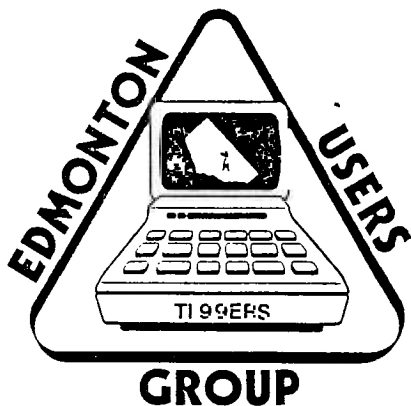


EDMONTON 99'ERS COMP. USER SOCIETY  
P.O. BOX 11983, EDMONTON  
ALBERTA, T5J 3L1



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# 99'ER ONLINE

NEWSLETTER OF THE  
EDMONTON 99'ERS COMPUTER USER'S SOCIETY

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99'ER ONLINE is a monthly publication 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

**EDMONTON USER'S GROUP**

MAY/84 NEWSLETTER

**DO-IT-YOURSELF PARALLEL CABLE**

By: BOB CHAPMAN

**EXECUTIVE:** President-Bill Cannon, Vice President-Paul Helwig, Treasurer-Evan Smith, Secretary-Susan Livingston.

**COMMITTEES:** Newsletter-Bob Pass, Library-Gord Bradlee, Meetings-Bill Cannon, Nominations-Bob Pass, Facilities-Tom Hall and Paul Helwig.

**MAILING ADDRESS:**  
EDMONTON USER'S GROUP  
P/O BOX 11983  
EDMONTON, ALTA  
T5J-3L1

**FROM THE EXECUTIVE**

It has come to the attention of the Executive that certain acts of Piracy have been attempted at a recent meeting! The group does not condone the copying of third party or copyrighted software. We will protect software authors actively. Members or their guests found engaging in this type of activity during group meetings will be asked to leave and their group membership may be revoked. 'Nuff said.

The time has come that our group holds it's Annual Business Meeting and Election of Officers. This very necessary activity will take place at the regular June meeting. There will be many topics of group business that will be discussed as well as an election of four Officers to the Executive. We must have your participation in this. Attached to this Newsletter is a nomination form for your use. If you or some one you know wants to actively participate in the running of this User's Group, then let's get them nominated! The nomination forms can be dropped off at the May 8'th regular meeting or mailed to the post box address shown above. If mailing, make sure your nomination will reach us by the cut-off date, May 8, 1984.

The Newsletter preparation is being done by Bob Pass. He can use help from all you people by your contributions of original software shorties and articles of interest written by our members. Please leave your suggestions and articles with Bob or forward them to the above P/O box.

At the last meeting, a contest sponsored by the Microcomputer Special Interest Group of the Canadian Information Processing Society - Edmonton Section was announced. The competition will be based on programming entries in several categories, some of them quite appropriate to the unique capabilities of the TI99/4A machine. This is not an easy contest! If you want more information, write to: MICROCOMPUTER COMPETITION, BOX 1881, EDMONTON, ALTA, T5J-2P3. The entry deadline is September 30, 1984 and you will need lots of time to turn out a competitive entry.

**FROM THE EDITOR**

The cost of producing this Newsletter is horrendous! therefore, I am trying a new format to provide more news in less space. Please pass along your comments to me at the next meeting as to readability, content, etc. I appreciate the articles sent to me already; please keep them coming! If you don't see yours in print yet, don't give up. Space is limited but I will try to get your stuff in sooner or later.

**LITTLE GEMS**

Cassette giving you problems? If you get ERROR IN DATA try reducing the volume; if DATA NOT FOUND then increase the volume. Remember to keep the tone control at maximum. We may be offering a cassette maintenance tutorial shortly.

You can make your own Parallel Cable for your Epson, Gemini, etc printer for less than 1/2 the cost of a store bought version. You will need a small soldering iron, rosin core solder, and some electrician's tape. You will also need a vice to crimp the flat cable into the connectors and a sharp utility or exacto knife.

Obtain the following parts from INTEK ELECTRONICS, 4616-99 St, EDMONTON; (they will crimp the cable to the connectors if you don't have a vice):

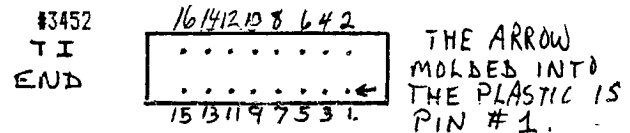
- 1) 3M CONNECTOR #3452 \$3.30
- 2) 3M CONNECTOR #3366 \$10.70
- 3) 6 ft. 16 cond alpha \$3.66
- 4) 6 in. 40 cond alpha \$1.00

The 16 conductor cable goes into the #3452 connector and the 40 conductor cable into the #3366 after first trimming off the last four leads of the cable. Insert a cable end into it's respective connector and squeeze gently in a vice making sure the number one conductor (usually color coded) is located at pin one of the connector. See diagram below.

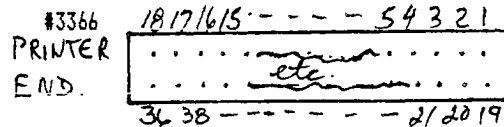
Now splice the cables together using solder and tape joints following this chart:

TI END #3452	PRINTER END #3366
1 Handshake	1 Strobe
2	2 Data Lsb
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10 Handshk In	11 Busy
11 Logic Gnd	16 Logic Gnd

The following diagrams will help you find pin one of each connector:



**NOTE:** The cable leads will number 1 to 16 in order.



**NOTE:** The cable leads from this connector number as follows:  
1, 19, 2, 20, 3, 21, 4, 22, etc.

AS ANY GOOD EDITOR KNOWS, MISTAKES SHOULD BE INTENTIONALLY INSERTED INTO THE COPY TO MAKE HIS READERS FEEL SUPERIOR TO HIM UPON DISCOVERING THEM

## UPLOADING IS HERE AT LAST!

BY: TOM HALL

At last, TI users with modems can upload programs to a CP/M bulletin board (BBS). Dave McCrady, sysop of the EMULON BBS system, has implemented a program called RECIEVE, which allows you to list a TI BASIC or X-BASIC program directly into the CP/M system.

### UPLOADING

The program is simple to use. Once you have signed on, typing a "J" at the command prompt will put you into the CP/M operating system. Once there, issue the command "RECIEVE"; the program will ask you if you would like instructions, and then prompts you for the necessary inputs. CP/M systems use a convention for naming files which consists of a filename up to 8 characters long, then a period, and then a file extension "BAS". When the BBS tells you it has opened the file, exit the TERMINAL EMULATOR II (TE II) with CTRL O, goto BASIC or X-BASIC, load your program, then list it using the following command:

```
LIST "RS232.PA=E.EC.LF"
```

When the cursor returns, type BYE and return to the BBS via the TE II. Enter "\$EOF" (you may need to press enter first to clear the BBS buffer of line noise from you re-signing on). The program should now ask if you want to see the results of your transfer. You should respond "YES" so you can review the file before it is saved. Finally the BBS will ask if you wish to save the file. A yes or no will return you to the main CP/M command mode where you can sign off or pursue some other BBS activity.

### DOWNLOADING

There are 2 options you can use to download; both require the filename and extension of the file you will access. The first is "LIST" which simply dumps the entire file to your screen without pauses. You must manually stop the dump by using the system stop command (CTRL S) so you can save to disk one screen-full at a time. CTRL Q resumes the listing. The problem here is that you must stop the screen dump just as your last line saved to disk disappears over the top. A feat of co-ordination to most of us. You will likely end up with your file missing several lines of data. A better way is to use the "TYPE" command which dumps to your screen in 24 line chunks, pausing after each chunk for you to tell it when to dump the next. If you press CTRL 2 at this point, the TE II will save the screen to a file for you. When the TE II returns to you, striking any key will cause the BBS to continue. The only problem with this method is that your file will have duplications every 24th line. These duplications will have to be removed using TI WRITER or EDITOR ASSEMBLER, but at least you will have a complete file.

You should be aware, though, that if the file was originally a program, it is now a file! You now need to write yourself a utility program to translate the ASCII file into program format before it can be run. (How about an answer to this for next month's Newsletter - ED).

**DANGER!** When preparing your program or file for uploading, be aware that the TE II will create variable 80 files when the file is downloaded. Therefore, any program lines longer than 80 characters will be truncated! Carefully edit your program to maximum 79 characters per line before uploading. Also, try to include as much documentation as possible in the program (REM's, FOOTNOTES, etc). It would be nice if you also included your name and phone number. Before beginning to download, you should disable "WORD WRAP" (CTRL 5).

At present EMULON BBS is the only one available in town which can handle TI files. Interestingly, all CP/M systems have the required RECIEVE programs, but the sysops don't load it because their typical user doesn't require it. Two or three other boards plan to implement the program in the near future. In the mean time this BBS can be reached at 454-6093. You will need to register and be approved before you can gain access to the DOS system to implement "RECIEVE".

## DECISIONS, DECISIONS

Can't decide which numbers to use on this week's 649 ticket? Here's a little program in console basic that will make your choice easier. The listing below is in 28 columns so your screen should look like the listing.

```
.100 CALL CLEAR
.110 *****
.120 PRINT "      "
.130 PRINT "      " LOTTO 6-
.140 PRINT "      "
.150 PRINT "      " RANDOM NUM
.160 PRINT "      " GENERATIO
.170 PRINT "      "
.180 PRINT "      " BY
.190 PRINT "      " BILL CANN
.200 PRINT "      "
.210 PRINT " *****
.220 PRINT ::
.240 DIM X(6),S(49)
.250 RANDOMIZE
.260 FOR A=1 TO 49
.270 S(A)=0
.280 NEXT A
.290 FOR Y=1 TO 6
.300 X(Y)=INT(49*RND)+1
.310 S(X(Y))=1
.320 NEXT Y
.330 IF (X(1)=X(2))+X(1)=X(3
)+X(1)=X(4))+X(1)=X(5))+X
(X(1)=X(6))+X(2)=X(3))+X(2)
=X(4)) THEN 250
.340 IF (X(2)=X(5))+X(2)=X(6
))+X(3)=X(4))+X(3)=X(5))+X
(X(3)=X(6))+X(4)=X(5))+X(4)
=X(6))+X(5)=X(6)) THEN 250
.350 FOR T=1 TO 49
.360 IF S(T)=1 THEN 370 ELSE
.380
.370 PRINT ,T
.380 NEXT T
.390 CALL SOUND(200,1400,2)
.400 END
```

Be carefull typing in lines 330 and 340. These lines check for duplication of numbers. The plus symbol is a logical "OR" operator. Refer to page II-51 of your User's Reference Guide for further information about LOGICAL OPERATORS.

### FREE ADVICE TO NOVICES

Don't give up because your newly conceived program won't work. Even professional programmers spend more time debugging than they do creating a new program!

## NOMINATIONS

Below is a nomination form for your use. Please do the following to assure your nomination is valid:

1. INCLUDE YOUR NAME AS THE NOMINATOR
2. CONFIRM WITH YOUR NOMINEE THAT HE/SHE WILL STAND FOR ELECTION
3. MAKE SURE THAT YOUR NOMINATION REACHES THE NOMINATING COMMITTEE BY MAY 8<sup>th</sup>, 1984
4. NOMINATE ONE PERSON ONLY FOR A POSITION
5. TO BE ELIGIBLE, BOTH THE NOMINATOR (YOU) AND YOUR NOMINEE MUST BE MEMBERS IN GOOD STANDING OF THIS USER'S GROUP
6. PLEASE PRINT!

--CUT-----CUT--

### NOMINATION FORM

NOMINATOR'S NAME: \_\_\_\_\_

POSITION	INCUMBENT	NOMINEE
PRESIDENT	BILL CANNON	
VICE PRESIDENT	PAUL HELWIG	
TREASURER	EVAN SMITH	
SECRETARY	SUSAN LIVINGSTON	

--CUT-----CUT--

Nominating committee members are: Bob Pass and Bob Chapman. There will be a box set up at the May 8<sup>th</sup> General Meeting, (Vic Comp Cafeteria at 7:30 PM) for your forms or you may mail them to the P/O BOX list at the start of this News Letter.

## MAKE YOUR TI RUN LIKE AN APPLE

One of the handiest features of APPLE DOS is the ability to view the disk catalog on power-up and then with a few key strokes be able to load and run any displayed program. The following program from the Cincinnati Ohio User's Group will do the same thing! It is one of the best versions of this utility program around and you will probably want a copy on each of your disks. You must have X-BASIC and 32K Memory Expansion to run this one. There is no need to update a separate file when you make changes on your disks as this program reads the same catalog as Disk Manager. You can customize this program somewhat but do not make any changes to lines 310 to 330. Do not add lines beyond line 330 else the program will crash!

```

100 CALL CLEAR :: CALL SCREEN(7):: FOR A=0
    TO 14 :: CALL COLOR(A,2,7):: NEXT A :
    : OPTION B=1 :: DIM A$(20)
110 OPEN #1:"DSK1.",INPUT #1,STIVE,INTERN
AL :: INPUT #1:B$,B,B,C :: DEF _LAY AT(
1,1):"DISK MENU: DISK: ";B$ :: D,E=0
120 DISPLAY AT(2,19):USING "###":B-C :: DI
SPLAY AT(2,23):"USED" :: DISPLAY AT(3,
19):US : "###":C :: DISPLAY AT(3,23):"FRE
E" :: : : F=1 TO 20
130 D=D+1 :: IF D>127 THEN 170
140 INPUT #1:C$,B,G,G :: IF LEN(C$)=0 THEN
170
150 IF (ABS(B)<>5)*(ABS(B)=5)THEN 130
160 DISPLAY AT(F+2,1)SIZE(14):CHR$(40);CHR
$(64+F);CHR$(41):" ";C$ :: E=E+1 :: A$
(E)=C$ :: NEXT F
170 CLOSE #1
180 D$="PRESS A LETTER TO RUN OR 1 TO DELE
TE OR 2 TO EXIT. "
190 DISPLAY AT(24,1):SEB$(D$,1,28):: D$=SE
B$(D$,2,53)&SEB$(D$,1,1):: FOR H=1 TO
30 :: NEXT H :: CALL KEY(0,I,J)
200 IF J=0 OR I<49 OR I>51 AND I<65 OR I>8
4 THEN 190
210 IF I>50 THEN 290
220 IF I>49 THEN 280
230 DISPLAY AT(24,1):"WHICH PROGRAM?" :: F
OR A=1 TO 400 :: NEXT A
240 CALL KEY(0,I,J):: IF J=0 THEN 240
250 IF I<65 OR I>84 THEN 180
260 IF LEN(A$(I-64))=0 THEN 180
270 DISPLAY AT(24,1):"DELETE ";A$(I-64)::
IF A$(I-64)="LOAD" THEN 180 ELSE DELET
E "DSK1."&A$(I-64):: RUN "DSK1.LOAD"
280 CALL CLEAR :: END
290 IF LEN(A$(I-64))=0 THEN 180
300 DISPLAY AT(24,1):"LOAD ";A$(I-64)
310 CALL INIT :: CALL DEF (-31952,K,L):: C
ALL PEEK(K+256+L-65534,K,L):: M=K+256+
L-65534 :: E$="DSK1."&A$(I-64):: CALL LOAD
(M,LEN(E$))
320 FOR N=1 TO LEN(E$):: CALL LOAD(M+N,ASC
(E$(E$,N,1))):NEXT N :: CALL LOAD(
M+N,0)
330 RUN "DSK1.1234567890"

```

PS: CALL THIS PROGRAM "LOAD" TO IMPLEMENT AUTOMATIC LOADING. -cd.

### THOUGHTS

To compute--or not to compute--that is the question! Whether 'tis nobler in the memory bank to suffer the slings and circuits of outrageous functions--or to take up flow charts against a sea of transistors. Or rather, transponders----no! Transcond-- er trans--- er ah --- Oh! To Hack with it!

## L-TECH MARKETING

Continues to support TI-99/4A owners  
-in CANADA-

**\*\*NOW IN STOCK\*\***

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AND ALL PERIPHERALS  
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T5L 4T4 451-4529  
in the GATEWAY CARTAGE BUILDING

### TI DISK FORMAT INFORMATION

BY: Michal Jaegerman

SECTOR 0: DISK HEAD (Note: all numbers in HEX)

BYTE(S)	DEF FOR
0-9	DISK NAME
AB	TOTAL NUMBER OF SECTORS.
C	UNKNOWN (unused?)
DEF	"DSK"
10	" " FOR STANDARD DISK, "P" FOR PROTECTED DISK.
11	NUMBER OF TRACKS.
12	"01" FOR SINGLE SIDED, "02" FOR DOUBLE SIDED.
13	"01" FOR SINGLE DENSITY, "02" FOR DOUBLE DENSITY.
14-37	ZERO'S SEEM TO BE UNUSED.
38-UP	22.5 BYTES FOR SINGLE SIDE, SINGLE DENSITY; 45 BYTES FOR DOUBLE SIDE, SINGLE DENSITY. THIS AREA IS A BIT MAP. BIT "ON"=SECTOR DEF. POSITIONS ON BIT MAP CONTINUED TO END OF SECTOR 0. IF A BIT IS "ON" BEFORE THE PHYSICAL END OF THE DISK, THE DISK MANAGER WILL RETURN AN ERROR WHEN IT TRIES TO READ IT DURING DISK TESTS.

### SECTOR 1: DIRECTORY LINKS

Contains pointers to the sectors of each directory entry, one pointer per word in the link list, entries are in alphabetic order, and there are up to 128 entries in this link list. If an entry is placed in the directory out of order, the disk controller will not find them. Sectors 2-21 will be used as a directory for upto 32 files; if disk has more than 32 files, then next available sector will be used as a directory extension. Looks like the maximum number of files on a SS,SD disk is 128 as each file requires at least 2 sectors: one for data and one for the directory.

(continued next page)

## SECTORS 22 TO 21: DIRECTORY

BYTE(S)    USED FOR  
-----  
0-9    FILE NAME  
AB    UNKNOWN (possibly a separator)  
CD    FILE TYPE. CONSULT E/A MANUAL.  
EF    TOTAL SECTORS USED BY FILE EXCEPT DIRECTORY ENTRY.  
10    UNKNOWN (possibly a merge or protection bit?)  
11    SECTOR LENGTH  
12    NUMBER OF RECORDS IN A RELATIVE FILE. USED BY EOF.  
13-UP    BLOCK LINKS. A FILE MAY BE STORED IN MANY DIFFERENT  
BLOCKS ON A DISK. EACH BLOCK LINK CONTAINS THE STARTING  
SECTOR ADDRESS OF THE BLOCK AND NUMBER OF SECTORS IN THE  
BLOCK. CODES AS FIRST NIBBLE OF SECOND BYTE + (>10)\*VALUE  
OF THIRD BYTE.

## SECTORS 22 SET UP: FILES

THIS IS WHERE YOUR DATA FILES AND PROGRAMS ARE KEPT. FOR  
INFORMATION ON THEIR STRUCTURE, CONSULT THE TERMINAL  
EMULATOR PROTOCOL MANUAL OR THE E/A MANUAL.

### ANOTHER LITTLE GEN

This lifesaver was gleaned from the Upstate 99/4A User's  
Group (Albany NY) Newsletter. It was passed on to them from  
Jim Peterson of Tigercub Software.

It's 2 AM and you have finally corrected the last bug in  
your latest creation. Sleepily, you load a new cassette  
into the recorder, type "OLD CS1", and press ENTER  
and----OH!NO! WRONG COMMAND! You meant to type "SAVE CS1"!  
Panic not, the way out has been found without losing your  
program! Type SHIFT E (or is that FCTN E? ed) then press  
enter. You will get the message "PRESS CASSETTE STOP THEN  
PRESS ENTER". Press ENTER again and you will get an I/O  
error message and you are out of the cassette load routine  
with an intact program.

You can recover right up to the screen message "PRESS  
CASSETTE PLAY CS1 THEN PRESS ENTER" is displayed but after  
that, it's too late. By the way, if you are using X-Basic  
and 32K Memory Expansion, this won't work.

### VIDEO CHESS-MATS

Here's a strategy filled 20 minute game to play on your  
Video Chess module. Using option 4 "SET UP A PROBLEM", place  
a black Queen on each square in row 6 and a black King on  
square D7. Put a white Queen on each square of row 3 and a  
white King on square E2. Then start the game choosing a  
skill level and who goes first. The attrition rate is so  
high that the game is usually over in 10-20 moves!

### ADVERTISING

If you have an item of TI equipment or software you would  
like to unload, you can place a free ad in this Newsletter  
provided you are a member and your ad will use less than 25  
words. You may also purchase a quarter page ad for \$5.00.  
See any executive member or Bob Pass.

### NEXT MEETING

The next meeting will be held on Tuesday, May 8<sup>th</sup> at 7:30  
PM in the teacher's lounge next to the cafeteria in Victoria  
Composite High School located at 108 Ave and 101 St,  
Edmonton. There will be more time spent on business at this  
and the next meeting due to nominations and elections. See  
you there!

# THE GAMES GANG

## NEW ARRIVALS

-Volkmodem w/cable 149.95  
Direct connect modem

-Axion Printer Interface  
adapts any PARALLEL  
printer to 99/4A without  
Expansion box or RS 232

## NEW GAMES

-FATHOM    -MINER 2049'ER  
-SPACE BANDIT -BURGERTIME  
-MOONSWEeper-MICROSURGEON

## MANY MORE

## OUT OF WARRANTY REPAIRS

**FAMILY COMPUTERS**

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## NEW PRODUCTS

**QUICK-COPIER:** Allows you to copy a complete disk in  
three passes or less. Ideal for those of you with single  
disk drives. System required is 32K Memory Expansion and one  
of X-Basic, Mini-Memory, or Editor Assembler. Price is \$40  
USA and is available from:

VNC SOFTWARE  
1884 COLUMBIA RD  
WASHINGTON, DC 20009

**BASIC-CALC 99:** A miniature spread sheet program that  
requires X-Basic to run. Price is \$15.95 USA and is  
available from:

VNC SOFTWARE  
P/O BOX 323  
CAMBRIA HTS. NY 11411

**MBX VOICE RECOGNITION:** Yes! There are some of these  
outstanding units available in town! Try L-TECH or GAMES  
GANG; they have a small supply as of this writing. Be  
prepared to part with about \$200 to get started with the MBX  
system and one game. There are 10 games available and from  
reports I've read, they are excellent.

## LITTLE GEN

Your cloth printer ribbon is getting faint and you don't  
have the cash for a new one? Try opening the ribbon  
cartridge, removing the ribbon, and spraying LIGHTLY with WD  
40! It's a messy job, so spread news papers and go easy with  
the WD 40. Repack the cartridge and let stand for a few  
hours so the solvent can wick evenly.