* * ROCKY MOUNTAIN 99ers * *

TIC TALK

VOL. 1 No. 10
June 1983

****

Next Group Meeting
Tuesday, June 14, 1983 (7 p.m. to 9 p.m)
Jefferson County Fairgrounds Auditorium

****

Tenative Subjects

(June, 14) "Programming" Extended Basic & Assembly. Workshops on Games.

(July, 12) "Library" Survey of programs & Large Screen Demos. Workshops on Personal Record Keeping and Household Budget Management.

(August, 2) Members who have an idea for a future program or workshop please contact Ron Kuseski, 444-1797.

****

Election of New Officers

New officers will be elected by ballot at the Annual Meeting, Sept. 13th. Any club member that is interested in working on the nominating committee please contact Pete Crowell by the July club meeting.

****

TI's Newsletter

Our club has been asked by TI to submit the names and addresses of any of our club members who are not receiving the "Home Computer Newsletter" from TI. Please call Lloyd Maple (979-6677) if you are not receiving it. He will send in the list after the June club meeting.

****

DISK DRIVES
BY: Pete Crowell

Back in the late fall of last year, I wrote an article for this newsletter which described the TEAC Model 55B disk drives. At that time I installed two of these half-height drives in my TI Expansion Box without any difficulty. There are several things which have come to light since the time of that article, and I would like to pass them along to the rest of you members.

Reliability has never been a problem with my TEAC's, but I have heard that some of the entries into the market with half-height drives can cause some very grave problems. Two manufacturers (QUME and SHUGART) produce a good disc drive, but it is not recommended that these be installed in the expansion box in multiples (i.e. 2 drives). The power requirements for both of these brands are the same as a single full-sized drive, and the resultant load on the internal power supply of the box could cause the supply to be overloaded and the results will be a charred power supply (when using more than one drive).

There is now a problem with the availability of the TEAC brand of disc drives. It seems that the entire production of TEAC is slated to be sold to system manufacturers, and there may not be any available until next year. The only drive currently becoming available which has similar power requirements to the TEAC is a new half-height drive made by HITACHI. These new drives have the same operating characteristics as TEAC, and are available at the same price. The only major difference is the color.....it is sort of a beige instead of black. These HITACHI drives are also double sided and double density (not that double density matters to the TI controller, for it will only handle single density storage on both sides).

Some of you members are probably asking "Why all the fuss over double sided and half-height drives anyway?". The main reason is for the amount of storage that is available on-line at any given time. By having one double sided drive, it is possible to have the equivalant storage of two disc drives. The big to-do over the half-height is to do with the fact that two of these double sided drives can be put into the TI Expansion Box at the same time, and the result is the same (for storage) as having 4 drives attached to the computer.

I hope this little bit of information answers some of the questions you may have and doesn't cause a lot of confusion instead. If you have any questions don't hesitate to give me a call at 750-5949 (sometimes I am even there).

****

TIPS

For the members who are just now getting their TI Expansion Box, I wish to pass on a few words of advice. PAY ATTENTION to the WARNING in the manual regarding removing or plugging any of the cards into the box. Due to the possibility of there being some stray current in the power supply, a very real danger to the cards can exist if you don't wait the recommended amount of time before removing or inserting cards. Follow all of the recommended procedures for removing and inserting the cards and you will find the Expansion Box to be a very reliable device; don't and you may wonder why the computer no longer works properly when the box is turned on!

RANDOM JOTTINGS
BY: Mike Holmes

One of the first and problems a beginning programmer must deal with on a micro-computer system is that of validating input data. This is especially important when programs are run from menus displayed on a CRT screen. How can you control what happens when a ridiculous answer is entered to a question?

There are many methods available for checking the validity of input data. In TI's extended basic a validate option is built into the accept at statement. In console basic however this feature does not exist and other methods must be substituted.

There are many different ways of evaluating the validity of input data in TI basic. The most obvious way might be to compare input values to a list of valid answers, but this consumes memory both for the list and for the code to compare the list to the input data. In some cases this might be the best way to go when validating data. The following short program will illustrate this method of validation.

```
100  FOR I=1 TO 10
110  READ CK$(I)
120  NEXT I
130  INPUT "ENTER ONE OF THE
     FIRST 10 LETTERS OF THE
     ALPHABET":A$
140  FOR I=1 TO 10
150  IF A$<>CK$(I) THEN 180
160  PRINT "THAT IS RIGHT";A$;"
     IS ONE OF THE":"FIRST 10
      LETTERS IN THE ALPHABET"
170  STOP
180  NEXT I
190  PRINT "SORRY";A$;" IS NOT
     ONE OF THE FIRST 10":"LET-
     TERS OF THE ALPHABET."
200  DATA A,B,C,D,E,F,G,H,I,J
210  END
```

This method is somewhat time and space consuming and is usually not very useful in programs. Let's look at some other ways to validate data entered with the input command.

At the May 10th. meeting Jim Behlen discussed user defined functions and some of their applications. With a little thought we can define a function to validate data in general cases.

The next listing will demonstrate how to apply a user defined function to evaluate input data which is only one character in length. In this program I am using the TI Basic built in function "POS". This handy function will tell you in what position a character can be found within a character string. If the character is not found in the string the value of the "POS" function is 0.

This suggests several applications for a user defined function which I call "CK". Please note that the value of the "POS" function will be a number even though the arguments are character strings.

```
CK IS A USER DEFINED
FUNCTION TO CHECK THE
VALIDITY OF AN INPUT VAR-
IABLE CK$ IS A VARIABLE
CONTAINING A LIST OF ALL
VALID CHARACTERS TO BE
CHECKED AGAINST
```

```
110  DEF CK=POS(CK$,C$,1)
120  INPUT "ENTER ONE OF THE
     FIRST 10 LETTERS": "OF THE
     ALPHABET":C$
130  CK$-"ABCDEFGHIJ"
140  IF CK=0 THEN 180
160  PRINT "THAT IS RIGHT";C$;"
     IS ONE OF THE":"FIRST 10
     LETTERS IN THE ALPHABET"
170  STOP
180  PRINT "SORRY";C$;" IS NOT
     ONE OF THE FIRST 10":"LET-
     TERS OF THE ALPHABET."
190  END
```

This technique will work for any one character input but with a little work it can be extended to check the validity of input strings.

```
100  REM THIS ROUTINE WILL
     CHECK FOR ALPHABETICAL
     STRING ENTRY.
110  DEF CK=POS(CK$,C$,1)
120  INPUT "ENTER YOUR
     NAME":N$
130  CK$="ABCDEFGHIJKLMNOPQ
     RSTUVWXYZ"
140  FOR I=1 TO LEN(N$)
150  C$=SEG$(N$,I,1)
160  IF CK<>0 THEN 190
170  PRINT SORRY";C$;" IS AN IN-
     VALID CHARACTER.":"PLEASE
     TRY AGAIN."
180  GOTO 120
190  NEXT I
200  PRINT "VERY GOOD, THIS
     PROGRAM IS NOW OVER."
210  END
```

Since the "POS" function gives us a number that represents the position of one element in a given string the "CK" function can be used to password protect files or programs. If you have a file program which can update material on tape or disk you might want to keep someone from accidentally writing over old data. In this case you could store a password as the first record in the file and use the following routine to limit how someone who doesn't know the password can open the file.

```
100  REM THIS ROUTINE IS A
     PASSWORD ACCESS ROUTINE
110  DEF CK=POS(CK$,C$,1)
120  INPUT "ENTER THE PASS-
     WORD FOR THIS PROGRAM-
     ":N$
130  CK$="MIKE"
140  FOR I=1 TO LEN(N$)
150  C$=SEG$(N$,I,1)
160  IF CK=I THEN 190
170  PRINT "SORRY THAT IS NOT
     THE PASSWORD":"ACCESS DE-
     NIED."
180  STOP
190  NEXT I
200  PRINT "RIGHT YOU MAY NOW
     CONTINUE WITH THE": "PRO-
     GRAM."
```

There are only a few ideas about validating data in console basic I hope that you will find them of some use in your future programs. Good luck and happy programming.

****

TIC FEVER

By Lloyd Maple

This is an Editorial for Texas Instruments Company in Lubbock, Texas.

TI is finally making amends with the USERS' GROUPS around the country. When we first started as a group one year ago, we asked for help from TI. Reception was only so-so. The Company did send an employee to our very first meeting and he demonstrated a mock-up model of the LOGO II, which, by the way, is still not released. His participation was appreciated, however until recently the Users' groups were treated with little affection. Despite the lack of involvement of TI with the various Groups, we survived into a very viable source of information for owners of TI's products. We have also aided in sales of additional products, therefore it is beneficial to TI to be our friend.

TI we have to give you credit for putting the foot out there, in what appears the right direction by appointing Ed Wiest to the position of Coordinator for the Users' Groups. Ed, keep the channels open by keeping us informed on new products, listening to our ideas, and sharing of programs and ideas from others as well as your Company. (psst Ed, I personally would like to see a Mail List Program of the caliber of TI-Writer.)

INPUT/OUTPUT

I have some short "type written" programs from our members and other User Groups. Several are of the 'Hints and Tips' variety. Any club member interested in helping me "type in and test out" these programs prior to going to print in Tic Talk please contact me, your Editor. Thanks Gus, 795-6094.

* * ROCKY MOUNTAIN 99ers * *

P.O. Box 3400, Littleton, CO 80161.

OFFICERS AND COMMITTEE CHAIRPEOPLE

President - Pete Crowell	750-5949
Vice-President - Ron Kuseski	444-1797
Secretary - Julia Young	322-3778
Treasurer - Lloyd Maple	979-6677
Program Committee - Pete Crowell	750-5949
Recruitment Committee - John McDonald	751-9633
Library & Equipment Committee - Pete Neri	674-2792
Exec. Committee - Judie Davita	232-7659
Software Development Committee - Fernando Caracena	530-0673
Software Evaluation Committee - Tony Maple	979-6677
Newsletter Editor - Gus Gustafson	795-6094

****

All members are encouraged to serve on one or more of the committees. To volunteer, contact one of the officers or committee chairpersons.

Members who have an idea for a future program are asked to submit the idea to the Program Committee, Pete Cromwell, 750-5949, or see him at the meeting.

****

Want Ads (August Special)

As an experiment to "test demand" Tic Talk will accept FREE computer related ads from members for the AUGUST newsletter. These Free ads must be: Typed, 25 words or less, and mailed to;
Rocky Mt. 99ers, P.O. Box 3400, Littleton, CO 80161 before JULY 10th, 1983.

(Note): Normal ad rates are $.20 per word for members and $.30 per word for nonmembers.

TIC TALK is published monthly by the Rocky Mountain 99ers. The newsletter is intended to keep the membership informed regarding the TI 99/4(A). We welcome all members to contribute an article for publication. All articles submitted must be typed and double spaced.

Deadline for submitting articles and adds to this newsletter is the 10th of the month.