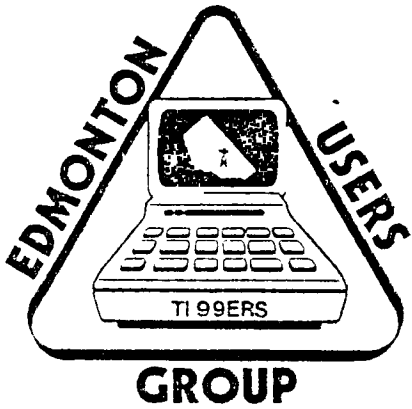


EDMONTON 99'ERS COMP. USER SOCIETY
P.O. BOX 11983, EDMONTON
ALBERTA, T5J 3L1



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99'ER ONLINE

*NEWSLETTER OF THE
EDMONTON 99'ERS COMPUTER USER'S SOCIETY
APRIL 1984 EDITION*

99'ER ONLINE is a monthly pulication of The Edmonton 99'ers Computer User's Society.

Please mail all correspondence to P.O. Box 11983, Edmonton, Alberta, T5J 3L1

NEWSLETTER STAFF

EDITOR BOB PASS

CONTESTS

At the Jan. meeting, Bob Chapman of the St Albert branch user's group established a programming contest. The objective was to find all possible solutions to an addition problem; using the numbers 1 to 7 in groups of 3 such that each group adds to 12 and that every number is used once. The winning entry was submitted by Bob Pass who found the 12 solutions with a program that executes in about 10 seconds and will also solve other problems of the same type. Bob was presented with one of our user's group golf shirts for his efforts.

Another programming contest has been proposed by Bob Chapman. This one involves a common problem encountered in many commercial programs; how to verify that correct data has been entered by the operator. The common approach is to use a check digit imbedded in the input data. The data is examined by the computer by calculating the check digit according to a set formula and then it compares the check digit entered for overall data accuracy. This month's contest challenges you to write a program that will verify if your Social Security Number is correct. The last digit of your SI number is a check digit. It is calculated in the following manner (using 123 456 78X as an example):

1. Create a 4 digit number using 2'nd, 4'th, 6'th, and 8'th digits. (=2468 from the example)
2. Double this number. (4976)
3. Add the digits. (4+9+7+6=26)
4. Repeat step 1. using the 1'st, 3'rd, 5'th, and 7'th digits. (=1357 from the example)
5. Add the digits of this number. (1+3+5+7=16)
6. Add the answers from steps 3 and 5. (26+16=42)
7. Round this answer to the next highest ten. (50)
8. Subtract the answer in step 6. from that in step 7. (50-42=8)
9. The check digit "x" is 8.

The correct SI number in the above example should be 123-456-788. Now try to do that with your trusty 99/4A!

The contest is open to all members in good (dues paid) standing or their immediate family. To make this fair to everyone, please use consol basic only and submit your entry to Bob Chapman or Bob Pass at the May General Meeting. Your entry may be on disc or tape. Please identify your entry with name and phone #. Winner(s) will be announced at the June meeting.

LOGO CONTEST

Tired of our old User's Group Logo? Well so are we. Here's a contest for all of our members with an artistic bent to design a new Logo for us. The only requirement is that the Logo should be capable of being legible on a standard size wallet card. Please submit your entries by the May General Meeting so we can judge and award the winning entry before the seasonal break in June. Entries may be sent by mail to the adress found else-where in this News Letter so that we will receive it by the deadline.

NEWS

There have been no further rumors about the status of TI's production of software and/or hardware. In scanning news letters from other User's Groups in the States, it seems that some of them have contacted some of the 3rd party suppliers and have determined that most of them intend to continue support of the 99/4 machine. Apparently CorComp is on the verge of releasing their "P-BOX" wich will initially be in a "baby" version capable of holding 4 cards with disk drives external. The company already produces FULLY compatible 32K memory expansion, RS232, and double sided/density disk controller cards.

If you notice new spelling/grammer errors in this news letter it will be due to our new editor, Bob Pass who is new to this game and needs all the help he can get.

HELP

Our club now has 64 active members, with about 10 of them running all functions of the club. This type of operation will soon lead to our down fall, as it did last year. With a club as large as this we should have more than enough INTERESTED members to keep the club active and prosperous.

Most of the jobs can be broken down into very small tasks that will not take alot of time to complete, this will make these large tasks seem alot smaller.

One of the largest tasks is the publication of the the monthly newsletter. As of today the newsletter staff consists of about five people, if we could triple this number we could produce a very high quality newsletter. So you think you can write, well here is a great place to get started, and its about your favorite topic, computers.

Below you will find a list of the duties that the club needs help with, please feel free to contact PAUL HELWIG at 468-1318 if you can help in any way.

NEWSLETTER

WRITING ARTICLES (program hints, reviews, etc.)
 LAYOUT (art work, design)
 SALES (selling advertising space)
 PRINTING (drop off and pick-up at print shop)
 DISTRIBUTION (stamp licking, and drop off at P O)

LIBRARY

RECORD KEEPING (who's got what)
 TRANSPORTATION (store books and bring to meetings)

LITTLE GEMS

Tired of that little black cursor? Try putting this into your next programm that uses the INPUT statement: CALL COLOR(0,C,1) where "C" is the fore-ground color of your choice. Subsequent INPUT or ACCEPT AT statements will display a colored cursor.

TELECOMMUNICATIONS AND THE TI
Bulletin Board Systems
By Evan Smith

Introduction

In part one of this series (99'ER ONLINE - March 1984 Edition), I outlined the hardware and software (equipment and programs) you would need to enter the Telecommunications World with your TI-99/4(A), and tried to give you some idea of how much a package would cost.

In this article I will discuss the most widely available type of Telecommunication service available to the home computer user, the Bulletin Board System (BBS).

Bulletin Board Systems

The basic concept of a Bulletin Board System is to allow a user to phone a computer system which will automatically answer, if the line is not busy, with a tone. The user can then log his computer onto the Bulletin Board System.

Once the user is logged on, they can leave messages (Bulletins) or look at (Retrieve) messages that were left earlier. Most of these systems are set up in order to provide a means for fellow computer hobbyists to exchange ideas, much the same purpose as user groups. Some of the better systems allow owners of certain types of computers to download (receive programs from the BBS) and/or upload (send programs to the BBS) programs. Other systems allow you to enter right into a programming environment, which allows you to write, save, and run programs. The main advantage of this last type of system, is that it can allow you write programs in languages that are either not available on your system, or that you simply don't possess.

These systems are provided by user groups, by computer stores, and by individuals who feel that there is a need for a system where a person can communicate with other computer users from the comfort of their home or office.

Bulletin Board Systems also provide a great service to computer hobbyists, who are unable to leave their residence to attend user group meetings. These people include the handicapped, and persons living in areas that do not have any user groups.

I may have given you the impression that these systems are for computer related communications only, but this is not true. You can leave messages on just about anything, as long as it is not of an offensive nature. There are special interest computer bulletin boards for a wide variety of subjects, including ones that are for the exclusive use of certain professions.

Bulletin Boards provide a wealth of information on various subjects and some good bargains on a wide assortment of goods and services.

In future articles, I hope to discuss other types of Telecommunication Systems available, and writing your own telecommunications software, amongst other related subjects.

For more information on Bulletin Board Systems in this area, see the list of BBS numbers in the article provided by Bob Burley in the March 1984 issue of 99'ER ONLINE.

FORTH-WORD
By Evan Smith

If you have been attending User Group meetings lately, and have been reading this newsletter, you should be aware that Texas Instruments released their version of the FORTH system, TI FORTH, to public domain last December, and distributed copies of the system and manual to registered TI User Groups.

FORTH is a "Low Level" language, that allows you to access all of the capabilities of the TI-99/4(A) Home Computer, without all the tedious work necessary when programming in Assembly language. It also allows you to test procedures as you write them, as long as all of the procedure (WORD) names that you use in that procedure have already been defined.

The manual provided by TI for the TI FORTH system, is primarily for use as a reference to the peculiarities of TI FORTH, and its use with the TI-99/4(A). It is not written with the purpose to teach you how to use FORTH, if you do not know how to use a FORTH system yet, you will have to obtain a book on FORTH from another source. The TI FORTH manual recommends a book by Leo Brodie, titled STARTING FORTH. After reading this book, I can recommend it as a well written publication for both the beginner and the experienced programmer. The TI FORTH manual also supports this book specifically, by providing an appendix that lists the differences between the version of FORTH in the book, and TI FORTH. This appendix includes both the procedure names that are different, and the number of the page that the procedure first appears. It also corrects a few errors in STARTING FORTH.

One of the things that I must point out in this article, is that there is an error in the version of TI FORTH that this group received. The error is on both the diskette provided with the system, and in Appendix I of the manual, that lists the SCREEN contents. On line 5 (five) of SCREEN number 72 (Seventy-two) of the TI FORTH system diskette, the variable PAB_ADDR should be PAB-ADDR (the underscore should be a hyphen). If this is not changed, the -PRINT routines of the system will not function. This is also the SCREEN that determines which device output from the TRIAD and TRIADS routines will be sent. If you are not using RS232 port number one (1) at 9600 BAUD to connect your printer to your system, you will have to alter all occurrences of RS232, and RS232.BA=9600, on this SCREEN, to the name of the output device you are using.

I hope to write further articles on TI FORTH in the future, on subjects such as, redirecting output and input, data manipulation, and graphics among other subjects.

LITTLE_GEMS

This LITTLE GEM is by Mike McCue of New York. Reprinted from the Miller's Graphics Newsletter.

You can change the screen, text, and/or cursor colors used in the immediate/program entry modes if you have X-BASIC. Enter the following commands in the immediate mode:

```
CALL SCREEN(6) :: FOR I=0 TO 12 :: CALL COLOR(I,16,1) ::
NEXT I :: ACCEPT AT(1,1):A
```

Now press ENTER. The screen and cursor should be the new colors and the cursor should be in the upper left corner. DO NOT enter any

data yet. Instead, press FCTN 4 (clear). The cursor should now return to the lower left, ready for data input. These colors will remain until you create an error, execute CALL CLEAR, PRINT, or RUN. Try different values in the screen and fore-ground variables; try changing the loop to FOR I=1 TO 12 or 1 TO 8.

```

100 REM HI-RES GRAPHICS TI BASIC
110 REM by Bill van Kerkoerle
120 REM originally printed in TI Home Tidings, England
130 REM *NOTE* 12 minutes execution time
140 DIM C$(128)
150 GOTO 370
160 Y=INT(R/8+.875)
170 X=INT(C/8+.875)
180 CALL GCHAR(Y,X,H)
190 IF H>31 THEN 260
200 IF S=95 THEN 360
210 S=S+1
220 C$(S-31)=Z$&CHR$(Y)&CHR$(X)
230 CALL CHAR(S,Z$)
240 CALL HCHAR(Y,X,S)
250 H=S
260 H=H-31
270 B=C-X*8+8
280 P=2*R-16*Y+16+(B<5)
290 IF B<5 THEN 310
300 B=B-4
310 I$=SEG$(B$,POS(H$,SEG$(C$(H),P,1),1),4)
320 I$=SEG$(I$,1,B-1)&"1"&SEG$(I$,B+1,4-B)
330 I=POS(B$,I$,1)
340 C$(H)=SEG$(C$(H),1,P-1)&SEG$(H$,I,1)&SEG$(C$(H),P+1,18-P)
350 CALL CHAR(H+31,C$(H))
360 RETURN
370 CALL SCREEN(8)
380 S=31
390 CALL HCHAR(1,1,S,768)
400 B$="0000.0001.0010.0011.0100.0101.0110.0111.1000.1001.1010.1011.
1100.1101.11 10.1111"
410 H$="0.....1.....2.....3.....4.....5.....6.....7.....8.....9....A....B....
2....D....E....F"
420 HR$="0....3....4....C....2....A....6....E....1....7....5....D...
.5....B....7....F"
430 I$="0000000000000000"
440 H1=192
450 V=104
460 X1=H1/2
470 X2=X1*X1
480 Y1=V/2
490 Y2=V/4
500 FOR X5=0 TO X1 STEP 2
510 X4=X5*X5
520 M=-Y1
530 A=SQR(X2-X4)
540 FOR I1=-A TO A STEP V/10
550 R1=SQR(X4+I1*I1)/X1
560 F=(R1-1)*SIN(R1)
570 R=INT(I1/5+F*Y2)
580 IF R<M THEN 630
590 M=R
600 R=Y1-R
610 C=X1-X5*32
620 GOSUB 160
630 NEXT I1
640 NEXT X5
650 H=S-31
560 FOR K=1 TO H
570 O$=C$(K)
580 Y=ASC(SEG$(O$,17,1))
590 X=33-ASC(SEG$(O$,18,1))
700 FOR L=2 TO 16 STEP 2
710 I$=SEG$(O$,L,1)
720 J$=SEG$(O$,L-1,1)
730 I$=SEG$(HR$,POS(H$,I$,1),1)
740 J$=SEG$(HR$,POS(H$,J$,1),1)
750 C$(K+H)=C$(K+H)&I$&J$
760 NEXT L
770 CALL CHAR(K+5,C$(K+H))
780 CALL HCHAR(Y,X,K+5)
790 NEXT K
800 GOTO 800

```

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CLUB MEETINGS

- Held every SECOND Tuesday of each month
- Staff Dining Lounge (North West end of cafeteria)
- Victoria Composite High School
- 7:30 P.M.

PLEASE ATTEND !!!