

# NORTHWEST OHIO 99'ER NEWS

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```
***** TICOMM BBS 385-7484 *****
* SYSOP>>>BIJD MTLRS<<< *
* !!!!!! 24-HRS. !!!!!! *
* * * * *
* USING A *
* HORIZONS, RAMDISK *
* * * * *
*****
```

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## NEW HORIZON NEWS

by Bill Sager

First of all, I want to express my thanks to all of those who returned their ballots in the "Should He Stay Or Go" vote. So make room Big Boy, you chubby, checkered pants, burger carrier. I'm staying too! Maybe being a loser isn't so bad now that I see what good old Ferdinand Marcos has. I thought Connie was outrageous with about ten or twelve pair of shoes.

Last month we mentioned HOME COMPUTER magazine not being able to keep to their publishing schedule. Another call by a member brings the excuse that they are reformatting, what ever that means. If you have a subscription, hang in there. If you buy at the newsstand, call first to save a wasted trip.

At the last meeting we announced that TI had closed all of their Exchange and Repair Centers and centralized that function in Lubbock. The new address is: 2305 N University Ave, Lubbock, TX 79415. The number to call first is 1-800 TI-CAREB. My understanding is that they will try to analyze your problem over the phone and then have you send the problem component to Lubbock. All TI consumer products, such as calculators and the learning aids as well as computers are affected by this change. It remains to be seen how effective this service will be.

Even though Frosty lost his voice in March, we managed to draw the names of three prize winners. They were: Phil Bennis, Mark Lamb, and Mike Christie. There were a bunch of names drawn who were not present to claim the prize. You gotta be there to win gang. Thanks go to prize donors Mike Amundsen of SUBFILE 99 fame and Phil Bennis of Phillips Studio-Computers. Phil is a local dealer in TI related products and handles other computer goods.

Our March presentations were Steve Patterson showing us a variety of programs and unusual utilities and Mike Amundsen demonstrating his great Federal tax filing program. Is it true that if you use Mike's program to do your income taxes and get audited that he'll refund your money or appear at the IRS with you? Who needs H and R Block anyway?

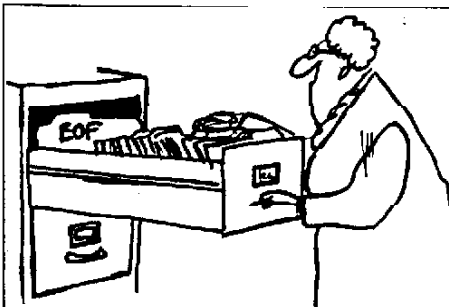
This month we will see a demo of MAXIMEM, a universal GRAM/RAM cartridge from Ottawa, Canada. I understand that in many respects, MAXIMEM is similar to the GRAM-KRACKER, but that there are some differences as well. The module allows you to dump ANY TI module to disk and run it from MAXIMEM. That includes Extended BASIC! With this module, you would no longer need your other modules once you have saved them to disk. MAXIMEM comes with a BPL assembler and disassembler to enable the assembly language programmer to write their own modules!

Don Turner will demonstrate his LATE NIGHT version of the Techie BBS. You may have read about Don's BBS in previous newsletters and maybe you've had the chance to call it. I understand Don is able to simulate calls to the bulletin board and will do that at the meeting. You'll have the opportunity to learn all the in's and out's of this great BBS.

This month you will also have a chance to see the graphics drawing program TI-Artist. We will also be able to take orders for this software at about 25% off the normal price. Those of you who have been wanting a program of this type will find this about the best deal around. The program is full featured with nothing extra to buy. The reviews of TI-Artist have been all A's and I am very impressed with my experience. This is commercial software but the price is very affordable and something not available through other means.

In case anyone cares, word is that the Myarc computer did not show at either the California or New Jersey TI gatherings. It may now appear as an expansion box card and keyboard. Rather unusual.

The April meeting is Saturday, the 12th at 2 PM, Unity Church, 13535 Executive Pkwy, Toledo near Westgate. See you then.



## PRESIDENTS CORNER

by Roger Biddle  
OH-MI-TI

First of all I would like to thank Don Wollenbecker for his fine presentation on Multiplan at last month's meeting. Several people purchased Multiplan at last month's meeting, so they received a very good introduction from Don. Time didn't permit a second presentation, and I apologize for that.

This month's presentations will be 1. A look at some of the available Data Bases including Commercial, and Freeware offerings by Dave Weldy. 2. Another look at the TI Basic Language by Jim Elfering. Both of these presentations should be very interesting.

After my last article in March telling about Backup programs I received some correspondence from other people across the country that were interested in the programs that we offered at the meeting. I also received a Backup program that will work on the TI or the CoComp Disk Controller Card. It is also a Freeware offering, and works fine. If anyone is in need of this program, let me know. Also the Track Copy program has been put back on the TIFORUM (Compuserve), I guess it is here to stay.

As I mentioned at the meeting the Freeware programs that we make available at the meetings are written by people that are not in the business to make a profit, but by paying them what they request, it encourages them to write other programs. So again I will say "if you like the program enough to use it, send them their nominal fee they request".

Anyone that missed last month's meeting Dave Weldy put together a very nice flyer promoting our clubs that will add beauty to any bulletin board at your workplace or marketplace. The flyer tells about our existence our and what we offer. Also on the back Dave included "Where to find help", listing magazines, Books, supplies equipment, Mail order houses, miscellaneous, and TI bulletin Boards. I still have some left for you if you want them, and I'm sure Dave also as a few left.

As always bring your questions and answers to the meeting and let us know what we can do to make the meeting as educational, fun, interesting, and above all worthwhile as possible for you, and everybody-else. The next meeting will be April 11, 1986 at Oregon Firestation No. 2 with the meeting starting at 7:00 PM.

BYE FOR NOW....

## ADVENTURES IN BASIC - 3.0

Steve Patterson  
New Horizons

Today I would like to talk to you about a way of moving characters across the screen, Scrolling. I feel the best way to make a game is to use Scrolling, even in XBasic. I know you can have automatic motion with a sprite. But once you send a sprite in motion it is hard to find out where it is on the screen with relation to normal characters.

So, how do you scroll a character or even a sprite on the screen so at all times you can know the row(1-24) and the col(1-32) locations.

It is really very easy all there is to do is really four easy steps. First you have a 'CALL KEY' to see in which direction the man/woman wants to move. Then you check to see what is at that location with a 'CALL GCHAR'. If the man/woman is allowed to move there then you print the new character and delete the old one.

Example:

```
100 CALL CLEAR
110 FOR Y=1 TO 20
120 Q=INT(RND)+1
130 W=INT(RND)+1
140 CALL HCHAR(Q,W,42)
150 NEXT Y
```

Lines 110 to 150 set up 20 character 24('\*') on the screen.

```
160 ROW=2
170 COL=14
180 CALL HCHAR(ROW,COL,43)
```

Lines 160 to 180 assign the Row and Col locations for the man and also place him on the screen.

```
190 CALL KEY(O,K,S)
200 IF S=0 THEN 190
```

Line 200 tells the computer to go back to line 190 if no keys are pressed.

```
210 IF K=69 THEN 270
220 IF K=88 THEN 290
230 IF K=83 THEN 310
240 IF K=68 THEN 330
```

Lines 210 to 240 tell the computer to go to line 270 if ASCII 69(up) is pressed, 290 for 88(down), 310 for 83(left), and 330 for 68(left).

```
250 GOTO 190
270 IF ROW=2 THEN 190
272 CALL GCHAR(R-1,C,P)
274 IF P=42 THEN 190
276 ROW=ROW-1
278 CALL HCHAR(ROW,COL,43)
280 CALL HCHAR(ROW+1,COL,32)
282 GOTO 190
```

Lines 270-274 check to see what is at the space where we want to move. If it is Character 42 then you can not move there and it goes back to the CALL KEY. Line 276 reassigns the ROW. Then the new character is printed and the old one erased.

```
290 IF ROW=24 THEN 190
292 CALL GCHAR(R+1,C,P)
294 IF P=42 THEN 190
296 ROW=ROW+1
298 CALL HCHAR(ROW,COL,43)
300 CALL HCHAR(ROW-1,COL,32)
302 GOTO 190
```

As I am sure you noticed Lines 270-282 look almost exactly like Lines 290-302. Pretty much they are. The only difference is the direction that the man moves. The same goes for lines 310-322 and lines 330-342.

```
310 IF COL=1 THEN 190
312 CALL GCHAR(ROW,COL-1,P)
314 IF P=42 THEN 190
316 COL=COL-1
318 CALL HCHAR(ROW,COL,43)
320 CALL HCHAR(ROW,COL+1,32)
322 GOTO 190
```

```
330 IF COL=32 THEN 190
332 CALL GCHAR(ROW,COL+1,P)
334 IF P=42 THEN 190
336 COL=COL+1
338 CALL HCHAR(ROW,COL,43)
340 CALL HCHAR(ROW,COL-1,32)
342 GOTO 190
```

350 END.

To use a sprite for the same purpose is very easy because 'ROW 14' is equal to the sprite row 'ROW#8-7'. So instead of printing a new character and erasing the old one like with characters, you just 'CALL LOCATE' a sprite.

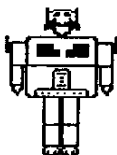
EXAMPLE:

Insted of lines 338 and 340 reading...

```
338 CALL HCHAR(ROW,COL,43)
340 CALL HCHAR(ROW,COL-1,32)
```

You only need this...

```
338 CALL LOCATE (#1,ROW#8-7,
COL#8-7)
```



D P T I M U S P R I M E  
THE LEADER OF THE AUTOBOTS  
BY STEVE PATTERSON

## ADVENTURES IN BASIC - 4.0

Steve Patterson  
New Horizons

Right now I am going to show you a nice little program that you can use several ways. It is a Random Number Generator. The main way you will most likely use this program is to pick LDTN numbers.

This program is written in Xbasic. Sorry all you Basic fans.

It uses both the 'RANDOMIZE' and the 'RND' commands so it gives you pretty random numbers.

Options are as follows:

- 1) How many digits in the random number (1-8).
- 2) How many numbers do you need for the selected number of digits (1-99).
- 3) Where do you want the digits to be printed (Screen or Printer).

Right now the printer is set for 'PIO'. That can be changed in line 240.

Here is the program:

```
100 CALL CLEAR :: CALL SCREE
N(13):: FOR I=1 TO 14 :: CAL
L COLOR(1,16,1):: NEXT I
110 DISPLAY AT(10,4):" *RAND
OM NUMBER GENERATOR" BY
STEVE PATTERSON"
120 INPUT "HOW MANY DIGITS?(
1-8)":Z
130 IF Z>8 OR Z<0 THEN 120
140 IF Z=1 THEN A=10
150 IF Z=2 THEN A=100
160 IF Z=3 THEN A=1000
170 IF Z=4 THEN A=10000
180 IF Z=5 THEN A=100000
190 IF Z=6 THEN A=1000000
200 IF Z=7 THEN A=10000000
210 IF Z=8 THEN A=100000000
220 PRINT "HOW MANY";Z;"DIGI
T NUMBERS?" :: ACCEPT AT(23,
26)SIZE(2)VALIDATE(DIGIT):D
230 CALL HCHAR(24,1,32,32)::
INPUT "(S)CREEN (P)RINTER?":
D$ :: CALL CLEAR :: IF D$="S
"THEN 270 :: IF D$="P" THEN
240 ELSE 230
240 OPEN #1:"PIO",OUTPUT :: P
OR T=1 TO D
250 RANDOMIZE :: RE=INT(RND*
A)+1 :: IF RE>A-1 OR RE<A/10
+1 THEN 250
260 PRINT #1:RE :: NEXT T ::
GOTO 300
270 FOR T=1 TO D
280 RANDOMIZE :: RE=INT(RND*
A)+1 :: IF RE>A-1 OR RE<A/10
+1 THEN 280
290 PRINT RE :: NEXT T
300 INPUT "AGAIN?":Y$ :: IF
Y$="Y" THEN 110
310 END
```

## BUILDING A RAM-DISK

by Don Turner

It all started when I seen the ramdisk in operation. Its incredible speed is mind boggling. While operating the bulletin board and watching the disk drives snap,blink and whirl I wondered how long the mechanical part would last under such a workload. Also in my thoughts were, "hmmm a Ram-Disk does not have any mechanical parts to wear". So I decided to get a Ram-Disk for the bulletin board.

I made a call to John Clulow and asked how I could get myself a RD ? I originally wanted to buy one already built but John convinced me to build one.

I made a call to Bud Mills and purchased a kit with all the parts to build the Ram-Disk. then I called Dave Romer to get a Ram-Disk printed circuit board. Within a week I had my kit and board and was excited on the prospect of building a Ram-Disk.

I had never built anything like this before so I was kind of leery about constructing the Ram-Disk. I did have a little knowledge of electronic parts and soldering techniques. I did know the difference between a diode and a resister (how they work are beyond me).

John wanted to see how well the documentation for the Ram-disk worked, and if a person with little or no knowledge could use it to build the Ram-Disk with no difficulties.

John watched as I built, I followed the directions that comes with the printed circuit board with no difficulties.

Each step in building the Ram-Disk was detailed with excellent diagrams to see how the parts are attached and shows the direction the part should face. The steps are well organized so construction is easier. The Ram-Disk is tested a intervals to make sure there are no problems during construction. If there was a problem it then would be easier to correct.

We did discover that when soldering, be careful not to use too much, because the solder could run up into the sockets of the memory chips and you then could not insert a memory chip. My recommendations are to use minimal amounts of solder.

A problem that I had was that I didn't plug the memory chips in properly. They are a bit stiff when plugging them into thier sockets. You have to be careful not to bend the pins, I was so careful, I only had half of the chip plugged in !

Another problem I had , and it was beacuse I didn't follow the directions, I thought I knew what I was doing and soldered a wire in the wrong hole. I was fortunate that I did not damage any of the memory chips. Read the directions or you may not get as lucky as I did.

Building the Ram-disk took about five hours . I believe if I had some electronic experience or built a lot of things from kits the time would be less. Also I save about fifty dollars. With the savings and a bit of personal satisfaction it is well building the Ram-Disk.

The Ram-Disk kit comes with 3 disks . One of them has the operating system for the Ram-Disk and the latest version of DM-1000. The other 2 Diskettes have the source code for the operating system. Also the Ram-Disk kit comes with an excellent operating manual that is well written and the documentation for DM-1000.



## FOR SALE

see MARK F. LAMB  
OH-MI-TI & NEW HORIZONS  
PHONE 531-4396

TI99/4A CONSOLE W/DUST COVER	*50
SPEECH SYNTHESIZER	40
EXTENDED BASIC	45
TERMINAL EMULATOR II	10
PERSONAL RECORD KEEPING	5
EARLY LEARNING FUN	5
FACEMAKER	5
TOTAL	\$160

Will accept \$125 for the package as a whole.

## MARK'S WORLD

by MARK F. LAMB  
OH-MI-TI & NEW HORIZONS

### ATTENDANCE PAYS

At OH-MI-TI Don Wollenbecker gave a demonstration on the "Microsoft Multiplan"; all the more worthwhile since you can order the package for \$25.00. If Interested contact Pat Hunsinger or Jim Elfering. The deal is to have 3 or more orders at one time.

Also, Kent Sheets demo'ed some of the new software to be soon available. A little something to whet the appetite.

At NEW HORIZONS we saw Steve Patterson demo the latest disk available which included a scrolling routine. The program make proofreading or reviewing DV-80 documents convient enough to cut down on printing reruns.

Mike Amundsen demo'ed his new taxfile99 program. If you have'nt filed yet this program could be a major help or, if you have filed, some of the routines were so slick that if you are into writing programs you might want to borrow some of Mike's to enhance your programs.

It sure paid me to show up. I got a copy of Mike's Taxfile99 as a doorprize; because I wrote an article for the newsletter I got a disk containing a program I have wanted for many moons; I picked up a disk with the scrolling routine for not much more than the price of a blank disk.

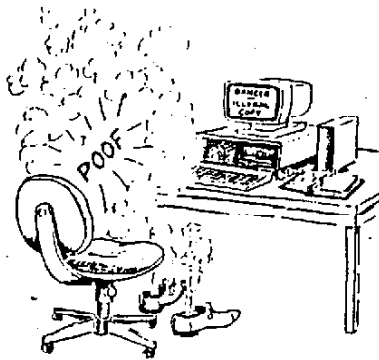
### WANT ADS

Is there a certain program you are looking for and don't know how to get? Do you want to sell off something you no longer need? Do you have a problem with a program, software, or hardware? Then call any of the newsletter staff and they can put your request in the newsletter. Or, write it out and bring it to the next meeting. Or, if you have a modem, send your comments via the telephone to one of the newsletter staff. If your not sure of protocall the staff can assist you and will reformat your writings to fit the style of the newsletter.

### TI-WRITER HINT

One problem I had was not being able to use the ampersand (&) in my formatted articles. Even using two &'s together didn't do the trick as shown in the TI-Writer manual. So how did I get (&) in my articles? Use transliterate command. The command ".TL 126:38" tells the formater to redefine character no. 126, the tilde (~) to appear as character no. 38 the ampersand. Whenever I wanted an & I used a ~ and get a &. If that had been your problem and a solution was not forthcoming a note in the newsletter would give someone a chance to help you, possibly with a better solution than I came up with.

\*\*\*\*\*



NOW THAT'S WHAT I CALL "COPY PROTECTION"

## LATE NITE BBS

by Don Turner

It all started out with a TI console. I sat down with the console and started to play around with the samples given in the users reference manual that came with the console. My wife sat beside and helped me along with most of it. Now she is my best tool when de-bugging a program, or just giving it critical reviews.

As time went by I added to my console, first it was a tape recorder then I got an expansion system. I added a printer and a modem. Also during that time I got the TI Extended Basic module (don't leave home without it) and Editor Assembler. The list goes on...

During the trying times of experimenting with the samples in the users reference guide, I gained a lot of working knowledge of TI basic and TI extended basic. There had to be more than just writing programs and running them.

Then I discovered the world of telecommunications. My modem, expansion system, and TE-II module opened up a new world to me. I first logged on to TI-COMM then Poor Richards bulletin board (BBS) and from there I went bonkers! I was hooked on telecommunications.

Its fun to call the bbs and see whats new, read messages, play games etc. Then the thought struck me, why don't I start my own bulletin board.

After some investigating and looking around to see what was involved, I decided to go for it.

I came across an old version of TI-COMM. I looked it over and made some minor changes to fill my needs. As time went by I ended up re-writing the whole bbs to work the way I wanted it to work. I added new files and a couple of on-line games.

One game I was using was called NIM. It was designed so that the user could never win. Needless to say I received a lot of feedback on that. One user flat out said " what a stupid game ". So much for a little fun.

The message functions were changed to allow private messages and the file design was changed.

Problems started to crop up. I wasn't using the auto answer device TI-COMM uses and if a user hung up without using the logoff option from the menu, the next user started at the point where the last left off at. Then there was the freak logic errors....sigh.... those could be corrected. Another problem was de-bugging. I needed another computer hooked up to mine to see what was going on.

Then one Friday night I was at the OH-MI-TI users group meeting and they let me borrow thier version of Techie from thier library. From there I contacted the author and asked for a special version ( 4.3 ).

Techie was my answer to alot of my problems. It has oodles of goodies and was well written. It does however require a lot of disk space and is hard to de-bug if a problem occurs.

Techie is easy to operate and has a lot of features that make it easy to manage. One of the better features that I like, is being able to see what the user is doing at all times and see what the user sees. Also I can input anything for the user at any input prompt. I am in full control of the program at all times.

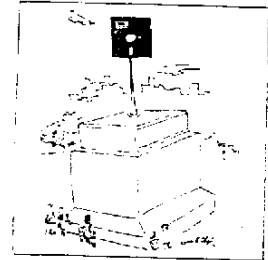
A huge applaud should go to Bud Mills for his time spent keeping TI-COMM maintained and of course supporting it. Running a bulletin board is not an easy task. I have to check the messages each day and update the user files and other misc files.

I have made a lot of changes to the Techie program to make it easier for the user to understand the functions and to abort any function they may not want to do after they see what they get into.

Another nice feature of Techie, is if a user hangs up without logging off properly it re-sets itself and waits for the next call. Also included is the ability to assign a value to the users or you could say give them a class. This helps keep the unwanted messages off the board and helps you manage it better.

So far its been fun to run my own bulletin board, and if you have a sense of adventure, go for it !

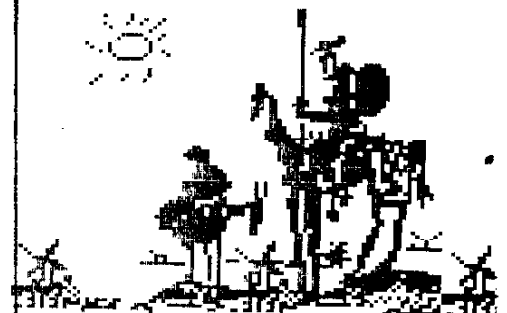
Everyone is welcome to call and browse around maybe leave a message or two. The operating hours are from 7 pm to 11 pm every evening. The phone number is 537-1454.



```

100 CALL CLEAR :: PRINT "wai
t-----": "something will
happen-----": "after
awhile": : : : :
110 REM - What the !? happe
ned? - Jim Peterson, Tigercu
b Software
120 FOR K=33 TO 90 :: RANDM
IZE
130 CALL CHARPAT(K,A#):: FOR
J=15 TO 1 STEP -2 :: CH#=CH
#&SEG*(A#,J,2):: NEXT J
:: CALL CHAR(K,CH#)
140 CH#=#NUL# :: NEXT K :: DI
SPLAY AT(14,3)ERASE ALL:"VT
EHT DENRUT OHW !YEH" ::
DISPLAY AT(12,13):"NWOD EDI
SPU"
150 INPUT Q# :: GOTO 150

```



```

100 !THIS XB TI PROGRAM
110 !IS WRITTEN TO SHOW
120 !ANOTHER WAY TO PROGRAM
130 !A LOADER FOR YOUR DISK
140 !BASED PROGRAMS
150 !THE LINES 120 TO 200 AR
E
160 !FOR YOU TO ENTER THE
170 !DISCRIPTIONS OF YOUR
180 !PROGRAMS. THESE WILL BE
190 !DISPLAYED ON YOUR SCREE
N
200 !IN LINES 210 TO 230
210 !THEN, YOU WILL FIND AN
220 !ACCEPT AT STATEMENT IN
230 !LINE 250 THAT WILL NOT
240 !ALLOW YOU TO ENTER ANY
250 !CHARACTERS. IT IS THE
260 !WAY I USED TO POSITION
270 !THE CURSOR OVER THE
280 !PROGRAM I WISH TO RUN
290 !THE PROGRAM NAMES ARE
300 !TO BE ENTERED IN LINES
310 !350 TO 440.
320 !THE SELECTION IS DONE
330 ! IN THE LINES 290-340
340 !*****
*
350 !* HERMAN L. GREEN
*
360 !* P.O. BOX 5947
*
370 !* AMARILLO, TEXAS 79117
*
380 !* PHONE#(806) 383-9611
*
390 !* CONTACT ME IF ANY
*
400 !* TROUBLE OR QUESTIONS
*
410 !*****
*
420 !FEBRUARY 22, 1986
430 !THIS PROGRAM IS FREE AN
D
440 !IS TO BE USED AS AN
450 !AID TO LEARN MORE ABOUT
460 !EXTENDED BASIC
470 CALL CLEAR
480 DIM M$(20)
490 M$(1)="FIRST PROGRAM"
500 M$(2)="SECOND PROGRAM"
510 M$(3)="THIRD PROGRAM"
520 M$(4)="FOURTH PROGRAM"
530 M$(5)="FIFTH PROGRAM"
540 M$(6)="SIXTH PROGRAM"
550 M$(7)="SEVENTH PROGRAM"
560 M$(8)="EIGHTH PROGRAM"
570 M$(9)="NINTH PROGRAM"
580 DISPLAY AT(20,2)ERASE AL
L BEEP:"USE UP AND DOWN ARRO
W KEYS": "TO MOVE TO LINE
, THEN": "PRESS ENTER KEY TO
RUN "
590 FOR L=1 TO 10
600 DISPLAY AT(L,3):M$(L)
610 NEXT L
620 FOR K=1 TO 20
630 ACCEPT AT(K,3)SIZE(-28)V
ALIDATE(""):X$ :: CALL KEY(O
,ANYK,S):: IF S=0 THEN 6
30 :: IF ANYK=13 THEN 720 ::
IF ANYK=11 THEN K=K-2 ELSE
IF ANYK<3 THEN K=K-2
640 NEXT K
650 ACCEPT AT(24,1)SIZE(-1)V
ALIDATE("YN"):YN$
660 IF YN$="Y" THEN 710

```

```

670 FOR K=1 TO 20
680 ACCEPT AT(K,1)SIZE(-28):
M$(K)
690 NEXT K
700 GOTO 650
710 GOTO 630
720 IF K>11 THEN 630 :: ON K
GOTO 730,740,750,760,770,78
0,790,800,810,820,830
730 RUN "DSK1.FIRST"
740 RUN "DSK1.SECOND"
750 RUN "DSK1.THIRD"
760 RUN "DSK1.FOURTH"
770 RUN "DSK1.FIFTH"
780 RUN "DSK1.SIXTH"
790 RUN "DSK2.SEVENTH"
800 RUN "DSK2.EIGHTH"
810 RUN "DSK1.NINTH"
820 RUN "DSK1.TENTH"
830 END
THIS PROGRAM IS PART OF
A SERIES OF ARTICLES I PLAN
TO WEITE IN THE NEXT FEW
MONTHS. THEY WILL ALL BE ON
WAYS TO ACCOMPLISH THINGS
USING EXTENDED BASIC.

```

### PE Box Fan Replacement

by Patrick Ugorcak  
GH-MI-TI

When TI came out with the PE expansion box there were two things I did not like about their design. Firstly, the FEB power supply has only enough power for one full power disk drive and secondly, the cooling fan was excessively noisy. The power supply problem can be remedied by the fix found in last months newsletter or by using two half power drives. The noisy fan problem can be fixed by a number of different methods but the one I prefer is to replace the fan with one which is more quite and efficient. The best fan I have found for the replacement is the EG 6 Rotron SU2J7 Sprite fan. The fan can be obtained from STATCO, Inc., P. O. Box 145, Townsend, MA 01469 (Phone: 617-433-0270) and includes installation instructions and takes only 30-45 minutes to install. The fan cost \$18.00 (\$15.50 + 2.50 shipping) and the fan is so quite you won't believe it is running.

There are some word processor programs that have a feature where you can reassign a key to spell an entire word or phrase. This saves time, rather than typing in each word or phrase every time it is used in your text. This is usually done when your using the same words or phrases many times in your text. Well TI-Writer has a way to do this, by using one of the less commonly used characters, such as "{" (FCTN F), or ")" (FCTN 6). For example, if anytime you need to spell the word "computer" in your text, just use a "{" with your TI-Writer. After you have finished the entire letter use the "ReplaceString" command. Next you will be asked to use a "/" . Insert the word that you want to replace (old string), then you must use "/" again. Now type the word you want replaced (new string) and remember to use another "/" after typing the new string. EXAMPLE: We want it to look like this. NOTE: WILL NOT WORK IN "WORD WRAP" MODE! "/{/computer", then when you press enter you will note that the cursor will be at the first use of the "{" following your present cursor location, or Y= replace only the one "{" at the present location. Go to the next "{", or N= do not replace this "{" but go on to the next instance, or S=stop and go out of this command condition. After replace-ments are completed, return to edit mode. It is important to remember that when you enter this command mode, that it begins where the cursor is located when you first press FCTN 7(command mode). So if you wish to replace all uses of the "{" with the word chosen, make certain that your cursor is at the beginning of the text or just before any use of the replacement word or phrase. Then press Y and it will have corrected spacing and be completed immediately.

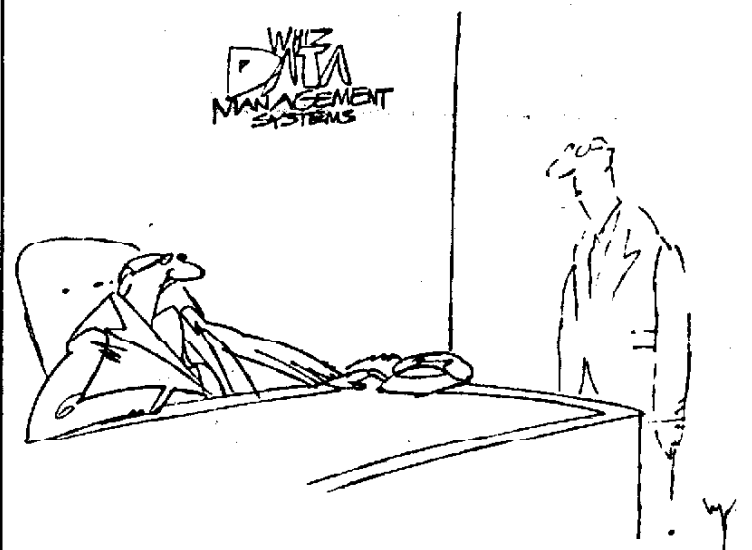
=====

TI-WRITER TIP

by Doug Hargett  
from BAYOU BYTE, February, 1986

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

1. Save Editor version to disk, e.g. DSK2.12/85.
2. Enter Formatter and load the same file, but print to disk instead of the printer e.g. DSK2.12/85VIEW.
3. Reload the Editor and do LF DSK2.12/85VIEW.
4. You can now look the file over to see what it looks like. You will see the margins, the page breaks, the .CE's will be centered, etc.
5. This will print from the Editor, if you wish, (using PF P10), but if editing is required, be careful! It is tricky.



*.I finally figured out your problem Renfern. . . .you're short on pixels.*





```

100 ! ***** MS/LABELS ***** By: Martin A. Smoley ***** For EPSON Printer *****
110 ! ***** NorthCoast 99er's UG *****
120 OPEN #9:"PI0" ! OPEN PRINTER (Could be RS232) *** Extended Basic ***
130 PRINT #9:CHR$(27);"O";CHR$(27);"B";
      "O"=STOP skip over perf,"B"=STOP paper end detector
140 CALL CLEAR :: CALL SCREEN(1)
150 PRINT " ** MS/LABELS **: " PRINTS": : 3-1/2in BY 15/16in":
      " LABELS": : :
160 PRINT " Enter Data at Prompts!": : " You will have 4 line per": : " label. Li
      ne #1 = 15 Cols.": : " Line #2 = 28 Cols.": : :
170 PRINT " Lines #3 and #4 = 49 Cols.": : :
180 GOSUB 190 :: GOSUB 210 :: GOSUB 220 :: GOSUB 230 :: GOTO 240
190 PRINT :: PRINT " *****
200 INPUT "ENTER LINE 1 ":A$: RETURN
210 PRINT :: PRINT " ENTER LINE #2" :: INPUT "*****";B$:
      :: RETURN
220 PRINT :: PRINT " ENTER LINE #3" :: INPUT "0*****1*****2*****3*****
      *****4*****49 " :C$: RETURN
230 PRINT :: PRINT " ENTER LINE #4" :: INPUT "0*****1*****2*****3*****
      *****4*****49 " :D$: RETURN
240 PRINT :: INPUT "HOW MANY COPIES ":X
250 CALL CLEAR :: PRINT " Hold >OK to Quit Printing": : : : :
260 FOR I=1 TO X ! ***** PRINTOUT LOOP *****
270 ! PRINT #9:CHR$(27);"B";! START DOUBLE STRIKE OPTIONAL
280 PRINT #9:CHR$(27);"E";! START EMPHASIZED
290 ! PRINT #9:CHR$(27);"M";! Start Elite-size(makes #1=18 characters)
300 PRINT #9:CHR$(27);"W";CHR$(1);! START ENLARGED
310 PRINT #9:A$
320 PRINT #9:CHR$(27);"W";CHR$(0);! STOP ENLARGED
330 ! PRINT #9:CHR$(27);"P";! Stop Elite-size(Needed if 290 is used)
340 PRINT #9:" ";B$:CHR$(27);"F" ! STOP EMPHASIZED
350 PRINT #9:CHR$(27);CHR$(15);" ";C$;"; " ;D$:CHR$(18);CHR$(27);"H";!
      CHR$(15)=START CONDENSED+CHR$(18)=STOP,"H"=STOP DOUBLE STRK.
360 FOR K=1 TO 3 :: PRINT #9 :: NEXT K
370 CALL KEY(0,K,S):: IF K=81 OR K=113 THEN 390
380 NEXT I
390 CALL CLEAR :: CALL SCREEN(6)! ***** Beginning of TASK SCREEN *****
400 PRINT " Enter M for More labels": : " N for New labels": : " L to
      Change a line": :
410 PRINT " @ to Quit the program": :
420 INPUT " Enter your choice: ":D0$
430 IF D0$="M" OR D0$="m" THEN CALL CLEAR :: GOTO 240
440 IF D0$="N" OR D0$="n" THEN 140
450 IF D0$="L" OR D0$="l" THEN 480
460 IF D0$="@" OR D0$="Q" THEN 520
470 GOTO 420
480 CALL CLEAR ! ***** Beginning of LINE CHANGE SCREEN *****
490 INPUT " Enter line number to be changed 1 to 4 ":L :: IF L<1 OR
      L>4 THEN 490
500 ON L GOSUB 190,210,220,230
510 GOTO 390
520 PRINT #9:CHR$(27);"@";! Initialize Printer = Wipe out any leftover commands
530 CLOSE #9
540 ! *** MS/LABELS ***
550 END

```

## MS/LABELS-DOC

"MS/LABELS" started out to be a small, simple program to print 3-1/2 in X 15/16 in. labels for return addresses and disk labels, but it evolved into the program you see at the left.

## THE USER INSTRUCTIONS FOLLOW

- (1) Load the program (Don't run it yet).
- (2) Align your labels in the printer then turn the printer on.
- (3) Now RUN the program.
- (4) Enter the data as prompted by the program. There is one circumflex (^) for each space on the entry line. Do not use any commas.
- (5) After you have entered (4) lines the program will ask how many labels you want. If you want to see one enter 1. After the label is printed you will see a screen which will let you print (M)ore if you like what you see.
- (6) If you don't like them enter L to change a line and then the line number you would like changed. You can repeat the L for as many lines as you need, or you can use M for more and print one at any time until you like the label you have. At this point you use More, then type in the quantity you want and the printer will start running them off. If you change your mind, HOLD >OK until the printer stops and you will return to the task screen.
- (7) At the task screen you can also enter an (N) if you want a completely New label or (Q)uit to exit the program.

NOTE: If your ribbon is not dark enough you can edit the program and delete the (!) and the space from the beginning of line 270 This will give you Double Strike throughout. Also! Doing the same thing to line Nos. 290 and 330 will give you 18 characters in line #1 if your printer is capable of Elite Print (You will have to remember that you have (3) characters past the last (^) in line one.)

If you do not like to type, my programs are in the NorthCoast 99er's Library. Good Luck! Marty

-- MS/LABELS --  
 TI99/4A Extended Basic  
 This label was made by the program listed above.  
 Ln.#1=ENLARGED #2=Std. size #3&#4=Condensed

One of the things that makes the T.I. excel in the home computer arena is its' graphics features. By using CALL CHAR the user can redefine any or all of the 128 ASCII character codes within an 8 by 8 pixel matrix. CALL COLOR lets you control the foreground and background color of each of 16 sets of 8 characters from a palette of 16 colors. These commands are covered in T.I. texts and are easy to learn. The trick is to get the graphics you need into a program without running out of memory.

A neat way to save RAM when defining consecutive characters is by using a FOR-NEXT loop in conjunction with READ and DATA statements. I was afraid to use DATA statements for a long time, but I have a deep-seated feeling of uneasiness with any plural word that doesn't end in s. Actually, READ and DATA are among the simplest statements in BASIC. The computer sees all DATA statements as one collective list of items separated by commas. The READ statement tells the computer to fetch the next item on the list. It somehow keeps track of the last item read. Of course the READ statement must include the variable name(s) to which the DATA item is to be assigned, for example:

```
100 READ X,X$
110 DATA 128,OC7EFFFFFFFF7E3C
120 CALL CHAR(X,X$)
```

Note that while the number of the ASCII code (128) can be read into the variable X, the second DATA item, which contains letters and numbers, must be assigned to a string variable (X\$). These lines define character 128 as a round (more or less) ball. This is obviously not the most efficient way to define one character, but if READ is contained in a FOR-NEXT loop the savings can be substantial. ASCII codes to be defined must be consecutively numbered. So if your program could live without lower case letters and you needed 64 characters for graphics, for example, you could go:

```
100 FOR X=96 TO 159
110 READ X$
120 CALL CHAR(X,X$)
130 NEXT X
140 DATA O123456789ABCDEF,YOUR,64,PATTERN,
IDENTIFIERS,GO,IN,LIKE,THIS
```

Each DATA statement will hold at least six character codes. You may never need 64 custom characters in a single program but the point is to be as economical as possible to speed program execution and conserve RAM for other logic.

The FOR-NEXT loop can also be used to efficiently display the characters on the screen. This requires careful planning with graph paper, pencil, and eraser. The object is to place consecutively numbered characters on consecutive rows or columns. You might display the first 24 characters created above like this:

```
200 FOR X=1 TO 24
210 CALL HCHAR(X,4,X+95)
220 NEXT X
```

Which rapidly puts characters 96 through 119 down column 4.

I hope READING this column SAVES you from "MEMORY FULL". I've got to RUN, so that's all FOR now. See you NEXT time. BYE.

# TI-LOGO

Here I am back again after a short hiatus to complete my latest course in Logo, "Logo in Education," at Beaver College in Glenside, PA. The instructor was Judi Harris, a wonderful proponent for the Logo language and the proper use of computers in education. Many of my ideas come from her and from the readings she suggests.

I not only missed the May deadline for articles, I didn't even have time to write one! The end of April found me in the throes of constructing a mini-microworld as well as reading several books about modern education and the use of computers with children. I'll list them at the end of the article if I can.

First of all, for anyone interested, a microworld is a learning environment where interesting things happen and there are important ideas to be learned. It requires a computer and a primitive vocabulary of words which are used to explore a particular problem area. Just the commands FORWARD, BACK, RIGHT TURN, and LEFT TURN are a microworld all by themselves presenting enormous possibilities and rich with all sorts of rules to be discovered. As you can well imagine, it was no easy task coming up with an idea for this project. I did, finally, and it was a math game from the branch of mathematics called topology. We had to present our idea for approval along with an appropriate vocabulary of commands; then we had to code it in Logo and document and test it. It turned out to be a monumental job but resulted in my learning a tremendous amount about programming in Logo. It was written in Terrapin Logo (for the Apple) which has more memory than TI Logo II. I hope to duplicate at least part of it in TI Logo II. Even with the increased memory of Terrapin Logo, I still had to divide the program into four files and then use other text files to supplement them. Memory is always a problem with Logo except for those lucky folks who have the opportunity to use it on a main frame!

The reading we did in the course stressed the proper use of computers in education and the reasons for using them. For instance, computers should never be used where a book, a teacher, workbooks, or real objects would do the job just as well and for less money. But computers can supplement and enlarge on subject matter if they are put to the best use. They are certainly part of our environment and students need to be taught to use them, so we might as well do it and do it right. It is a shame that in many places, Logo is taught merely as a computer language, cut-and-dried, dull as dust... teaching Logo this way is like cooking a Thanksgiving turkey, throwing away the meat, and making soup out of the bones! You've missed the best part!

And now, back to business! In the April newsletter, I presented an "Instant" form of Logo. After I wrote it, I regretted not making it simpler. This could have been done by eliminating one line from each of the first two procedures. "TO INSTANT" could omit the line: MAKE "DIS? 0 and "TO LOOP" could omit the line: FD :DIST because these commands weren't necessary to the initial operation of the "Instant" program. After you've exhausted all possibilities with this version of "Instant," try adding more one-letter commands such as:

```
IF :CHTR = "B BK 10
IF :CHTR = "H HT
IF :CHTR = "S ST
IF :CHTR = "M PU
IF :CHTR = "Y PD
IF :CHTR = "7 CB 7
IF :CHTR = "8 CB 8
```

These allow you to back up the Turtle, make it invisible and visible again, make the Turtle draw a line or leave no line, and change the background color to whatever number you wish. Other commands can be added, teaching the user some of the graphic possibilities of Logo.

I'd hoped to explain recursion in this article, but it will have to keep till next month. We'll look at Sprites in future articles, too. Finally, here's the list of books I promised:

- "The Second Self, Computers and the Human Spirit," by Sherry Turkle;
- "Children's Minds," by Margaret Donaldson;
- "The Process of Education," by Jerome Bruner;
- "Experience and Education," by John Dewey;
- and, of course,
- "Mindstorms," by Seymour Papert.

I hope to have the privilege of hearing Seymour Papert at the Jean Piaget Society Symposium in Philadelphia this week, and at MIT at the International Logo Conference in July. More about that later!

Forward 100!

As printed by the

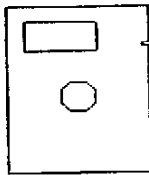
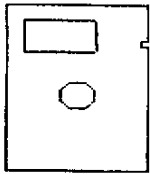
PHILADELPHIA-AREA USER'S GROUP

T.I. LOGO  
by Aleta C. Duey

CALENDAR OF CLUB EVENTS FOR APRIL...

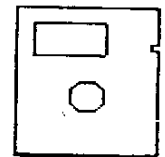
In addition to the great presentations this month, EXTRA-SPECIAL CLUB DISKS will be available. YOU WON'T WANT TO MISS THIS MONTHS MEETINGS!!

OH-MI-TI - 7 PM FRIDAY, APRIL 11  
OREGON FIRESTATION NO. 2



DAVE WELDY	A demonstration of several DATA BASE programs available for the TI-99/4A. Both Commercial and Freeware programs will be discussed.
JIM ELFERING	Another look at the TI BASIC language. Learn more about how to create your own programs in powerful TI BASIC.

NEW HORIZONS - 2 PM SATURDAY, APRIL 12  
UNITY CHURCH



BILL SAGER	A demonstration of TI ARTIST. Orders with 25% discount will be taken at the meeting.
DON TURNER	The LATE NITE bulletin board service will be demonstrated by its SYSOP.
JOHN CLULOW	The MAXIMEM universal module will be demonstrated. ANY TI module can be saved and loaded from disk.

