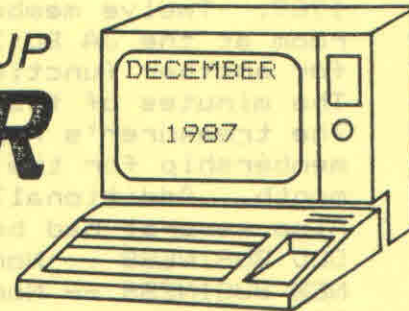


# CEDAR VALLEY 99'ER USER GROUP NEWSLETTER



CEDAR RAPIDS/MARION, IOWA

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### \*\*\*\*NEWSLETTER TOPICS\*\*\*\*

1. Future Meeting Dates
2. Next Meeting Notes
3. Minutes From December Meeting
4. Creative Filing System II
5. Formatting with the Text Editor
6. Home Schooling Science
7. The Library Corner
8. Unclassified Ads  
(From The Mailbox will return next month. Thanks to two contributors, we ran out of room this issue! Also, look for Tips from the Tigercub #46!)

### \*\*\*\*FUTURE MEETING DATES\*\*\*\*

Please mark the following dates on your calendar for future meetings:  
JANUARY 11, FEBRUARY 8, MARCH 7.

### \*\*\*\*\*NEXT MEETING\*\*\*\*\*

This month, we return to our normal meeting time of the second Monday of the month. The meeting will be held at 7:00 PM at the JA Building, 330 Collins Rd. NE, on January 11. Come and share your new computer-related Christmas present with us! Continue with TI assembly language. Come for sharing and fun!



**\* MINUTES FROM THE DECEMBER MEETING \***

President Jerry Canady called the meeting to order at 7:02 PM on December 8, 1987. Twelve members were present. We were all shoehorned into the conference room at the JA Building, as our regular meeting room had already been set up for another function on Dec 9. I guess they forgot about us.

The minutes of the previous meeting were approved as printed in the newsletter. The treasurer's report was read by Jim Harrington. Jim reported that membership for the new year stands at over 20 members. Nineteen renewed last month. Additionally, one renewal was received the week prior to our meeting. Also several had been entered into the books prior to the November meeting.

OLD BUSINESS -- None.

NEW BUSINESS -- None.

DISCUSSION -- Jerry called attention to the article in the November issue of MICROpendium dealing with the slowness on response and/or non-delivery of orders from certain mail order houses. Some were not even responding to their phone calls. EVERYONE PLEASE NOTE! (Jerry will try to follow up in the January newsletter.)

QUESTION -- Is there available an 80 column card for the TI? A general discussion of the above followed.

NEW PURCHASES -- A member of our group, Jim Reiss, has recently purchased the following hardware, but none of the items have yet been received.

1. Grand Ram memory card - 512K
2. Speech card internal to the PE Box
3. Geneve 9640 computer, ordered from Dhein's True Value in Waterloo

We look forward to demonstrations of this new equipment once they are received and checked out!

The general meeting was adjourned, and the evening's program began. Jerry showed what the following programs could do:

1. Unrunnable Basic
2. Pre-scan It (copyright, \$10 price)
3. Compactor

Jerry started with a basic program that was much too slow to be useful. Changed it to run in Extended Basic, using the Unrunnable Basic program. He then cut the previous time in half with Prescan It. Jerry then made multiple statements using Compactor and saved another 10% in running time. Thanks for the demonstration, Jerry.

The class on Assembly Language Programming followed, for those who were still interested. Thanks, John Johnson.

Submitted by Bill Paeth, Secretary

**\* \* \* CREATIVE FILING SYSTEM II \* \* \***

Mark Beck, who wrote Creative Filing System, has written to our group asking you for your help. Mark is preparing to modify CFS to incorporate the best features of the various data base programs available for the TI. Mark wants to know your opinion of what a data base program should contain, given the limitations of the TI system. He also needs to know all members who have a copy of his program. (I got mine from Ed Edwards, but I haven't gotten any further than printing out the DOCS!) Mark says that he has registered only 175 owners of the program!

You have heard it before, but I'll say it again: We need to support our shareware authors, or they will disappear. Now that you have been asked, please take a few moments to write to Mark with your ideas and suggestions. He may be reached at 8 Forrestridge Circle, Valdosta, Georgia 31602.



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\*\*\*\*\*  
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# routines, tips, tricks. #  
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#

\*\*\*\*\*  
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For descriptions of these send a dollar for my catalog!

I have discovered a rare bug in the 28-Column Converter, published in Tips #18, which will cause an I/O 25 ERROR if the very last line of the program being converted happens to have exactly 80 characters. You can fix it by adding a line -  
215 IF EOF(1)=1 THEN 260

There is also a rare bug in the SIDWAYS subroutine on my Nuts & Bolts #2 disk, which prevents turning some

redefined character sets sideways. If you are one of those who BOUGHT that disk from me, you can fix it by changing the L=LEN(B0) in line 21639 to L=64.

I was in too much of a hurry to go fishing when I put the last couple of Tips together. In the Gordian Knot in Tips #35, I left out some essential instructions. Please add -  
131 DISPLAY AT(11,1): "When you cross your track,": "press 0 to go over, U to go": "under, C to go across."

To make that fit, you will have to change the DISPLAY AT in line 130 to (8,1), in line 140 to (15,1) and in line 150 to (20,1), also the ACCEPT At in 160 to (20,11). And this change will prevent a lockup when you reach a border -

```
200 D=D-1 : IF ABS(D-D2)=2
OR R=(D=1)=0 OR R=(D=3)=25 O
R C+(D=4)=2 OR C-(D=2)=31 TH
EN 100 : GOSUB 510 : IF D<
>D2 THEN GOSUB 450
```

I wrote the dulcimer music in Tips #36 in Basic, but I forgot to test it in Basic. It actually runs much better in Extended Basic, but will run fairly well in Basic if you delete the delays in lines 280 and 300.

If you liked the ESCHER ART in Tips #37, these modifications will improve it considerably -

```
110 DISPLAY AT(12,1): "Press
-": " 0 for new pattern": "
B to change background": " F
to change foreground": " R to
reverse colors": " : "Any ke
y to start"
```

```
200 A=INT(6*RND+3): H=INT(2
4/A): RX=24-H*A : HC=INT(2
8/A): CX=28-HC*A : W=ABS(H
C/2=INT(HC/2))-(RX>0): DIM
M(8,8): FOR P=1 TO A
330 IF K<>66 THEN 346
340 BC=BC+1+(BC=16)*15 : IF
BC=F THEN 340 ELSE 347
```

```
346 IF K<>70 THEN 360 : F=F
+1+(F=16)*15 : IF F=BC THEN
346
```

```
347 FOR S=7 TO 14 : CALL CO
LOR(S,F,BC): NEXT S : GOTO
310
```

```
350 ! **DELETED LINE **
360 IF K<>ASC("R") THEN 310 :
: T=F : F=BC : BC=T : GOT
O 347
```

```
600 GOSUB 900 : FOR T=1 TO
A : DISPLAY AT(R-1+T,C): M0(
V,T): NEXT T : NEXT C
601 IF CX>0 THEN AA=A : GOS
UB 800
```

```
605 GOSUB 1000 : NEXT R
```

```
606 IF RX=0 THEN 610
```

```
607 GOSUB 1000 : FOR C=1 TO
```

```
A*HC STEP A : GOSUB 900 :
```

```
FOR T=1 TO RX : DISPLAY AT
```

```
(R-1+T,C): M0(V,T): NEXT T :
```

```
: NEXT C
```

```
608 IF CX>0 THEN AA=RX : GO
```

```
SUB 800
```

```
800 GOSUB 900 : FOR T=1 TO
```

```
AA : DISPLAY AT(R-1+T,C): SE
```

```
60(M0(V,T),1,CX): NEXT T :
```

```
: RETURN
```

```
900 V=V+1+(V=4)*4 : RETURN
```

```
1000 V=V+W : V=V+(V=4)*4 : :
```

```
RETURN
```

I had a letter from a teacher who was using the PRK module to keep student grades, and wanted to know how to average them. It can be done, but is so impractical that I wrote this program. While I was at it, I speeded up the loading and saving to cassette greatly by converting the grades to an ASCII string and combining the student's name and all grades into one record.

```
100 DIM N0(50),T(50,20)
```

```
110 CALL CLEAR
```

```
120 PRINT " TEACHER'S
HELPER": ; ; ;
```

```
130 REM - by Jim Peterson
```

```
140 PRINT "(1)CREATE A FILE?"
```

```
?:"(2)ADD TO FILE?":(3)LOAD
```

```
A FILE?":(4)SAVE A FILE?":
```

```
?(5)PRINT A FILE?"
```

```
150 PRINT "(6)CORRECT A FILE
```

```
?":(7)COMPUTE AVERAGES?":(
```

```
8)QUIT?"
```

```
160 CALL KEY(0,K,S)
```



The .CR with PIO is used to stop the Carriage Return that PF sends at the end of an editor line. This approach allows the printer control to come from the document only.

The method of entry for printer control follows this sequence. <CTRL U><FCTN R><CTRL U><B><CTRL U><SHFT B><CTRL U> to set the printer to ELITE (12 chrs/in). This equates to the printer manuals <ESC> "B" CHR\$(2) to turn on the Elite print font. The chart follows this pattern for all of the STAR SG-10 commands. These codes should be close for most EPSON compatible printers. I used commas to separate the keystrokes in the chart; DO NOT USE THEM IN YOUR ENTRY.

The chart contains points where the keystroke entry is n, SHFT n or ..., these entries require an ASCII number for the desired effect. Remember that ASCII 32 and above are entered in normal mode in accordance with the ASCII key code. ASCII's 0 through 31 and 127 are accessed from the SCM (CTRL U) according to the chart or keycode minus 64. Where SHFT n is used it is only because I felt most normal entries would be below 32, if you require codes above 31 omit the CTRL U keystrokes. The ... represents a series of entries.

One area that requires attention when you are working with text in modes greater than 80 columns is the location of the printer's right margin. The printer doesn't care what you put in the last character space, so it will split a word in the middle usually leaving a 1 to 3 letter line. One method of insuring the integrity of your text is to set the Editor's RM to 1/2 the amount of character spaces you will be using ie.  $(96 - 24)/2 = 36$  for Elite with 1 in margins. Entering your text in word wrap mode would then eliminate the potential for this effect. Remember that if you enter in word wrap mode you will need to replace the C/R symbols with L/F's. Use Replace String in fixed (hollow cursor) mode only for this effort.

Another point to remember is the print head will not move when it encounters control characters so you must insert spaces equal to the control character spaces used to insure correct text placement. Do not use the required space character <SHFT 6> for this purpose unless you want an exponentiation symbol. PF does not recognize the Required Space as the formatter does.

The OFF/NOTES column of the chart represents the keystrokes to switch off the function you changed or notes of keystrokes I felt would be normal for "n", etc.

I found this method to be effective for the columnar printing that was causing me difficulty. It allows me to see the text and removes the multiple interfaces with the printer. However I believe straight text without a multitude of font or line spacing changes is probably best handled by the Formatter.

Download character and graphic commands were omitted to save space. I believe they can be used in this fashion. The chart could be reduced by entering keys like <ESC> etc. as one becomes more familiar with the required keystrokes. If there is sufficient interest I will make a new chart. If you have problems converting to your printer I will help you convert them if you can provide a copy of the command reference for your printer.

I found a unique use for the DEL (CHR\$ 127) command along the way. I was attempting to make a long blank underline and discovered that the printer accepted it as a character when placed in the last character space in the editor line using fixed mode. Don't be surprised by the lack of symbol when you go to SCM and type FCTN I. DEL is represented by a space, but it is there. Prove this by entering one after a printable character and watch the printer ignore the preceding character. Now can someone find me a character that doesn't print but is recognized by the



printer to start and stop the underlined blank line? I would like to do away with the ; or ~ that I presently use so I could have a true blank underline.

I assumed that you were familiar with TI Writer and its associated terms when I wrote this. If this is not true and you don't completely understand, please ask and I will go into more depth.

Next month we will discuss the .TL approach to printer control via the formatter and access to the additional characters available on your printer for special purposes.

I wish to thank Jim Peterson for the tutorial that prompted this article and all the additional help he has provided me. If you haven't already discovered the input for, CHR\$ 127, let me know how you use it. Thanks again!

Jerry Canady

(See chart p. 8-9)

Home Schooling Science  
by  
Rev. Richard L. Wetters

As a traveling minister, we are always on the road. This means lots of McDonalds, toilet breaks, and home schooling in the car. Some subjects are cut and dry such as English, math and history (with an emphasis on dry). But science is different with experiments and more objective observation. This year, one of our emphasis is "astronomy". We have used several of the educational programs in the User Group's library to help illustrate some astronomical principles. Recently, however, I came across a book of computer programming projects which suggested writing a program on what a person would weigh on the various planets. With a little bit of thinking, I discovered that even with my very limited knowledge of programming, I could come up with something. This is the first program of any worth that I have ever completed but I found it relatively easy to do.

As you type in the program, you will notice that I went just a bit further than the project required. Anyone who knows me, knows that I never just stick to the basics. When I make dinner, I don't just make hamburgers, but must find the most elaborate recipe I can. (It makes no difference if I don't have all the ingredients, that's what neighbors are for). When I make a craft, I will find one that is the most difficult (and usually the one that I don't have all the tools for). So when I finished the basics of the following program, I just had to "glitz" it up a bit.

The results may not be startling. The program may have several "traditional" programming mistakes. It may not win the Nobel Peace Prize for outstanding achievement in computer science. But I share it with you to show that it just takes an idea, a little bit of dissins, and a touch of imagination to create a stroke of genius.

P.S. When responding to the computer's questions, be kind. Remember, a minister created him.

```

100 CALL CLEAR
110 CALL SCREEN(15)
120 DISPLAY AT(12,1):"*****"
130 DISPLAY AT(13,1):"* INTERPLANETARY WEIGHTS *"
140 DISPLAY AT(14,1):"* BY *"
150 DISPLAY AT(15,1):"* RICHARD L. WATTERS *"
160 DISPLAY AT(16,1):"*****"
170 CALL SAY("HELLO COMMAND CENTER"): INPUT T$ : CALL SAY("PLEASE INPUT YOUR
DATA AT THIS TIME")
180 INPUT "WHAT IS YOUR WEIGHT ON EARTH(IN LBS)? " : A$
190 CALL CLEAR
200 CALL SAY("PLEASE WAIT AS I PROGRAM YOUR ANSWER")
210 GOSUB 560
220 FOR I=1 TO 500
230 NEXT I
240 PRINT "YOUR WEIGHT ON THE FOLLOWING PLANETS IS:"
250 PRINT
260 Q=A*.27
270 PRINT "MERCURY -- " : Q : "LBS"
280 Q=A*.85
290 PRINT "VENUS ---- " : Q : "LBS"
300 Q=A*1.00
310 PRINT "EARTH ---- " : Q : "LBS"
320 Q=A*.16
330 PRINT "MOON ----- " : Q : "LBS"
340 Q=A*.38
350 PRINT "MARS ----- " : Q : "LBS"
360 Q=A*2.64
370 PRINT "JUPITER -- " : Q : "LBS"
380 Q=A*1.17
390 PRINT "SATURN --- " : Q : "LBS"
400 Q=A*.92
410 PRINT "URANUS --- " : Q : "LBS"
420 Q=A*1.12
430 PRINT "NEPTUNE -- " : Q : "LBS"
440 PRINT "PLUTO ---- UNKNOWN"
450 PRINT
460 PRINT
470 PRINT
480 CALL SAY("DO YOU WANT TO TRY AGAIN?")
490 INPUT "DO YOU WISH TO TRY AGAIN?": R$
500 CALL CLEAR
510 IF R$="Y" THEN GOTO 180
520 IF R$="N" THEN GOTO 180
530 CALL SAY("VERY WELL COMMAND CENTER GOODBYE"): INPUT T$ : CALL SAY(" I WILL
CLEAR THIS PROGRAM AT THIS TIME"): CALL CLEAR
540 GOSUB 560
550 END
560 FOR H=1 TO 35
570 CALL SOUND(INT(8*RND)+1,INT(901*RND)+2000,2)
580 IF H=0 THEN RETURN
590 NEXT H
600 RETURN

```



**\* \* \* THE LIBRARY CORNER \* \* \***

We have six new programs to add to the library this month. Thanks to Jim Reiss and Genie, the following programs will be on disk #163.

**CIVIL WAR:** This is a Civil War simulation game. Facts and figures used are based on the actual occurrences. Most battles tend to result as they did in the real war. Civil War is written in Basic.

**PING PONG:** This is a very good 2-player ping pong game written in assembly language. This requires the Editor Assembler cartridge, or equivalent loader.

**CANTINA:** This program plays lively cantina music and is written in Extended Basic.

**BOING:** Boing is an Editor Assembler graphics demo of a bouncing ball. For you Tunnels of Doom fans, we now have a new game called GNOMES. You enter the Dark Castle in search of the seven magical rings which will save the Gnomes from a spell placed over their land by an evil sorcerer. You must also rescue the Gnomes' wizard, who holds the secret of the rings. The program was written by Randy Cohen, but no address is given, so I assume that it is a public domain program. Does anyone in our exchange groups know for sure?

I just downloaded a shareware program called TI Sings from Genie. It was written by Trio+ Software of Liscomb, Iowa. It requires a disk system, TE II cartridge, speech synthesizer, and a printer is nice but not necessary. The program will make your TI sing. You can create songs or just listen to those entered by others. It comes with seven songs and has some help files which can be printed or displayed on the screen. I played the songs that come with it and it was entertaining. The program has no error checking, so when I made a mistake, the program crashed. Also, I couldn't get it to work on my CorCopp 9900 Microexpansion system. It would always give me an I/O error 6.

I put all the files on disk #164, and it took 304 sectors. I didn't get time to try all sections of the program, so will try to have a better review ready for the next meeting. Hope to see all of you on January 11.

Bruce Winter

**\* \* \* FOR SALE / WANTED \* \* \***

For Sale or Swap: Parsec, Multiplication I

Wanted: A look at the instructions for Star Trek. I have the cartridge, but I don't know how to play.

Gary Bishop 377-9574

**NOTES FROM WOODY'S DESK.....**

When you save the configuration file of DM-1000, it is placed on disk in a rather strange place. Specifically, on the File Descriptor Record. If you check, you will find the bytes for the printer name begin at byte 160, for the print commands at byte 208, and the color byte at 240. What this means to you is that this information is usually lost when you copy the DM-1000 files. For those of you that use Version 3.5, you will find that you can not make the config file (reached by FCTR 3 on first menu) accept print commands of more

than two digits. You can, however, use a sector editor and place the command on the FDR in the proper location. Version 3.8 of DM-1000 corrects this problem so you may want to obtain a new copy. An additional note of caution should be given: DSKU also uses part of the FDR for its COMMENT LINE. You can get some really weird results in your color selection on DM-1000 if you place a comment on the MGR1 (MG in FNLWEB) file of DM-1000 after having saved your color choice (Made from MISC UTILITIES menu of DM-1000). NOTE:Lutz called my attention to this information.<WOODY>



### SG-10 SCM CONTROL

ON

OFF/NOTES

#### PRINT STYLE

ITALIC	CTRL U, FCTN R, CTRL U, 4	CTRL U, FCTN R, CTRL U, 5
INTERNATIONAL	CTRL U, FCTN R, CTRL U, 7, CTRL U, SHFT n, CTRL U	n=2/US, A/FR, B/GR, C/EN, D/DN, E/SW, F/IT, G/SP
NLQ	CTRL U, FCTN R, CTRL U, B, CTRL U, SHFT D, CTRL U	CTRL U, FCTN R, CTRL U, ^, CTRL U, SHFT E, CTRL U

#### FONT PITCH CONTROL

PICA	CTRL U, SHFT R, CTRL U	
ELITE	CTRL U, FCTN R, CTRL U, B, CTRL U, SHFT B, CTRL U	
CONDENSED	CTRL U, SHFT O, CTRL U	
PROPORTIONAL	CTRL U, FCTN R, CTRL U, p, 1	CTRL U, FCTN R, CTRL U, p, 0
EXPANDED	CTRL U, FCTN R, CTRL U, w, 1	CTRL U, FCTN R, CTRL U, w, 0
EXP (1 LINE)	CTRL U, SHFT N, CTRL U	CTRL U, SHFT T, CTRL U

#### SPECIAL PRINT MODES

DOUBLE-STRIKE	CTRL U, FCTN R, CTRL U, G	CTRL U, FCTN R, CTRL U, H
EMPHASIZED	CTRL U, FCTN R, CTRL U, E	CTRL U, FCTN R, CTRL U, F
UNDERLINE	CTRL U, FCTN R, CTRL U, -, 1	CTRL U, FCTN R, CTRL U, -, 0
SUPERSCRIPPT	CTRL U, FCTN R, CTRL U, S, 0	CTRL U, FCTN R, CTRL U, T
SUBSCRIPT	CTRL U, FCTN R, CTRL U, S, 1	CTRL U, FCTN R, CTRL U, T
MASTER PRINT	CTRL U, FCTN R, CTRL U, ?, CTRL U, SHFT n, CTRL U	n=master select ASCII + 64

#### VERTICAL HEAD POSITION

LINE FEED	CTRL U, SHFT J, CTRL U	
1/8	CTRL U, FCTN R, CTRL U, 0	
7/72	CTRL U, FCTN R, CTRL U, 1	
1/6	CTRL U, FCTN R, CTRL U, 2	
n/72	CTRL U, FCTN R, CTRL U, A, n	n=ASCII for desired spacing
n/144	CTRL U, FCTN R, CTRL U, 3, n	n=ASCII for desired spacing
n/144 (1 LINE)	CTRL U, FCTN R, CTRL U, J, n	n=ASCII for desired jump

#### FORM FEED CONTROL

FORM FEED	CTRL U, SHFT L, CTRL U	
PAGE LENGTH (LINES)	CTRL U, FCTN R, CTRL U, C, n	n=8/56, H/72, Z/90
PAGE LENGTH (INCHES)	CTRL U, FCTN R, CTRL U, C, CTRL U, SHFT 2, CTRL U, CTRL U, SHFT n, CTRL U	n=6/7, L/12
TOP MARGIN	CTRL U, FCTN R, CTRL U, R, CTRL U, SHFT n, CTRL U	Requires FORM FEED to set n=F/6, H/8, J/10
BOTTOM MARGIN	CTRL U, FCTN R, CTRL U, N, CTRL U, SHFT n, CTRL U	n=F/6, H/8, J/10
CANCEL MARGINS	CTRL U, FCTN R, CTRL U, 0	



# SG-10 SCM CONTROL

	ON	OFF/NOTES
<b>VERTICAL TABS</b>		
VERTICAL TAB	CTRL U, SHFT K, CTRL U	
SET VERT TABS	CTRL U, FCTN R, CTRL U, P, ..., CTRL U, SHFT 2, CTRL U	...=ASCII's for desired tabs
ADVANCE n L/Fs	CTRL U, FCTN R, CTRL U, a, n	
<b>HORIZONTAL HEAD POSITION</b>		
CARRIAGE RETURN	CTRL U, SHFT M, CTRL U	
LEFT MARGIN	CTRL U, FCTN R, CTRL U, M, CTRL U, SHFT n, CTRL U	n=A/5, B/6, D/8, F/10, H/12, Q/17
RIGHT MARGIN	CTRL U, FCTN R, CTRL U, Q, n	n=F/70, K/75, T/84, Z/90, W/119
HORIZONTAL TAB	CTRL U, SHFT I, CTRL U	
SET HORIZ TABs	CTRL U, FCTN R, CTRL U, D, ..., CTRL U, SHFT 2, CTRL U	n1, n2, n3, etc (low to high) ...=ASCII's for tab - margin
TAB n COLUMNS	CTRL U, FCTN R, CTRL U, b, n	
BACKSPACE	CTRL U, SHFT H, CTRL U	
<b>MACRO</b>		
DEFINE MACRO	CTRL U, FCTN R, CTRL U, +, ..., CTRL U, SHFT 6, CTRL U	
USE MACRO	CTRL U, FCTN R, CTRL U, !	
<b>OTHER</b>		
SOUND BELL	CTRL U, SHFT G, CTRL U	
DISABLE BELL	CTRL U, FCTN R, CTRL U, Y, 0	CTRL U, FCTN R, CTRL U, Y, 1
ZERO WITH SLASH	CTRL U, FCTN R, CTRL U, \, 1	CTRL U, FCTN R, CTRL U, \, 0
IGNORE PAPER-OUT	CTRL U, FCTN R, CTRL U, 8	CTRL U, FCTN R, CTRL U, 9
UNIDIRECTIONAL	CTRL U, FCTN R, CTRL U, U, 1	CTRL U, FCTN R, CTRL U, U, 0
UNIDIRECT (1 LINE)	CTRL U, FCTN R, CTRL U, <	
RESET PRINTER	CTRL U, FCTN R, CTRL U, @	

**KEYSTROKE for n < 32 & 127 (CTRL U, n, CTRL U)**

0 - SHFT 2	8 - SHFT H	16 - SHFT P	24 - SHFT X
1 - SHFT A	9 - SHFT I	17 - SHFT Q	25 - SHFT Y
2 - SHFT B	10 - SHFT J	18 - SHFT R	26 - SHFT Z
3 - SHFT C	11 - SHFT K	19 - SHFT S	27 - FCTN R
4 - SHFT D	12 - SHFT L	20 - SHFT T	28 - FCTN Z
5 - SHFT E	13 - FCTN M	21 - SHFT U	29 - FCTN T
6 - SHFT F	14 - FCTN N	22 - SHFT V	30 - SHFT 6
7 - SHFT G	15 - SHFT O	23 - SHFT W	31 - FCTN U
127 - FCTN I (Delete last character)			



DEFINITE

ON

VERTICAL TABS

VERTICAL TAB

SET VERT TABS

**NEXT MEETING**

ADVANCE n LINES

**MONDAY, JANUARY 11**

CTRL U, SFT R, CTRL U

**7:00 PM --- JA BUILDING**

**ASSEMBLY LANGUAGE CLASS AND**

**SOFTWARE REVIEWS!!**

**HAPPY NEW YEAR!**

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