K * 3

USERS' GROUP NEWSLETTER

Hello again fellow computer users. I hope you are all doing well! In keeping with our "non-denominational" format, this newsletter column is being written on an APPLE IIe, and rewritten on a TI99/4A. I am using APPLE WRITER 2 for the first time. The program seems fairly user friendly, (we'll see as time goes by!). The newsletter is now being co-edited by Mark Harms and myself. Mark intends to handle all of the TI articles and I the intro and articles for other computers.

We really need more support in the form of articles, whether they be one time or monthly. Anything having to do with computers will be considered. Maybe you have some helpful hints that you'd like to share. Possibly a review of hardware or software that you have used. Maybe some funny story that is computer related. Please help us bring you a better newsletter. Thanks!!

Initial Review of the APPLE IIe Computer
By Dan Hessling

I've started working on an APPLE IIe computer at church. The Apple I work on has 128K, DUO-DISK DRIVE BOX (SS/DD), 80 COLUMN CARD, and MONO(GREEN)SCREEN, and APPLE IMAGE WRITER PRINTER. The APPLE is a good computer to me, though it seems to be a little user (un)friendly. To start with it has a 63 key keyboard, so you must use function altering keys. This means you need to remember what sets of keys do what. Every computer that I can remember working with has this to some extent, but on some it's a bit more complicated than others. For instance on the TI you use CNRL or FNCT with a key to get an effect, and the template tells you what's what. On the IBM a lot of function keys have on them what they do, like PRTSCR is to dump a copy of the screen to the printer. Some keys have two or more functions written on them depending on using normal, shift, alternate, or control key along with it. But the APPLE doesn't have any alternate functions written on the keys. This can make it difficult to remember what "CTRL,shift,Open Apple,Close Apple" does to the other keys pressed at the same time. The Apple and the IBM both have on key stroke "ESC,DEL,TAB,and arrow keys", which is nice. One thing I don't care for on the Apple is the slow cursor response. I'm not that fast a typist but the cursor has been fouling me up while typing this article. It's slow and doesn't keep up with the keys (especially back arrow). Back arrow stacks and when you take your finger off the key the cursor continues on a few more spaces.....to be continued.

The IBM PC is a fantastic computer. Its really out of the home computer class completely. As I mentioned in the Apple computer column it has has many function keys that make it very 'user friendly' keyboard operations wise. Being a very powerful computer there is of course a lot to learn, and I'm glad to have had experience on the TI Home Computer. The response time on cursor movement is immediate. This is a big relief after fighting the apples slow cursor movement. The screen it very clear and has seperate settings for normal and highlight characters (on the mono screen). The letters are well defined and clear. The green screen is much better than I'm used to at work. I'm learning about setting up 'AUTOEXEC.BAT' files now. These files are in DOS and allow you to set up custom boot-ups for yourself. For example to set up a spooler que, an imulated disk, copy prog/files over, start PC-FILE. then after done copy everything back to real drive and possibly go on to other programs automatically. Its power is up to the user! By the way a 'Spooler Que' is a place saved in memory to dump print headed for the printer. In other words a 'buffer'. The user selects a size for this. The 'Emulated Disk' is a fake drive set up in memory (user selects start point, computer uses from there up for drive). The emulated disk save wear and tear on you real disk drive, especially in high I/O usage programs. This disk also is super fast, of course the more memory you have the bigger spoolers, emulated disk, ect. you can put into memory. I have 256k so I usually use 4-10k for spooler and from 156k for disk 'C'.

```
100 REM EXTENDED BASIC
110 REM BREAK TO STOP
120 CALL CLEAR :: CALL SCREEN(2)
130 CALL CHAR(96,"3C7EFFFFFFFF7E3C")
140 CALL SPRITE(#1,96,16,70,70):: Z1$="0000001000000000"
150 CALL CHAR(128,Z1$)
160 RANDOMIZE
170 FOR ST=2 TO 28
180 STA1=INT(RND*256)+1 :: STA2=INT(RND*254)+1
190 CALL SPRITE(#ST,128,16,STA1,STA2):: NEXT ST
200 FOR ST=2 TO 28 :: X=INT(RND*30)+1
210 CALL MOTION(#1,-1,-1):: CALL MOTION(#ST,X,X):: NEXT ST
220 GOTO 220
```

```
10 CALL CLEAR
20 A=25000
30 B=33000
40 C=40000
50 FOR I=0 TO 32000
60 CALL SOUND(3000,A,6,B,6,C,6)
70 A=INT(A*1.0075)
80 B=INT(B*1.0075)
90 C=INT(C*1.0075)
100 IF A>44733 THEN 140
110 IF B>44733 THEN 160
120 IF C>44733 THEN 180
130 GOTO 200
140 A=25000
150 GOTO 100
160 B=25000
170 GOTO 100
180 C=25000
190 GOTO 100
200 PRINT A:B:C
210 NEXT I
220 REM BASIC OR X-BASIC
230 REM BREAK TO STOP
240 REM NO SOUND TO HUMANS
```

PAGE OF DISCRIPTION

The following are brief discriptions of the programs
contained in this months newsletter.

THE PROGRAMMERS CLOCK requires Memory Expansion to run.
It uses many Call Loads to load or POKE values into the
lower memory of the 32k memory system. The clock will
run even when another program is loaded on top of it!!
It will only stop when you exit extended basic or press
fctn=.

The GEMINI COMMANDS can be used in basic or X-basic from
a CALL KEY statement. this alows you to set up your
printer when ever and how ever during the execution of
you program.

The 60 COLUMN CONVERTER is rather tricky. first, list a
program to the disk by entering LIST"DSK1.NAME".
After that is done run the 60 COLUMN CONVERTER to change
the length of each line in the listing to 60 characters
long. Now run the program again if you have a printer
and ask for a printout of the new converted listing.
It will print out in the format used in our newsletter.

The TVTEST is a basic program that allows you to adjust
your CRT for color tint, color alinement, and centering.

this is an original program by MARK HARMS

I HOPE THEY ARE USEFUL AND ENTERTAING TO YOU.

ALSO ANY SUBMISSIONS WOULD BE GREATLY APPRECIATED!!!!!!!

K3 USERS GROUP
PO BOX 1941
KANKAKEE, IL.
     60901.

```
1 GOTO 100
2 CALL COLOR(2,2,1)
3 CALL COLOR(3,2,1)
4 CALL COLOR(4,2,1)
5 CALL COLOR(5,2,1)
6 CALL COLOR(6,2,1)
7 CALL COLOR(7,2,1)
8 CALL COLOR(8,2,1)
9 CALL COLOR(9,2,1)
10 CALL COLOR(10,2,1)
12 CALL COLOR(11,2,1)
13 CALL COLOR(12,2,1)
14 CALL COLOR(13,2,1)
15 CALL COLOR(14,2,1)
16 RETURN
100 CALL CLEAR
101 PRINT "PRESS 1) COLOR BAR DISPLAY"::TAB(7);"2) SET UP BA
R"::TAB(7);"3) SET UP DOTS"::TAB(7);"9) BACK TO MENU"::::::::
::
103 CALL SCREEN(4)
110 CALL KEY(0,K,S)
120 IF S=0 THEN 110
122 CALL CLEAR
125 GOSUB 2
130 IF K=49 THEN 150
131 IF K=50 THEN 999
132 IF K=51 THEN 3000
140 GOTO 100
150 CALL CLEAR
160 CALL SCREEN(2)
170 PRINT "RED YEL BLU GRN CYN MGN GRY "::::::::::::::::::::::
:::
180 C=3
190 R=22
200 GOTO 310
210 CALL COLOR(2,2,2)
220 CALL COLOR(3,3,3)
230 CALL COLOR(4,5,5)
240 CALL COLOR(10,9,9)
250 CALL COLOR(11,11,11)
260 CALL COLOR(12,8,8)
270 CALL COLOR(13,14,14)
280 CALL COLOR(9,15,15)
290 CALL SCREEN(16)
300 GOTO 110
310 FOR BLACK=1 TO 3
320 CALL HCHAR(R,C,42,28)
330 R=R+1
340 NEXT BLACK
350 C=3
```

60 COLUMN CONVERTER
BY THE TIGER CUB
ENHANCED BY MARK HARMS

```
100 PO=0
110 DISPLAY AT(11,5)ERASE ALL:"60 COLUMN CONVERTER" :: DISPL
AY AT(13,8):"FOR LIST FILES"
120 INPUT "WANT A PRINTOUT? ":QQ$ :: PRINT : : :
130 Q$="F"
140 DIM A$(1000):: INPUT "WHAT IS LIST FILE NAME?          D
SK1.":FN$ :: FN$="DSK1."&FN$ :: PRINT : :
150 IF QQ$<>"Y" THEN 160 ELSE 180
160 INPUT "WHAT IS THE NEW FILE NAME? DSK1.":PN$ :: PN$="DS
K1."&PN$ :: CALL CLEAR
170 OPEN #2:PN$,DISPLAY ,VARIABLE 80,OUTPUT
180 OPEN #1:FN$,DISPLAY ,VARIABLE 80,INPUT :: DISPLAY AT(12,
10)ERASE ALL:"WORKING"
190 OPEN #3:"PIO.CR"
200 PRINT #3:CHR$(27);CHR$(15);CHR$(27);CHR$(69);CHR$(27);CH
R$(51);CHR$(20):: CLOSE #3
210 OPEN #3:"PIO"
220 FOR L=1 TO 1000 :: LINPUT #1:A$(L):: IF LEN(A$(L-1))=80
OR LEN(A$(L-1))=160 THEN A$(L-1)=A$(L-1)&A$(L):: L=L-1
230 IF EOF(1)THEN L=L+1 :: GOTO 250
240 NEXT L
250 FOR J=1 TO L-1 :: S=1
260 FOR T=1 TO 10 :: B$(T)=SEG$(A$(J),S,60)
270 S=S+60 :: NEXT T
280 IF QQ$<>"Y" THEN 320
290 FOR N=1 TO 10 :: IF B$(N)<>"" THEN PRINT #3:TAB(10);B$(N
):: PO=PO+1 :: DISPLAY AT(12,10):"LINE #";PO :: IF PO/50=INT
(PO/50)THEN 310
300 NEXT N :: GOTO 340
310 INPUT "REPLACE PAPER & PRESS ENTER":QQQ$ :: CALL CLEAR :
: GOTO 300
320 FOR N=1 TO 10 :: IF B$(N)<>"" THEN PRINT #2:B$(N):: PO=P
O+1 :: DISPLAY AT(12,10):"SECTOR";PO
330 NEXT N
340 NEXT J
350 IF QQ$="Y" THEN 360 ELSE 370
360 CLOSE #3 :: CLOSE #1 :: END
370 CLOSE #2 :: CLOSE #1 :: END
```

PROGRAMS CAN NOW BE LISTED IN THE NEWSLETTER FORMATE.
FIRST TYPE LIST"DSK1.NAME"THEN RUN THIS PROGRAM.

LIBRARY NEWS
By Bev Cook

The following people have late rentals.

Chuck Burke Blasto, Jungle Hunt, Connect Four
Brian Marcukaitis Number Magic
Pete Grzelak Parsec
Ken Kubacki Pole Position
Paul Parkhill Superfly
Warren Nehls SAMS book

MEMBERSHIP NOTES

The following people have not renewed as of our January meeting. If you were due for renewal in December, this is the last newsletter you will receive unless you renew by the February meeting.

December Renewal
Richard Evans - Clarence Bebout - Joseph Krick
Laurence Fagin - John Ellis - Ralph Esposito
Karen Lesmeister - Mrs. Sidney Downs
Mark McCormick - Don Anderson - Neal Hildebrand

January Renewal
Warren Nehls - David Conrad - Brian Marcukaitis
Kim Seedorf - Steve Bell - Pete Grzelak
E.J. Werth

February Renewals
Don Duncan - Steve Zan
Jeramie Messenbring - Duane Erwin - Brian Bolf

TI 99/4A + GEMINI 10X
By D. R. Hearthington
Suncoast 99er's Fl.

Key commands changes print on the GEMINI 10X

SINGLE KEYS FUNCTION PREFORMED
----------- ------------------

```
CTRL N    DOUBLE-WIDTH MODE
  "  T    CANCEL D-W MODE
  "  Q    PRINTER ON LINE
  "  S    PRINTER OFF LINE
  "  O    COMPRESSED (PICA)
  "  R    CANCLE PICA MODE
  "  G    BELL
  "  H    BACKSPACE
  "  I    HORIZONTAL TAB
  "  J    LINE FEED
  "  K    VERTICAL TAB
  "  L    FORM FEED
  "  M    CARRIAGE RETURN
  "  8    ENDS MACRO INST.
  "  .    ESCAPE (ESC)
FCTN V    DELETE
```

COM. MULTI. FUNCTION
----------- --------

```
ESC 4    ITALIC MODE
  "  5    CANCEL ITALIC
  "  8    CANCELS PAPER OUT
  "  9    ENABLE PAPER OUT
  "  !    SELECTS MACRO
  "  E    EMPHASIZED MODE
  "  F    CANCELS EMPHASIZED
  "  G    DOUBLE-STRIKE MODE
  "       RESET PRINTER
  " S 0   SUPERSCRIPT
  " S 1   SUBSCRIPT
  "  0    LINE FEED 1/8"
  "  1    LINE FEED 7/72"
  "  2    LINE FEED 1/16"
```

These keys are for use with BASIC OR X-BASIC.

The Board Minutes
12/30/84
by Geo. Lempiotis

At the December 30th board meeting, there were six board members in attendance.

The library funds in December seem to be sufficient to make some purchases of the heavily discounted modules. The board approved purchases of game modules and a modem for the library. The board in a effort to raise funds approved the sale of all 99'er back issues for 2.00 each! There was also approved a raffle or sale of non-renting modules at the March or April general meeting. The board would also like some input from the members into future library purchases. Remember the board will buy what they like if no interest is shown!!!

The board members decided to send two months of our news letter to all 20+ members of the k3 TRS80 users group. These issues of the news letter may help create interest in our group.

The board members also set up some specifications for the format of articles submitted to the newsletter.

SPECS.
(1).LM10
(2).RM70
(3).FI
(4).AD
(5).TL 42:27,15,27,69,27,51,20
(6)✳

This gives you 60 columns condensed print. Page length is 50 lines.

The deadline for articles submitted is the 1st of the month.

The Febuary 16 general meeting will feature demo of PERSONAL RECORD KEEPING module for the TI by George Lempiotis. Also a demo of the power-pad for the C64 by Bruce Shearer. Hope to see you there!!

LOGO
By Richard De Roos

This program will make stars appear across your screen.
After you power up your system, choose LOGO. After the
"WELCOME TO TI LOGO" message appears, type "TO STARS"

```
CS
TELL TURTLE              DEFINITIONS
HT
SC 15 CB                 CS= CLEARSCREEN
PD                       HT= HIDE TURTLE
RT 20                    SC= SETCOLOR
REPEAT 5 [ FD 40 RT 144 ] CB= COLORBACKGROUND
HOME                     PD= PENDOWN
PU                       PU= PENUP
LT 90                    FD= FOWARD
FD 47                    RT= RIGHT
PD                       LT= LEFT
RT 110
REPEAT 5 [ FD 40 RT 144 ]
PU
HOME
LT 90
FD 94
PD
RT 110
REPEAT 5 [ FD 40 RT 144 ]
PU
HOME
LT 90
FD 141
PD
RT 110
REPEAT 5 [ FD 40 RT 144 ]
PU
HOME
LT 90
FD 180
PD
RT 110
REPEAT 5 [ FD 40 RT 144 ]
PU
HOME
END
```

NOW PRESS "FCTN 9" WHEN "?" APPEARS TYPE "STAR"

EXAMPLE OF A CASSETTE FILING PROGRAM
By A.Johnson

The annotated listing of a program which illustrates filing using two cassette recorders which follows demonstrates the use of the "pending print" technique.The main programming problem is to prevent overflowing the buffer.Organization of the data base means in this case that A$,B$,C$ and D are estimated to total about 60 bytes in total;this gives 12 bytes of safety margin when three sets of data are loaded into the buffer by lines 40 thru 70.Line 44 identifies a third data input using line 40 and sends the computer to line 94 which does not have a trailing comma and hence puts the contents of the buffer to the cassette tape.To obtain the same effeciency of tape usage without use of the trailing comma in line 50 you would have to input 12 data items in line 50 and subsequently sort out which is the name,address,etc. when when you retreive them.

Once the data is on tape,the portion of the program on lines 100-295 retrieves the data,alphabetizes it by last name (lines 420-530) and puts the alphabetized last names out to cassette 2.To show the efficiency loss from not using pending print,no trailing comma is used in line 620;hence each surname takes as much tape space as three data sets do in lines 30-96.Lines 700-750 read back the surnames and since the buffer is padded when not filled with data,a pending print comma can't improve retrieval efficiency.(Trying to use a comma at the end of line 720 would return 8 data sets with only one surname recovered;the proram would then terminate - I tried it!.)Putting commas at the end of lines 620 and 720 will put up to 192 bytes of surnames in one cassette access;if more surnames are involved,you must devise a technique to dump the buffer before it overflows,such as the rather crude technique in lines 44 and 162.Other notes:you need to dimension the L$(I,J) matrix if more than 10 data sets are involved and remember that you can output to both number 1 and number 2 cassette but can input only from number 1 cassette.Make the program work by swapping your cassette leads to make your cassette recorder CS2 if you have only one recorder - note that you will be unable to hear the usual tape high pitched tone and data static when your recorder acts as CS2.

Good luck with the program,and call me at 815 467 5432 if you have questions.

```
0 PRINT "THIS PROGRAM CREATES A DATA FILE(LINES 10-100).IT THEN RECOVERS THE DA
TA. SORTS IT AND PUTS IT OUT TO "
20 PRINT "TO A SECOND CASSETTE RECORDER"
22 PRINT "DATA FORMAT:A$:NAME.LAST THEN FIRST:B$:STREET ADDRESS:C$:CITY,STATE &
ZIP:D:PHONE "
30 OPEN #5:"CS1",SEQUENTIAL,OUTPUT,INTERNAL,FIXED 192
40 INPUT A$,B$,C$,D
42 Z=Z+1
44 IF Z/3=INT(Z/3)THEN 94
50 PRINT #5:A$,B$,C$,D,
60 IF D=9999 THEN 90
70 GOTO 40
90 CLOSE #5
92 END
94 PRINT #5:A$,B$,C$,D
96 GOTO 60
100 OPEN #4:"CS1",SEQUENTIAL,INTERNAL,FIXED 192,INPUT
105 I=1
110 INPUT #4:A$,B$,C$,D,
115 PRINT A$;B$;C$:D
116 OPEN #10:"PIO",OUTPUT
117 PRINT #10:A$,B$,C$,D
118 CLOSE #10
120 I=I+1
122 PRINT "I=";I
130 L$(I,1)=A$
140 L$(I,2)=B$
150 L$(I,3)=C$
155 L$(I,4)=STR$(D)
160 IF D=9999 THEN 190
162 IF I/3=INT(I/3)THEN 300
170 GOTO 110
190 CLOSE #4
200 FOR X=1 TO I
210 FOR J=1 TO 4
220 PRINT L$(X,J):
230 NEXT J
240 NEXT X
295 BREAK
296 GOTO 405
300 INPUT #4:A$,B$,C$,D
310 GOTO 115
```

```
405 N=I
410 FOR I=1 TO N-1
420 A=I+1
430 FOR J=A TO N
440 IF L$(I,1)>L$(J,1)THEN 500
450 NEXT J
460 NEXT I
465 GOTO 600
500 T$(I)=L$(I,1)
510 L$(I,1)=L$(J,1)
520 L$(J,1)=T$(I)
530 GOTO 450
600 OPEN #6:"CS2",OUTPUT,SEQUENTIAL,INTERNAL,FIXED 192
610 FOR Q=1 TO N
620 PRINT #6:L$(Q,1),
630 NEXT Q
640 CLOSE #6
650 END
700 OPEN #7:"CS1",INPUT ,SEQUENTIAL,INTERNAL,FIXED 192
710 FOR I=1 TO 8
720 INPUT #7:L$(I,1),
730 PRINT L$(I,1)
740 NEXT I
750 CLOSE #7
```
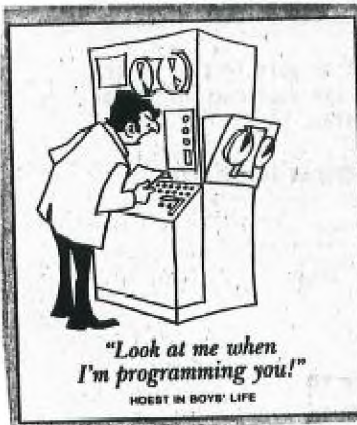
THE BULLETIN BOARD
By Mark Harms

IT'S COMMING SOON the K3 Users new BBS. The modem has been purchased and the program is in the final stages of debuging. So all of you with a modem let us here from you at the next meeting.

This is a manual board that requires an operator to run it so it will only be up during certain times. These times will be announced at a future meeting.

All you need to access the board is a modem one of many available terminal emulators. Any brand of computer may access the board.

HOPE TO SEE YOU USE IT!!!

"Look at me when I'm programming you!"

HOEST IN BOYS' LIFE

"Computer still in the shop, Jenkins?"

TED TROGDON, SINGER COMMUNICATIONS, INC.

"I did it! I broke into the Fitzsimmons's computer and got Edith's recipe for lasagna!"

STAYSKAL, TRIBUNE MEDIA SERVICES, INC.

GOODSTUFF FOR THE TI
By Mark Harms

This month we'll take a look at the FORTI MUSIC SYSTEM for
the TI.   At first glance this seems fantastic that you can
have 12 voices play at once instead of only 3, but the first
thing you need is a expansion box as no stand alone is
available at this time.   You will also need 32k, disk
controller, 1 disk drive, and EDITOR/ASSEMBLER.
      Now with all that comes the price of the card itself.
The regular price is $299.95 but for those that were able to
take advantage of the special at the Chicago Fair you could
save $100.00 on it.
      Let's talk about the GOODSTUFF. The best thing is that
it is easy to get started programming it to create your first
song. The documentation is excellent and many examples are
given to help the beginner get started.
      Some of the features included are 12 voices,
Quadrophonic, and you can change the quality of each vioce up
to 60 time a second.
      The main drawback is that you must be able to read music
and have some sense of dynamics to get the most out of this
new and exciting peripheral for our system.

      Hears a little example what the program looks like.

      1 START (SONG NAME)
      2 5 SHARPS 0 OCTAVE
      3 VOICE: PART1
      4 EI RE SI F F EI F F F F F F
      5 F D F BB QU DD E. FF SI FF
      6 QU FF E. DD SI DD QU DD BB
      7 H.CC FINIS
      8 VOICE: PART2 WH RE
      9 EI D B D F QU BB E. BB SI BB
      10 QU BB E. F SI F QU F QU F D
      11 H. F FINIS
      12 CONDUCTOR 1 PART1 2 PART2
      13 QU=120
      14 FINIS
      15 (END)

      It may look complicated but it really isn't as you read
the manual it all make sense. I will be happy to answer all
the questions I can at the meetings or send it to my
attention for this column.
      One last thing be on the lookout for new items for the
TI and let me know how you feel about them and I'll add them
to my column.

LET'S TALK
By Glen Flowers

AREN'T COMPUTERS GREAT? THEY PLAY GAMES, BALANCE YOUR
CHECKBOOK AND TEACH YOU WITHOUT YOU REALIZING THAT YOU ARE
LEARNING. SO WE GO OUT AND BUY A COMPUTER. THEN WE BUY MORE
SOFTWARE. THEN WE DECIDE IT'S TIME TO UPGRADE OUR SYSTEMS
AND NOW... WHAT DO WE GET NEXT? SOME PEOPLE GET A DISK DRIVE
OR A PRINTER OR A SECOND DISK DRIVE OR A SPEECH SYNTHESIZER
OR ANYONE OF THE MYRIAD OF OPTIONS OFFERED TO US ALL TODAY.
MY CHOICE, WELL I ALREADY HAD A DISK DRIVE AND SPEECH SO THE
NEXT LOGICAL STEP IS A PRINTER. BUT WHO WANTS TO BE LOGICAL?
I BOUGHT A MODEM.
    WHAT IS A MODEM? IT IS YOUR LINK TO NEW HORIZONS.
COMPUTER BULLETIN BOARDS ABOUND ALL ACROSS THE COUNTRY. WHAT
DO YOU NEED TO HAVE A MODEM? 1) A COMPUTER, 2) A RS232
INTERFACE (BUILT IN, INTERFACE CARD OR STANDALONE VERSION), A
TE2 MODULE (FOR TI COMPUTERS, THAT IS), 4) A DISK DRIVE
(THOUGH SOMEWHERE I READ THAT YOU DON'T NEED ONE, I'D SUGGEST
IT), AND 5) A PHONE.

BRUCE SHEARER
447 N. MONROE
BRADLEY IL
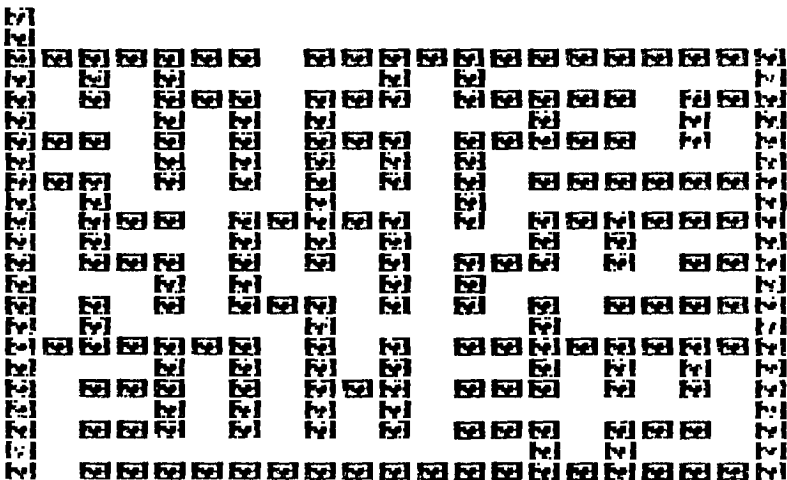
```
30 CALL PEEK(-31863,A):: IF A<>231 THEN END
40 DEF [(X)=INT((WORD+X)/256)
50 DEF ](X)=(WORD+X)-[(X)*256
60 CALL CLEAR :: DISPLAY AT(2,4):"PROGRAMMERS CLOCK V2.0" ::
 DISPLAY AT(3,10):"24 HOUR" :: DISPLAY AT(4,7):"BY D. C. WAR
REN"
70 CALL PEEK(8192,A,B):: CALL PEEK(8198,C,D):: IF A<>32 OR B
<>90 OR C<>170 OR D<>85 THEN CALL INIT
80 ON ERROR 90 :: GOTO 280
90 REM LOAD CLOCK
100 DISPLAY AT(12,5):">>>LOADING CLOCK<<<" :: CALL SOUND(150
,1397,0)
110 CALL PEEK(8194,MBYTE,LBYTE,MBYTE2,LBYTE2):: WORD=MBYTE*2
56+LBYTE :: REF=MBYTE2*256+LBYTE2 :: IF REF-WORD<254 THEN CA
LL SOUND(150,218,0)ELSE 130
120 CALL CLEAR :: PRINT "* 8K MEMORY FULL":REF-WORD;"BYTES L
EFT" :: GOTO 320
130 CALL LOAD(WORD,0,60,0,0,0,0,0,0,128,144,144,154,144,144,
154,144,144,146,144,150)
140 CALL LOAD(WORD+20,154,148,1,0,96,96,0,6,0,0,0,0,0,0)
150 CALL LOAD(WORD+34,[(42),](42),200,32,[(34),](34),131,196
,2,224,[(2),](2),6,32,[(0),](0),22,45)
160 CALL LOAD(WORD+52,2,0,0,60,200,0,[(0),](0),161,202,145,2
01,21,38,209,200,5,134,152,32,[(19),](19))
170 CALL LOAD(WORD+74,[(15),](15),21,32,216,8,[(15),](15),5,
133,152,9,[(13),](13),21,26,216,8,[(13),](13),161,74)
180 CALL LOAD(WORD+96,145,96,[(19),](19),21,20,209,72,161,10
,152,32,[(17),](17),[(9),](9),21,4,145,32,[(21),](21))
190 CALL LOAD(WORD+118,21,1,209,9,145,9,21,8,209,8,5,131,152
,32,[(17),](17),[(9),](9),20,2,216,8)
200 CALL LOAD(WORD+140,[(9),](9),2,0,0,22,2,1,[(8),](8),2,2,
0,9,4,32,32,36,2,224,131,224)
210 CALL LOAD(WORD+162,4,91,2,224,[(2),](2),2,12,0,6,2,0,0,6
0,200,0,[(0),](0),4,192,2,1)
220 CALL LOAD(WORD+184,0,1,2,2,[(27),](27),4,32,32,20,216,13
,[(9),](9),209,32,[(29),](29),193,78,216,15)
230 CALL LOAD(WORD+206,[(15),](15),209,224,[(33),](33),184,1
1,[(9),](9),177,11,161,75,184,11,[(15),](15),177,203)
240 CALL LOAD(WORD+226,216,0,131,124,2,224,131,224,4,96,0,11
2)
250 CALL LOAD(REF-16,67,76,79,67,75,32,[(36),](36),83,69,84,
67,76,75,[(164),](164))
260 CALL LOAD(8194,[(238),](238)):: WORD=REF-16 :: CALL LOAD
(8196,[(0),](0))
270 RETURN
280 CALL LINK("CLOCK")
290 DISPLAY AT(12,1):"ENTER TIME (HHMMSS)? 000000" :: ACCEPT
 AT(12,22)SIZE(-6)BEEP VALIDATE(DIGIT):TIME$ :: IF POS(TIME$
," ",1)THEN 290
300 IF TIME$<>"" THEN TIME$=SEG$(TIME$&"000000",1,6):: IF VA
L(SEG$(TIME$,1,2))>24 OR VAL(SEG$(TIME$,3,2))>59 OR VAL(SEG$
(TIME$,5,2))>59 THEN 290
310 CALL CLEAR :: IF TIME$="" THEN 320 ELSE CALL LINK("SETCL
K",TIME$)
320 CALL LOAD(-31952,255,231,255,231)
```

```
360 R=2
370 FOR RED=1 TO 4
380 CALL VCHAR(R,C,104,20)
390 C=C+1
400 NEXT RED
410 FOR YEL=1 TO 4
420 CALL VCHAR(R,C,112,20)
430 C=C+1
440 NEXT YEL
450 FOR BLUE=1 TO 4
460 CALL VCHAR(R,C,56,20)
470 C=C+1
480 NEXT BLUE
490 FOR GRN=1 TO 4
500 CALL VCHAR(R,C,48,20)
510 C=C+1
520 NEXT GRN
530 FOR CYAN=1 TO 4
540 CALL VCHAR(R,C,120,20)
550 C=C+1
560 NEXT CYAN
570 FOR MGNT=1 TO 4
580 CALL VCHAR(R,C,128,20)
590 C=C+1
600 NEXT MGNT
610 FOR GRAY=1 TO 4
620 CALL VCHAR(R,C,96,20)
630 C=C+1
640 NEXT GRAY
650 GOTO 210
999 CALL CLEAR
1000 CALL SCREEN(2)
1001 CALL COLOR(14,16,2)
1002 CALL CHAR(136,"000000000000FF00")
1003 CALL HCHAR(12,1,136,32)
1004 GOTO 110
3000 CALL CLEAR
3001 CALL SCREEN(1)
3005 CALL COLOR(14,16,2)
3010 S$="00002"
3020 CALL CHAR(143,S$)
3030 CALL HCHAR(1,1,143,900)
3040 CALL KEY(0,K,S)
3045 IF S=0 THEN 3040
3050 IF K=57 THEN 100 ELSE 100
```

HINT'S FOR ZORK II
By Joy Nottke

I have found that in Zork II the hardest things to do is
(a)Kill that darn dragon. (b)Get the key from that cute
little Unicorn. (c)And Answer that dumb riddle about the
horses. Well let's start where all good adventures start, at
the beginning. If at all possible try to draw yourself a map
of where you are going or at least a general map of the
carosel, this may not help you get into specific rooms from
the carosel for it is constently turning but when it comes to
getting back to the carosel it does the job. There is no way
of turning the carosel off(at least I have not found one
yet). That cute little Dragon does talk but you can't
understand what he is saying. Try to get him to follow you
away from the smokey tunnel. If you use just a little logic
you will figure out a way to get HIM to HELP you in a
different room. Just think like a Dragon. As for that
unicorn you already know that he is carring a gold key around
his neck don't bother with him until you dispose of the
Dragon, after the dragon is taken care of the key will be a
sinch.. Now then for that riddle in the riddle room, all it
takes is a little thinking. Merry-Go-Round is not the answer
and neither is Carosel. Try a little deeper thought and I am
sure it will come to you.

If you have found a locked door and you are waiting for
the gold key on the Unicorn stop waiting,that key is not for
that door, try entering the Gazebo and think like a burgler.
(dont forget to take the things you need from the Gazebo).

You have probobly run into that kookie Wizard by now and
he never has anything nice to say to you. Well I really do
not have any helpful hints for this one he has been one of my
fall backs all the way through this Adventure, his longest
spell is "FENCE" and "FUMBLE" makes life miserable, just
remember to pick up your items 2,3,or 4 at a time till the
spell stops and lets you pick up what you need.

HAVE FUN AND HAPPY ADVENTURING TILL NEXT TIME

XBASIC: superman

Able to leap small buildings, faster than a speeding
dot matrix! (Well almost) This XBASIC program was
written with two major goals:
  1). Dubious as it seems, it attempts to be the
      shortest possible XBASIC screen dump program.
  2). To be the fastest possible XBASIC screen dump.

These goals came from the July '84 Central Iowa 4A
Forum in John Hamilton's 99 Tips. In his eightieth
tip, he published a screen dump and the challenge.
His version uses 577 bytes and clocked out at 39
minutes and 20 secs -- time enough to BREAK for
dinner!

Superman beats that hands down, but at a price. It
succeeds at the first only when standing still. When
the program RUNs it swells from 519 to 2449 bytes of
memory use. On the second, though, it's the fastest—
about 4 minutes to a 4800 baud RS232 TI (Epson)
printer for ALL of the CALL CHARable characters.

Using John's black screen test (redefine the space to
all "F"'s) turns out to be no contest, because that's
really Superman's minimum benchmark. (one minute and
36 seconds) A fairer test is the complete character
set, characters 32 to 143. For the range of 32 to 127
(I forgot the high two sets 13 and 14), Superman
clocks in at 3 minutes and 56 seconds.

An RS232 printer is at a handicap in the size ratings.
A PIO'ed Superman shaves off 15 bytes to weigh in at
504. Four or five more could be shed by ending the
program without CLOSing the printer. Speed buffs
might use the savings to un-prescan the variables and
squeeze out about three seconds.

So. Line 100 has the details of an Epson graphic
escapes; change these to fit another printer. Line
110 checks the current screen location against DIM A$
to see if the character has been figured out; if not,
line 120 will. Line 130 PRINTs the current screen
line.

Test #1 is a reprint of John's black screen benchmark
and Test #2 is my immediate mode equivalent. (You'll
have to watch for the READY prompt.) If you'd like to
watch the program work, just add CALL HCHAR(D,C,42)
after the CALL GCHAR in line 110. It might not fit,
so be prepared to divide 110 into two.

Speaking of fit, these lines are mostly at or near
XBASIC's maximum. You may have to EDIT and/or REDO to
finish them. Console BASIC versions for Minimem and
Editor/Assembler enhancements are possible. Just
unstring the multiple statements.
  >Frederick Hawkins

superman
an XBASIC screen dump
program by Fred Hawkins

```
100 OPEN #1:"RS232.BA=4800.D
A=8.CR" :: B$=CHR$(27):: C$=
CHR$(0):: D$=RPT$(C$,11)&CHR
$(10)&CHR$(13):: H$="84C2A6E
195D3B7F" :: PRINT #1:B$&"A"
&CHR$(8):: DIM A$(12 8):: A$
(0)=RPT$(C$,8)
110 B$=B$&"K"&C$&CHR$(1)&RPT
$(C$,53):: FOR C=32 TO 1 STE
P -1 :: C$="" :: FOR D=1 TO
24 :: CALL GCHAR(D,C,E):: F=
MAX(E-31,0):: @$=A$(F):: IF
(F=0 OR @$<>"")THEN 130 ELSE
CALL CHARPAT(E,F$)
120 FOR G=1 TO 15 STEP 4 ::
@$=@$&CHR$(POS(H$,SEG$(F$,G,
1),1)+POS(H$,SEG$(F$,G+1,1),
1)*16)&CHR$(POS(H$,SEG$(F$,G
+2,1),1)+POS(H$,SEG$(F$,G+3,
1),1)*16):: NEXT G :: A$(F)=
@$
130 C$=C$&@$ :: NEXT D :: PR
INT #1:B$;C$;D$ :: NEXT C ::
PRINT #1:CHR$(27);"2" :: CLO
SE #1
```

the dreaded
black screen
pgm by John Hamilton
Central Iowa 99/4a U.G.
c/o Robert Utter
3013 E. 32nd St.
Des Moines, IA 50317

```
1 CALL CLEAR:: CALL CHAR(32,
RPT$("F",16)):: CALL SOUND(10
00,500,0)
100 "YOUR ROUTINE"
1000 CALL SOUND(1000,500,0)
```

that's one, let's see you
do 128
in XBASIC immediate mode

```
FOR A=1 TO 6::FOR B=1 TO 128
::PRINT CHR$(31+B);::NEXT B:
:PRINT::NEXT A::CALL SOUND(5
00,440,0)::RUN
```

ps: As a shorty, it ain't that. A slightly rearranged
PIO version comes down to 395 bytes, runs at 16 minutes
or so. Even shorter and slower is possible. I'll leave
the research to you.....

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