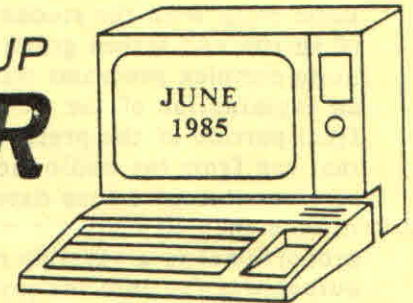


CEDAR VALLEY 99'ER USER GROUP

NEWSLETTER



NEWSLETTER TOPICS

1. Next Meeting Reminder
2. Minutes From June Meeting
3. Fall Programming Classes
4. New Members
5. Good News From The Hardware Committee
6. Home Computer Magazine
7. TI T-Shirts
8. Personal Record Keeping Features
9. Programming Tips - Pre Scan
10. Programming Tips - Tigercub Software
11. CV99'er UG Officers/Chairpersons

****NEXT MEETING REMINDER****

Due to a schedule conflict with J.A., our next meeting will be the **THIRD** Monday, July 15, at 7:00 PM. Please note the change!

Jonathan Green will give a demonstration of the capabilities of the Gemini 10X printer, including the graphics mode. New door prizes are in, so it will be worth your time to come to the Air-Conditioned J.A. Building! Jim Trainor will continue his tutorials on programming tips. Don't forget - July 15.

****MINUTES FROM JUNE MEETING****

Minutes of June 10, 1985 meeting: called to order at 7:08 PM by President Jim Green. 30 members and one newcomer were present. The next two meetings will be on the second Monday of the month. A motion to approve May's minutes as printed in the newsletter was made and approved. Treasurer's report was read and approved.

Old Business: The hardware committee consists of Jim Green, Gary Bishop, Bruce Winter, Bob Wasltrom, Jim Trainor, and Mike Bonifazi. It was decided the first project would be a 32K memory expansion card for the PEB. Door prizes were discussed, and will be upgraded, with the final selections made by the next meeting. If you have any ideas, get them to Jim Green. It was announced that the clubs membership list would be given to several companies interested in direct mail advertising, and no one expressed any opposition to this practice. The library has been updated and the latest and greatest list will be available soon. Bruce Winter has reviewed over 50 new programs that have been received. The software committee is seeking volunteers to aid Chairperson Jim Trainor to write custom software requested by our members.

New Business: There was a complete system for sale in the previous months' Penny Saver, brand new, in the box, for about \$400. The Extended basic class is about over, and any member that would like to see another class taught should contact Jim Trainor. This could be a Basic, Extended Basic, Advanced Extended Basic, Assembler, Forth, or other language. Give Jim your thoughts. It was mentioned that TI Writer, with all the updates and corrections was available on disk for \$19.95. The business meeting ended at 7:35 PM.

There were two excellent presentations. The Sorcerer Game, developed by Mike Bonifazi, was demonstrated. This adventure/explorer game has three levels, many rooms, prizes and penalties, dragons, and all the other various inhabitants one would expect in a game of this sort. The playing field is randomized to prevent duplication of games. The game may be stored at any point of play, and was complete with graphics and sound effects. The cassette

version will be available without charge from the club library, but will not have any graphics capability.

The next presentation was from the Extended Basic class, with the students showing the use of sprites and screen graphics. Two short but quite complex programs were shown, along with an explanation of the techniques involved. The final portion of the presentation was a circuit that ran from the audio jack of the television receiver to feed a tone decoder. This decoder in turn enabled a circuit whose output was proportional to a variable resistor. This output was fed into the joystick port where the software sampled and timed it. The software then scaled it appropriately, and made a bar display of the value of the external variable resistor.

****FALL PROGRAMMING CLASSES****

The education committee needs your input to know what class to offer in the fall. If you want to learn Basic, Assembly, Forth, or whatever, call Jim Trainor so that plans can be made for instructors, room, etc.

****NEW MEMBERS****

We would like to welcome the following new members to our group:

Ray Novey - E.L. Edwards - Bill Gonda
Jeffery Crowl

GOOD NEWS FROM THE HARDWARE COMMITTEE!

The day after the group voted to allow the hardware committee to design a 32K memory expansion unit, we received an excellent article in the Lchigh, PA newsletter, reprinted from the T.I.U.P. newsletter (Perth, Western Australia) on that very subject. Two enterprising T.I. users, Bernie Elsner and Phil West, have designed a circuit to put 32K expansion RAM inside the 99/4A console! The article, complete with schematics, details how to squeeze four RAM chips into an empty space within the T.I. So... the hardware committee is busily trying the circuitry.

Initial attempts look promising. Parts will cost about \$45, depending on how sophisticated we get. Come to the July 15 meeting for the latest status report.

****HOME COMPUTER MAGAZINE****

The club still has 4 copies of Vol 5 No. 3 of the *Home Computer Magazine* left. First come first served (Contact Ed Hayck). No. 4 has not showed up yet but should be here before the July 15 meeting.

****TI T-SHIRTS****

The Milwaukee area 99/4A User Group is selling T-shirts for TI users and user groups. Price is only \$5.50 for short-sleeved shirts and \$7.50 for long-sleeved shirts. Apparently the minimum order is six shirts with the same message so we would need a club order. Anybody interested? Some of the sample messages: "I Love My T.I.", "Boot Up With T.I.", or my favorite, "Texas Instruments Orphan". I would be willing to go in for one if we can get other members interested. With an order for ten or more they will do any custom message. E. Hayck

****PERSONAL RECORD KEEPING FEATURES****

The last two issues of MICROpendium have carried articles explaining that if you have the PRK module you have commands which are the equivalent of Accept AT and Display AT in Extended Basic. The articles also explain using PRK files in basic programs. Take a look at the May and June MICROpendium on the back table at the next meeting if you're interested in these capabilities.

****PRE SCAN****

The following article is being reprinted from the *ROM Newsletter* of the U.G. of Orange County, CA:

You load your program, enter RUN and then . . . nothing. Finally your program starts to execute. On a short program this wait is not noticeable but on a long one it can seem endless. Why the delay?

Your 99/4A is going thru your program, line by line, and allotting memory space. It is noting each variable used, each subprogram CALLED, the first DATA line, DEF statements, DIM statements, etc. Furthermore, it is making an unduplicated list. Suppose you use the variable A 123 times in your program. The first time your 99/4A notes it and makes memory space. The other ONE HUNDRED AND TWENTY TWO TIMES it checks, notes that it already knows

about this variable and moves on. Even at the speed of the 4A, this takes time.

Ext Basic has some tools to control pre scan. !@P- turns it off and !@P+ turns it on. The following items must be in the range of the pre scan:

- At least one use of each variable.
- At least one use of each CALL statement. For example, if you use CALL CLEAR five times, the first use must be within the pre scan.
- All DEF, SUB, SUBEND, DIM and OPTION BASE statements.
- The first DATA statement in the program.

!@P+ must be on a line by itself while !@P- can be at the end of a multi-statement line.

There is one short cut -- pre scan does look at CALL statements but it doesn't check validity. Therefore you can do something like this:

```
10 DATA 2,3,4
20 OPTION BASE 1 :: DIM A(17) :: GOTO 30 ::
CALL HCHAR :: CALL SPRITE :: CALL SAY ::
R,S,T,U,V=W :: AS=BS :: !@P-
30 ! Program continues
```

Note that the code after GOTO 30 in line 20 will never be executed so it does not need to meet syntax requirements. You should not activate pre scan until your program is fully debugged. If you forget something, you will get a SYNTAX ERROR. With a bit of work, you will cut the pre scan time down significantly!

Enjoy!

******DISK DRIVES ON SALE AGAIN******

If you missed the chance to buy a disk drive for \$45.00, you get a reprieve. B.G. Micro still has some 2/3 height DS/DD floppy drives @ \$49.95 each, or 2 for \$85.00. Phone number is 214-271-5546 in Dallas. Quantities are limited. See the ad in July's "Computer Shopper", page 248.

For those who want half height drives, several companies are advertising a Qume Track 142 DS/DD drive. Prices vary from \$69.95 to \$85.00. Sounds like a good deal for the low budget operator. If you can't find a copy of Computer Shopper, ask at the July meeting.

******CV99'er UG OFFICERS/CHAIRPERSONS******

President: Jim Green
288 Windsor Dr. NE
Cedar Rapids, IA 52402
377-4073 (Home) or
395-1898 (Office)

Vice President: Bruce Winter
242 11 St NW
Cedar Rapids, IA 52405
362-6196

Secretary: Gary Bishop
860 Westview Dr
Marion, IA 52302
377-9574

Treasurer: Ed Hayek
3864 Lost Valley Rd SE
Cedar Rapids, IA 52403
366-4793

Program Chairperson: Dave Dalton
920 Hillview Dr
Marion, IA 52302
377-1715

Publicity Chairperson: Paul Mortensen
3179 Country Park Dr.
Toddville, IA
393-6022

Education Chairperson: James Trainor
2001 Mount Vernon Rd
Cedar Rapids, IA
365-2047

Newsletter Editor: Dan Davis
1663 10 St NW
Cedar Rapids, IA 52405
365-6653 (Home) or
395-3619 (Office)

*****REM*****

The CEDAR VALLEY 99'er USER'S GROUP NEWSLETTER is published by the Cedar Valley 99'er User's Group in the Cedar Rapids/Marion, Iowa area. Members are encouraged to contribute articles. Opinions expressed are those of the writer and not necessarily those of the Cedar Valley 99'er User's Group, its Officers, editor, or members. Other user groups may copy or use any article published in this newsletter, without the written consent of the CEDAR VALLEY 99'er USER'S GROUP, as long as credit is given to our group.

TIPS FROM THE TIGERCUB

#23

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!) XBasic 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 XBasic at only \$3.00 each (plus \$1.50 per order for cassette, packing and postage, or \$3.00 for diskette, PPM) I will send you my descriptive catalog for a dollar, which you can then deduct from your first order.

Several different routines have been published which will extract and save a specified series of lines out of a program, but this one by George Steffen of the L.A. 99ers is certainly the

best.

```
1 !SUBROUTINE EXTRACTOR by G
  eorge F. Steffen. SAVE in ME
  RGE format. MERGE into any p
  rogram (with line # starting
  above 8). RUN to extract
  2 !selected lines. Deletes i
  tself. Then BE SURE to SAVE
  the selected lines in MERGE
  format because the remaining
  lines are still in memory!
  3 CALL CLEAR :: CALL INIT ::
  INPUT "Line numbers of rout
  ine to be saved: First,Last?
  ":L,M :: G=256 :: CAL
  L PEEK(-31952,H,I,J,K)
  4 C=INT(M/6):: D=M-C#6 :: F=
  (J-6)#6+K :: FOR E=(H-6)#6+1
  TO F STEP 4 :: CALL PEEK(E,
  A,B):: IF A=C AND B=D THEN 6
  5 NEXT E :: PRINT "LINE";M;
  "NOT FOUND!" :: STOP !@P-
  6 H=INT(E/6):: I=E-(6#H):: H
  =H+6 :: C=INT(L/6):: D=L-C#6
  :: FOR E=E+4 TO F STEP 4 ::
  CALL PEEK(E,A,B):: IF A=C A
  ND B=D THEN 8 !@P-
  7 NEXT E :: PRINT "LINE";L;
  "not found!" :: STOP !@P-
  8 E=E+3 :: J=INT(E/6):: K=E-
  (6#J):: J=J+6 :: CALL LOAD(-
  31952,H,I,J,K):: STOP !@P-
```

The enhancements to my Menu Loader, published in Tips #22, contained an error. Please change line 413 to read -
413 LINPUT #2:M\$:: PRINT M\$
:: IF EOF(2) THEN 416

Some folks were interested in the idea of a program that writes a program, so let's write a program that will write a program to list the token codes that you need to use to write a program that will write a program -

```
100 OPEN #1:"DSK1.TOKENLIST"
,OUTPUT,DISPLAY,VARIABLE 16
3 :: FOR N=129 TO 254 :: L1=
INT(N/256):: L2=N-256#L1
110 PRINT #1:CHR$(L1)&CHR$(L
2)&CHR$(L31)&CHR$(N)&CHR$(#)
:: NEXT N
120 PRINT #1:CHR$(255)&CHR$(
```

255):: CLOSE #1 :: END

Key that in and SAVE it just in case, then RUN it. When READY, type NEW, then MERGE DSK1.TOKENLIST. Now LIST it and you will see a list of ASCII codes 129 through 254 and their token meanings. Delete lines 171 through 175, 185, 198, 226 through 231, and 242. Change the definition of 199 to QUOTED STRING, of 200 to UNQUOTED STRING, and 201 to LINE NUMBER, and add line 255 END OF FILE.

You don't need all those exclamation points, so change the program to a DIS/VAR 80 file by LIST "DSK1.TOKENLIST". Then key in this little routine.

```
100 OPEN #1:"DSK1.TOKENLIST"
:: OPEN #2:"PIO"
110 LINPUT #1:A$ :: PRINT #2
:SE6$(A$,1,4)&SE6$(A$,6,LEN(
A$)):: IF EOF(1)<>1 THEN 110
120 CLOSE #1 :: CLOSE #2 ::
END
```

RUN it, and print out a list of all the token codes. More on this next month - if someone buys a few programs so that I can afford another month.

Now that we've done about all that we can with the Menu Loader, here is another version to use on your finalized library disks of programs. It lacks the features that you will no longer need, but will list your programs by their full names, up to 24 characters long.

```
100 !NAMELOADER by A. Kludge
/M. Gordon/T. Boisseau/J. Pe
terson/etc.
110 CALL CLEAR :: CALL SCREE
N(5):: FOR S=1 TO 14 :: CALL
COLOR(S,7,16):: NEXT S :: C
ALL VCHAR(1,31,1,96):: CALL
COLOR(0,2,16)
120 OPTION BASE 1 :: DIM P6$(
99),N$(99)
```

130 ! List the full names of the programs on the disk in the DATA statements, in the sequence in which they are listed by an ordinary disk cataloger program

```
140 !Then SAVE this program
under the filename LOAD
150 DATA
160 DATA
170 DATA
180 DATA
190 DATA END
200 FOR J=1 TO 99 :: READ M$(
J):: M$(J)=SE6$(M$(J),1,24)
210 IF M$(J)="END" THEN M$(J
)=" " :: GOTO 230
220 NEXT J
230 IMAGE #0
240 DISPLAY AT(1,4):"TIGERCU
B NAMELOADER"
250 D$="DSK1." :: OPEN #1:D$
,INPUT,RELATIVE,INTERNAL ::
INPUT #1:P$
260 FOR I=1 TO 99 :: IF I/20
<>INT(I/20) THEN 290
270 DISPLAY AT(24,1):"Type #
of choice or Enter 0" :: AC
CEPT AT(24,27)VALIDATE(DIGIT
)SIZE(-3):K :: IF K=0 THEN 2
80 :: IF K>0 AND K<=99 THEN
390 ELSE 270
280 I=I+1
290 I=I+1 :: IF I>127 THEN K
=I :: GOTO 370
300 INPUT #1:P$ :: NN=NN+1
310 IF LEN(P$)=0 THEN 350
320 DISPLAY AT(I+3,2):USING
230:NN :: DISPLAY AT(I+3,5):
M$(NN):: P6$(NN)=P$
330 CALL KEY(0,KK,ST):: IF S
T=0 THEN 340 :: FLAG=1 :: GO
TO 350
340 NEXT I
350 DISPLAY AT(I+4,1):" " ::
DISPLAY AT(I+5,2):USING 230
:NN+1 :: DISPLAY AT(I+5,6):"
Terminate"
360 DISPLAY AT(I+6,1):" C
hoice?" :: ACCEPT AT(I+6,16)
SIZE(2)VALIDATE(DIGIT):K ::
IF K<>NN AND K<=NN+1 THEN 38
0
370 IF K=NN+1 THEN CALL CLEA
R :: CLOSE #1 :: END
380 !IF K<1 OR K>99 OR LEN(P
6$(K))=0 THEN 350
390 CLOSE #1
400 CALL INIT :: CALL PEEK(-
31952,A,B):: CALL PEEK(A#256
```

```

+B-65534,A,B):: C=A#256+B-65
534 :: A#D#P6*(K):: CALL L
OAD(C,LEN(A#))
410 FOR I=1 TO LEN(A#):: CAL
L LOAD(C+I,ASC(SEG*(A#,I,1)
)): NEXT I :: CALL LOAD(C+I,
0)
420 CALL VCHAR(1,3,32,672)::
CALL SCREEN(0):: FOR S=0 TO
14 :: CALL COLOR(S,2,1):: M
EXT S :: DISPLAY AT(12,2):"L
OADING ";M*(K)
430 RUN "DSK1.1234567890"

```

Last month I forgot to have anything for the kids, or anything in Basic, so -

```

100 CALL CLEAR
110 REM by Jim Peterson of
Tigercub Software
120 PRINT TAB(1);"***AUTOMA
TIC MOUSE MAZE***": : : "
Choose your mouse and": "wa
tch it try to find its way"
130 PRINT "through the maze.
": " When one of the mice
has": "taken 50 extra steps,
the": "cat gets it!"
140 PRINT : "Touch any key"
150 CALL KEY(0,K,ST)
160 IF ST<1 THEN 150
170 CALL CLEAR
180 CALL CHAR(120,"0078FEFFF
E78")
190 CALL CHAR(121,"1038387C7
C7C7C38")
200 CALL CHAR(122,"387C7C7C7
C383810")
210 CALL CHAR(123,"001E7FFF7
F1E")
220 CALL CHAR(128,"001E61816
11E")
230 CALL CHAR(129,"384444444
4242410")
240 CALL CHAR(130,"102828444
4444438")
250 CALL CHAR(131,"007886818
678")
260 CALL SCREEN(5)
270 T1=610
280 T2=610
290 CALL CHAR(136,"FFFFFFFFF
FFFFFF")
300 CALL COLOR(14,16,16)
310 CALL COLOR(13,2,16)
320 CALL COLOR(12,2,16)
330 R=10
340 GOSUB 1460

```

```

350 R1=10
360 C=2
370 C1=2
380 CALL HCHAR(R,C,136,2)
390 C=C+1
400 M=120
410 M2=128
420 RANDOMIZE
430 A=(INT(2*RND)+1)*2
440 B=INT(10*RND)+1
450 ON B GOSUB 470,470,470,4
70,510,510,550,550,590,590
460 GOTO 420
470 IF C+A>30 THEN 630
480 CALL HCHAR(R,C,136,A)
490 C=C+A
500 RETURN
510 IF R+A>20 THEN 540
520 CALL VCHAR(R,C,136,A)
530 R=R+A
540 RETURN
550 IF R-A<2 THEN 580
560 CALL VCHAR(R-A+1,C,136,A
)
570 R=R-A
580 RETURN
590 IF C-A<3 THEN 620
600 CALL HCHAR(R,C-A+1,136,A
)
610 C=C-A
620 RETURN
630 CALL HCHAR(R,C,136)
640 C=C+1
650 IF C<31 THEN 630
660 R2=R
670 C2=C
680 CALL HCHAR(R1,C1,M)
690 CALL HCHAR(R2,C2,M2)
700 Y=Y+1+(Y=2)*2
710 IF Y=2 THEN 1020
720 CALL HCHAR(R1,C1,136)
730 ON M-119 GOTO 800,900,74
0,850
740 IF C1=31 THEN 950
750 CALL GCHAR(R1,C1+1,6)
760 IF 6=32 THEN 850
770 C1=C1+1
780 M=120
790 GOTO 950
800 CALL GCHAR(R1-1,C1,6)
810 IF 6=32 THEN 740
820 R1=R1-1
830 M=121
840 GOTO 950
850 CALL GCHAR(R1+1,C1,6)
860 IF 6=32 THEN 900
870 R1=R1+1
880 M=122
890 GOTO 950
900 CALL GCHAR(R1,C1-1,6)

```

```

910 IF 6=32 THEN 800
920 C1=C1-1
930 M=123
940 GOTO 950
950 CALL HCHAR(R1,C1,M)
960 IF (C1=31)*(C2=2) THEN 13
20
970 IF C1<31 THEN 700
980 T2=T2-10
990 CALL SOUND(50,T2,5)
1000 IF T2=10 THEN 1340
1010 GOTO 700
1020 CALL HCHAR(R2,C2,136)
1030 ON M2-127 GOTO 1040,120
0,1090,1150
1040 CALL GCHAR(R2+1,C2,6)
1050 IF 6=32 THEN 1090
1060 R2=R2+1
1070 M2=129
1080 GOTO 1250
1090 IF C2=2 THEN 1250
1100 CALL GCHAR(R2,C2-1,6)
1110 IF 6=32 THEN 1150
1120 C2=C2-1
1130 M2=128
1140 GOTO 1250
1150 CALL GCHAR(R2-1,C2,6)
1160 IF 6=32 THEN 1200
1170 R2=R2-1
1180 M2=130
1190 GOTO 1250
1200 CALL GCHAR(R2,C2+1,6)
1210 IF 6=32 THEN 1040
1220 C2=C2+1
1230 M2=131
1240 GOTO 1250
1250 CALL HCHAR(R2,C2,M2)
1260 IF (C2=2)*(C1=31) THEN 1
320
1270 IF C2>2 THEN 700
1280 T1=T1-10
1290 CALL SOUND(50,T1,5)
1300 IF T1=10 THEN 1370
1310 GOTO 700
1320 CALL HCHAR(1,1,32,768)
1330 GOTO 330
1340 GOSUB 1460
1350 PRINT "THE CAT GOT THE
WHITE MOUSE": :
1360 GOTO 1390
1370 GOSUB 1460
1380 PRINT "THE CAT GOT THE
BLACK MOUSE": :
1390 PRINT "TO PLAY AGAIN, T
OUCH ANY KEY"
1400 CALL KEY(0,K,ST)
1410 IF ST<1 THEN 1400
1420 T1=610
1430 T2=610
1440 CALL HCHAR(1,1,32,768)

```

```

1450 GOTO 330
1460 CALL HCHAR(23,1,32,32)
1470 PRINT CHR$(120);(610-T1
)/10;TAB(20);CHR$(128);(610-
T2)/10
1480 RETURN

```

Did you know that ACCEPT AT(1,0) will accept a full line of 28 characters? Did you know that ACCEPT AT(R,0)SIZE(-28) and Enter will accept everything on row R? And did you know that ACCEPT M\$ will accept a string of 255 characters?

Need a filler, so -

```

100 !MUSICAL BARGRAPH by Jim
Peterson
110 CALL CLEAR :: CALL SCREE
N(5):: FOR J=2 TO 14 :: X=J-
(J>4):: CALL COLOR(J,X,X)::
NEXT J
120 DIM M$(13),N(13):: M#="(
00@HPX'hpX'%CHR$(128)&CHR$(1
36):: FOR J=1 TO 13 :: M$(J)
=SEG$(M#,J,1):: DISPLAY AT(J
+6,1)SIZE(1):M$(J):: NEXT J
130 X=110 :: FOR J=1 TO 13 :
: N(J)=X#1.059463094^(J-1)::
NEXT J
140 A=INT(13*RND+1):: B=INT(
25*RND+1):: DISPLAY AT(A+6,2
)SIZE(28):RPT$(M$(A),B):: CA
LL SOUND(B*40,N(A),0,N(A)*2+
4,0,N(A)*4+6,0)
150 DISPLAY AT(A+6,2):" ::
GOTO 140

```

MEMORY FULL

Jim Peterson

Cedar Valley 99'er User's Group
288 Windsor Dr. NE
Cedar Rapids, IA 52402

GARY BISHOP
124-222
860 WESTVIEW DR
MARION IA 52302