE starts with a backslash on the very first line. It never gets printed; the printer starts printing in emphasized mode instead.

You can Transliterate almost any character, but I recommend a few cautions. You can't use the at sign, ampersand, or carat - TI-Writer uses those characters already. You don't want to use anything you are likely to use when you normally type. I recommend that you use the odd, seldom used characters that you normally have to use the FCTN key to produce.

If you want to start a particular type font and stop it within the same document, you will need two (.TL) commands. For example, you may want to print just one paragraph in italics. Transliterate an open-bracket ( [ ) to start italics and a close-bracket ( ] ) to stop italics. Then, all you have to do is enclose your paragraph in brackets and it will print in italics.

The command (.IF) means Include File. The effect is that the Formatter goes and gets the first file listed and prints it using the format commands in this file. Once the file is finished, it goes and gets the next file, prints it - still using the format commands. Then the third file, fourth file, etc.

The advantage of this is that the entire document is printed page after page as though it were all one file. If I include a command to paginate (number the pages), it will do so in consecutive order.

For long documents, I highly recommend this method of printing. It allows you to deal with a bigger document since you are not restricted by the size of the text buffer. It allows you to fill and adjust both margins without having to type it that way. And, once you start that one file cranking, you can walk off and let the printer do its things until it is finished. When you return, the entire document will be printed.

I hope that these two articles on using TI-Writer will give you some ideas and, perhaps, allay some of the fears you might have had.

## **FREWARE ISN'T REALLY FREE**

**By R. N. Hickerson**

While reading some of the newsletters received in exchange for the BAYOU BYTE, I came across some very disturbing numbers.

Teresa Masters, President of the LA 99'ers Computer Group, published an article in "TopIcs" in September where she reported that one freeware programmer recorded 400 BBS downloads of his program. He received only two \$5.00 donations. "Where are the other 390?", she asks.

Granted, 150 probably didn't need the program or expect to use it. Computers users are apt to grab any program available, run it once, maybe, and add it to their library. Perhaps 20 had something they wrote or bought which they liked better. That still leaves 220 people who owe the author \$5.00 each.

Now, that \$1100 may represent something like \$3.00 per hour to the programmer for the time he put into developing, writing and debugging a program. That doesn't even match the minimum wage!

If that author has another idea for a program that others might be able to use, he may very well decide to keep his efforts to himself. Some of you will have missed out because there are too many USERS.

Don't think that the copy fee you paid your Users' Group is any part of the donation owed to the author. It went to support your Group. As Terrie said, "If you are one of those who has meant to send along your honorarium to a programmer of Freeware, please do so now. We need them."

If you didn't have a use for the program, gave it away and do not have a copy, then these comments do not apply to you. However, if you have a copy that you are using or plan to use in the future, send a donation and feel better about yourself and the other users who also did what was right.

#### LAGNIAPPE

\* Roger Hickerson filed the necessary forms, etc., establishing the Bayou 99 Users Group as a non-profit organization. This allowed us to obtain a bulk mail permit which will significantly reduce our postage costs. Donations and membership dues are now tax deductible for our members, also.

Now is the time for our members to give us the names and addresses of other TI owners so that we might mail them a copy of the BYTE so they can see what they are missing by not being members.

\* Jim Peterson's Tigercub Software catalog will be available at all meetings. The catalog contains excellent programs for your computer. Many of these programs are written in console BASIC and require no addition to your equipment beyond the cassette cables and recorder.

\* Officers for 1986 will be installed at the January meeting.

\* Elsewhere in this letter you will find a program written by Ron Rutledge to print warning labels for disk mailers. The program has been tested on both Gemini and Epson printers.

\* The most recent newsletter received in exchange is the Chicago Users Group's, "Chicago Times". This letter's format, appearance, and content establishes a standard few other groups have the resources to emulate.

\* Miller Graphics GRAM KRACKER was delivered to early orderers just prior to Christmas. Articles regarding this new device have appeared in other issues of this newsletter. Next month, a review of what our members have gotten out of it so far. Just a quickie - Richard Mitchell has already downloaded many of his modules to disk - including TE2 (which now runs at 1200 baud!), XB, and many others. Perhaps someone has finally "cracked" the interior of the TI.

\* From the Northern Nevada Ninety-niner Newsletter, we saw a short routine to return the ASCII value of a key by pressing that key:

```
10 CALL KEY (O,CN,S)
20 IF S<1 THEN 10
30 IF CN=145 THEN 50
40 GOTO 10
50 END
```

We decided to try this routine connected to our printer and tabulate the key strokes which control an EPSON FX-80. The program was expanded slightly as follows:

```
10 CALL CLEAR
15 OPEN #1:"PIO"
20 CALL KEY (O,CN,S)
25 IF S<1 THEN 20
30 PRINT CN;" = ";CHR$(CN)
35 IF CN>127 THEN CN=CN-128
40 PRINT CN;" = ";CHR$(CN);" ";
45 GOTO 20
```

Using the tabulation of the results, we were able to change print fonts, reset top of form, send line feeds, form feeds, etc. We believe you will find this interesting and a real time save for controlling your printer.

#### TIBBS-ING

Message Number 1000 has been sent on the Bayou TIBBS. Mark Hammon, a member of the Bayou 99 UG, sent the historic message. There is irony here, though. I really thought that message 1000 would go to one of the regulars who has been on the board since the beginning. Mark bought his modem in December and is a relative newcomer to telecommunications. Congratulations, Mark; your name will long be remembered on the Board - for at least 1000 messages!

While eavesdropping on our board this week, I saw R & H Associates advertise that he could provide a stand-alone RS-232 module and modem for about \$200. With just a console, TEII and



\$200, you too can join us on the board.

During the next few issues, I'd like to highlight other local boards to give readers some idea of what is available to callers in the local area. If you haven't tried these boards, please do.

DUFFEY'S TAVERN can be reached at (318) 436-2992. The board is on-line from 1800 to 0600 C.S.T., and will soon be a 24 hour board. This board is run on Commodore equipment.

This board has a whimsical tone that is unlike anything else I've seen so far. The SysOps, "Duffey" and "Crittter" have written a program that has most standard BBS features, such as chat, message base, bulletins, but they have disguised these "normal" functions under the headings of Archie's Place, The Hearth, Crittter's Tidbits, and other very appealing headings. Sell and swap postings are kept at the General Store. Answers to the Trivia Quiz are announced by the Town Crier.

From time to time, they take this program off-line for modifications and revisions, and replace it with a different program that has a different appearance, but maintains the same level of humor as their main program. To talk to Duffey or Crittter, just go to Crittter's Hotline to see if someone is in attendance. For out-of-town callers, I recommend you quickly make your way to "Guidance" for an easy to read help facility.

DUFFEY'S TAVERN - a nice place to hang out.

#### Userlists by Roger Hickerson

Most SysOps try to keep a list of the current users of their bulletin board in a file which can be read by all the users. Each caller is certain to be pleased to see his name in print and more importantly, if a caller is trying to leave mail for a person, he likes to know if the addressee is a user of the BBS where the message is posted.

The TIBBS (a registered trademark of Ralph Fowler) Userfile maintains an accurate and very complete record of each user by their user number. This file is written in Internal Fixed 85 format and contains information which the users would not like to have made public. Afterall, what good is a password if everyone can read it?

The first Userlist in Display/Variable 80 format was added to the files after the Userfile was laboriously copied using TI-Writer. It was intended to list name, city, state and indicate if the person was "Using TI".

The Userlist was a very popular file and it was soon time to update the list again. This time, it took very little effort with the use of a short program. If there are SysOps who haven't had time to write their own program yet to print a Userlist from the TIBBS Userfile, the program called "CONVERT TIBBS USERFILE" printed elsewhere in this issue should be helpful.

MEETING MINUTES

At the December meeting, Richard Mitchell did a short presentation of how to formulate an assembly language program. Sonny Hoffpauir distributed copies of the latest Library list and had several programs available for duplication.

There was a general discussion regarding possible programs for future meetings. As a result, the January meeting will include a TI-Writer demonstration by Doug Hargett and Roger Hickerson.

Requests for future programs included practical applications for Multi-plan. The February meeting will include a presentation using that spreadsheet.

```

100 !CONVERT TIBBS USERFILE
110 !TO DIS/VAR 80 USERLIST
120 !ROGER HICKERSON
130 !9/29/85
140 OPEN #4:"DSK1.USERFILE",INTERNAL,RELATIVE,FIXED 85
150 OPEN #5:"DSK2.USERLIST",VARIABLE 80
160 FOR K=1 TO 180
165 PRINT K
170 INPUT #4,REC K:T$,U$,V$,W$,X$,QA$,QB$,QC$,QD$,QE$,ALT$,PHONE$,LV$
180 IF ALT$="Y" THEN ALT$="!" ELSE ALT$=" "
190 IF T$="@ " THEN 240
200 LN$=U$&RPT$(" ",(13-LEN(U$)))
210 TI$=ALT$
220 FN$=V$&RPT$(" ",(8-LEN(V$)))
230 PRINT #5:LN$;TI$;FN$;W$
240 NEXT K
250 CLOSE #4 :: CLOSE #5
260 END

```

**DO NOT BEND**  
**FLOPPY DISK ENCLOSED**  
**DO NOT XRAY**

```

100 !*****
110 !* *
120 !* DON'T LABELS *
130 !* *
140 !* BY: RON RUTLEDGE *
150 !* CENTRAL IOWA U.G. *
160 !*****
170 !
180 ESC$=CHR$(27)! ESC CODE
190 EMP$=ESC$&"E"! ENPHASIZED PRINT
200 NOR$=ESC$&"N"&CHR$(0)! NORMAL PRINT
210 ENL$=ESC$&"M"&CHR$(1)! ENLARGED PRINT
220 UON$=ESC$&"-"&CHR$(1)! TURN UNDERLINE ON
230 UOF$=ESC$&"_"&CHR$(0)! TURN UNDERLINE OFF
240 OPEN #1:"PIO"
250 PRINT #1:EMP$&ENL$&UON$&"DO NOT BEND"
260 PRINT #1:NOR$&"FLOPPY DISK ENCLOSED"
270 PRINT #1:ENL$&UOF$&"DO NOT XRAY"
280 PRINT #1: : :
290 CALL KEY(O,R,S)!
300 IF S=0 THEN 250
310 CLOSE #1
320 END

```

## TI-WRITER SPECIAL CHARACTER CONTROL CODES

| Symbol | Dec Code | Function                             | PRESS THESE KEYS |         |        |
|--------|----------|--------------------------------------|------------------|---------|--------|
| NUL    | 0        | Follow <ESC> "D" as TAB terminator   | CTRL U           | SHIFT 2 | CTRL U |
| BEL    | 7        | Sounds printer buzzer                | CTRL U           | SHIFT 6 | CTRL U |
| BS     | 8        | Backspace                            | CTRL U           | SHIFT H | CTRL U |
| HT     | 9        | Move printhead to next tab stop      | CTRL U           | SHIFT I | CTRL U |
| LF     | 10       | Line feed                            | CTRL U           | SHIFT J | CTRL U |
| VT     | 11       | Vertical tab, a single linefeed      | CTRL U           | SHIFT K | CTRL U |
| FF     | 12       | Formfeed to next top of form         | CTRL U           | SHIFT L | CTRL U |
| CR     | 13       | Carriage return                      | CTRL U           | SHIFT M | CTRL U |
| SD     | 14       | Turns on double width to end of line | CTRL U           | SHIFT N | CTRL U |
| SI     | 15       | Turns on condensed letters           | CTRL U           | SHIFT O | CTRL U |
| DC2    | 18       | Turns off condensed ltrs             | CTRL U           | SHIFT R | CTRL U |
| DC4    | 20       | Turns off double width as set by 14  | CTRL U           | SHIFT Y | CTRL U |
| ESC    | 27       | Prepares printer for control codes   | CTRL U           | FCTN R  | CTRL U |

Other printer settings can be made using ESC from the SPECIAL CHARACTER mode and the keyboard character with the appropriate ASCII values.

|       |                                               |               |                |
|-------|-----------------------------------------------|---------------|----------------|
| 27;45 | Underline mode; ON:N=1;OFF:N=0                | CTRL U FCTN R | CTRL U -,N     |
| 27;48 | Set line spacing to 1/8"                      | CTRL U FCTN R | CTRL U 0       |
| 27;49 | Set line spacing to 7/72                      | CTRL U FCTN R | CTRL U 1       |
| 27;50 | Return to line spacing of 1/6"                | CTRL U FCTN R | CTRL U 2       |
| 27;51 | Set line spacing to N/16"                     | CTRL U FCTN R | CTRL U 3,N     |
| 27;52 | Italic character set on                       | CTRL U FCTN R | CTRL U 4       |
| 27;53 | Italic character set off                      | CTRL U FCTN R | CTRL U 5       |
| 27;56 | Ignore "paper out" sensor                     | CTRL U FCTN R | CTRL U 8       |
| 27;57 | Enable "paper out" sensor                     | CTRL U FCTN R | CTRL U 9       |
| 27;60 | Unidirectional print, left to right, one line | CTRL U FCTN R | CTRL U <       |
| 27;64 | Reset all settings to default                 | CTRL U FCTN R | CTRL U @       |
| 27;65 | Set line feed spacing to N/72"                | CTRL U FCTN R | CTRL U A,N     |
| 27;67 | Set form length to N lines                    | CTRL U FCTN R | CTRL U C,N     |
| 27;68 | Set horizontal tabs at n1,n2...<br>n28,n0     | CTRL U FCTN R | CTRL U D,n1... |
| 27;69 | Turn on emphasized print                      | CTRL U FCTN R | CTRL U E       |
| 27;70 | Turn off emphasize print                      | CTRL U FCTN R | CTRL U F       |
| 27;71 | Turn on double strike                         | CTRL U FCTN R | CTRL U G       |
| 27;72 | Turn off double strike                        | CTRL U FCTN R | CTRL U H       |
| 27;75 | Sets single density graphics prt              | CTRL U FCTN R | CTRL U K       |
| 27;76 | Sets double density graphics prt              | CTRL U FCTN R | CTRL U L       |
| 27;78 | Sets skip over perforation to n lines         | CTRL U FCTN R | CTRL U N,n     |
| 27;79 | Cancel skip over perforation                  | CTRL U FCTN R | CTRL U O       |
| 27;81 | Sets columns width to N charctrs              | CTRL U FCTN R | CTRL U Q,N     |

|       |                                                                |                          |
|-------|----------------------------------------------------------------|--------------------------|
| 27;83 | Sets subscript printing                                        | CTRL U FCTN R CTRL U S,1 |
| 27;83 | Sets superscript printing                                      | CTRL U FCTN R CTRL U S,0 |
| 27;84 | Turns off sub/superscript                                      | CTRL U FCTN R CTRL U T   |
| 27;85 | Unidirectional printing of all<br>lines: N=0 is OFF; N>0 is ON | CTRL U FCTN R CTRL U U,N |
| 27;87 | Double width N=0 is OFF;N=1 is ON                              | CTRL U FCTNR CTRL U W,N  |

KEEP THIS CHART NEAR YOUR PRINTER SO THAT THE REQUIRED CODES CAN  
BE IMBEDDED IN THE TEXT WHERE REQUIRED.

# TIPS FROM THE TIGERCUB

#26

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New Catalog #6, for \$1 which is deductible from your first order. Describes 148 original programs for only \$3 each (plus \$1.58 per order for cassette or disk, package and postage).

If you have my previous catalog, the following are now available in Extended Basic versions - Fast Addition Practice, Submarine Hunt, Rithmatik, Wawaland (also now available in Basic with Speech), Long Division Cryptograms, Miss Spell, Scramblation, Bargraffer, Squinch, Dry Gulch, Name That Tune, Scrum, Midnight Trail, Nimbo, Kindertimes, Optical Illusion, Bazoo, Synonymy, Speeder Reader, Changeroo, Glunk, Fraction Math, Three Buckets Puzzle, Roman Numbers, Match A

Patch, Kinderminus, I E Spelling, Casting Out Nines, Haunted Graveyard, Spalling Teecher, Homonymy, Antonyy, Old -Timer Puzzle, Ten Thousand Sights, Mechanical Aptitude Test, Junior Speeder Reader, and Bars and Balls.

Due to reduced prices for disks and mailers, the PPM charge is now \$1.58 for either disk or cassette - BUT PLEASE BE SURE TO SPECIFY WHICH!

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Now for the old business -

I was mortified to find an error in the Unprintable Unkeyable Program in Tips #22. The last line should end with ELSE 188, not ELSE 138. In the Grocery Shopping program in Tips #21, your wife will never get to the zucchini unless you delete line 148 and change line 288 to - 288 IF EOF(1)<>1 THEN 138

Sorry about that. And the update to the Menu Loader in Tips #22 will not list all listable files, just D/V88 files. I now have a version to really list all listable files, I think, plus show protection,

dump the catalog to the printer, rescan, etc., but am not sure all the bugs are out so will publish it next month.

Folks have been asking why their orders for TI-WRITER COMPANION, mentioned in Tips #22, were being returned unopened, so I called Bill Browning. He said he found he was going broke selling it for \$2.58, but he is now prepared to supply it for \$6.58. Still a bargain, in my opinion.

Barry Enslay warns that when FCTN V is used for a blank in a filename, as mentioned in Tips #25, it is not recognized by the Disk Manager.

In Tips #21, I said that the special characters available on the Gemini printer could not be accessed from TI-Writer. I have since learned that Star Micronics hid a valuable feature of their printer in a paragraph of gobbledegook computerese in the manual. See "Other Function Codes", ESC ">", ESC "= " and ESC "#". In plain English, you can access these codes by CTRL U, FCTN R, CTRL U, SHIFT >, then type the character with an ASCII 128 less than the character you want. In other words, if you want CHR\$(168), hit the space bar (ASCII 32), etc. To get back to the normal character mode, use CTRL U, FCTN R, CTRL U, SHIFT #. Many thanks to David Aragon (San Antonio Area 99ers newsletter, Aug. 1985), who described how to do the same by transliteration.

In Tips #25, I said that a program which had been converted to I/V 254 format by adding REM lines could be converted back to program format by deleting

the REM lines and reSAVing. Well, it usually can - but not always!

I have been receiving inquiries as to whether my programs published in the Tips are public domain programs which can be placed in user group libraries and on BBS's. Well, the copyright notice on this newsletter is really only intended to keep anyone from reprinting it for personal profit. I have always thought that programs published for the purpose of being keyed in should be OK to copy, and I don't intend to claim that "you must own the magazine"! However, a peculiar situation has developed. The short programs which I wrote to give away to promote my other programs, have become the bread and butter of my business! If it was not for the sales of the Tips disk and the Nuts & Bolts disk, I would long ago have gone out of business. So, I would appreciate it if you would exercise some restraint in putting my Tips programs in your libraries or in downloadable form on your BBS.

And I do consider my two Tips disks, as complete collections of programs, to be copyrighted material which should not be placed in libraries for copying.

In the Automatic Mouse Maze in Tips #23, you can improve the maze by adding these lines -

```
475 IF (C)288=(X(18))THEN 588
515 X=X+1
555 X=X+1
595 X=X+1
1325 X=#
```

And the last word - I think - on the challenge to quickly scramble the numbers 1 to 255. Ian Swales sent me, from Belgium, two

```

routines which beat everyone
else - and then sent me two
more which beat his first
ones! His PEEK version -
100 DIM A(255),C(255):: FOR
K=255 TO 1 STEP -1 :: RANDOM
IZE :: CALL PEEK(-31808,B)::
J=INT(B*K/256+1):: C(K)=MAX
(J,A(J)):: A(J)=MAX(K,A(K))::
NEXT K

```

```

And see if you can
unravel the logic of this
truly elegant bit of code!
100 DIM A(255):: RANDOMIZE ::
FOR K=255 TO 1 STEP -1 ::
J=INT(RND*K+1):: T=MAX(J,A(J)
):: A(J)=MAX(K,A(K)):: A(K)
=T :: NEXT K

```

So, on to new business -

#### ANNOUNCING

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To give you an idea of  
Barry Traver's knowledge of  
our computer, try this one.  
I've figured out the why,  
but I'll have to ask Barry  
to explain the why of the  
why!

```

100 ! LINPUT PUZZLE/BUG by
    B.A. Traver
110 ! QUESTIONS? Send SASE
    to Barry Traver
120 ! 552 Seville St.
    Phila. PA 19128
130 CALL CLEAR :: PRINT "LIN
    PUT PUZZLE/BUG": "BY BARRY TR
    AVER"
140 PRINT "Can you figure ou
    t why your computer will not
    obey?"
150 PRINT "Why won't it stop

```

```

when you tell it to?": ::
160 LINPUT "Want me to stop?
    (YES/NO)": W$
170 IF W$="YES" THEN STOP EL
    SE 160
180 END

```

It seems that many of  
you still haven't heard of  
Super 99 Monthly, published  
monthly (and on time!) by  
Bytemaster Computer  
Services, 171 Mustang  
Street, Sulphur, LA 70663,  
for \$12 per year. The May  
issue contained a Word  
Processor Dump, to dump a  
graphics/text screen into a  
D/V80 file which can be  
printed out of the TI-Writer  
Formatter - that program  
alone is worth the annual  
subscription price!

I've said it before,  
there is more than one way  
to skin that poor cat. This  
is my routine to alternate  
between the #1 and #2  
joysticks.

```

Z=Z+1+(Z=2)*2 :: CALL (JOYST
(Z,X,Y)
Compact, isn't it? Now, the
Reading-Berks 99ers publish
a newsletter called "A Byte
of Info", which is hardly
more than a byte long, but
the August byte was a
mouthful! Check this -
100 Z=2

```

```

110 Z=1/Z*2 :: CALL JOYST(Z,
X,Y)
And this! Elegant!
Z=Z# :: CALL JOYST(Z+2,X,Y)

```

Here is another of  
those programs that write a  
program. This one will read  
a screen of graphics and/or  
text and convert it into a  
RUNable program of DISPLAY  
AT statements which will  
recreate the screen.

First, we need a file  
of the hex codes of all the  
normal characters, to check  
against to see if any have  
been redefined. Rather than  
key in all 95 of the  
16-digit codes, let's write

```

a program to write a program
of them -
110 OPEN #1:"DSK1.HEXCODES",
    VARIABLE 163 :: LN=30000 ::
FOR D=32 TO 124 STEP 8 :: FO
R CH=D TO D+7 :: CALL CHARPA
T(CH,CH#)
120 D$=D$&CHR$(179)&CHR$(200
)&CHR$(16)&CH$ :: NEXT CH
130 PRINT #1:CHR$(INT(LN/256
))&CHR$(LN-256*INT(LN/256))&
CHR$(147)&SEG$(D$,2,LEN(D$))
&CHR$(#):: LN=LN+1 :: D$=""
:: NEXT D

```

```

140 PRINT #1:CHR$(255)&CHR$(
255):: CLOSE #1 :: END

```

RUN that to create a  
MERGE format program of DATA  
statements. Now, key in the  
GRAFWRITER program -

```

31000 SUB GRAFWRITER
31001 OPEN #1:"DSK1.P6",OUTP
UT,DISPLAY,VARIABLE 163
31002 RESTORE 30000 :: L=300
00 :: GOSUB 31018
31003 FOR CH=32 TO 127 :: CA
LL CHARPAT(CH,CH#):: READ A$
:: IF CH#=# THEN 31004 ELS
E GOSUB 31019 :: GOSUB 31018
31004 NEXT CH
31005 FOR CH=128 TO 143 :: C
ALL CHARPAT(CH,CH#):: IF CH#
=# THEN 31006 ELSE
GOSUB 31019 :: GOSUB 31018
31006 NEXT CH
31007 PRINT #1:L$&CHR$(157)&
CHR$(200)&CHR$(5)&"CLEAR"&CH
R$(#):: GOSUB 31018
31008 FOR R=1 TO 24
31009 M$=L$&CHR$(162)&CHR$(2
40)&CHR$(183)&CHR$(200)&CHR$(
LEN(STR$(R)))&STR$(R)&CHR$(
179)
31010 FOR C=3 TO 30 :: CALL
GCHAR(R,C,6):: CALL HCHAR(R,
C,42):: IF F=# AND G=32 THEN
31013

```

```

31011 F=1 :: IF FF=1 THEN 31
012 ELSE CC=C-2 :: FF=1
31012 A$=#&CHR$(6)
31013 NEXT C :: IF CC=# THEN
CC=1 :: A$=""
31014 PRINT #1:M$&CHR$(200)&
CHR$(LEN(STR$(CC)))&STR$(CC)
&CHR$(182)&CHR$(181)&CHR$(19
9)&CHR$(LEN(A$))&A$&CHR$(#)
31015 L=L+10 :: F,FF,CC=# ::
M$,A$="" :: GOSUB 31018 ::
NEXT R
31016 PRINT #1:L$&CHR$(134)&

```

```

CHR$(201)&L$&CHR$(#):: GOSUB
31018
31017 PRINT #1:CHR$(255)&CHR
$(255):: CLOSE #1 :: SUBEXIT
31018 L1=INT(L/256):: L2=L-2
56*L1 :: L$=CHR$(L1)&CHR$(L2
):: L=L+10 :: RETURN
31019 PRINT #1:L$&CHR$(157)&
CHR$(200)&CHR$(4)&"CHAR"&CHR
$(183)&CHR$(200)&CHR$(LEN(STR
R$(CH)))&STR$(CH)&CHR$(179)&
CHR$(199)&CHR$(16)&CH$&CHR$(
182)&CHR$(#):: RETURN
31020 SUBEND

```

Next, Enter MERGE DSK1.  
HEXCODES to merge in those  
DATA statements. Then save  
the program by SAVE  
DSK1.GRAFWRITER, MERGE

Now, load any program  
which has a screen you would  
like to copy. Run the  
program to the point where  
the screen display is ready,  
then break it with FCTN 4.  
Put in a temporary line  
going to itself, such as  
1001 GOTO 1001, and run the  
program again to be sure you  
found the right place. Then  
replace that temporary line  
with CALL GRAFWRITER :: STOP

Put in the disk  
containing the Grafwriter  
program and enter MERGE  
DSK1.GRAFWRITER. Then RUN  
the program. When it stops,  
type NEW, then MERGE DSK1.P6  
and then RUN!

Now for a Tigercub chall-  
enge that I can't answer!  
Can one of you assembly  
programmers tell me how to  
PEEK out of Extended Basic  
for screen color and charac-  
ter set colors, so I can  
reproduce them in that  
program?

And, thanks to Jerry Glaze  
in the Southern Nevada UG  
newsletter, by way of the  
Tidewater newsletter - you  
don't need SIZE with DISPLAY  
AT - just a semicolon!  
100 DISPLAY AT(12,1):RPT\$("\*  
",2B):: DISPLAY AT(12,1):"SE  
E?";

MEMORY FULL! - Jim Peterson

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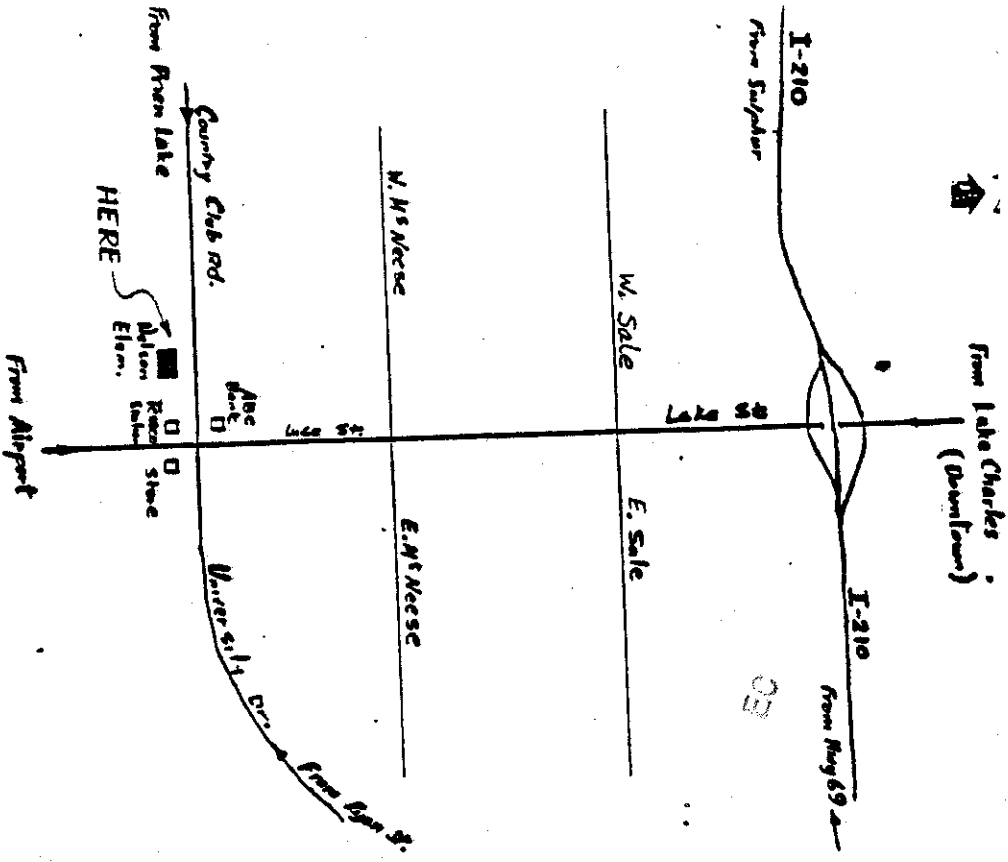
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