

Home Computer Users Spotlight

A monthly publication of the Milwaukee Area 99/4 Users Group SEPTEMBER. 1984

# Undated List of Call Loads and Call Peeks

For those of us that enjoy "poking" around inside our 4A's. here is a fairly complete list of addresses and variables. This comes to us from the Central low Users Group.

Minimum requirements are Extended BASIC and Expansion memory. The format to be used looks something like this:

CALL INIT
CALL LOAD (ADDRESS. VALUE)

for example: CALL INIT :: CALL LOAD(-26620,88)

To peek into an address the format is:

CALL PEEK (ADDRESS.P) :: PRINT P

#### ADDRESS . VALUE FUNCTION IN EXTENDED BASIC -28672 -31744 P=O SPEECH NOT ATTACHED P=96 SPEECH ATTACHED CONTINUATION OF LAST SOUND (0=100E AND 15=10F1) CHANGE THE COPERR FLASHING AND FEEFUNEE TONE RATES BLANK OUT SEFEEN (MUST PRESS A KEY TO ACTIVATE) , 0 TO 15 , 0 TO 255 -31748-31788, 160 NO AUTO SPRITE HOTTON OR SOUND NORMAL OPERATION MANNIFIED SPRITES 1236 E SIZED SPRITES MATRIFIED AND DOUBLE SIZED SPRITES MULTICALOF MODE TIMER FOR CALL SCUND (CLUM'S FROM CES TO 0) RETURN TO TITLE SCREEN LUSE "CALL FEED (2, X, Y)") NORMAL OFFICE HER (FOTN =) DISABLE 2011 FE (FOTN =) DISABLE 2011 FE (USE NES DOF FOR CONTINUOUS SDUND) DISABLE AUTO SPRITE MOTION CISABLE AUTO THREE LOUBLE FAMOUR NUMBER GENERATOR (O TO CES) NEED "E NO AUTO SPRITE MOTICA OR SOUND , 192 -31794 -31804 , Х, У , 0 -31806, 16 , 32 , 6<del>4</del> CHANGE FOR THE USE THREE LEGGLE FANCON NUMBER GENERATOR (O TO 255' NEED "RANDONIZE" 50 FORM (CASIC TO JENSOLE BASIC (NEED "NEW") AUTO HUN OF DSKILLDAD END OF CPU FECERMA AUGEESS (PA+0) NO "RUN" OR "LIST" AFTER A "FCTN 4" IS USED SCREEN COLUMN TO STAFT WITH A "PRINT" P32-15" TE COINCIDENCE P44-FIVE SPRIME ON LINE -15PEST 50MEERED SPRIME IN MOTION (O STOPS ALL) TIMES FOR THE INTEFFIFTS EMERY 1/40 (MIC (O TO 255) RANDOM NUMBER (O TO 59) NEED "RANDOMILE CHANGE KE-6-TAKD MODE (LIKE "CALL FE- K....)") OLIGHELE DISK DRIVE (USE "NEW" TO FREE MEMORY) ENGLE DISK DRIVE (USE "NEW" TO FREE DFIME INTELECT EMERIC FROM "NEW" TO FREE DFIME SET "ON WARMING NEW" COMMAND SET "ON WARMING NEW" COMMAND SET "TRACE" COMMAND 128 -31808 , F , Q -31860 8 -31866 , P , Q , 0 -31868 . 3 TD 30 -31873 -31877 -31878 -31879 , P -31880 221 . 0 TO 5 63.255 55.215 -31931 SET "TRACE" COMMAND SET "ON BEFOR NEXT" COMMAND SET "ON BEFOR NEXT" COMMAND SETTEL" SEFECIO PROGRAM RETLEN TO TITLE SCREEN RESTAFT EXFASTS WITH SEFTLEAD END OF VDP STACK ADDRESS (P640) , 16 , 64 , 128 . 32 . 255 . P . Q -31962-31974

Well that ought to give you a few to try out. If you haven't tried out the initial CALL LOAD example, now would be a good time. Turn out the lights.... the party's over...

## Have a Semini 10% Printer?

Here is a short routine from Tigercub that will provide you with slashed zeros. If you have a Gemini 10 you don't have to worry about this, it's built into your printer.

```
100 OPEN #1:"PIO"
110 PRINT #1:CHR$(27):CHR$(42);CHR$(0);
120 PRINT
#1:CHR$(27):CHR$(42);CHR$(1);CHR$(48):CH
R$(0):CHR$(92):CHR$(34):CHR$(2::CHR$(8);CHR$(8);CHR$(2):CHR$(65);CHR$(34):CHR$(2::CHR$(2):CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CHR$(46);CH
```

# Tired of that same old cursor?

Tony Johnson of the Houston Users Group has a fix. The following equipment is required: Disk drive, Extended BASIC, Expansion memory, Editor/Assembler.

Bring up E/A and enter the following:

The data statement holds the Hex code for the cursor. After entering it into the E/A, save the file in "DSK1.CURSOR1". Next assemble it using the "R" option storing the object file in "DSK1.CLF2:F".

Leave E/A and enter Extended BASIC and enter this program.

```
100 CALL CLEAR
110 CALL INIT
120 CALL LUAD("IS!:.CURSOR")
130 CALL LINK("E.FERR")
140 END
```

The "CALL INIT" command prepares the memory expansion to load and run an assembly program. The "CALL LOAD" will load the file into expansion ram and "CALL LINK" will transfer control to the assembly program. After running this program, control will be returned to vou and a blinking "" will be the new cursor. Save the x-basic program under "DSK1.LOAD" and whenever you enter x-basic the cursor will be a ".". The assembly program will stay in expansion ram until you turn the power off or use a program like TI-WRITER that will write over that memory location. When you return to x-basic just type in "CALL LINA, "CURSOR")" and the cursor will come back up.

#### HOME COMPUTER USERS SPOTLISHT

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#### HEETING INFORMATION

THE MILMAUKEE AREA 99/4A UBERG SROUP MEETS ON THE LAST SATURDAY OF EACH MONTH IN THE LOWER LEVEL OF MAUMATURA SAVINGS & LOAN AT 7500 M. STAIR STREET IN MAUMATURA. MEETING TIME IS 1:00 TO 4:00 P.M..

SPECIAL NOTE: DUE TO A SCHEDULING CONFLICT DURING 1984. THE DECEMBER MEETING WILL BE HELD ON THE INLED BATURDAY OF THE HONTH (DEC 15TH). AY DUR NORMAL TIME AND PLACE. USERS GROUP OFFICERS:

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## 1985 USERS GROUP MEETING SCHEDULE

The meeting schedule for 1985 has been set. A vote taken at the July meeting supported the continuance of our Saturday meeting policy. The users group has reserved the second Saturday of each month during 1985 for our meetings. Mark your calendars.

## NEWS LETTER EDITORS SUBMIT RESIGNATIONS

Effective after the October newsletter. Tom Kruse and Mike Milde will no longer manage the editing of our newsletter. Tom and Mike have been Managing Editors since the December 1983 edition of HOCUS. With the exception of the May, 354 newsletter, both have provided the group with an uninterrupted stream of news, reviews, program listings and other feature articles.

Replacements are desperately needed to continue their work. Our newsletter is one of the major benefits offered to our members. It is vital to the survival of our users group. Please take a moment to consider whether you would like to contribute some of your time to such an important cause. In return for your efforts, the users group provides the Senior Editor with II-MRITER. All you must have is a printer and the enthusiam to carry the newsletter on for another term. Don't pass up this opportunity to be at the center of all information that flows into our group and out to our members. Contact Jim Vincent. Gene Hitz. Tom Kruse or Mike Milde for more information.

#### **GEMINI-10 USERS TAKE NOTE**

The Brevard Florida Users Group Newsletter reports the following: If you own a Star Micronics Gemini-10 dot matrix printer, and you have had problems with the printer not completely printing the first character or two after start-up, read on. This problem seems to only occur after the printer has been off for a while. The problem is in the print head and can be corrected by replacing it. Call Star Micronics California Support Group at (714)768-4340 and they will send you a new print head. Installation instructions are in the owners manual. You only have to pay return postage for the old one.

# MILWAUKEE AREA USER GROUP



# Double-Density FORTH by JWVincent

This article is intended for all TI FORTH users who have (or olan on having) double density and/or double sided disk capabilities. While the techniques described should work with any disk controller capable of double density, the author's CorComp 9900 Disk Controller card is the only one that has been tested. The purpose of this article is to illustrate both how to access the additional screen capacity and how to modify the FCFFH words and disc to be compatable with the new format and Disk Manager.

Throughout this article lowercase letters used in a FORTH definition will indicate a variable value to be arrered. The following terms will be used to refer to the various formats a fuffic disc may have.

90 SCRN or SEED - the origin: 90 screen single sided single density format 180 SCRN - either a ISED or DSSD disc when comment applies to both 360 SCRN or DSDD - a double sided double density disc SSDD - a single sided double density disc DSSD - a double sided single density disc

The first step is to use Disk Manager to format (initialize) a 180 or 360 SCRN disc. Next, you must copy FORTH from the 90 SCRN disc to the new 180 or 360 SCRN disc. The disc copy feature of CorComp's Pisk Market will do this properly for you. If you have two drives, the FIFTH-LOP word in the -COPY screens will also do it properly (do 0 DISK\_LO ! first). However, if you are using TI's Disk Manager II, after copying the three files you must use FORTH to copy screens 1 to 9 because Disk Manager II puts them in the wrong place! To do this, enter the following for each of the nine screens.

n BLOCK UPDATE ( where n is the screen number to be read from old disc) ( after inserting the new disk - note: up to five screens FLUSH may be entered at a time)

Now edit screen 3 of your new disc and add the following commands: x DIST SIZE ! ( where x=180 or 360 as appropriate) y DIST HI ! ( where y=x times 1, 2, 3, or 4 depending on the number of drives you have)

Unfortunately, TI FORTH does not provide a method for configuring each drive individually. Therefor, the user must be cognizant of which screens are available on each drive when there are differences between them.

At this point, FORTH can be booted and it will recognize the full capacity of your 180 or 360 SCRN disc. You can create, edit. list, and load from screens greater than 89. However, neither Disk Manager nor FORTH-COPY will recognize this disk as having more than 90 screens. To fix this problem you meet actify the -COPY screens (39 and 40), the disc header (sector 0) and, the Ext SCRNS file header (sector 4).

First edit screen 39. Change the value 90, which appears once in DTEST and twice

in FORTH-COPY to 180 or 360 as appropriate. Next, edit screen 40 as follows: Line 3 - change 168 to 200 for 180 SCRN or 5AO for 360 SCRN Line 4 - change 944 to 1244 for SSDD or DSDD (no change for DSSD) Line 5 - replace entire line with:

DUP 10 + 2028 SWAP! 202 12 + a SWAP! DUP 14 + 24 0 FT!

where a = 0201 for Last. 0102 for --ED, or 0202 for ESS

Line 10 - change 165 to 200 for 180 SCCN. or 555 for 360 SCRN

Line 13 - change 4016 to CO20 for 180 SEEN. or CO59 for 360 SCRN

Next edit screen 33 to modify the FORMAT-DISK word to: : FIFMAT-DISK 1+ a 27/11 ! 18 SYSTEM : ( where a = 258 for EBIC, 513 for SSDD, 514 for DSDD)

Finally, you need to create a word that will modify the header sectors on your new disc. This word only needs to be executed once since copies of this disk, once it's modified, will not require modification. Here is the way to do it:

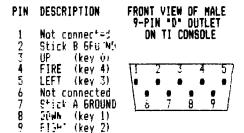
HEX O DISK LO! : DD-FOFTH O BLOCK UPDATE ( removes disc fence) ( read screen O and mark as updated)
( a = 2DO for 180 SCRN, 5AO for 360 SCRN)
( b = 944 for DSSD, 1244 for SSDD or DSDD) DUP A + a 5MAP 1 10 + c Reas 1 10 + d Reas 1 ( c = 2028 for all versions) ( d = 201 on DSSD. 102 on SSDD. 702 on DSDD) 38 + C8 FF FILL ( flao all sectors as in use) ( read screen 1 and mark as updated) ( f = 2AO for 180 SCRN, 570 for 360 SCRN) ( g = 4D20 for 180 or 360 SCRN versions) ( h = 2805 for 180 SCRN, 5205 for 360 SCRN) ( i = F029 for 180 SCRN, F059 for 360 SCRN) 1 BLOCK UPDATE DUP E + f SWAP !
5'UP 1C + g SWAP !
F''F 1E + h SWAP ! 20 + i SWAP 1 FLUSH : ( write modified screens to disc) DECIMAL DD-FORTH ( execute it)

· new high capacity copy of FORTH is fully compatable with Disk Manager, the FCFTH format, copy, test, and header words and your double density and/or double sided disk drives and controller. Enjoy!

#### CONVERT AN ATAFI/COMMODORE JOYSTICK TO BE COMPATABLE WITH YOUR TI

Many of the good joysticks on the market today are made for ATARI or Commodore home computers. With minimal effort you can build an adapter that will allow you to use one of these joysticks for your TI Home Computer.

The pinouts from the Home Computer are as follows:



The pin layout for an ATARI/Commodore joystick is as follows:

#### DESCRIPTION PIN

DOWN

Ī LEFT RIGHT

Not Connected

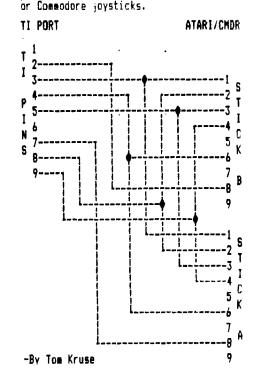
FIRE

Not Connected

GROUND 8

Not Connected

The following diagram shows the connections necessary to build a converter. It is up to your know-how for the actual construction, however, you will probably need to purchase three nine-pin "D" connectors -- two male and one female, a small box and some wire. The female connector will plug into the II joystick port and the two male connectors will provide the connections for your ATARI



# TI-WRITER ENHANCEMENT By Rob Goff (Reprinted from the September 1984 MANNERS Newsletter)

When I recieved the enhancements to the TI-WRITER. I was quite pleased with what it provided, with the exception of the Text Formatter that defaults to an RS232 serial output. I, personally, have a parallel printer output so that meant that I had to modify this setting each time I wanted to print out a document. The other day I was browsing through the mail on CompuServe and ran across the solution to this problem. So if you have a parallel printer and want to change your default setting permanently, follow these instructions:

If you are changing the disk as it was received from the Club library then power up your new disk fixer (DISKO) and select option 1. Go to section 58 (HEX), the bilineing of line 3. Use FCTN 2 to switch to ASCII, and you will see. """. TIT.BA=1200.LF". Position the cursor over the "R" at the beginning of the line and type "PIO.LF" then block out the rest of the existing information, through "LF", with spaces. Next. hit -C'N B and answer "Y" to the prompt. That's it. Now when you print out a document and come to the printer default all you need to do is hit ENTER and you are off and running.

In case you have transferred F \*\*\*4! to your own disk, you can use option 2 of DISKO to locate the beginning of FDFM4!, proceed 10 sectors, and you find the printer default information.

# REFERENCE GUIDE TO RECENT ARTICLES PERTAINING TO THE HOME COMPUTER

The following chart was prepared by Pete Radike using MULTIPLAN. It depicts his entire collection of magazines. Shown are the magazine name, date and category of article or listing. A rating of 1, 2 or 3 appearing under a category and across from a magazine is used to identify what subject matter appears where.

COMPUTER MAGAZINE ARTILLE LISTINGS RATINGS: 1=VFRY GOOD 2=FALE MAGAZINE	ISSUE	BACO-C CECOME	EXECUTE OF COURT	⊄000011200 -<		GRAP.H-NG	PRINTER USE	GRAPHCO	3000 00000 <b>™00−2</b> 0				MX BASHC GARMS	<b>*:::</b> 0:	TOWN TO	CAROSHM SOM	DHOK DKHOM DOM	CHILD WODGALHON			TOTORONO HELD
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100 !BELL MUSIC programmed
       by Jim Peterson
    Reprinted from Tips
From the TIGERCUB
101
102
103 Lby TIGERCUB SOFTWARE
104
          156 Collingwood Ave
          Columbus OH 43213
105
106 !SEND $1.00 FOR CATALOG
107 LOF OVER 130 PROGRAMS
110 CALL CLEAR :: CALL SCREE
N(5):: RANDOMIZE
120 FOR CH=96 TO 136 STEP 4
1: FOR L=1 TO 4 :: X$=SEG$("
0018243C425A667E8199A5BDC3DB
E7FF", INT(16*RND+1)*2-1,2)::
 B$=B$&X$ :: C$=X$&C$ :: NEX
130 D$=B$&C$ :: Z$=RPT$(D$,4
140 CALL CHAR(CH, Z$):: B$,C$
, Z$=NUL$ :: CALL MAGNIFY(4):
: CALL SPRITE (#CH/4-23, CH, IN
T(15*RND+2),255,255);; NEXT
CH
142 FOR J=1 TO 10 STEP 2 ::
X=9*RND-9*RND :: Y=9*RND-9*R
ND :: CALL MOTION(#J, X, Y, #J+
1, X, Y):: NEXT J
150 FOR J=1 TO 20
155 CALL COLOR(#INT(10*RND+1
), INT(15*RND+2))
160 FOR V=0 TO 16 STEP 4
170 ON J GOSUB 250,270,290,3
10,330,350,370,390,410,430,4
10,390,370,350,330,310,290,2
70,250,270,290,310,330,350
180 NEXT
190 READ X
200 FOR D=1 TO X*5
210 NEXT D
220 NEXT J
230 RESTORE
240 GOTO 150
250 CALL SOUND (-999, 131, V, 52
3, V, -4, V)
260 RETURN
270 CALL SOUND (-999, 165, V. 16
7, V)
280 RETURN
290 CALL SOUND (-999, 196, V, 19
9.V)
310 CALL SOUND (-999, 262, V, 26
5.V)
320 RETURN
330 CALL SOUND (-999, 330, V.33
3,V)
340 RETURN
350 CALL SOUND(-999,392,V,39
4,V)
360 RETURN
370 CALL SOUND (-999,523, V, 39
2, 0, 330, 0
380 RETURN
390 CALL SOUND(-999,659,V,66
6, V)
400 RETURN
410 CALL SOUND (-999, 784, V.79
2,V)
420 RETURN
430 CALL SOUND (-999, 1047, V, 1
057, V)
 440 RETURN
450 DATA 16, 16, 2, 16, 8, 16, 4, 4, 16, 2, 16, 4, 16, 8, 8, 16, 2, 2, 16, 4, 2, 8, 16
```