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New Hampshire 99'ers

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NH99UG NEWSLETTER - POB 5991 - MANCHESTER, NH 03108

>NEW

I am sorry to say that Ellen Rule has resigned as Secretary of the club. Ellen has been quite active in our club and we owe a great deal to her. She has supplied excellent minutes, but that was a small portion of her generous donation of time. She converted many programs written for other computers into TI BASIC and XBASIC and gave them to the library; she wrote for (and paid for) numerous FAIRWARE programs for the club; spent a considerable amount of time loading disk based programs onto cassettes for us; ... I could go on. We have all benefited from her talents. Please drop her a note and let her know we appreciate all she has done.

So... Guess who's doing the minutes? Yes, the Prez. I figured since I do most of the talking, I should be able to remember what happened, right?

The meeting opened with latest news, including the Chicago TI Fair to be held in the Ironwood Room of Triton College, 2000 Fifth Avenue, in River Grove, Illinois on November 1 from 9 AM to 6 PM.

Rave 99 Company is offering two new keyboards for the TI. For more information, call Rick at (203) 242-4012 or John at (203) 872-9272 - after 6PM eastern time!

New Horizon RAM disk owners, there is a new version of the operating system out - VER_04 for \$5.

Ryte Data wants to know if anyone is interested in a kit to install the 993B video chip. They are licensing an approach which puts the chip inside the console (instead of some cludged device with dangling wires). Interested parties should write them at:

Ryte Data
210 Mountain Street
Haliburton, Ontario K0M 1S0
Canada

Next, I demonstrated PRBASE. I will not include a review here. There are numerous reviews in the newsletters we receive. If you aren't getting to see the newsletters, contact:

Elliot Hardy
Rt. 1 Chester Tpk.
Candia, NH 03034

We next raffled off a package of GRAPHX pictures - won by Elliot!

General pandamonium followed afterwards, with John Proulx (welcome back!) demonstrating a loader he wrote and Richard Bailey demonstrating the disk utilities package he wrote about in last month's newsletter.

The November meeting will include a short course in using the PRBASE report generator. I am also attempting to get a demo of terminal programs set up. You should read the fine article by Mike Vespraukus on terminal programs if you are investigating that sort of thing. There will be enough to fill the evening - for sure!

I do have the latest version of PRBASE (Mike Mannion sent in his money first and got the latest version back!)

I will make several copies of it on floppies (two 5.25" worth). If anyone wants a copy at the meeting, please bring a disk and \$10 in cash or check made out to William M. Warren. I will forward all funds - but I'm not willing to give you my disks!

>BYE

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The following is a summary, in tabular form, of several PD/Freeware Terminal Programs for the TI 99/4a. Included for comparison are TI's TE-II and the original 1200 baud Term Program TE-1200. From the humble beginnings of the TE-I cartridge, the 99/4 user can now choose from over a dozen terminal programs in Assembler, Forth and Pascal. Hopefully, this list can be expanded at a later date to include additional features and third party Terminal software.

Brief overview of software:

TE-II - TI's second generation of Terminal Software in cartridge form was not an outstanding improvement over TE-1. A major limitation of this term program is that it cannot access the 32K expansion for use as a text or file buffer. This in part led to the development of the "TE-2" transfer protocols which are very non-standard and SLOW! Also, being coded in firmware, it cannot be readily modified. Paul Charlton and others have developed routines that allow for 1200 baud operation. In addition, there are several excellent utilities that allow for work on files, text uploads, use of speech and graphics, etc.

TE-III - This unfinished TI product is now at Version 3.3 (at least!). It is now a very reliable and useful piece of software with a large text buffer.

TE-1200 - Due to its high price, this software did not see as wide a circulation as it should have. It was, for a long time, not only the only 1200 baud terminal program around, but THE only alternative to the TE-II. Two major limitations are that the output is in D/V128 format, and that it cannot handle ASCII upload files. While the documentation states that the program stores about 12K of data in its buffer, the number of screens stored before auto-logging would indicate a 5-6K buffer.

Termx - This unfinished program is somewhat of a mystery. It appears to have been released later than the 1983 date appearing on the docs. It has a very peculiar scroll mechanism that greatly distracts from its utility.

Pterm - A very useful terminal program. The program uses the entire 24K of high memory as a text buffer, allowing for considerable collection of data and decreased disk access while on line. The program options are very easy to use. As the U/L and the D/L buffers occupy the same space, it is possible to overwrite one or the other unintentionally. This fine program went the Freeware route only recently.

Fast Term - Probably the most versatile Term program for the 99/4a. The many options can be somewhat bewildering at first. Allows for separate buffering of text and downloads via X-Modem or TE-II protocols. A scaled down version of this program has been developed to reside in the Super-Cart E/A module.

Masters Fast Term - A modified Fast Term that allows for simple and automatic transfer of entire diskettes. Does not allow for the usual X-Modem or TE-II transfers.

Mass Term - The original "whole diskette" transfer program for the TI. Has many useful options including the best auto-dial feature found on any PD/Freeware term program for the TI. The disk transfer options are extensive, allowing for selective transfer of programs. The text file upload feature must first be loaded to the upload buffer which is only 14K. The actual transfer of text data must also be manually initiated for each line rather than continuously on X-On/X-Off protocols. The many unique features of this program will make it a welcome addition to your TE software.

Notes on Emulator Features:

Configuration Options: - These allow your term program to meet the requirements of the BBS you wish to log-on to. On some programs, certain options such as Data Bits, and Stop Bits are automatically adjusted as needed. Choice of modem ports allows you to connect your modem to a less commonly used port eg RS232/2, and your printer to port one. Since the default value for the RS232 port is number 1, your most commonly used peripheral will usually be connected here. Many programs do not permit you to specify a printer port. However, you can usually "log" to a printer. A configuration file is very useful in that it allows you to store on disk all the parameters needed to log-on to a given BBS. It sure beats looking the information up on scattered pieces of paper!

Loader Options: - This section refers to the original loading methods as developed by the program's author. The availability of universal loaders such as Fun1 Writer, has greatly decreased the significance of loading method. Virtually any piece of terminal software can now be loaded from X-Basic. Gone are the days of having to buy an expensive Cartridge to load one or two favorite programs!

File Transfer: - The ushering of X-Modem capabilities on the 99/4 herald a new era of telecommunications for 99/4 users. Developed independently by the authors of Fast Term and Fterm, it allowed TI users to Up/Down load to a BBS by the most commonly used protocol. The TE-2 transfer protocols had and still have a very small support base. They are also rather slow which in telecommunications often equates to EXPENSIVE! The ability to capture and send ASCII text files allows for saving of information for archival purposes and preparation of text off-line. This is not only convenient, but decreases online time significantly. A D/V 80 text format allows for manipulation by most Word Processing programs such as TI-Writer. X-On/X-Off protocol allow for transmission of text as fast as the systems can mutually handle. It insures that the receiving terminal will not lose data while writing to disk, etc. Mass disk transfer capabilities are not yet usefull for transfer of material to a BBS, but only between two TI terminals.

Text Buffer: - In general, the greater the size of the ASCII capture buffer the better! The more time spent writing to disk (small buffers) the greater the online time. The response of the software to a full buffer condition is very important. It is very easy to lose data with some software. Many programs require manual logging of information. The ability of auto/manual logging gives optimal flexibility in that it allows data to be appended to the same file, and new files to be easily created to keep related matter together. Upload buffers occupy the same physical space as download buffers - and you can't have both there at the same time! Also, the maximal allowed upload file would be limited by the size of the upload text buffer. They do allow for off-line loading and more rapid transfer of data to the host system.

Printer Support: - All the current term programs allow printer support. Most require that you "log" to the printer as you would to a disk drive. The disadvantage of this is the increased online time. The best option is simultaneous printing to screen and printer. The TE-2 cartridge "logs" to printer, but only one screen at a time. Fast Term even incorporates a 4000 character printer buffer.

Miscellaneous Features: - Most of these are self explanatory, and the importance of many of these features will depend on your outlook. However, auto log-on capability, is very handy as is auto dialing. There are various utility programs around, that allow for autodialing by one means or another, even though it is not an inherent feature of the software. The use of TE-2 protocols for color, speech, sound, and graphics is dependent on the host system. Most systems filter out these control sequences to prevent havoc at the remote terminal end! Only the Source permits unlimited experimentation with these protocols.

SUMMARY OF T.E. PROGRAMS

<u>CONFIGURATION OPTIONS</u>	<u>TE II</u>	<u>TE III</u>	<u>TE 1200</u>	<u>Terax</u>	<u>Ptera</u>	<u>Fast Tera</u>	<u>Masters FI</u>	<u>Mass Tera</u>
	110-(1200)	300-2400	110-9600	110-19,200	300/1200	110-19,200	110-19,200	300/1200/2400
Baud Rate	Y	Y	Y	Y	Y	Y	Y	Y
Parity	Y	Y	Y	Y	Y	Y	Y	Y
Duplex	Y	Y	Y	Y	Y	Y	Y	Y
Data Bits	Y	Y	Y	Y	Y	Y	Y	Y
Stop Bits	Y	Y	Y	Y	Y	Y	Y	Y
Modem Port(RS232)	1-2	1-4	1	1-4	1-2	1-4	1-4	1-2
Printer Port					Y	Y	Y	
Configuration File		Y				Y	Y	
<u>Loader Options</u>								
X-Basic				Y	Y			Y
E/A		Y	Y	Y	Y	Y	Y	Y
Mini Memory		Y	Y	Y		Y		
TI-Writer					Y	Y		
Self Contained	Y					Y		
<u>File Transfer</u>								
X-Modem					Y	Y		Y
TE II Protocols	Y		Y			Y		
ASCII Text	Y	Y			Y	Y	Y	Y
ASCII D/L Format	D/V-F80	D/V80	D/V128	D/V80	D/V80	D/V80	D/V80	D/V80
ASCII U/L Format	D/V80	D/V80			D/V80	D/V-F80	D/V-F80	D/V80
X-On/X-Off		Y	Y		Y	Y	Y	Y
Disk Transfers							Y	Y
<u>Text Buffer</u>								
Download	Y	Y	Y	Y	Y	Y	Y	Y
Size	5-6K	20K	5-6K	10K	24K	12K	12K	14K
Upload					Y			Y
Size					20K			14K
Auto-Log Buffer			Y			Y	Y	Y
Manual Log Buffer	Y	Y	Y	Y	Y	Y	Y	Y
Scroll Thru Buffer	Y		Y			Y	Y	Y
Buffer Full Response	Overwrites No Warning	Red screen X-Off Sent	Autologs	Overwrites No Warning	Red Screen Overwrites	Autologs	Autologs	Autologs or Stops
<u>Printer Support</u>								
PIO	Y	Y	Y	Y	Y	Y	Y	Y
RS 232	Y	Y	Y	Y	Y	Y	Y	Y
Log to Printer		Y	Y	Y	Y	Y	Y	Y
Screen Dump	Y					Y	Y	
Printer Buffer						Y	Y	
Alt Screen/Printer					Y	Y	Y	
<u>Miscellaneous</u>								
Word Wrap	Y		Y					
Auto Log-on	Y	Y			Y	Y	Y	Y
Screen Width	34-40/80	40/80	40	32/40	40	40/80	40/80	40
Screen Colors	(16)	8			16	16	16	
"AID" Key		Y			Title Scrn			Menu
Catalog Disk						Y	?	?
Delete Files								Y
Auto Dialing		?			Y	Y	Y	Y
Line Feeds				Y		Y	?	Y
Cassette Support	Y							
Speech	(Y)							
Sound	(Y)							
Graphics	(Y)							

TIPS FROM THE TIGERCUB

#38

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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 268

There is also a rare bug in the SIDEWAYS 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(B\$) 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,"
pres s O 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 (0,1), 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 180 :: 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  
-": " Q for new pattern":  
B to change background": " F  
to change foreground": " R to  
reverse colors": " : "Any ke  
y to start"  
280 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 :: GOTO  
0 347  
600 GOSUB 900 :: FOR T=1 TO  
A :: DISPLAY AT(R-1+T,C):M$(  
V,T):: NEXT T :: NEXT C  
601 IF CX>0 THEN AA=A :: GOS  
UB 800  
605 GOSUB 1000 :: NEXT R  
606 IF RX=0 THEN 610  
607 GOSUB 1000 :: FOR C=1 TO  
A*HC STEP A :: GOSUB 900 ::  
FOR T=1 TO RX :: DISPLAY AT  
(R-1+T,C):M$(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  
6$(M$(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 N$(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)
```

```

17# IF (S=#)+(K<49)+(K>5#)TH
EN 16#
18# ON K-4# GOTO 19#,25#,61#
,8#,#,38#,99#,112#,151#
19# X=#
20# INPUT "SUBJECT? ":S#
21# GOSUB 137#
22# INPUT "TEST #? ":N
23# GOSUB 144#
24# GOTO 14#
25# PRINT ;;:"(1)ADD NAMES?"
:"(2)ADD GRADES?"
26# CALL KEY(#,K,S)
27# IF (S=#)+(K<49)+(K>5#)TH
EN 26#
28# ON K-4# GOTO 29#,31#
29# GOSUB 137#
30# GOTO 14#
31# INPUT "TEST #? ":#
32# IF T(1,#)=# THEN 35#
33# PRINT ;;:"TEST #";STR#(
);" ALREADY RECORDED"
34# GOTO 14#
35# N=#
36# GOSUB 144#
37# GOTO 14#
38# CALL CLEAR
39# PRINT "OUTPUT TO:"(1)SC
REEN?:"(2)PRINTER?"
40# CALL KEY(#,K,S)
41# IF (S=#)+(K<49)+(K>5#)TH
EN 40#
42# IF K=49 THEN 46#
43# INPUT "PRINTER DESIGNATI
ON? ":P#
44# OPEN #2:P#
45# Fe=2
46# PRINT "PRESS ANY KEY TO
PAUSE": ;
47# PRINT #Fe:S# ;
48# FOR J=1 TO X
49# PRINT #Fe:"":N$(J)&" ";T
AB(1#);
50# FOR K=1 TO HN
51# PRINT #Fe:T(J,K);
52# NEXT K
53# CALL KEY(#,K,S)
54# IF S<># THEN 53#
55# NEXT J
56# PRINT #Fe
57# IF Fe=# THEN 14#
58# Fe=#
59# CLOSE #2
60# GOTO 14#
61# PRINT ;;:"(1)CASSETTE?:"
(2)DISK?"
62# CALL KEY(#,K,S)
63# IF (S=#)+(K<49)+(K>5#)TH
EN 62#
64# ON K-4# GOTO 65#,67#

```

```

65# OPEN #2:"CS1",INPUT ,FIX
ED
66# GOTO 69#
67# INPUT "FILENAME? DSK":F#
68# OPEN #2:"DSK"&F#,INPUT
69# INPUT #2:;X,HN,S#
70# FOR J=1 TO X
71# INPUT #2:K#
72# N$(J)=SEG$(K#,1,POS(K#,C
HR$(255),1)-1)
73# K#=SEG$(K#,POS(K#,CHR$(2
55),1)+1,255)
74# FOR K=1 TO HN
75# T(J,K)=ASC(SEG$(K#,K,1)
-5#
76# NEXT K
77# NEXT J
78# CLOSE #2
79# GOTO 14#
80# PRINT ;;:"(1)CASSETTE?:"
(2)DISK?"
81# CALL KEY(#,K,S)
82# IF (S=#)+(K<49)+(K>5#)TH
EN 81#
83# ON K-4# GOTO 84#,86#
84# OPEN #2:"CS1",OUTPUT,FIX
ED
85# GOTO 88#
86# INPUT "FILENAME? DSK":F#
87# OPEN #2:"DSK"&F#,OUTPUT
88# PRINT #2:;X,HN:S#
89# FOR J=1 TO X
90# K#=""
91# FOR K=1 TO HN
92# K#=K#&CHR$(T(J,K)+5#)
93# NEXT K
94# PRINT #2:N$(J)&CHR$(255)
&K#
95# K#=""
96# NEXT J
97# CLOSE #2
98# GOTO 14#
99# CALL CLEAR
100# INPUT "STUDENT'S NAME?
":#
101# FOR J=1 TO X
102# IF N$(J)=# THEN 106#
103# NEXT J
104# PRINT ;;:"NAME NOT FOUN
D": ;
105# GOTO 14#
106# INPUT "CORRECT WHICH TE
ST? (# TO QUIT) ":C
107# IF C=# THEN 111#
108# PRINT ;;:N$(J);"S TEST
#";STR$(T(J,C)); ;
109# INPUT "CORRECT TO? ":T(
J,C)
110# GOTO 106#
111# GOTO 14#

```

```

112# CALL CLEAR
113# PRINT "OUTPUT TO:"(1)S
CREEN?:"(2)PRINTER?"
114# CALL KEY(#,K,S)
115# IF (S=#)+(K<49)+(K>5#)T
HEN 114#
116# IF K=49 THEN 120#
117# INPUT "PRINTER DESIGNAT
ION? ":P#
118# OPEN #2:P#
119# Fe=2
120# PRINT #Fe:S#
121# FOR J=1 TO X
122# PRINT #Fe:N$(J);" AVERA
GE ";
123# FOR K=1 TO HN
124# TT=TT+T(J,K)
125# NEXT K
126# AV=TT/HN
127# TAV=TAV+AV
128# PRINT #Fe:AV
129# TT=#
130# NEXT J
131# PRINT #Fe:"CLASS AVERAG
E ";TAV/X
132# TAV=#
133# IF Fe=# THEN 136#
134# Fe=#
135# CLOSE #2
136# GOTO 14#
137# PRINT ;;:"STUDENT'S NAM
ES - ":type END when finish
ed": ;
138# X=X+1
139# M#="NAME #"&STR$(X)&" "
140# INPUT M#:N$(X)
141# IF N$(X)<>"END" THEN 13
8#
142# X=X-1
143# RETURN
144# FOR J=1 TO X
145# M#N$(J)&"'S GRADE? "
146# INPUT M#:T(J,N)
147# NEXT J
148# IF N<HN THEN 24#
149# HN=N
150# RETURN
151# END

```

The reason that 5# is added to the value in line 92#, before saving, and subtracted again in line 75# after loading, is because of a quirk of the computer that I don't recall seeing in print anywhere. Did you know that INPUT will read a string beginning with ASCII #, 2, 4, 7, 1#, 12, 14, 1#,

2#, 26, 27, 31, 32, or 44 as a null string (a blank), and will drop these characters at the end of a string? And ASCII 32 will be dropped at the beginning or end of a string. And ASCII # within a string, or ASCII 3# anywhere, will crash, while ASCII 44 within a string will lose the rest of the string. I should have known what ASCII #, 32 (the space), 34 (quotes) and 44 (comma) would do, but why the others?

LINPUT will accept anything, of course, but I wanted to keep this in BASIC for the teachers who are struggling along without the XBasic module or disk drive.

Chick De Marti published in LA 99ers TOPICS the surprising discovery that PRINT USING and DISPLAY USING can read the IMAGE format from a variable, array or string!

Which led me to see fooling around -

1# !PRINT USING DEMO by Jim Peterson, based on a discovery by Chick De Marti

```

11# CALL CLEAR :: RANDOMIZE
:: CALL SCREEN(5):: FOR S=2
TO 14 :: CALL COLOR(S,S,S)::
NEXT S
12# N=INT(13#RND+1):: C#=CHR
$(8#N+32-(N=4)#11)
13# FOR J=N TO 12 :: A#=RPT#
(" ",J)&"#&RPT#(" ",26-J#2)
&"# :: PRINT USING A#:C#,C#
:: NEXT J
14# FOR J=12 TO N STEP -1 ::
A#=RPT#(" ",J)&"#&RPT#(" ",
26-J#2)&"# :: PRINT USING
A#:C#,C# :: NEXT J :: GOTO 1
2#

```

Here is one last Tigercub challenge. What is the longest possible one-liner? And what is the longest possible one-liner that actually does something?

MEMORY FULL

Jim Peterson

```

100 REM*****
110 REM* 3D TIC TAC TOE *
120 REM*****
130 REM BY CURTIS PROVANCE
140 REM TI BASIC VERSION 1
150 DIM X(27,1),SCORE(1)
160 DATA 00000000FF,00000000
1F20408,010204081020408,0000
0000F020408,010204081F,01020
408F,FFBDDBE7E7DBBDF
170 DATA FFC3BDBDBDBDC3FF
180 FOR K=96 TO 103
190 READ D$
200 CALL CHAR(K,D$)
210 NEXT K
220 RANDOMIZE
230 CALL CLEAR
240 PRINT "      3D TIC TAC
TOE": : : : : : : "BY CURTI
S ALAN PROVANCE": : : : :
250 PRINT "WOULD YOU LIKE TO
SEE THE INSTRUCTIONS AT T
HIS TIME? "
260 CALL KEY(3,K,S)
270 ON 1-(K=78)-2*(K=89)GOTO
260,340,280
280 PRINT : : "AS IN REGULAR
TIC TAC TOE,": "YOUR OBJECT I
S TO CONNECT 3": "OF YOUR MAR
KERS IN A ROW.": :
290 PRINT "THESE ROWS MAY BE
HORIZONTAL": "VERTICAL OR DI
AGONAL.": : "HOWEVER, UNLIKE
THE OLD GAME":
300 PRINT "THE WINNER IS THE
PLAYER": "WITH THE MOST ROWS
ONCE THE": "BOARD IS FILLED.
": : :
310 PRINT "TO MOVE, SIMPY PR
ESS THE": "NUMBER OR LETTER K
EY SHOWN": "IN THE DESIRED LO
CATION.": : :
320 PRINT "IF I PLAY, I PLAY
FIRST!": : : :
330 INPUT "(PRESS 'ENTER' TO
CONTINUE)": D$
340 PRINT : : "MAY I PLAY? "
350 CALL KEY(3,K,S)
360 NO_COMPUTER=(K=78)
370 ON 1-(K=78)-2*(K=89)-2*(
S<0)GOTO 350,420,380,350,350
380 PRINT : : : : : "WOULD YO
U LIKE TO PRACTICE": "OR PLAY
A REAL GAME?": : "(PRESS 1-P
RACTICE OR 2-GAME)":
390 CALL KEY(3,K,S)
400 PRACTICE=(K=49)
410 ON 1-(K=49)-(K=50)GOTO 3
90,420

```

```

420 PRINT : : "      a' ' ' '
'c": "      b1b2b3b": "
      b'b'b'b": "      b4b5b6b": "
      b'b'b'b": "      b7b8b9b"
430 PRINT "      d' ' ' ' 'e": "
      a' ' ' ' 'c": "      bAbBb
Cb": "      b'b'b'b": "
bDbEbFb": "      b'b'b'b"
440 PRINT "      bGbHbIb": "
d' ' ' ' 'e": "      a' ' ' ' 'c":
"      bJbKbLb      SCORE"
450 PRINT "      b'b'b'b": "
      bMbNbOb      f g ":
"      b'b'b'b": "      bPbQbRb"
: "      d' ' ' ' 'e": :
460 MOVE=1
470 N=14
480 EVEN=- (MOVE/2=INT(MOVE/2
))
490 CALL HCHAR(11,24,102+EVE
N)
500 IF NO_COMPUTER-EVEN THEN
640
510 IF MOVE>1 THEN 520 ELSE
680
520 IF PRACTICE THEN 590
530 RESTORE 540
540 DATA 5,23,11,13,15,17,9,
7,5,3,1,19,21,23,25,27,10,12
,14,16,18
550 FOR PLAY=1 TO 21
560 READ N
570 IF (X(N,0)+X(N,1)) THEN 5
80 ELSE 680
580 NEXT PLAY
590 N=INT(RND*27)+1
600 IF X(N,0)+X(N,1)=0 THEN
680
610 N=N+1+27*(N=27)
620 GOTO 600
630 CALL SOUND(500,-7,0)
640 CALL KEY(3,K,S)
650 ON 1+(K>48)*(K<83)+(K>57
)*(K<65)GOTO 640,660,640
660 N=K-48+7*(K>57)
670 IF X(N,0)+X(N,1) THEN 630
680 CALL HCHAR(3+2*INT((N-1)
/3)-(N>9)-(N>18),10+2*N-8*IN
T((N-1)/3)+6*INT((N-1)/9),32
)
690 CALL SOUND(100,880,5)
700 X(N,EVEN)=1
710 RESTORE 720
720 DATA 1,2,3,1,5,9,1,4,7,1
,11,21,1,10,19,1,14,27,1,13,
25,2,5,8,2,14,26,2,11,20,3,5
,7,3,6,9
730 DATA 3,11,19,3,12,21,3,1
4,25,3,15,27,4,5,6,4,14,24,4
,13,22,5,14,23,6,14,22,6,15,

```



```

24,7,8,9
740 DATA 7,13,18,7,14,21,7,1
7,27,7,16,25,8,14,20,8,17,26
,9,14,19,9,18,27,9,17,25,9,1
5,21,10,11,12
750 DATA 10,13,16,10,14,18,1
1,14,17,12,14,16,12,15,18,13
,14,15,16,17,18,19,22,25,20,
23,26,21,24,27
760 DATA 19,23,27,19,20,21,2
1,23,25,22,23,24,25,26,27
770 SCORE(EVEN)=0
780 FOR PLAY=1 TO 49
790 READ NUM1,NUM2,NUM3
800 SCORE(EVEN)=SCORE(EVEN)-
(X(NUM1,EVEN)+X(NUM2,EVEN)+X
(NUM3,EVEN)=3)
810 NEXT PLAY
820 CALL HCHAR(3+2*INT((N-1)
/3)-(N>9)-(N>18),10+2*N-8*IN
T((N-1)/3)+6*INT((N-1)/9),10
2+EVEN)
830 E$=SEG$(" ",1,2-LEN(STR$
(SCORE(0)))&STR$(SCORE(0))&
SEG$(" ",1,4-LEN(STR$(SCOR
E(1)))&STR$(SCORE(1)))
840 FOR K=1 TO LEN(E$)
850 CALL HCHAR(21,21+K,ASC(S
EG$(E$,K,1)))
860 NEXT K
870 MOVE=MOVE+1
880 IF MOVE<29 THEN 480
890 FOR J=0 TO 1
900 SCORE(J)=0
910 FOR PLAY=1 TO 27
920 X(PLAY,J)=0
930 NEXT PLAY
940 NEXT J
950 PRINT "HOW ABOUT ANOTHER
GAME?";
960 CALL KEY(0,K,S)
970 ON 1-(K=89)-2*(K=78)GOTO
960,340,980
980 CALL CLEAR

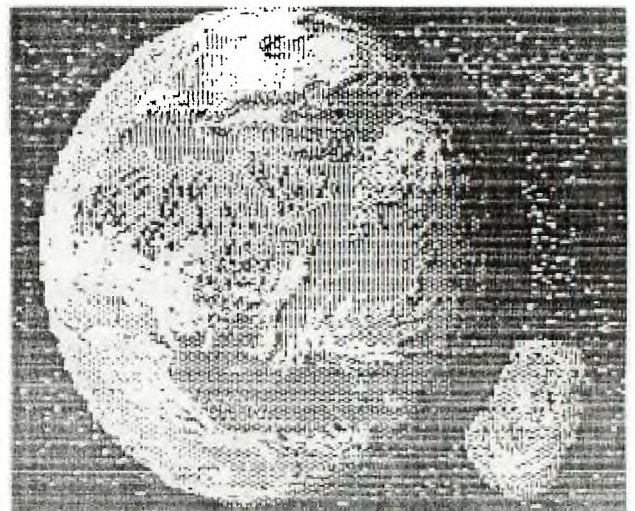
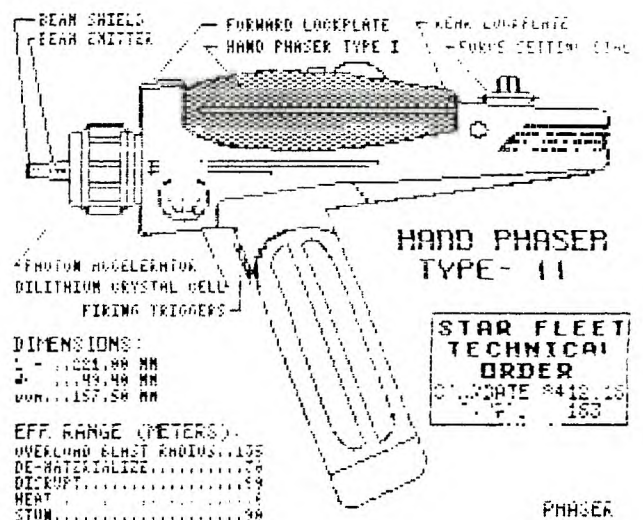
```

TIC TAC TOE

Curtis Alan Provance
New Hampshire 99er's User Group

Here is a simple BASIC program for you. It isn't the smartest game in the world, but I think you'll be surprised the first few times you play it.

I really don't expect anyone else to understand it or learn anything from it. There are obviously no frills; even the instructions are sparse. All I ask is that anyone who improves it send me a listing. Enjoy!



R A N D O M

by Helene LaBonville

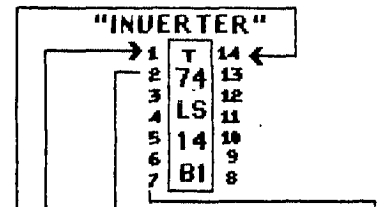
R A M E L I N G S

It seems as though only yesterday when I sat here keying in September's column... and here it is October 25th and I'm already late for this month's deadline, so this one will be short... lucky you!

The Club will have plenty of Nashua diskettes available for sale at the next meeting. At \$7.75 per box of 10 DSDD, these are a great buy!

I attended the Princeton, NJ "RAINBOWFEST" last weekend and picked up some new SHUGART 400L's. These Disk Drives, as you know, were the type supplied by TI for the expansion boxes. They are 5.25" full heights and have been fully tested (by me) with regard to head alignment, motor speed, index hole timing, azimuth, and hysteresis. I have already sold five and there are only four left (one must be returned as it did not pass the tests!). Each is \$40 + s/h. Shipping and handling charges for the continental U.S. is \$3 per order, and yes I will ship C.O.D. (please add an additional \$2 for this service). As always, because I am a small dealer, I must insist on a money order or certified check. Thanks!!

Despite the numerous times that I proofread last month's copy, I missed the error in the chip number for the inverter required in the SCM FASTEXT80 cable. The correct # is illustrated on here ----->



ASGARD SOFTWARE (POB 10306 - Rockville, MD 20850 [301/ 345-2492]) has released GRAPHX COMPANION III which contains the largest collection of clipart to date plus a library of all new fonts. It includes border sets, music symbol library, and animation sequence. All this for only \$9! Although, I haven't as yet seen this one, I would recommend it, as past Asgard products have been excellent values.

WARNING!! <from Grand Rapids Area "Call Say" via LA Topics> Beware of a program floating around the country's BBS' called SUPERTRACK. What appears to be a track copier is actually a diskeater! Beware of ANY copy program which instructs you to remove the write-protect tab from your master disk.

If anyone is interested in ordering Mini-Writer (I, II, or III+) let me know, as friend Wayne Kay of Delaware is now handling this product.



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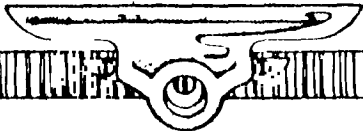
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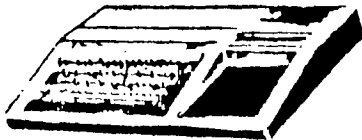
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