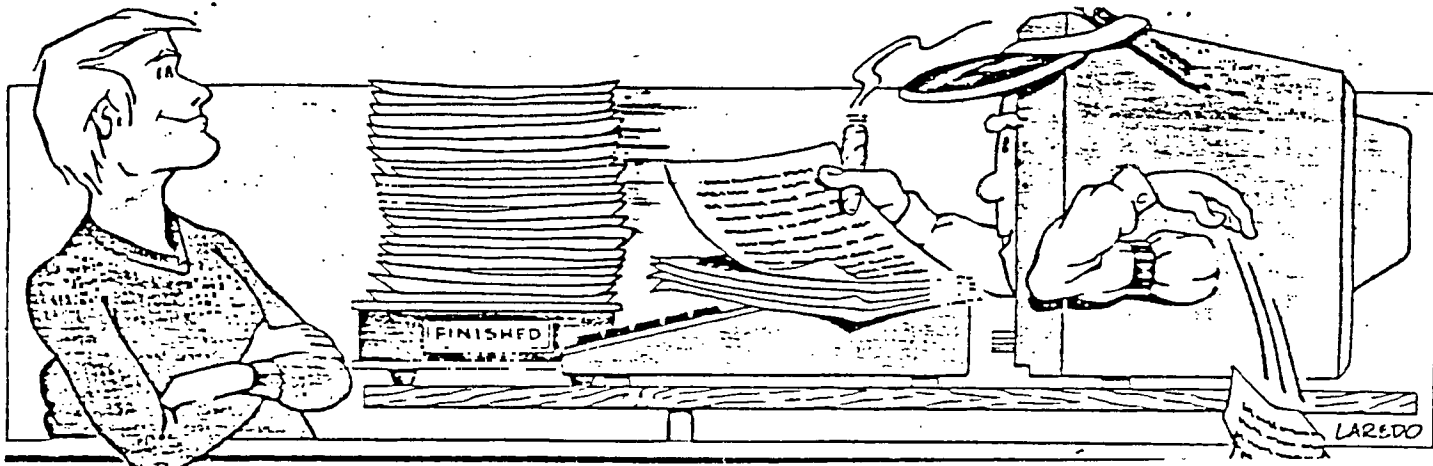


EDITOR BIT



Fellow users and abuser of the TI99/4A, for the start of a new year and my first news letter, I would like to introduce to those people who could not attend our last meeting, our new executive. Our president is KEN ARMSTRONG (ex-editor), vice president is RUSS WATSON, treasurer for a second year strait is GARY HARE, and BILL KELLER is your new editor, with the intro's completed and the new executive firmly in control, we must make a branch in our progress to say thanks to the last years ececutive, I am just beginning to see the work that is involved in the smooth running of our user's group. We thank them one and all very much.

As new editor our "OUR" newsletter I would like to say that I shall try to meet all the deadlines for print. This year we will try to increase our news letter to six pages, as long as we can keep our cost down and our articles informative. However, being not as knowledgeable on the actual capabilities of the TI, I will be looking for, and expecting articles from you and your knowledge, and experiences on your TI's. Articles may be dropped off at the meetings to myself or mailed to 102 - 1714 Newton st., Victoria BC, V8R 2R2. Tom Swarski or Gary Hare will collect articles at meeting that I cannot attend. Remember group those articles do not have to be a busines multicolan spread sheet. I am sure most of our readers would like to here about any time saving or unique habit that you as a TI user may have picked up.

As a semi active member who does not attend all the meetings, I would like to say how glad I was to find a users group here in Victoria. If not for this group my counsel would probably still gathering dust in it's box on a storage rack. Our small but well versed group has given me both programming and hardware changes which have eased the hair pulling many times. So to close remember that your article may save someone the frustration that no one really needs.

TI-WRITER PRINTER CODES
 by Alice Cassidy, SFV 99ers

One evening as I was bragging that I had complete control of my printer by using the transliterate command, Ken Johnson (our fine editor), asked me why I went to all that trouble? He told me about page 146.

Have you read and understood page 146 of the TI WRITER manual? If you answered **Y E S** then skip this article. If you answered **yes I think so** or **no I don't**, then read on. If the only reason that you use the Formatter is for printer codes then read on. Look at page 146 to get an idea what it looks like. Go to page 98 and read that. If you still don't understand what it says don't worry. Below and on the next page are charts that show what keys to push for different printer commands. If you would like to print your letter in Continuous Expanded (Double-width mode) but don't want to leave TI WRITER to change the printer, just do the following on the top line of your letter.

PRESS: CTRL U, FCTN R, CTRL U, W, CTRL U, SHIFT A, CTRL U.
 Both the Epson and the Gemini would use the above. The codes are CHR\$(27);"W1" or CHR\$(27)&CHR\$(87)&CHR\$(1). At the end of the letter you would turn the Double-width mode (Continuous Expanded) off.

PRESS: CTRL U, FCTN R, CTRL U, W, CTRL U, SHIFT 2, CTRL U.
 All codes can be embedded in the body of your letter but be sure that you take into account the space(s) used by the codes.

RX 80 EPSON PRINTER CODES FOR TI-WRITER

```
=====
SCREEN
DISPLAY  DISCRIPTION          CTRL FCTN CTRL KEY CTRL SHIFT CTRL
=====
```

'f	Condensed On					U	O	U
'z	Condensed Off					U	R	U
'bG	Double Strike On	U	R	U	G			
'bH	Double Strike Off	U	R	U	H			
'bM	Elite On	U	R	U	M			
'bP	Elite Off	U	R	U	P			
'bE	Emphasized On	U	R	U	E			
'bF	Emphasized Off	U	R	U	F			
'e	Expanded One Line					U	N	U
'bW-1	Expanded On	U	R	U	W	U	A	U
'bW-0	Expanded Off	U	R	U	W	U	2	U
'bS-1	Half Speed Mode	U	R	U	s	U	A	U
'b4	Italics On	U	R	U	4			
'b5	Italics Off	U	R	U	5			
'b@	Master Reset	U	R	U	@			
'bS-0	Normal Speed Mode	U	R	U	s	U	2	U
'bT	Script Mode Off	U	R	U	T			
'bS-1	Subscript On	U	R	U	S	U	A	U
'bS-0	Superscript On	U	R	U	S	U	2	U
'b--1	Underline On	U	R	U	-	U	A	U
'b--0	Underline Off	U	R	U	-	U	2	U
'b2	1/6" Line Spacing	U	R	U	2			
'b0	1/8" Line Spacing	U	R	U	0			
'b3	7/72" Line Spacing	U	R	U	1			
'bA-0	5/72" Line Spacing	U	R	U	A	U	E	U

(more)

GEMINI-10X PRINTER CODES FOR TI-WRITER

=====

SCREEN

DISPLAY	DISCRIPTION	CTRL	FCTN	CTRL	KEY	CTRL	SHIFT	CTRL
'bB-3	Condensed On	U	R	U	B	U	C	U
'bB-1	Condensed Off	U	R	U	B	U	A	U
'bG	Double Strike On	U	R	U	G			
'bH	Double Strike Off	U	R	U	H			
'bB-2	Elite On	U	R	U	B	U	B	U
'bB-1	Elite Off	U	R	U	B	U	A	U
'bE	Emphasized On	U	R	U	E			
'bF	Emphasized Off	U	R	U	F			
'-	Expanded One Line					U	N	U
'bW-1	Expanded On	U	R	U	W	U	A	U
'bW-0	Expanded Off	U	R	U	W	U	2	U
'b4	Italics On	U	R	U	4			
'b5	Italics Off	U	R	U	5			
'b@	Master Reset	U	R	U	@			
'bT	Script Mode Off	U	R	U	T			
'bS-1	Subscript On	U	R	U	S	U	A	U
'bS-0	Superscript On	U	R	U	S	U	2	U
'b--1	Underline On	U	R	U	-	U	A	U
'b--0	Underline Off	U	R	U	-	U	2	U
'b2	1/6" Line Spacing	U	R	U	2			
'b0	1/8" Line Spacing	U	R	U	0			
'b3	7/72" Line Spacing	U	R	U	1			
'bA-5	5/72" Line Spacing	U	R	U	A	U	E	U

EXAMPLE CODE:

In order to find the code for 5/72" Line Spacing look in your printer manual for the Line Feed Controls. The RX 80 Epson and the Gemini-10X show this code as ESC "A" n or CHR\$(27);"A";CHR\$(n) or CHR\$(27)&CHR\$(65) &CHR\$(n), where n is as n/72 for the CHR\$(n). On page 98 we are told to press CTRL U to enter the Special Character Mode. Now go to page 146 and look for the ascii code for escape which is ascii code 27. In looking across the page it shows that the key press of FCTN R is the same as CHR\$(27). So we now know that we need to press CTRL U FCTN R CTRL U, to send CHR\$(27) to our printer. Next we need to tell the printer what to do. We do this by pressing the key A, which is the paper feed command for n/72 inch spacing. Next we have to tell the printer what the value of n is. So back to page 146. We know that we want to move the paper 5/72 inch so we go down the ascii code column untill we come to the 5. In the press key column we are told to press SHIFT E. We now have the entire code necessary to tell the printer to set the line feed at 5/72" line spacing. Be sure to remember that you must press CTRL U before and after each key press from the Special Character Mode (page 146).

If you have trouble understanding any of the above feel free to call me and/or come to the August meeting of the TI Writer SIG. Call me to find out where and when. We do not meet on any set date, just when ever we can all get together. All members are welcome to attend. Come share your knowledge with us and we will share our knowledge with you.

P.S. This entire article was printed using the TEXT EDITOR and in some places I used 17 printer codes to print the Screen Display Column.

PROGRAMING A DOT MATRIX PRINTER

By Art Byers

Unfortunately for most computer printer owners, printer manuals (with a few exceptions) seem to have been written by hostile Japanese still holding a grudge for the loss of WWII. It is obvious that they are attempting to inflict us all with inferiority complexes by composing text in what appears, at first, to be English - but when read is incomprehensible. The manual for the Panasonic 1090 is one masterful example of how the nation of Nippon extracts excruciating revenge from Americans.

But enough of my observations on human motivation, no matter how accurate. The time has come to take positive steps toward controlling our printers from BASIC or IBASIC programs.

(1) The 99/4A handles the printer as an outfile. Therefore it is opened as a file. example:

```
100 OPEN #6:"RS232" or 100 OPEN #6:"PIO"
```

The computer looks for the printer connection. If not found, an error message will follow and the program crashes unless you have built in an IB error trap. Since Error trapping is the subject for a series in itself, that will be saved for the future. Assuming all is properly connected and the computer has found the called for device (in this case a printer) you are now ready to proceed.

(2) Let us assume that we want the printer to print a line reading like this:

```
"Ajax and Gem Perpetual Motion Co."
```

The line to program it would read:

```
110 PRINT #6:"Ajax Gem Perpetual Motion Co."
```

```
Simple Enough??
```

"Not quite" you answer, "suppose I want to print in Enlarge Type, or Italics, or condensed print?"

I wish there was one simple answer that I could give you, but there isn't. This is because printer manufacturer's have not gotten together and settled on a uniform standard. Printer commands vary from machine to machine. A comparison list is attached. You can either scan it now and return to this article or read it later. The commands listed for the rest of the article are for my TI-99/4 Impact Printer. To print that line in Enlarged type the program line would read:

```
110 PRINT #6:CHR$(14);"Ajax and Gem etc-"
```

```
For Condensed: PRINT #6:CHR$(15);"Ajax etc"
```

Now those are simple commands. Many printer commands require multiple commands. For example to program the printer to skip the perforation on pin fed paper, oh say four lines at the bottom and four at the top of the next page, (4 plus 4 =8), the line would read:

```
100 OPEN #6:"PIO" :: PRINT #6:CHR$(27);CHR$(78);CHR$(8)
```

(3) Now let's try to answer two questions typical of those most often asked when the topic of programming printers comes up:

(a) How do you list a program to a printer in 28 columns to match the screen listing: First go into the

immediate mode and key in and enter these lines:

```
>OPEN #6:"PIO"
```

```
>PRINT #6:CHR$(27);CHR$(81);CHR$(28)
```

```
>LIST "PIO"
```

This works because the printer "remembers" most commands until they are cancelled. If you wanted a 40 col listing, the last number should be 40 instead of 28.

(b) How can you emphasize or double strike in the middle of a line. For example print a line reading:

```
Attention: James Joyce Computer Supply Buyer
```

While my answer may not be true for other brands of printers, on the TI-99/4 impact printer it must be done like this:

```
100 OPEN #6:"PIO.CR.LF" ! cancel automatic carriage return and line feed.
```

Because the printer will no longer return the carriage at the end of each line or roll up fresh paper, we must program it to do so. CHR\$(13) is the carriage return code, CHR\$(10) the line feed. 27:69 is for emphasized printing and 27:70 is to cancel emphasized print.

```
105 PRINT #6:"Ajax and Gem Perpetual Motion Co.;"CHR$(10);CHR$(13)
```

```
110 PRINT #6:"Attention:"
```

```
112 PRINT #6:CHR$(13);TAB(12);CHR$(27);CHR$(69); "James Joyce";
```

```
114 PRINT #6:CHR$(27);CHR$(70); " Computer supply Buyer"
```

Now there is always a wise guy out there who will question the wisdom of a true genius such as myself and ask. Why do you have to cancel the carriage return?

I guess I really don't play fair, not only is the manual that came with my TI printer one of the best and most clear supplied with any printer, but also I actually take the time to READ it once in a while. It says:

"To combine two types of character designations on one line you need to disable the automatic addition of a carriage return at the end of each line by adding .CR to the OPEN statement. - then use the TAB command to move the printhead to the proper position for the second type of character designation."

I will let you figure out why I cancelled the line feed.

One last shot from the wise guy! "How in h--- do you remember all of this?" I should answer that I am a genuine genius, but the truth is that I program with the printer reference guide on my lap. As I said in a previous article discussing the miriade of books needed for the 99/4A, you don't have to remember all of this, you just have to know where to find the information.

Because several club members own daisy wheel printers, the following comparison chart includes one ~~Dot~~ Dot Matrix, The Silver Reed 400.

Continued on the next page:

from CALL SOUNDS the newsletter of the Central Westchester 99'ers ~~Mar~~1986

COMPARISON LIST OF PRINTER COMMANDS.

(With thanks to the Delaware Valley User's Group for many of them)

To save space, CHR\$(); CHR\$(); CHR\$() will be abbreviated. for Example: 27;B1;n where n equals the variable value you must insert.

Where an Alphabet letter is enclosed in quotes, omit the 'CHR\$()' for example: 27;"E" equals CHR\$(27);"E"

It is with great regret that I say your printer may be different and you will have to consult your printer manual. However, with the foregoing you should be able to figure out the proper programming.

COMMAND	II-99/4	EF50M M180/100I FT	GENINI	Itoh prowriter NEC PC-0023A-c	SilverReed 400
Carriage Return	13	13	13	13	13
Line Feed	10	10	10	10	10
Form Feed	12	12	13	12	12
Sound buzz or bell	07	07	07	07	not avail.
Set Pica 10cpi 80 char line	by default	27;66;1	27;66;1	27;"H"	via Daisy whl
Set Elite 12cpi 96 char line	not avail.	Not avail	27;66;2	27;"E"	" . . . "
Set Condensed 16.5cpi 132 ch	15	15	27;66;3	27;"Q"	not avail.
Set Proportionate	not avail.	Not Avail	not avail.	27;"P"	not Avail.
Set Boldface	27;71	27;71	27;71 or 27;"G"	27;33	27;"O"
Clear Boldface	27;72	27;72	27;72 or 27;"H"	27;34	27;"Q"
Set Italics	not avail.	27;52	27;52	not avail	Not Avail.
Clear Italics	" . . . "	27;53	27;53	not applicable	Not applicable
Set solid underline	" . . . "	27;45;1	27;45;1	27;"X"	27;"E"
Clear underline	" . . . "	27;45;0	27;45;0	27;"Y"	27;"R"
Set Wide Type	14	27;87;1	27;87;1	14	Not Avail.
Clear Wide Type	20	27;87;0	27;87;0	15	Not applicable
Set skip over perforation	27;78;n	27;78;n	27;78;n	don't know	not applicable pressure feed of single sheets
clear skip over perforation	27;79	27;79	27;79	" . . . "	
Set Column Width	27;81;n	27;81;n	27;81;n	" . . . "	not avail.
Choose one of eight international character sets	27;82;n	27;82;n	27;82;n	" . . . "	not avail.

SEATTLE-III-FAIRE
25-26 Sept 1986

If you missed it: you missed the big one - a computer show completely dedicated to the Texas Instrument computer. The organizers had hoped that this orphan would perhaps attract 150 visitors. By mid day more than 400 had passed through the doors!

The faire was the idea of Barbra W., owner of the Queen Anne Computer Store - dedicated of course to the TI-99 4/a. Along with some help from local users, she set up a set together that hopefully will be repeated on a yearly basis. Incidentally, her address is 6 1/2 Boston Street, Seattle, Washington. (Sorry, lost the Zip along with her last name when I passed the info sheet to another user.)

Thought I'd go down a day early and peruse the shop. It was chaos! There was TI equipment stacked to the ceilings! A couple of fellow Canadians also meandered in a day early and were buying like there was no tomorrow. However there was. Tomorrow started in the evening with a dinner for group presidents and VIP's (others could attend as well for a reasonable fee.) Guest VIP/Speakers included: Resina (Cheryl Whitelaw), Lou Phillips of Myarc, Chris Bobett of Asgaard Software, and Crais Miller to name a few.

The next day saw the fair open to the public at the Sea-Tac Holiday Inn. User Groups were assigned tables and each set up demonstrations of specialized software or hardware that they had developed. Vendors also set up their wares whilst guest speakers gave lectures and product announcements in an adjoining conference room that soon overflowed into the hall. President, Lou Phillips of Myarc had a working model of the new "Geneve" (computer in a P-Box) price still to be \$500 U.S.I. Unfortunately, he only had a monochrome monitor for the demos. However, he says the computer will be in the stores for Christmas. Before this scribe puts his keyboard into storage I am going to have to see a real demo. Crais Miller, not to be outdone, announced a new "cheap" IBM compatible add-on for our TI computer. He has joined hands with "a major computer company" which will make the details known in January 1987. He could only be tricked and chided into telling attendees that it is hardware, low priced, expandable with extra memory, inexpensive, dual IBM-TI, cost effective and runs at the IBM clock speed with complete compatibility with all software. Looks to me as if he is attempting to preempt Myarc Geneve sales. Many at the faire felt Myarc was doing a pretty good job of that themselves. At any rate let me say we sure are getting a lot of support for this supposedly "obsolescent" device. Jim Horne of Compu Serve had his catalogue there and also suggested interested individuals sign up for GUTS (Geneve Users and Technical Society.) Cheryl Whitelaw and her husband have added child number 7 to their tribe placing demands on mommy such that she plans to be withdrawing from writing. Many of you may wonder why the pseudonym, Resina? Basically it was a way a computer magazine attempted to keep her under wraps writing for them alone. She is a very fine lady and we will all miss her contributions. Franz of the German connection brought some of his software including their super extended basic and a Plus in 80 column card that plugged into the right side of the computer.

Having spent a fair amount of time talking with all of these people has led me to believe that this computer and software support will be around for quite some time. I've reached a few other conclusions as well.... Since we are about to have the choice of two IBM compatible TI conversions thus opening up a cornucopia of software: I have no intention of abandoning my 99 4/a. While I'm not saying that you should sell your IBM stock: nonetheless, it appears we will end up with superior capabilities for pennies on the dollar. Indeed we will be farther ahead than the IBM purists because we will also be able to run TI software....

Ken Armstrong