

MID ILLINOIS COMPUTER RESOURCE  
ORGANIZATION  
P. O. BOX 766 BLOOMINGTON, IL  
61701-766

BLOOMINGTON - NORMAL MICRO NEWSLETTER  
MAY 1985, VOL. 3, No. 5

*April*

Welcome to the age of the computer in the home! Future meetings will be held the third THURSDAY of each month at 7 P.M. at the IAA Building in Bloomington. Future dates include May 16, June 20, and July 18.

\*\*\*\*\*

The program for May will consist of:

- \* Our normal business meeting.
- \* Program demonstration by Ray Hinrichsen
- \* Spelling tutor demo by Sherwood Smith
- \* Disk catalog program demo by Brian McFeeters
- \* Special Interest Group (SIG) Meetings

\*\*\*\*\* PRESIDENTS NOTES \*\*\*\*\*

For those members who did not attend our April meeting, the membership voted on a new meeting location. All meetings starting with this month will be at the IAA Building. Please look at the map and instructions for entering the building included with the newsletter.

Although Turner Hall at ISU has been a good meeting place, it was felt that a smaller and more personal room was needed. Since our membership has dropped to less than 25, we looked for a room that could seat that number around a big table. Ray Fisher and Aubrey Johnson suggested we use one of the training rooms at IAA. Hopefully, the smaller room will help promote more discussion compared to the classroom atmosphere at ISU.

I know everyone is getting tired of me asking for software demonstrations at the meetings, but I am having trouble getting people to volunteer. It seems the same people are always giving the demos. Sam, Sid and Steve gave fine demos last month. They showed how easy it is to do. Any program on cartridge can be used. Just give it a little thought and volunteer.

See everyone May 16 at our new location. Brian McFeeters

Last month, our new library and membership cards were distributed. If you did not receive yours, please see Ray Hinrichsen at the May meeting. You will need a new 1985 library card to check-out disks or cassettes at the meeting.

\*\*\*\*\*

Sam Shank is still in the process of trading programs with the W.W.99'ers user group in Champaign. It was decided at April's meeting to purchase 20 blank disks for the library. Volunteers will be needed to help download the new programs to disk and cassette. See Sam if you would like to help.

\*\*\*\*\*

FOR SALE: TI-99/4A with modulator, manuals, and joysticks  
Parsec, Household Budget Mgt., Video Games I, Early  
Learning Fun, The Attack & 30 programs on cassette

asking \$80.00 call Dave Vandergrift  
662-3680 (home)  
557-2983 (work)

\*\*\*\*\*

The article on protection was taken from the Jan85 issue of Topics by the LA99er's. Thanks again to Jim Peterson for his TIPS FROM THE TIGERCUB. The Mickey Mouse program was taken from the Feb85 issue of A9CUG CALL NEWSLETTER.

\*\*\*\*\*

A program written in TI-FORTH to print mailing labels or phone lists is being offered by Ramsoft Enterprises. The program is called TC-MAIL. It has a 40 column display, fast sorting and sells for \$9.95 plus \$1.50 shipping and handling. You need extra memory, Editor/Assembler and a disk drive. The address is: Ramsoft Enterprises, 1501 E. Chapman Ave, Suite 338, Fullerton, CA 92631.

\*\*\*\*\*

Unisource Electronics is offering a program for users groups to earn credits for free merchandise. Everytime a group member orders from them, 4% of their total would be credited to the user group account. To qualify, we need to send Unisource a current membership list. Also, only one person from the club can order to get the credits. We need to discuss at the next meeting whether the club is interested in the program.

\*\*\*\*\*

One last reminder! The May meeting will be at the IAA building instead of ISU.

100 REM MICKEY MOUSE WRITTEN BY:DAVE ROSE CIN-DAY USER GROUP

180 CALL CLEAR

190 CALL SCREEN(16)

200 FOR A=1 TO 14

210 CALL COLOR(A,2,1)

220 NEXT A

230 FOR B=35 TO 138

240 READ A\$

250 CALL CHAR(B,A\$)

260 NEXT B

270 RESTORE 600

280 FOR C=2 TO 13

290 FOR D=13 TO 19

300 READ E

310 CALL HCHAR(C,D,E)

320 NEXT D

330 NEXT C

340 FOR F=18 TO 20

350 FOR G=6 TO 26

360 READ H

370 CALL HCHAR(F,G,H)

380 NEXT G

390 NEXT F

400 CALL KEY(0,1,J)

410 IF J=0 THEN 400

420 CALL CLEAR

440 DATA 0000000000000001,00000000073F7FFF,0000000080F0F8FC,000000000010303,000  
73FFFFFFFFFFFF,00C0F0FCFEFEFEFFFF

450 DATA 0303070707070707,FFFFFFFFFFFFFFFF,FEFFFFFFFFFFFFFFE,00000000071F3FFF,030  
30303E1FFE3C1,FFFFFFFFFFFFEFCF8

460 DATA 07030301,FFFFFFFF7F1F,FFFFFFFFECE1C1C3C,C3811820200E112,8C928200001C2261  
,FF7738381C1C1E1E,F0C

470 DATA 3C3C3E3E3F3F301,2020262727128001,011939391100F8FC,1E3E3E3E41,0000000000  
804040,2020202110100807

480 DATA 014181404020100F,FCFCF8F0000106FC,402050818204186,40408,0000000103070F0  
F,00FFFFFFFFE7EFD

490 DATA C2F1F8FEFFFFFFFF,2409F3078FFFFFFFF,8000008080C0C0E,0F0F060404080808,8000  
387878787161,1F070060F0F0F0F

500 DATA FFFFFFF7B3B131F0F,E0E0F0F0F8F8FCFC,0808080804040404,0101,F0E0C,0F0F0F1F1  
C10101,F0E0E08,0808080403

510 DATA 0010080402EF1F0F,000000000FF7FBF,101008080830CEC1,0000000000000E,0000  
0000001F608,0703010100C03C03

520 DATA BFD0FEFEFEF77B71B,C0C0E0E0E0F0F8FC,1F,00F8060101010638,000101010101

530 DATA 800000000008040,000C020101,1F0B080C0A894804,FBF8F00000810204,F01E02014  
08,000000C030080404,20180403

540 DATA 000000807F,040A19608,081000C020180601,00000000000003FC,0404040810608,FC  
FCFCFC3038383C,0303030300010103

550 DATA F0F0F0F0C0C0C0C0,307878300000007,000000000000003E,1C1C1C0404040404,0000  
0000000000F8,000000000000001F

560 DATA 000000000000007C,343633333131FCFC,02060C0C9898F363,C0C0C0C0C0C0F0F0,707  
010101010107C,7F7F41404040417F

570 DATA 040404050704041F,FBF860804060307C,7F7F41417E40417F,1F1F040402020101,7C7  
C1010202040C,FCFC,6303,F0F0

580 DATA 7C7C,7F3E,1F1F,0000000000030303,8080808080E0E0E0,000000000000001C,00000  
0000000007,7F7F41414141417F

590 DATA 1C1C08080808080F,71712121202021F9,FCFC0400F80404FC,0F07,F9B8,FCF8

600 DATA 35,36,37,32,38,39,40,41,42,43,44,45,42,46,47,48,49,50,51,52,53

610 DATA 32,32,54,55,56,57,58,32,32,59,60,61,62,63,32,64,65,66,67,68,32

620 DATA 32,69,70,71,72,73,32,32,74,75,76,77,78,32,32,79,80,81,82,83,32

630 DATA 32,84,85,86,87,88,89,90,91,92,93,94,95,96,32,97,98,99,100,101,102

640 DATA 103,104,105,106,107,108,109,107,110,111,32,32,32,103,104,105,107,130,13  
1,109,107



# Mickey Mouse

650 DATA 112,113,114,115,116,117,118,119,120,121,32,32,32,112,113,114,132,133,134,135,119  
660 DATA 122,123,124,125,126,127,125,126,128,129,32,32,32,122,123,124,126,136,137,138,126

REM's  
on PROTECT (Y/N)?  
by K.Johnson, SFU 99er's

When recording your program or files, you might not feel like committing suicide sometime if you will always make a 'BACKUP' copy, either on disk or tape. Inherently, disks are more likely than tape to "crash" because of dirt, fingerprints, bad spots in the disk surface, scratches, momentary contact with magnetized metal, a 'zap' by a magnetic field from a transformer or being just plain more 'goofable'. If you are constantly updating files of some kind (tax records, mailing lists, etc.), don't forget to update your backups. Remember the 3 laws of computer keeping on disk or tape:

- I. Thou shall always make backup copies of programs and files.
- II. Thou shall always make backup copies of programs and files.
- III. Thou shall always make backup copies of programs and files.

Protection for an entire disk against 'goofing up' by writing over something you wanted to keep, is to use the 'write protect' tabs supplied with your blank diskettes. If you don't have any of these tabs (silver or black stick-on labels about 1/2"x1"), a short piece of masking tape or other non-transparent tape or labels will work. On the diskette protective cover there should be a small (1/8"x1/4") rectangular notch cut out of one edge (cut out of 2 edges if it is a "flippy floppy"). This notch is the "write protect window", which if covered will not allow any recording on the disk (because of a special "lock-out" system inside the disk drive). To protect the whole disk, cover the write protect notch with a write protect tab or tape piece; wrap it around the edge at the notch so it is covered on both sides of the diskette cover and no tab "stickum" shows. On the flippy floppy (double sided disk used in a single side drive) cover the notch(es) for side(s) you want to protect. The tab can be removed if you ever want to SAVE to the disk. If you try to SAVE to write protected disk, you will get "I/O ERROR 61".

Single files or programs may be protected on disk by use of the TI DISK MANAGER command module (or comparable 3rd party device) by going to FILE COMMANDS and then MODIFY FILE PROTECTION. Denoting Y(es) to the PROTECT(Y/N)? question for a particular disk and file (program) name will prevent only that file from being accidentally changed, overwritten or deleted. The protection can be removed by going back through the sequence and answering N(o).

Entire cassette tapes may be protected from being accidentally overwritten or partially erased (by inadvertently pushing the RECORD button while playing in a program or file). This is done by breaking the small plastic tab(s) (one for each tape side) out of the bottom edge (edge opposite tape window) of the tape cassette. The tab (about 1/4" square) covers a hole in the tape cassette which when uncovered and the cassette inserted in the player, causes a mechanism to lock the RECORD button so it can't be pushed. Covering the hole with a piece of tape allows the cassette to be recorded on again.

A single program or file on cassette cannot be write protected without protecting the whole tape (by breaking out the tab).

# TIPS FROM THE TIGERCUB

019

Copyright 1985

TIGERCUB SOFTWARE  
156 Collingwood Ave.  
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

The entire contents of Tips from the Tigercub Nos. 1 through 14, with more added, are now available as a full disk of 50 programs, routines and files for just \$15.00 postpaid!

Nuts & Bolts is a diskfull of 100 (that's right, 100!) IBasic utility subprograms in MERGE format, ready for you to merge into your own programs. Contents include 13 type fonts, 14 text display routines, 12 sorts and shuffles, 9 data saving and reading routines, 9 wipes, 8 pauses, 6 music, 2 protection, etc., and now also a tutorial on using subprograms, all for just \$19.95 postpaid!

And I have about 140 other absolutely original programs in Basic and IBasic at only \$3.00 each!(plus \$1.50 per order for cassette, packing and postage, or \$3.00 for diskette, PPM) Some users groups charge their members that much for public domain programs! I will send you my descriptive catalog for a dollar, which you can then deduct from your first order.

Folks, I just can't afford to keep mailing out these Tips if you don't BUY something once in awhile! I am hearing from more and

more groups who want to get on my mailing list, but I am having to cut back. I am dropping those groups which don't give any indication that their members ever get to see the Tips, and I'll have to cut further. If you do send me an order, or even ask for my catalog, mention your users group so I'll know there is someone still alive out there!

If you know of any schools in your area, especially elementary schools, that have TI-99/4As in the classroom, won't you please give me their address? I'll send them a free catalog.

Danny Michael has improved his graphics screen dump to include rotate and double size! It is in assembly, very fast, and runs out of IBasic, E/A module or Mini Memory. He has also written an assembly Heatlist program which lists an IBasic program to a printer in single line statements, indented, expanded, etc., very useful for debugging, setting up pre-scan, etc.

These are freeware, pay if you want and whatever you want. Just send an initialized disk for either one, or two disks (or SSD or floppy) for both, in a returnable mailer with ENOUGH RETURN POSTAGE, to

Danny Michael,  
Rt 9 Box 460  
Florence, AL 35630.

John Hamilton of the Central Iowa Users Group will send you his 22-page booklet of "99 Tips" for the TI-99/4A, for just \$4.00. The address is

John Hamilton,  
4228 E. Clinton, Des Moines IA 50317.

I have been experimenting with

TI-Writer, and this issue of the Tips is being printed in 4 columns, right justified directly from the printer. Here's how -

Use TI-Writer, editor mode, in any line length you want. The first line should be .RM 27;FI;AD but don't use any other formatter codes. Don't indent paragraphs. Use some other character as a temporary substitute for any ^, @, & or \$ in the text. Don't include any program listings, yet.

Save the file as DSK1.TEXT. Print an edit copy. Then go into formatter mode. Select DSK1.TEXT to be printed, but instead of your printer spec, type DSK1.TEXT2. Your file will now be in 28-column format and right justified, and indented.

If the text is to include any program listings, run them through my 28-Column converter (see Tips #18), using the Editor option of that program.

Go back to TI-Writer editor and load DSK1.TEXT2. Merge in the program listings. Then PF to print file, but instead of a printer spec, type C DSK1.TEXT3. When it has printed to disk, LF the DSK1.TEXT3 and you will find that all control characters are gone.

Now for a bit of editing. Delete the 3 blank lines at the beginning, and the 6 blank lines that have appeared after every 60th line. Center the title by erasing with the space bar and retyping - do NOT use FCTM 2! Also replace any temporary characters with the ^, @, & or \$.

You will print 4 columns of 60 lines per page, so the total lines in your file must be a multiple of 240. Add enough blank

lines to the end of the file to reach that count.

Save that file back to disk as DSK1.TEXT3. Now go into IBasic, key in this program and RUN!

```
100 OPEN #1:"DSK1.TEXT3",IMP
UT :: OPEN #2:"PIO",VARIABLE
255 :: PRINT #2:CHR$(15);CHR
R$(27);CHR$(69):: DIM B$(240
)
110 FOR A=1 TO 2 :: FOR B=1
TO 240 :: LINPUT #1:B$(B)::
NEXT B
120 FOR C=1 TO 60 :: PRINT #
2:TAB(10);B$(C);TAB(41);B$(C
+60);TAB(72);B$(C+120);TAB(1
03);B$(C+180):: NEXT C :: PR
INT #2:CHR$(27);CHR$(97);CHR
$(6):: NEXT A :: CLOSE #1 ::
CLOSE #2 :: END
```

The A loop is for a 2-page printout of 480 lines, of course.

You can modify this routine to print in 2 or 3 columns, adjust the margins, change the type font or size, rewrite for your own printer, etc. And the column width can be anything you want, just change that .RM 27 in the first line of the text (don't forget that the left margin is set at 0, not 1).

If you want a 2-column page, you can dump the file back to disk instead, and then print it out of TI-Writer editor. Use this routine, modified as you wish.

```
100 !Opens a file TEXT3 of 2
40 lines 35 char long and co
nverts it into a file which
can be printed out of TI-wri
ter Editor as 2 pages in 2 c
olumns
110 OPEN #1:"DSK1.TEXT3",IMP
UT :: OPEN #2:"DSK1.TEXT4",O
UTPUT :: DIM B$(120)
120 FOR A=1 TO 2 :: FOR B=1
TO 120 :: LINPUT #1:B$(B)::
NEXT B
130 FOR C=1 TO 60 :: PRINT #
2: " &B$(C)&RPT$( "*,38-
```

```

LEN(B0(C1))&B0(C+60):: NEXT
C :: FOR D=1 TO 4 :: PRINT 0
21" * :: NEXT D :: NEXT A ::
CLOSE #1 :: CLOSE #2

```

It is best to run a program to set up your printer, and leave it turned on, before printing that file out of the Editor. It is not at all easy to label control characters in the file, because they affect the line in all columns and also shift the lines out of alignment.

I understand that there a couple of kids who wait every month for their dad to key thee in a bit of nonsense from the Tigercub, so -

```

100 !KEYZAP - by Jim Peterson
n
110 DISPLAY AT(6,11)ERASE AL
L:"KEYZAP" :: DISPLAY AT(12,
11)" Zap the Zprite by typ
ing the key in the correspon
ding position on the keyboard
."
120 DISPLAY AT(24,10)"Press
any key" :: CALL KEY(0,K,S)
:: IF S=0 THEN 120
130 RANDOMIZE
140 CALL CHAR(47,"B17EA5B199
A5423C")
150 CALL CLEAR :: T=0 :: CAL
L FLASH(T)
160 CALL KEY(3,K,ST):: IF ST
=0 THEN 180
170 C=C+1 :: IF C=10 THEN 1
90 ELSE CALL KEYBOARD(K,T)
180 CALL MOTION(01,25*8ND-25
*8ND,25*8ND-25*8ND):: CALL C
DINC(01,02,16,A):: IF A=0 TH
EN 160 ELSE CALL FLASH(T)::
60TD 160
190 CALL DELSPRITE(ALL):: DI
SPLAY AT(12,9)"GAME OVER" ::
: DISPLAY AT(14,9)"SCORE"::T
:: DISPLAY AT(16,9)"PLAY A
5AIN?"
200 CALL KEY(3,K,S):: IF S<1
THEN 200
210 IF K=89 THEN C=0 :: 60TD
150 ELSE END
220 SUB KEYBOARD(K,T)
230 IF FLAG=1 THEN 250 :: FL

```

```

A6=1
240 KEY0="1234567890=QWERTYU
IOP/ASDFGHJKL,"&CHR$(13)&"X
CVBNM,."
250 IF (K=47)+(K=61)+(K=13)T
HEN SUBEXIT ELBE X=POS(KEY0,
CHR$(K),1):: Y=ABS(X)-1-(X
22)-(X)33)+1 :: R=Y&6 :: C=(
(X+(Y))&(Y-1)&11)&3)
260 CALL SPRITE(02,42,16,R18
-7,C18-7):: CALL CDINC(01,02
,16,M):: IF M=0 THEN SUBEXIT
270 CALL FLASH(T):: SUBEND
280 SUB FLASH(T):: FOR M=1 T
O 10 :: CALL SCREEN(16):: CA
LL SCREEN(B):: NEXT M :: CAL
L SPRITE(01,47,2,1,1):: T=T+
1 :: DISPLAY AT(1,20):T :: B
UBEND

```

And here's another -

```

100 ! QUICK & DIRTY DOODLER
by Jim Peterson
Use joystick #1. Press fire
button to change color or
pattern, Enter to clear the
screen.
110 DATA FFFFFFFFFFFFFFFF,FF
,0101010101010101,0000000000
0000FF,B0B0B0B0B0B0B0,01020
40B102040B,804020100B040201,
FFB1B1B1B1B1B1FF
120 CALL CLEAR :: FOR J=1 TO
B :: READ CH(J):: NEXT J
130 FOR CH=32 TO 136 STEP B
:: FOR CN=CH TO CH+7 :: X=X+
1 :: CALL CHAR(CN,CH0(X))::
NEXT CN :: X=0 :: NEXT CH ::
CALL CHAR(32,"0")
140 CALL SCREEN(16):: FOR S=
2 TO 14 :: CALL COLOR(S,S+1,
1):: NEXT S :: R=12 :: C=16
:: CH=33
150 CALL MCHAR(R,C,CH):: CAL
L FASTJOY(C,R,0):: IF Q=18 T
HEN CH=CH+1+(CH=143)&110
160 CALL KEY(0,K,S):: IF K=1
3 THEN CALL CLEAR :: 60TD 15
0 ELSE 150
170 SUB FASTJOY(C,R,0):: CAL
L JOYST(1,X,Y):: CALL KEY(1,
0,S):: X=SEN(X):: Y=-SEN(Y)
:: C=C+X+(C=32)-(C=1):: R=R+Y
+(R=24)-(R=1):: SUBEND
And a pretty one -
100 CALL CLEAR :: CALL SCREE
N(2):: FOR S=2 TO B :: CALL

```

```

COLOR(S,15,1):: NEXT S :: DI
SPLAY AT(12,7)"KALEIDOSQUAR
EB" ! by Jim Peterson
110 FOR CH=40 TO 136 STEP B
:: FOR L=1 TO 4 :: RANDOMIZE
:: X=SE60("0018243C425A667
E8199A5BDC3DBE7FF",INT(16*8R
M
D+1)&2-1,2)
120 B0=B0&X :: C0=X&C0 ::
NEXT L :: CALL CHAR(CH,B0&C0
):: B0,C0=MUL0 :: NEXT CH
130 FOR B=2 TO 14 :: X=INT(1
5*8RD+2)
140 Y=INT(15*8RD+2):: IF (Y=
X)+(Y=B)THEN 140
150 CALL COLOR(S,X,Y):: NEXT
S
160 AR,R,AVR,VR=1 :: AC,C,AH
C,HC=4 :: TT=24 :: XI,XT=13
170 FOR L=1 TO 12 :: T=TT ::
XT=XI :: R=AR :: VR=AVR ::
C=AC :: HC=AHC
180 FOR J=1 TO XT :: X=INT(1
3*8RD+21)&24 :: CALL MCHAR(
R,HC,X,T):: CALL MCHAR(25-R,
HC,X,T):: CALL VCHAR(VR,C,X,
T)
190 CALL VCHAR(VR,31-C,X,T)::
T=T-2 :: HC=HC+1 :: VR=VR+
1
200 NEXT J :: AR=AR+1 :: AVR
=AVR+1 :: AC=AC+1 :: AHC=AHC
+1 :: TT=TT-2 :: XI=XI-1 ::
NEXT L
210 IF INT(2*8RD)<>0 THEN 23
0
220 FOR S=INT(12*8RD+2)TO 14
:: CALL COLOR(S,1,1):: NEXT
S
230 FOR J=1 TO INT(20*8RD+1)
:: S=INT(13*8RD+2):: X=INT(1
5*8RD+2):: Y=INT(15*8RD+2)::
CALL COLOR(S,X,Y):: NEXT J
240 CALL SCREEN(INT(15*8RD+2
)):: ON INT(5*8RD+1)GOTO 130
,160,220,230,240

```

The challenge in Tips 016 was - how can you store a hundred or more values of any size, positive or negative, integer or non-integer, even in exponential notation, without dimensioning an array or opening a file, and then link to another program with a RUN statement and recover those values - not by reading them from the screen? I had just one

reply! Was it too easy, too hard, or doesn't anyone care? Anyway -

```

20591 SUB CHARSAVE2(CH,M)::
M0=STR0(M):: M0=RPT0("0",16-
LEN(M0))&M0
20592 IF POS(M0,".",1)=0 THE
M 20593 :: M0=SE60(M0,1,POS(
M0,".",1)-1)&"A"&SE60(M0,POS
(M0,".",1)+1,LEN(M0))
20593 IF POS(M0,"+",1)=0 THE
M 20594 :: M0=SE60(M0,1,POS(
M0,"+",1)-1)&"B"&SE60(M0,POS
(M0,"+",1)+1,LEN(M0))
20594 IF M<0 THEN M0=SE60(M0
,1,POS(M0,"-",1)-1)&"F"&SE60
(M0,POS(M0,"-",1)+1,LEN(M0))
20595 CALL CHAR(CH,M0):: SUB
END

```

And to recover the values -

```

20596 SUB READCHAR(CH,M):: C
ALL CHARPAT(CH,CH0)
20597 IF POS(CH0,"A",1)=0 TH
EN 20598 :: CH0=SE60(CH0,1,P
OS(CH0,"A",1)-1)&"&"&SE60(CH
0,POS(CH0,"A",1)+1,LEN(CH0))
20598 IF POS(CH0,"B",1)=0 TH
EN 20599 :: CH0=SE60(CH0,1,P
OS(CH0,"B",1)-1)&"&"&SE60(CH
0,POS(CH0,"B",1)+1,LEN(CH0))
20599 IF POS(CH0,"F",1)<>0 T
HEN CH0="&"&SE60(CH0,POS(CH0
,"F",1)+1,LEN(CH0))
20600 M=VAL(CH0):: SUBEND

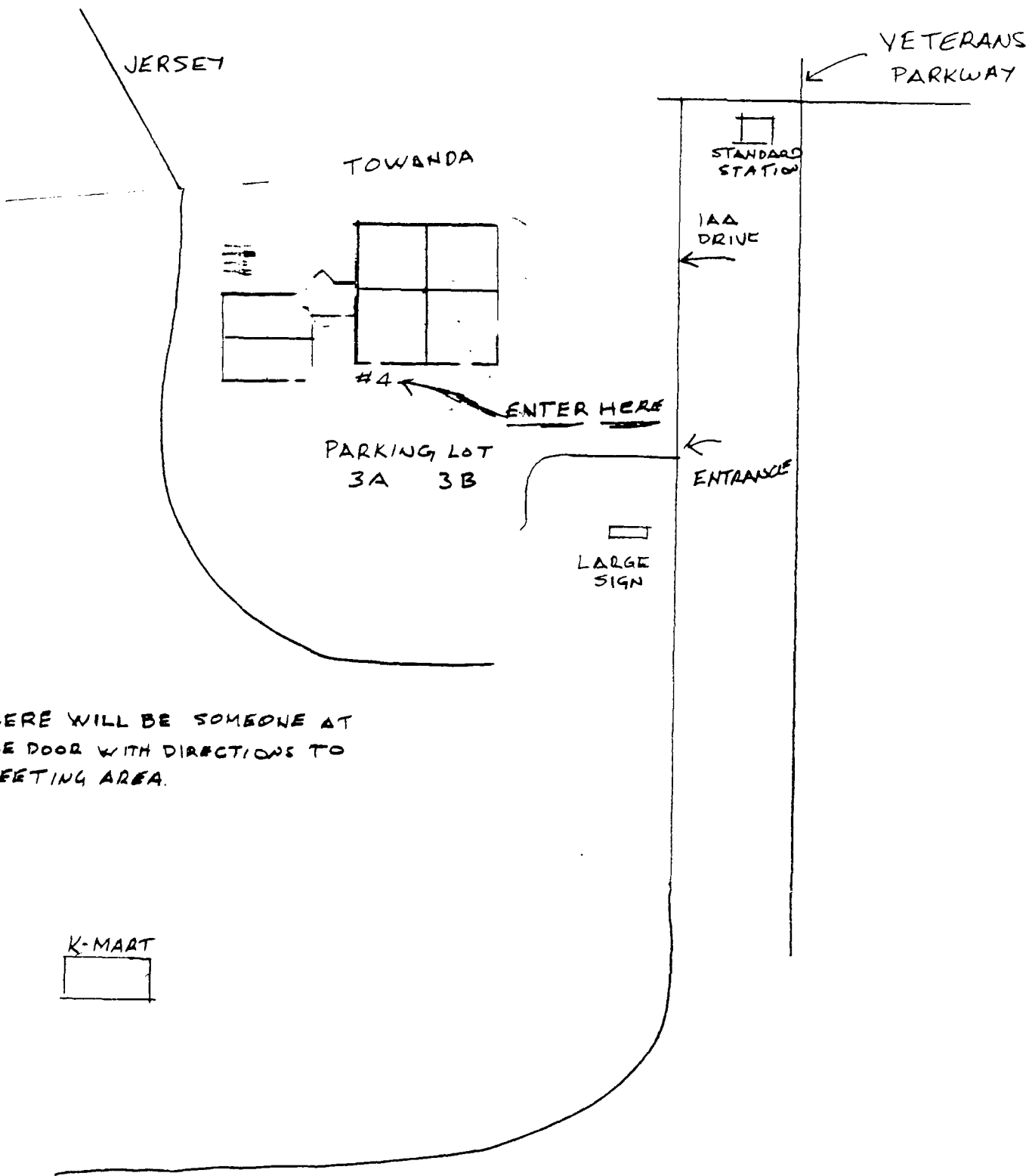
```

Here's a jewel of a routine from Danny Michael, to avoid those lockups and other foul-ups that occur when you CALL INIT after you have already CALLED INIT - CALL PEEK(B19B,A):: IF A<>17 0 THEN CALL INIT

The best way to edit a program is to type NUM and the first line number, then Enter will take you through line by line with no danger of accidentally deleting a line. The edit functions will still work, and FC1K 4 gets you out of the NUM mode.

MEMORY FULL!

Jim Peterson



THERE WILL BE SOMEONE AT THE DOOR WITH DIRECTIONS TO MEETING AREA.

MID ILLINOIS COMPUTER RESOURCE ORGANIZATION  
P.O. BOX 766  
Bloomington, IL 61701-0766



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

```
*****  
*          MMM   MMM   IIIIII   CCCCCC   RRRRRRRR   00000000   *  
*          MM M M MM   II       CC       RR       RR   00   00   *  
*          MM M M MM   II       CC       RRRRRRRR   00   00   *  
*          MM  M  MM   II       CC       RR       RR   00   00   *  
*          MM       MM   II       CC       RR       RR   00   00   *  
*          MM       MM   IIIIII   CCCCCC   RR       RR   00000000   *  
*                                                    *  
*                                                    *  
*          The MID ILLINOIS COMPUTER RESOURCE ORGANIZATION   *  
*****
```