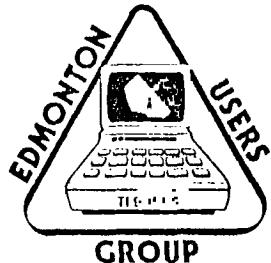Edmonton T.I. Users' Group
P.O. Box 11983
Edmonton, Alberta
T5J 3L1

T.I.Tattler Tribune

February Meeting
TUESDAY FEB. 14, 7:30 PM
Victoria Comp. High
Staff Dining Room

EDMONTON USERS GROUP

Greetings and Happy Valentines day

Notes from the President(temp), Bill Cannon

Last meeting we received some information from Ian McArther on what T.I. is doing with the 99/4A. Basically there is a lot of interest from other aftermarket companies but because no offers were considered reasonable, T.I. will continue to manufacture componants until they run out of parts, and are not yet ready to give their official "hokey dokey" to anyone. Thanks Ian.

Again, at the next meeting we will be breaking up into subgroups and there will be a couple of people to enlighten us on the developments which affect us all. Also we will have the Library available to everyone, including some of the first 99'ers. We will be loaning out only photocopies as the originals are irreplaceable. Our thanks to Bob Pass for doing all the work for getting the copies ready for the library.

Brian Nelson has volunteered to compile and operate a program exchange for the group. The exchange will use cassette only as most members own cassette decks which are portable. For those who do not understand the scope of this function, Brian will spend most, if not all, of the meeting trying to meet the demand generated by this, our most popular function.

The basis for the function of the exchange is that you will bring a program on tape to be exchanged for any number of programs from Brian. This task of copying will be made easier by the use of a device made and donated by Bob Burley to make five copys at one time.

To date between Bob and Brian we have over 340 programs for our use, and this number will expand with use. The operation of the exchange is tenative for the Febuary meeting, but from speaking with Bob and Brian, it might be a good idea to bring your program, blank cassette and cassette deck to the meeting.

I would like to thank Brian Nelson and Bob Burley for both helping with this awesome task.

Notes from Tron

As of publication date the latest information we have on the 64K T.I. compatible is that the release of the prototype has been delayed. For some reason the people at Corcomp feel that they make a good aftermarket company but they are not sure if they will make a good computer company (hint: they may have looked at what happened to a giant like T.I.) and this may explain some of the delay. Production of the RS232 and other accessories is a little behind but we hear that there is a major rethink within Corcomp and service to waiting custtmers will become the prime requesite.

On the ??'er, they are still printing although they have been conspicous by their absence in the recent past. The new name for the periditical will be "HOME COMPUTER MAGAZINE" and will cover Apple, Commodore, and IBM as well as the T.I. They promise to cover even more of the T.I. news and software than before. This new format should cover about 300 pages, and subscriptions will be extended.

One last note. My boss (the EDITOR) has been on my case because of a lack
of articles for the newsletter and we could use all the help we can get. How
about it? Give us a hand. Thanks TRON

Reprinted From Victoria 99'er Group Newsletter
April 1983
Logo Article by: Johan Van Inschoot

        TI Logo is probably the LOGO requiring the least expensive system to
implement it. Unfortunatley, it still does require extra memory and is
therefore not usable by many TI 99/4A owners.
        For those who have the extra memory, or who are planning to extend their
system, I highly recommend LOGO. There are a number of reasons for this, which
I hope to enumerate below. I will not address the advantages or disadvantages
of details of TI LOGO, but will address myself to the more general features.
        LOGO lends itself to logical, structured program design and eliminates
unnecessary mechanics such as Basic's line numbers (which indeed do not exist
in most programming languages).
        LOGO sub programs (procedures) can be written, tested, and saved
independently, making program development much easier than it is with TI or
even TI Extended Basic.
        The independent testing point is extremely important. It derives from
the fact that the LOGO environment is extremely interactive. Whatever commands
are entered take effect immediatley. Unlike Basic, these commands are not a
limited set: they include all user-defined procedures.
        Version II of LOGO does include music ability, but commands will be more
musical than the basics', which use numbers.
        Like the Basic, LOGO can access RS232 (like for a printer, disk and
tape). (RS232 in version II only)
        Graphics are a LOGO strong point. The 4's standard 16 colours are
available. There are four graphics modes or features which facilitate
graphics of various types. One is the familiar character-based graphics of the
TI 4 console Basic. Another is a sprite graphics familiar from Extended Basic   '
(except there are 32 sprites, 4 more, and they are interactively usable).
There are two additional graphic abilities: turtle mode and dot plotting. The
LOGO turtle is probably the most famous LOGO feature and one which probably
most appeals to kids.
        Drawing with the turtle (which is simply a directional eraser/pen) tends
to be easy because it can be related to how one imagines moving: as occuring
from where one is to where one goes, simply by turning and moving. This is
easier to describe and grasp than movement using cartestian co-ordinates, as
with dot plotting. The latter is however available and could probably be used
for plotting graphs, for example. Turtle drawing lends itself readily to short
descriptions for complex drawings that contain pattern repetition, by using
recursion.
        Recursion is another feature of LOGO which is appealing. Although in
general recursion is not required for programming, it does make solving certain
types of problems much easier. (for the uninitiated, and simplistically,
recursion in programming exsits when a procedure directly or indirectly calls
itself).
        LOGO is a list processing type language, descendant of LISP and can be
used for symbolic processing, and functional style programming, yet has enough
conventional imperative programming features that a newcomer would not need to
learn a new programming style.
        If a command does not exist in LOGO, then you create it. This is so
because the procedure which would implement it is called by name only, and
becaue it is independent, and interactive. Unfortunately, this does not mean
that anything is possible in LOGO. It is of course necessary to build up new
commands from existing ones, and these "primitives" will not allow complete
control over the machine.

Another draw back of TI LOGO is that floating point is not available. One can only work with integers, and would have to create one's own decimal numbers, which would only slow things down. Therefore, for programming mathematical computations, choose Basic over LOGO.

On the other hand, for teaching programming, choose LOGO. It is easier to learn (in fact, it is used by elementary school children), but perhaps more important, tends to encourage good programming style (top down design of problems, using functons, identifying data structures--one doesn't need to know this terminology to actualy be doing it). Basic, on the other hand, especially many traditional Basics, such as the TI 4 console Basic, can encourage sloppy style (sometimes known as spaghetti code).

The fact that LOGO has been designed to be easy to use and learn (for example, use a colour name rather than a number, or another example, design interactively a character, rather than use hexadecimal descriptions), this does not mean that it is a language for kids only. It is a complete and powerful list-processing language that even programmers would enjoy using.

HIDDEN CONTROLS IN EXTENDED BASIC

The September issue of the International 99/4 Users Group Newsletter had an article on some undocumented statements that can be found in Extended Basic with the use of the control (CTRL) key.

To experiment with this, use line numbers for your programs. The symbol @ will be used to show you to hold the control key while typing the next letter, number, or symbol.

For example, type:
        100 !@U (enter)
On your screen, the above line will only have an exclamation mark on it. Now, type LIST. The line will now read 100 !RANDOMIZE. To use this in a program you will have to remove the exclamation mark, and then its ready to RUN.

Here's a sample program to try:
        100 !@A=1@1100 (enter)
        110 !@:A   (enter)
        120 !@VA   (enter)

Now type LIST and you'll have:
        100 !FOR A=1 TO 100
        110 !PRINT A
        120 !NEXT A

Remove the !'s and RUN.

Key to hidden control key statements in Extended Basic:

1 TO	E GO	G GOSUB
2 STEP	R INPUT	H RETURN
3 ,	T RESTORE	J DIM
4 ;	Y DELETE	K END
5 :	U RANDOMIZE	L FOR
6)	I DEF	: PRINT
7 (	O LINBREAK	K REM
8 OPTION	P TRACE	X STOP
9 OPEN	/ AND	C !
0 THEN	A ELSE	V NEXT
= CALL	S DATA	B ::
Q UNTRACE	D IF	N BREAK
W READ	F GOTO	M LET
> ON		

JOYSTICK ADAPTERS

by Barry Riddell

Just about any joystick can be configured to work with the T.I. 99/4A, if you kwow what the pin configurations are. If you decide to build your own joystick adapter, the total cost is under twelve dollars and it should take about one and a half hours to build. The 9 pin connectors that are needed for this project can be bought at any Radio Shack store.

I built the following switch-type Atari joystick adapter, for the T.I. 99/4A. Solder the wires as indicated by the diagram. The two male connectors are for the Atari joysticks and the female connector is for the T.I. console input. To protect the wires and connectors, you can mount them in a small box.

Materials required

1. Two male 9 pin D connectors.
2. One female 9 pin D connector.
3. Wire - eight conductor or two 6 conductor wire.
4. Small plastic or metal box.

Tools required

1. Soldering iron and solder.
2. Tester clips (if not building Atari adapter).
3. Utility knife to cut holes in plastic or metal box.

Reference: Switch-Type Atari Joysticks For The TI 99/4A
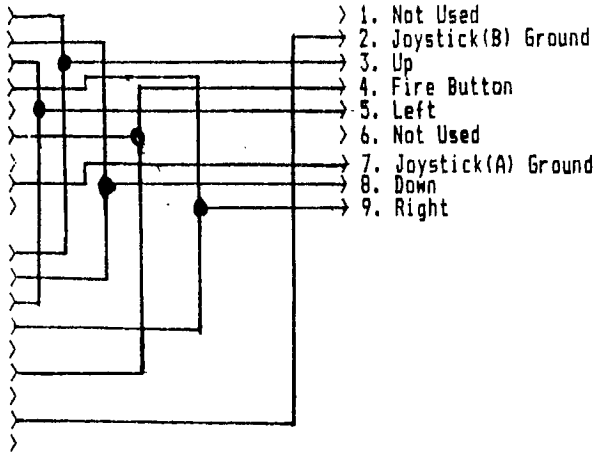   September 1953 - Creative Computing
          Author: Gary Cook

ADAPTER PIN DIAGRAM

ATARI JOYSTICK PINS   T.I. 99/4A PINS

(A) 1. Up   ) 1. Not Used
    2. Down   ) 2. Joystick(B) Ground
    3. Left   ) 3. Up
    4. Right   ) 4. Fire Button
    5. Not Used   ) 5. Left
    6. Fire Button   ) 6. Not Used
    7. Not Used   ) 7. Joystick(A) Ground
    8. Ground   ) 8. Down
    9. Not Used   ) 9. Right

(B) 1. Up
    2. Down
    3. Left
    4. Right
    5. Not Used
    6. Fire Button
    7. Not Used
    8. Ground
    9. Not Used

Here is a small program to get
your minds working, it uses
some characters you probably
didn't know you had. Enter the
program, sit back and watch
your computer do some strange
things. Thank You Bob for
submitting the program for the
news letter.

```
100 REM  ACTIVE GRAPHICS
110 REM  BY BOB BURLEY
120 RANDOMIZE
130 R=1
140 C=3
150 CALL CLEAR
160 X=INT(RND#8)+160
170 IF C<31 THEN 200
180 C=3
190 R=R+1
200 IF R>24 THEN 240
210 CALL HCHAR(R,C,X)
220 C=C+1
230 GOTO 160
240 R=1
250 IF C<31 THEN 280
260 C=3
270 R=R+1
280 IF R<3 THEN 300
290 R=1
300 Y=INT(RND#5)+128
310 CALL HCHAR(R,C,Y)
320 C=C+1
330 GOTO 250
```

CLASSIFIED ADS

The club is currently accepting classified ads free of charge to generate
interest and readership. To enter an ad please call PAUL HELWIG at 468-1318.
New ads will be given preferance, due to the length and format of newsletter.
Ads will be run for two months, extensions given at request of author.

FOR SALE   We still have stock of a small number of shirts, with club
logo printed on chest, these shirts are made in CANADA by HARVEY WOODS and are
very good quality. The sizes and styles that remain are as follows:

        T-shirts
            Youth Medium 3 Yellow   1 Blue $11.95 each
            Youth Large   1 Blue $11.95 each

        Golf shirt
            Mens   Small   1 Yellow   1 Blue $15.95 each

        Golf shirt with pocket
            Mens   Large   1 Blue $15.95 each

    Please contact Paul Helwig if intersted.

        WANTED   Old style (daisy chain) MEMORY EXPANSION
            Please contact EVAN SMITH 478-4551 Evenings BEFORE 8:00

WANTED   T.I. compatible direct connect modem. Please call Paul Helwig at
    468-1318.