



THE MSP 99 NEWSLETTER

**Review: A Stand-Alone
Parallel Printer Port**
By Jon Todd

One of the first accessories desired by most TI owners (other than a mass storage system such as a cassette recorder) is a printer. But for the owner of a "minimal" system, the purchase of a printer does not end the search for peripheral equipment. No 80-column printer can directly connect with the TI.

An interface is required, either with an RS232 serial port for an expensive serial printer (or parallel printer with serial interface), or a parallel port to directly connect to the cheaper parallel printer.

Until recently, only the Peripheral Expansion System with an RS232 card installed would allow the use of a parallel printer. Now Doryt Systems, of Glen Cove, NY, markets a stand-alone parallel printer port called Paraprint 18A. This device, which looks like an enlarged speech synthesizer, attaches to the right side of the console, allowing other peripheral equipment to connect to its right side. A cable (purchased separately) connects the Paraprint to your printer. A second connection to the included power cord and transformer completes the installation.

The included instructions are brief, but the unit requires very little instruction to use it. The user simply

(Continued on page 9)

Second Annual Software Contest

Are you ready? Have you been working on a good program to enter into this year's contest? Get busy!

The Software Committee has decided to have a "window" during which any MSP 99 member can submit their entry. All programs received between January 15, 1984, and April 15, 1984, will be entered in the contest. You will get an official entry form in your January newsletter along with details. Winners will be announced at the May general membership meeting.

There will be many categories in Basic and Extended Basic. In addition, we are adding categories for Editor/Assembler, Mini-Memory and TI LOGO. GOOD LUCK!

ELECTIONS ARE COMING!

By Dianne Kavanaugh

A Nominating Committee has been appointed by the Board to come up with nominations for the 1984 year. The members consist of Jim Kavanaugh, chair, Jon Todd, Scott Morgan, Ed Neu and Kerm Steffenhagen. Bonnie Burton will serve as an alternate and also as a representative from the Newsletter Committee. This group will announce its choices for officers at the December 20 meeting. At the January meeting, we will be having an election of officers to serve for the 1984 year.

FROM THE EDITOR:

The MSP 99 USERS GROUP meets each month for discussions and presentations that enable its members to be better informed about their computers. Users group members share and exchange information. Some members have a broad range of computer expertise; others are just beginning. We are not affiliated with or sponsored by any other group or company. Membership dues are \$12 a year for a family, \$10 for an individual, and \$50 for a sponsor member. You're welcome to visit a meeting before you join. For more information, call or write us.

USERS GROUP MEETINGS are held the third Tuesday of each month at 7 p.m. at Brown Institute Computer Building, 27th Ave. and East Lake St., Minneapolis.

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Bonnie Burton, Jon Todd

DEADLINE FOR NEXT ISSUE: December 20

If you want to work on a committee (Education, Equipment, Program, Publicity, Software, Newsletter), or have an idea for a program, contact one of the officers.

COMMERCIAL ADVERTISEMENT RATES -- Business firms that want to communicate with our members may do so by placing an ad in the newsletter. Rates are: Full Page (7-1/2 X 10-1/2) \$40; Half Page (3-1/2 X 10-1/2) \$30; Quarter Page (3-1/2 X 5) \$22. Each ad must be camera-ready in sizes indicated and paid in advance. Inserts (printed by advertiser on 8-1/2 x 11) may be inserted in the newsletter at \$20 per sheet. Contact the editor for information or to reserve space.

CHANGE OF ADDRESS -- Before you move, please mail a change of address to the group at the above address.

This issue of the MSP 99 Newsletter completes a year of my being editor and also the self-imposed end of my editorship.

Beginning with next month's issue, you'll see the names of Bonnie Burton and Jon Todd on the masthead. Both have been tireless writers for the past year and, in their spare time, were great stuffers and mailers of the newsletter. Bonnie has brought you articles varying from a look at where to find software for TI in the Twin Cities to how to cheat on Adventure games. Bonnie will be chief honcho, while Jon -- who brought you "The Farmer's Dilemma" and "Cave Maze" -- will be co-editor and chief support giver. Under the tutelage of the current editor, they have both become proficient in the finer aspects of stapling and sticking labels on newsletters and I believe both are ready for greater challenges.

Being particularly lazy at the moment, my plans are to refine my skills as a stuffer and labeler, continuing to help with the mailings but otherwise to take some time out to play with my computer for a change.

In regard to the first issue of the new year, be it known that poor Bonnie and Jon would have to put it together on Christmas Day in order to get it to you on time. Seeing as no one would ask that of them, please note the date and time of the January meeting on your calendar now. Consider yourself adequately warned with this, just in case the newsletter does not reach you prior to the next meeting.

HAPPY HOLIDAYS!

Marilyn McPartlin, Editor

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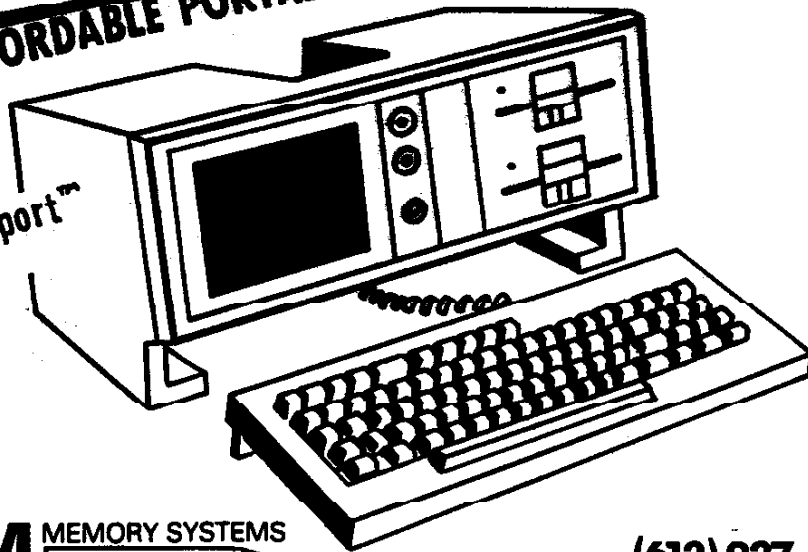
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BASIC Tips

by Ed Neu

-Part 2-

What is the first thing any good program must do? I know, you say it has to understand something you tell it and then follow your instructions. Wrong! The first thing your program does is tell you something! Then you follow the instructions. The first thing any good program does is output, not input.

Once you execute your OLD and RUN commands the program will always put something on the screen to tell you what to do next. It may introduce itself or ask if you want instructions on how to use it or maybe even get right down to business and instruct you to enter its first piece of required information. At any rate, it does the "talking" first. That's why we're going to address the topic of displaying data on the screen before we discuss input.

The screen is how the computer communicates with the user - in most cases that is. The 99/4(A) also offers speech as an excellent communication mode. We'll talk more about that in later article.

It is important that the program communicate with the user in the most effective way practical. Exercising the capabilities of the TI for effective screen displays is easy and will really make your programs look and perform better. Displays which are pleasing to the eye can easily be created with a little extra effort. One of the simplest ways to highlight material on the screen is to put it in a frame. The "99" makes this easy through the use of the CALL SCREEN and CALL COLOR statements. By setting the screen to one color and changing the background of the ASCII character groups to another color, a pleasing frame can be made around the screen. Try this:

```
100 REM *****
110 REM     FRAME
120 REM *****
130 REM
140 CALL CLEAR
150 CALL SCREEN(14)
160 CALL COLOR(13,14,14)
170 CALL VCHAR(1,31,128,96)
180 FOR I=1 TO 12
190 CALL COLOR(I,2,4)
200 NEXT I
210 PRINT "   This is a test
```

```
of the"
220 PRINT "       frame made
with"
230 PRINT " CALL SCREEN CA
LL COLOR"
240 PRINT "with the help of
CALL VCHAR":::::::::::
250 GOTO 250
260 END
```

Notice how the CALL VCHAR command is used to fill in columns 31 and 32 and then wraps around to fill in columns 1 and 2. This wrap-around feature comes in handy often. The program "Melodys" (G02030) makes extensive use of this frame technique. You can change the colors to suit your taste. Be sure to try different colors for the foreground other than black. White on magenta looks nice.

You can also create a border with specially defined characters using the CALL CHAR function and placing them on the screen using CALL HCHAR and CALL VCHAR statements. Try this:

```
270 REM *****
280 REM     BORDER
290 REM *****
300 CALL CLEAR
310 CALL COLOR(13,13,4)
320 CALL CHAR(128,"FFFFC3C3C
3C3FFFF")
330 CALL CHAR(129,"000000FFF
F00FF00")
340 CALL CHAR(131,"585858585
8585858")
350 CALL CHAR(132,"1A1A1A1A1
A1A1A1A")
360 CALL CHAR(134,"00FF00FFF
F000000")
370 CALL HCHAR(2,2,128)
380 CALL HCHAR(2,3,129,29)
390 CALL HCHAR(2,31,128)
400 CALL VCHAR(3,31,131,20)
410 CALL VCHAR(3,2,132,20)
420 CALL VCHAR(23,2,128)
430 CALL HCHAR(23,3,134,28)
440 CALL HCHAR(23,31,128)
450 GOTO 450
460 END
```

This kind of border can be "animated" for extra eye-catching appeal. We'll discuss this later in an article on animation techniques. The important thing is that you use your imagination. Take a little extra time to generate a few extra lines of code

(Continued)

<BASIC Tips, continued>

to make your displays more pleasing to look at.

You can also make them easier on the eyes. How many times has your neck got stiff from looking down at the bottom of the screen to see a print statement? What's worse is trying to watch a print line scroll up the screen in its series of psychedelic jerks. It is really hard following text like this.

Besides going to Extended Basic, which provides an elegant and fast operating solution to this, you can use the CALL HCHAR statement in combination with the SEG\$, ASC, and LEN functions to break down any text string and put it anywhere on the screen you like. This simple set of code demonstrates this.

```

470 REM *****
480 REM   PUT IT THERE
490 REM *****
500 CALL CLEAR
510 INPUT "MESSAGE: ";M$
520 INPUT "ROW: ";R
530 INPUT "COLUMN: ";C
540 CALL CLEAR
550 FOR I=1 TO LEN(M$)
560 CALL HCHAR(R,C+I,ASC(SEG
*(M$,I,1)))
570 NEXT I
580 GOTO 510
590 END

```

The program "Knight's Tour" (G03062) makes excellent use of this technique to make the instruction text easy on the eyes. The program "Words-N-Vowels" (E02080) uses it to place text on the screen without affecting the other text already there. With PRINT statements you must always be aware that whatever is on the screen will scroll up and eventually scroll off the top of the screen.

Use of these functions can also allow you to automatically center text on the screen. Use this:

```

600 REM *****
610 REM   CENTER
620 REM *****
630 CALL CLEAR
640 INPUT "MESSAGE: ";M$
650 CALL CLEAR
660 PRINT TAB((28-LEN(M$))/2
);M$;
670 GOTO 640
680 END

```

There is also a technique where the entire screen of text seems to appear almost instantly. First, all the ASCII character groups are set with the same foreground and background colors as the screen. The text is then written to the screen with print statements. Because the characters are the same color as the screen and have the same background, they are invisible. When the screen is full of invisible text, the foreground color is changed in a FOR-NEXT loop and the text appears almost instantly. Try this:

```

690 REM *****
700 REM   INSTANT ON
710 REM *****
720 CALL CLEAR
730 FOR I=1 TO 12
740 CALL COLOR(I,4,4)
750 NEXT I
760 PRINT "   This Text Use
d To Be": "   Invisib
le";
770 FOR I=1 TO 12
780 CALL COLOR(I,2,4)
790 NEXT I
800 GOTO 800
810 END

```

Now that you know more ways of getting text on the screen than you really wanted to know, you probably will be glad to hear there are a number of ways to get rid of it. There is the old standard CALL CLEAR statement. It works fast and effectively, but you may want a bit more variety.

The CALL HCHAR and CALL VCHAR functions come to the forefront once again. The statement CALL HCHAR(1,1,32,768) causes the space character to be written to the screen one character position at a time, starting at row 1, column 1, and ending at row 24, column 32. Whatever was on the screen disappears gradually from the top down. You can do a similar kind of dissolve using the CALL VCHAR function. This causes the text to disappear from left to right. You can also start the process in the middle of the screen and watch it wrap around. Try CALL HCHAR(12,16,32,768). Of course, with a little creativity and the use of a FOR-NEXT loop you can get the screen to dissolve from the center out like:

```

820 REM *****
830 REM   SPIRAL DISOLVE

```

(BASIC Tips, continued)

```
840 REM *****
850 CALL CLEAR
860 CALL HCHAR(1,1,42,768)
870 R=12
880 C=13
890 LH=8
900 LV=2
910 FOR I=1 TO 12
920 CALL HCHAR(R,C,32,LH)
930 CALL VCHAR(R,C+LH,32,LV)
940 C=C-1
950 R=R+LV-1
960 LH=LH+1
970 CALL HCHAR(R,C,32,LH)
980 R=R-2*I
990 IF R<0 THEN 1010
1000 R=1
1010 LV=LV+1
1020 CALL VCHAR(R,C,32,LV)
1030 LH=LH+1
1040 LV=LV+1
1050 NEXT I
1060 GOTO 1060
1070 END
```

One last point you might want to consider when displaying a lot of text on the screen is the use of an alternate type font. The TI 99/4A gives you total flexibility, allowing you to define the shapes of the characters any way you want. One thing I grew tired of quickly was looking at those standard lower case characters which look just like the standard upper case characters. They are terrible for pre-schoolers trying to learn the alphabet. The kids end up thinking upper and lower case letters are the same.

I solved this by creating a true lower case font set, complete with descenders. This is available as the program "True Lower Case" (U01030). Try it for programs with lots of text.

This should give you a lot of ideas about how to make your programs more "professional" looking. Modify these routines to your liking and use them as subroutines in your own programs.

Now that you and your computer are better educated in the fine methods of how to ask the user for information and let him/her know what's going on, you will be needing some better techniques for getting that information into the computer and using it. That will be the topic of our next article.

TI-Writer and Multiplan users may be interested in this tip. We use a black and white TV for a monitor and find the screen tiring due to glare and contrast. We bought a polarizing filter from National Camera and put it in front of the screen. Viewing was dramatically improved with much less eyestrain. These filters come in several sizes, some mounted and others in plain sheets. Ours is No. GS12 which is 12 inches square in a heavy cardboard frame. Cost is about 18 to 21 bucks which is a lot cheaper than the filters found in computer stores. Most camera stores should have them in stock.

Carmen and Walt Thompson

TI-WRITER "Bug"
By Bob DeMars

For those of you who have advanced to the level of using this very powerful word processor provided by TI, some words of caution; there is a problem with the program, which appears without warning and without an error message given. However, you are likely to encounter the problem only if you are a fast typist.

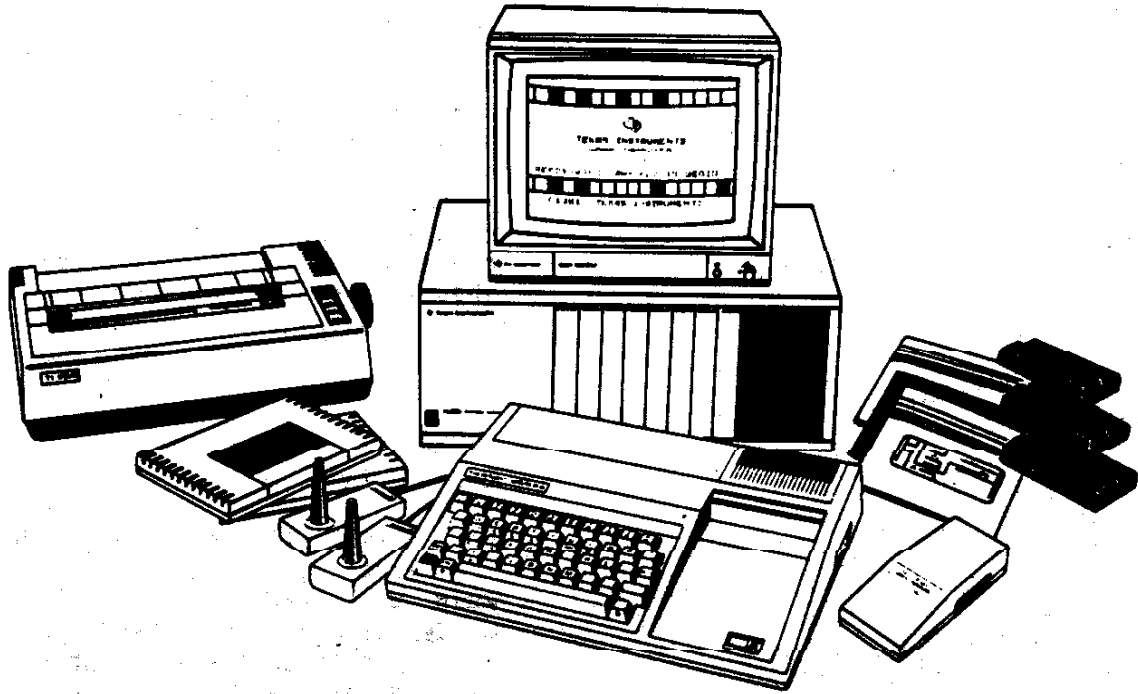
When you are typing a line of text in the edit mode and reach the end of the line, the program automatically wraps around to the beginning of the next line. It also takes with it the first part of the last word you were typing on that line (if it was not a complete word) and moves it down to the beginning of the next line. As fast as this process is, it apparently is not fast enough because one or more characters may get lost in the process.

This occurs because the TI 99/4A does not have a "look-ahead" buffer for the keyboard. The program only goes to the "KSCAN" routine when it is ready to accept the next character. When the program is busy moving data, it doesn't return quickly enough to recognize your keystrokes.

Sometimes it helps if you put two or more spaces before the last word on a line, but the only sure way around the problem is to type more slowly when you near the end of each line.



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(Paraprint continued from page 1)

calls the printer "P10"! For instance, if you want to list your program to the printer, you type: LIST "P10" and your entire program will be sent to the printer. If you only want lines 100 to 150 printed, the command would be:

```
LIST "P10":100-150
```

In a program, suppose you want to print a variable called A\$ on the printer. The program lines to do it would be:

```
200 OPEN #1:"P10"  
210 PRINT #1:A$
```

Later in the program you would close the file as follows:

```
1000 CLOSE #1
```

As you can see, the commands are very simple and anyone can easily master them.

The Paraprint 18A offers an alternative to the PEB for users who don't want any of the other features found on the box. Advantages of the Paraprint include its relatively low price and ease of connection. Some disadvantages are that it increases the overall length of your computer by four inches, and it costs more than an RS232 card for the PEB.

My advice is to get the Paraprint (or some similar device) only if you are sure you will not want to add the PEB to your system. I must also report that delivery was slow on my Paraprint - about nine weeks - but your luck may be better than mine. Paraprint is available from Doryt Systems, 14 Glen St., Glen Cove, NY 11542. Price, \$105; cable, \$33.

* * * * *

We think the best bargain in our software collection has been the name processing program called Rol-D-Disk which is available from Computer Concepts (Jim Kavanaugh) or OBM (Stan Murray). It handles our 220 member association's mailing needs most efficiently. Nice to know that not everything has to cost a hundred bucks or more!

Carmen and Walt Thompson

Software Review: Walk The Plank (E02030)
By Jon Todd

This is a "hangman" game where the player is given a secret word to spell by guessing letters. Wrong guesses result in a character moving a long step down a ship's short plank. The alphabet is displayed, showing gaps for letters already used. Speech is used, if you have the TE2 command module, but I found no real benefit to this feature. The word list is long and there is provision for the player(s) to use their own list of words. A very good program, Walk the Plank has most of the features of the "HANGMAN" command Module.

Software Committee Report
By Ed Neu

The Software Committee is really working hard. We have contacted over 70 other TI user groups around the country to share software. New programs are already starting to come into our library. Keep your eyes open for some new and exciting programs.

If you happen to find any errors in the new catalogue, please let someone on the committee know about them. We want to make the next issue of the catalogue even better. We'll only be able to do that if everyone helps.

One problem has already been noted: we are missing a part of "Mystery at Raven Mountain" (G05121) and are trying to get it from the Pittsburgh User Group, where the program came from.

If you received a copy of "Abbybet" (E02042) prior to Nov. 1, locate the following in the DATA statement at line 1937: "FOUND,10". Change it to: "ROUND,100". Now the program will be able to say "Rock".

All this activity in the software committee is coming to you with the help of your following friends: Bruce Larson, Tom Sneed, Bob DeMars, Joe Hirte, Jim Anderson and Don Rape. If you see them, let them know how the software committee can better serve you. After all, with TI now out of business, we all need to help each other a little more.

TIDBITS

*** The User Group received over 200 software directories from the TI office in town when they were cleaning up. They contain a listing of TI and other third party software available for the 99/4A. It's the same catalogue TI has been selling for \$5.95. It can be yours FREE! Just pick one up at the next User Group meeting if you didn't get one last month. We also have a number of Extended Basic Manuals and TI LOGO manuals for those of you who would like to know more about both of these versatile programming languages.

*** 99'er Magazine says its December issue has been called back from the printer and will be combined with January's issue. Reportedly, 99'er will emerge with a new name: Home Computer Magazine. Atari, Commodore and the IBM PC Jr. will be included in its format.

*** The rate to exchange your broken down computer with the repeating keys is now \$29 at the TI Exchange Center in Edina (reduced from \$45).

*** Robert Kennetmueller does it again. His game program TACO MAN is featured in the gameware buffet section of November's 99'er Magazine. (Robert was one of last year's MSP software contest winners.)

*** MSP's Youth Group president Scott Morgan, has been selected as 1 of 4 unique high school students in the state. He is considered unique in being a young programmer who is making money with his abilities. Scott will appear on a TV special about unique high school students Saturday, Dec. 17, at 6:30 p.m., Ch.4.

*** Attention amateur radio operators: Jim Stodolka would like to make contact with other "hams" using the 99/4A for CW and RTTY. Call 699-2494(h) or 338-4500(bus).

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LOCKING CABINET needed for storing Group computer equipment so it can be left at Brown Institute between meetings. Call Diane Kavanaugh, 644-5940.

EDITOR/ASSEMBLER Manual. Still in wrapper, \$7.50. Contact Ed Neu, 425-8744.

DISKS/TAPES -- Top quality blank disks and Ampex 10-min. tapes at users group rates. Box of 10, \$20; single disk, \$3. Tapes: 10 for \$5; 75 cents each. Tape boxes: 10 for \$1.50; 25 cents each. Mailing charge \$1 or pick up at meeting. Call Joel Gerdeen, 572-0148.

HELP WANTED -- Newsletter volunteers. Inexperienced? We will train. Call Bonnie Burton 431-6064.

CHRISTMAS PRINTER SPECIAL. Gemini 10-X, \$261. BMC BX-80, \$237. Must order by 12/14 & take delivery by 12/23. Both have standard print capabilities with friction and tractor-feed. WICO joystick conversions, \$26 or we'll convert your joystick for the 99/4A, \$5. Printer and cassette cables made to order. 460-6348.

OKIDATA CP110 Printer -- dot-matrix serial printer, \$100. You will need an RS232 interface (stand-alone or card) to attach it to your TI 99/4A. 431-6064.

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(Prowriter, Greek Symbols)

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