

PRESIDENT'S NOTES...by L.R.Livergood

Would'nt you know it? The deadline for our newsletter just happened to fall on the same week as the Olympics! I have to admit that for most of my free time I've had my eyes glued to the wrong TV set. Anyway I would like to thank everyone for their submissions and hard work.

Well, the word is in and the general feeling seems to be that last month's meeting was a success. Those of you who could not attend missed out on participating in a variety of "workshops" which included program debugging, software and equipment demonstrations, and even some software exchanging. It is our entention, therefore, to continue this approach next month.

We'd like to thank those who contributed last month and remind everyone to bring their programming problems, software or hardware demonstrations, or any other computer related interests to next month's meeting. Also, we might add that there will be up to four systems with varying amounts of hardware available for use!

For those of you who may of missed it or simply forgot, the next meeting will be held next week on WEDNESDAY, AUGUST 8, instead of the customary second Thursday of the month. This will be a good opportunity for those who have a conflict with our normal schedule. Also, the meeting will be held in the smaller conference room, instead of the Auditorium.

IMPORTANT NEWS!

Just recently we received another package from TI which might be of interest to some of you. Included was the source code for the FORTH language (which we received earlier), and enhancements to both TI-MULTIPLAN and TI-WRITER. They have added the additional speed and continuous scroll to MULTIPLAN. For WRITER they have provided true lower case, eliminated the beginning form feed on the printer as well as a few additional printer features. Truly another indication that TI is still committed to the user base.

Also in is a two page letter from HOME COMPUTER MAGAZINE explaining that starting with it's next issue, there will be no advertizing between the pages at all! Instead, they entend to send out a supplement about nine times a year that will contain all the advertisements.

BASE CONVERSIONS...by Jess Jolly

Here is a program for converting numbers from base ten to base sixteen or from base sixteen to base ten. If you have ever looked into the operation of your computer you have found that the circuits inside it only recognize ones and zeros (known as binary or base two). These numbers are hard to read and work with so much of the number work that is printed is done in base sixteen (known as HEX) this is because of the size of the printed number. For example 65535 in decimal is FFFF in hex and 1111111111111111 in binary. The use of space even on the screen is the same as the use of memory so it is generally important to save it.

My purpose in writing this program was to provide an easy way to generate the decimal# in the range of -32768 to +32767 needed for loading numbers into the memory of my computer with the mini-mem or extended basic. This may be done for many reasons such as to disable Quit or to change the screen color.

After I got it working well enough for my purposes I decided to submit it to the newsletter because it is a good example of using material published for other machines to make a program for the TI99/4A. The DEC to HEX routine is from the July issue of COMPUTE!, The HEX to DEC routine is from an old issue of PEEK65 which is devoted to the 6502 processor and OHIO SCIENTIFIC machines (you think TI left orphans you should have tried to deal with OSI!). To go even further I have only a slight idea how the HEX to DEC routine actually works!, but it is not always difficult to put things together in this fashion.

```
10 PRINT TAB(10);"HEX/DEC":;;;
20 INPUT "1 FOR HEX,2 FOR DEC ":M
25 PRINT
30 ON M GOTO 100,500
100 A$="0123456789ABCDEF"
110 PRINT ""
120 INPUT "DEC # ":A
130 PRINT
140 IF A<0 THEN 150 ELSE 160
150 A=A+65536
160 B=1
170 C=3
180 D=16 C
190 A=A+1
200 X=8
210 IF (A-D)>0 THEN 220 ELSE 250
220 A=A-D
230 B=B+1
240 GOTO 210
250 PRINT TAB(X);SEG$(A$,B,1);
260 X=X+1
270 B=1
280 C=C-1
290 D=16 C
300 IF C>-1 THEN 210
310 PRINT ""
320 GOTO 100
500 INPUT "HEX # ":HEX$
505 PRINT
510 N=0
520 H=1
530 FOR X=LEN(HEX$)TO 1 STEP -1
540 D=(ASC(SEG$(HEX$,X,4))-48)
550 D=D+7*(D>9)
560 N=N+D*H
570 H=H
580 NEXT X
581 IF N>32767 THEN 582 ELSE 590
582 N=N-65536
590 PRINT TAB(7);N:
595 PRINT
600 GOTO 500
```

DEBUGGING AID

If you have the speech synthesizer and the TEII cartridge, you have the capability for listing your programs verbally. This is a big help in finding bugs in long data statements and graphics strings.

To use this subroutine, enter the command 'LIST "SPEECH"'. To list certain lines numbers, use the format 'LIST "SPEECH":line # - line #'.

This handy debugging tip comes from Charles Stringer.

FROM THE MAIL ROOM...by Mary Brummett

Well, last month you elected me as Corresponding Secretary. Since this is a newly created office, MY responsibilities have not been fully defined, however, I have been asked to read the newsletters and advertisements sent to us and point out any interesting bits of information that I find. I am sure over the next year the job will expand to other duties and I will try to do my best to keep you up to date on what is going on.

We have received some ads from companies offering items for TI. Since the market is drying up very fast here in Decatur, we will have to rely on mail order to buy new products. New catalogues, which have just come in, will be on display at the next meeting. I would appreciate any comments, good or bad, from anyone who has ordered items from any of these companies so we can pass the information on to the rest of our members.

There are also many articles and tips about such things as double side disks, expanding the use of your printer and TI-Writer. If you have these things it would be well worth your time to read these articles. Hopefully next month I will be a little more organized and will reprint some information on some of the more interesting items in this column.

LETTER TO THE MEMBERS

Dear Members,

In reading the newsletters from other User Groups, we all have a common problem -- the same people are writing articles for their newsletters each month and the editor keeps asking for new people to participate. I admit I was just as bad, if not worse, as the rest of you. I always thought that no one would be interested in what I had to say and my knowledge on the computer is so close to zero that I could not write an original program that would win any award. Well I'm writing this on behalf of all the officers to encourage every member to write something. It can be about a problem you are having or some story about your family and the TI -- I'm sure everyone has those.

If you're like me I never got anything written up and given to any of the officers by press time. Well here's a suggestion--write something up or put it on tape using REM statements (the tape will be returned to you) and bring it with you to the next meeting. That way it can go in the following newsletter. Most things aren't outdated from one month to another and if everyone, myself included, helps a little it will add up to a lot.

See you at the next meeting.

Mary
Brummett

PROGRAM FOTFOURRI...by Jay Seaberg

Beginning this month I intend to present various subroutines commonly used for evaluating financial decisions. Type this program in to start a file which we will add to each month. The final program will include a menu routine which will conveniently access all of the previous subroutines.

```
100 REM COUMPOUND INTEREST
110 CALL CLEAR
120 PRINT TAB(6);"COMPOUND INTEREST": : : : : : : : : : :
130 FOR D=1 TO 300
140 NEXT D
150 CALL CLEAR
160 INPUT "ENTER AMOUNT TO BE COMPOUND-ED==>":A
170 INPUT "INTEREST RATE==>":I
180 I=I/100
190 INPUT "ENTER NUMBER OF YEARS MONEY IS COMPOUNDED==>":T
200 INPUT "ENTER NUMBER OF COMPOUND PERIODS PER YEAR==>":TY
210 V=A*(1+I/TY)^(TY*T)
220 PRINT "$";INT(V+.5)/100
230 PRINT : : : : :
240 INPUT "AGAIN? (Y/N) ==>":A$
250 IF A$="Y" THEN 160 ELSE 260
260 REM
270 REM YEARS OF INTEREST
280 REM THIS PROGRAM WILL TELL YOU HOW LONG A CERTAIN AMOUNT OF MONEY
HAS TO
REMAIN IN AN ACCOUNT TO REACH A
290 REM DESIRED TOTAL AMOUNT
300 REM
310 CALL CLEAR
320 PRINT TAB(6);"YEARS OF INTEREST": : : : : : : : : : :
330 FOR D=1 TO 300
340 NEXT D
350 CALL CLEAR
360 INPUT "ENTER AMOUNT TO BE COMPOUND-ED==>":A
370 INPUT "ENTER INTEREST RATE==>":I
380 I=I/100
390 INPUT "ENTER FINAL DESIRED
400 INPUT "ENTER NUMBER OF COMPOUND PERIODS PER YEAR==>":TY
410 T=LOG(V/A)/((LOG(1+I/TY))*TY)
420 PRINT "COMPOUNDED";TY;"TIMES PER YEAR WILL REQUIRE THE MONEY TO BE
DEPOSITE
";INT(T+.5)/10;"YEARS"
430 PRINT : : : : :
440 INPUT "AGAIN (Y/N) ==>":A$
450 IF A$="Y" THEN 320 ELSE 460
460 RETURN
```