# TRI CITIES 99er COMPUTER GROUP
# MAY 1984 NEWSLETTER

Thanks to all of you who helped out in our April open-house. It was a smashing success and very well attended. We even gained a new member -- Mark Norman of Richland.

Remember, meetings are now being held on the THIRD Wednesday of the month in the community room of the No. Richland Mobile Home Park.

## SOFTWARE AVAILABILITY

MICROpendium (the old Home Computer Compendium) reports that even though TI is no longer shipping any products from their warehouse, several vendors have lots of stuff. Unisource of Lubbock has about $1 million worth of software. Tex-Comp of Van Nuys, CA has a couple milion dollars worth of TI products, but is running short of the Extended Basic cartridge. Other cartridges starting to become scarce include MultiPlan, TI Writer and Terminal Emulator II.

## PERSONAL RECORD KEEPING

Don Donlan of the Hoosier Users Group wrote a great three-part article on the "Heart and Soul of Personal Record Keeping." I made a limited number of copies for those wishing to get into programming with the PRK module. See me at the next meeting for a copy.

## PROTECTED SOFTWARE

Oftentimes, programs written in Extended Basic will be "protected" so that you can't LIST or SAVE them. This saves the program from unauthorized copying by those who would deprive the software authors and distributors of legitimate profit from their efforts. But it also prevents you, the user, from making a backup copy of a program you paid good

money for. With this in mind, I offer the following directions for defeating the "protection" on Extended Basic programs. You need the 32K card to make it work.

    1.    Load your program into the computer from either tape or disk.
    2.    Type in CALL INIT :: CALL LOAD(-31931,0) then hit Enter.
    3.    Save the program onto the backup tape or disk.

This technique should be used only to make backup copies for your own use, not others. If you wanna protect a program of your own, use CALL LOAD(-31931,128). Finally, CALL PEEK(-31931,P) will return a value of 0 or 128 for P, depending on whether the program in memory is protected or not.

## TI WRITER TIPS

I learned this first one from Curt Dose of San Diego. Before you type material in, set the tabs at L=1 and R=39. Then delete the line numbers (function 0). Now when you type stuff in, there's no more window jumping. Of course, left and right margins will be as set (ie:.LM 6 and .RM 74) when you run it through the text formatter.

This next one was discovered by myself while doing some heavy typing the other night. We all know that the "and" sign (&) will give underlines to a word or group of words. But the underlines are not very good looking and aren't continuous. The key here is to use the underline command found within most printers rather than use the TI Writer. It's really quite easy. Just start the underline by first going to the special mode (CTRL U) then enter the control signals for your particular printer. (Mine's an N.) Then go back to the regular mode by typing CTRL U again. You'll notice that

the little cursor goes from a flashing box to a flashing underline and back again. Now enter the text you want to underline and don't worry about that "required space" character; the printer will continue to underline until you tell it not to. When finished with under-lining, go back into the special mode (CTRL U), enter the Stop Underline code, then hit CTRL U again. That is really about all there is to it. As can be seen, the difference is quite striking!

## MORE LINES

If you've done much programming in Basic or Extended Basic, you know that program lines are limited to four screen lines. Well, not really! A glitch in the TI Basic/Ext.Basic compiler allows extra lines to be added through the edit com-mand. Just type in your program line until you get to the end of the fourth line, then hit enter. Now edit that line by typing in that line number and hit the up or down arrow (FCTN E or X). Move to the end of the last line and continue typing to get a fifth line. If you really wanna get fancy, you can do this again to get a sixth line.

## QUICK COPYer

As authorized by the members present last meeting, I bought the club a "QUICK-COPYer" program from Quality 99 Software. It's designed to copy disks "in 3 passes or less" (actually, it takes 4 passes or less for the Extended Basic version which we have). The program is extremely simple to operate and really works! It's so nice to be able to copy a completely full disk in about 2 minutes. The one we have requires Extended Basic and the 32K memory expansion (plus a disk drive and controller, of course). The program, on a disk, is available to all members. Contact Sue Carver, our Club Librarian.

## HOME COMPUTER MAGAZINE

I called Judy Campbell, the Users Group representative at the new HCM to see if they were still in business. Judy was most positive in stating that they really were a going concern and that the second issue of the magazine was mailed out the week of April 30th. The time between issues will be reduced until they can get back on a "normal" monthly cycle.

## DISPLAY AT SUBROUTINE

Those of you just beginning to program in TI Basic may be wondering how to print words on the screen without having to start at the bottom and unroll the lines like a Roman scroll. It's actually quite easy if you use the following subroutine:

```
10000 REM **DISPLAY AT**
10010 READ A
10020 FOR I=1 TO A
10030 READ R,C,M$
10040 FOR J=1 TO LEN(M$)
10050 C=C+1
10060 CALL HCHAR(R,C-1,ASC(S
EG$(M$,J,1)))
10070 NEXT J
10080 NEXT I
10090 RETURN
```

Now in your main program, use a RESTORE to set the data pointer, GOSUB 10000 to call on the "Display At" subroutine, and a DATA statement. The DATA statement must start with the number of lines of words you want on the screen (the value of "A"), then the row and column for the first line ("R" and "C"), then the words you want for the first line. Continue in a like manner for the second, third, etc. lines. Unless you need quotes in the line to show up on the screen, it's not necessary to use 'em in the DATA statements, as M$ tells the computer that the variable is a "string" value. One thing else. You may notice some pauses in the program when you use this sub-routine. That's normal. It allows the computer to perform housekeeping as its memory cells get full.

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RANDOM ACCESS
by Larry Hughes
QUALITY 99 SOFTWARE

(continued from last month)
First of all, CALL FILES(0) is not a legal command (the number of files must be from 1 to 9). You could turn everything off, wait 5 minutes, disconnect the disk controller, turn everything back on and then you would get:

    13928 ...
    24488 ...

for a total of 38416 bytes, which is the absolute maximum that you can ever have. However, now you don't have the disk drive anymore and therefore programs must be loaded and saved to tape. Unfortunately, the maximum length program that can be stored on tape is only 12K, so that method really doesn't help you much at all.

"So the absolute maximum size of a program with one disk buffer is 37364. That's a long way from the 48K that I thought I had.", he complained. "Don't be too upset.", I replied. "The "64K" Commodore 64 only has 37K available to a BASIC program, and the "80K" Adam computer only has 26K usable! So actually, the "48K" TI has as much space available as the "64K" Commodore 64 does and _more_ than the "80K" Adam does!"

"Why does the SIZE command give two different numbers and not just the total? What is the stack? What is the difference between the stack and program space?", he asked. (My friend is very inquisitive).

As mentioned earlier, the 37K of usable RAM is actually split into two separate parts. 24K is in the 32K card, and 13K is in the console. TI, in their wisdom, decided that only an Extended BASIC program and its numeric variables could reside in the 24K portion, and that only string variables could reside in the console portion. Thus the 24K is called the "program space" and the 13K is called the "stack", (a programmer's term for the area of memory that is reserved for string variables).
(to be continued)

## CLIPPINGS

Frank Dement noticed an announcement in the May 7th issue of InfoWorld. Seems Axiom Corp. has come up with a dot matrix printer that plugs right into the computer without the need for an RS232 and all that other jazz. The model is GP100-TI. They're address is 1014 Griswold Avenue, San Fernando, CA 91340. Phone is (213) 365-9521. No, I don't know price.

47 St. Photo is advertizing TI-99/4A's for $79.95 plus shipping. They're also selling the Expansion Box system (box, disk drive, disk controller card, and 32K memory card) for $449.95. Not a bad price. Write to 'em at 36 E. 19 St. New York, NY 10003. Phone (800) 221-7774.

## INTERNATIONAL USERS GROUP

I called Sandy at the International Users Group (Charlie La Fara's organization out of Bethany, OK) and asked if they were still in business. She also assures me that they are indeed alive and well. The "March" edition of their magazine was mailed out on April 27th. The new catalog of user-written software was mailed out on May 2nd. Those of you who may have ordered products from the IUG back in December when they had their big sale, will be getting refunds on those items no longer available. No need to write; just hang tight and the refund check should be on its way in about a month.

## OUR LIBRARY

Thanks to several club members, we're now starting to get a pretty decent library. We also have blank disks and tapes for you to use in copying your programs for the library. Sue claims she can also do tape to tape dubbing. Here's the list:
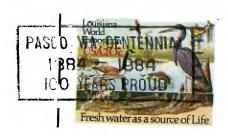
    Arithmetic Teacher (tape)
    Exchange Series 1-10 (tapes)
    GamesPak 1-4 (tapes)
    Outer Spelling (tape)
    Teach Yourself BASIC (tape)
    Loan Amortization/more Games (tape)
    Education Package (disk)
    GamesPak 1-4 (disk)
    Utilities Package (disk)
    Teach Yourself Extended Basic (disk)
    TI Public Programs III (disk)
    Quick Copyer (disk)
    TI FORTH (disk/manual)
    99er Magazines (Nov 82-Nov 83)
    Enthusiast 99 Magazines (May-Nov 83)
    Computer Shopper Newspapers

All items checked out are due at the next meeting of the club.

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## NEXT MEETING

Don't forget..THIRD WEDNESDAY of the month is the regular meeting date. Our next meeting will be **May 16th** at 7 pm. Featured will be three simultaneous demonstrations of MultiPlan, Teach Yourself Basic, and Teach Yourself Extended Basic.

Address all correspondence to:

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