

PARCO
Electrics

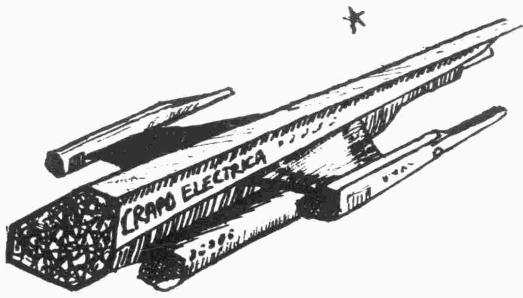
99/4A

MM



**INDEPENDENT MAGAZINE FOR THE
USERS OF THE T.I. 99/4A HOME
COMPUTER**

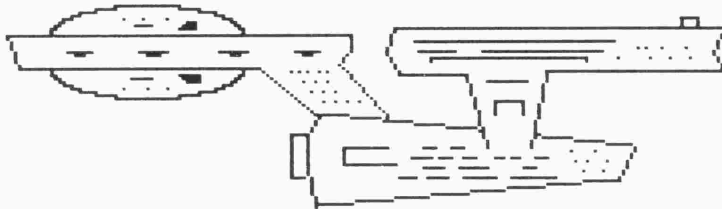
**VOLUME 2
ISSUE 3**



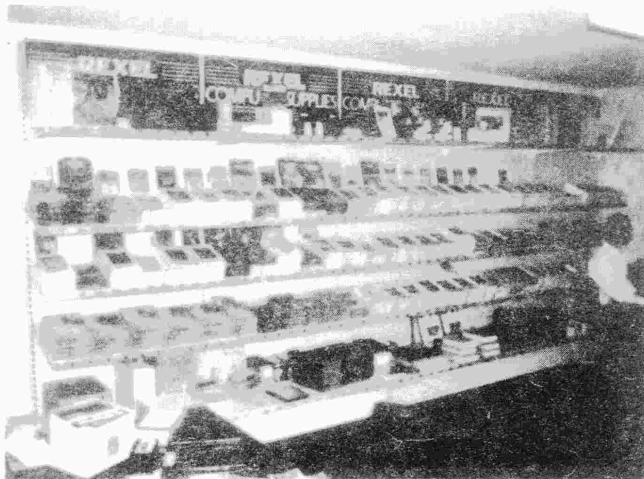
THE PARCO STORY

THE NEW

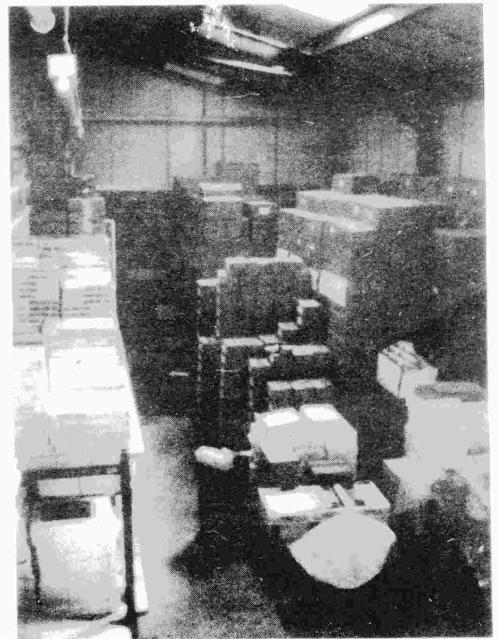
uss parco



To be found in the **PARCO** cargo hold



Arrival lounge
(for TI travellers)



Main hold 1320 Sq Ft

99/4A

**VOLUME 2
ISSUE 3**

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c 1986 PARCO ELECTRICS

99/4A MAGAZINE

IS PRODUCED BY

PARCO ELECTRICS

2. DEVONSHIRE COURT,

HEATHPARK,

HONITON,

DEVON.

EX14 8SB

LETTERS LETTERS LETTERS
LETTERS LETTERS LETTERS

DEAR SIR,

HERE IS A PEEK IN "CRASHER" EB: IT CHECKS TO SEE WHETHER THE SPEECH SYNTHESISER IS ATTACHED. IF IT IS, IT RETURNS 96 IN X, IF NOT, IT RETURNS 0. THIS WAY PROGRAMS IN EB CAN TALK FOR THOSE WITH SPEECH, AND BE SILENT FOR THOSE WHO HAVE NOT TAKEN ADVANTAGE OF THEIR COMPUTER'S CAPABILITIES:-

CALL PEEK(-28672,X)

HERE'S A QUESTION FOR "CAN'T DO THAT". OTHER COMPUTERS (EVEN THE SPECTRUM) CAN GENERATE SPEECH VIA THE SOUND CHIP. CAN ANY ACCOMPLISHED BRIGHT SPARKS DO SO ON THE TI? (QUALITY DOESN'T MATTER). AND ANOTHER,

HAS ANYONE FOUND A WAY OF MOVING SPRITES AT ANY GIVEN ANGLE (E.G.45°)???

STEPHEN MEADOWS,
NUTLEY, SUSSEX.

Help to the ED please.

DEAR SIR,

MAY I TAKE THIS OPPORTUNITY TO AIR MY VIEWS REGARDING THE MAGAZINE.

ON THE WHOLE, IT COMES ACROSS AS A VERY PROFESSIONAL, WELL PUT TOGETHER MAGAZINE. HOWEVER (THERES ALWAYS ONE ISN'T THERE), THIS IS NOT REALLY A GRIPE, PERHAPS A PETTY GRIPE! BUT ITS THE GAME REVIEWS. THE REVIEWS GIVEN IN THE BACK ISSUES ARE BOTH HELPFUL AND INFORMATIVE (THEY MADE MY MIND UP ON A COUPLE OF MODULES), BUT THE MORE RECENT REVIEWS ARE NO MORE THAN COPIES OF THE GAME DESCRIPTIONS FOUND ON THE BOXES. I APPRECIATE, THAT YOU WOULD BECOME YOUR OWN WORST ENEMY IF YOU GAVE A CONDEMNING REVIEW, SO MAY BE THEY SHOULD BE GAME "RUN DOWNS" INSTEAD OF REVIEWS WHEN A PROPER OPERATORS APPRAISAL IS AVAILABLE.

THANK YOU FOR ALLOWING ME THIS CHANGE TO EXPRESS MY VIEWS AND SUGGESTIONS. THEY ARE INTENDED TO INCREASE THE VERSATILITY OF THE MAGAZINE.

N.R. WOLSELEY-CHARLES,
WORCESTER.

I hope the Chess Review is more to your liking, Mr. Wolseley-Charles. ED.

DID YOU KNOW THAT
BY COMBINING TWO LINES
ONTO A MULTISTATEMENT LINE
IN EXTENDED BASIC SAVES
5 BYTES
P.HUTCHINSON
HEBDEN BRIDGE
YORKS



Richard
Twynning
STRIKES AGAIN

DEAR SIR,

4

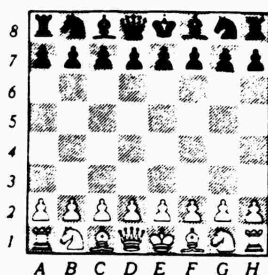
I HAVE SOME QUESTIONS ON THE ADVENTURE CASSETTES:

MYSTERY FUN HOUSE - HOW DO I GET INSIDE THE FUN HOUSE AFTER BUYING A TICKET WITH THE DOLLAR THAT WAS IN THE GRATE? THE BOUNCER KEEPS THROWING ME OUT!
SAVAGE ISLAND, PART 1 - HOW DO I GET THE KNIFE AND PLASTIC BLOCK UP FROM THE LAKE, I KEEP DROWNING AS I TRY. IS THERE ANY PLACE THAT IS SAFE TO SLEEP AT NIGHT?

MOGENS W. JENSEN,
DENMARK.

CAN ANYONE HELP. ANSWERS TO THE ED PLEASE.

VIDEO



CHESSES



What a masterpiece of programming, this baby's got the lot. Some high pitched notes together with five gigantic chess pieces is the opening screen, but depressing a key gets you down to the nitty gritty - The Menu.

Press One if you are a beginner. Press Two to choose game type - more of this later. Press Three to play your friends. If your friend is in danger of being beaten he/she can ask the computer to take over. Press Four to set up a problem i.e. from a chess book or from a famous game. Press Five to play simultaneously, this is incredible because with most games you get a couple of players that can play, but if you are a little more advanced than that, you can play nine, yes nine, different games. That should keep you busy. Option Six allows you to load a previously saved game.

With Option two you get another menu, one for Beginner, two for Novice and three for Intermediate. (No Grand Master option).

Press one and you get another menu, one for normal, two for aggressive, three for defensive and four for losing. If you press four then the computer will make some really bad moves and if you lose then, then take up shark wrestling.

You always get the option of playing as white or black.

The manual is comprehensive just like the module really. If you make an error during play, and you will, then there is a host of editing features.

- BACK UP Allows you to cancel your last or previous moves.
- HELP Displays legal moves available to you.
- RESIGN If you get sick of losing you can resign.
- DRAW You can offer the computer a draw, but sometimes he plays on so be careful.
- TIME OUT Allows you to light up, brew up or blow up.
- REPLAY Will replay every move with a two second break in between each of the moves.
- STORE Saves to cassette only (sorry disk owners).
- SWITCH You can change sides with the computer.
- POSITION Allows you to rearrange the board, legally or illegally.
- MODE CHANGE Allows you to change from one skill level to another.
- QUIT Back to the master title screen.

Some of these options are not available on some levels. Overall, this module is incredible and I would recommend it to anybody, beginner or experienced.

SOUND ADVICE

MUSIC TUTOR PART 3

```

100 REM MUSIC PART 3
110 REM BY PHIL DONALD
120 REM FOR PARCO ELECTRICS
130 CALL CLEAR :: CALL SCREE
N(11):: DISPLAY AT(4,13):"MU
SIC" :: DISPLAY AT(6,14):"BY
" :: DISPLAY AT(8,10):"PHIL
DONALD" :: DISPLAY AT(10,12)
:"PART 3" :: CALL CHAR(116,
"3C42B1423C"&RPT$("0",40))
140 CALL MAGNIFY(3):: RESTOR
E 150 :: FOR C=1 TO 27 :: RE
AD CH,CH$ :: CALL CHAR(CH,CH
$):: NEXT C :: CALL CHAR(33,
"FF",112,"3C42FF423C"&RPT$("
0",40)):: CALL COLOR(14,2,2)
150 DATA 34,0000010102020404
,35,080808101010102,36,20202
,37,0404040404,37,040404020201010
0C,38,0201,39,01060404040403
,42,0000000101010101
160 DATA 43,0202020202020202
,135,030306060A122242,58,428
2020202020202,59,02020202031
E2222,60,4242424242424262,61
,1E02020202020202
170 DATA 62,02FF010101010101
,63,01010101010101FE,64,0000
00001E214040,91,80808,92,000
10106081060C,93,8,94,0000000
OFC03
180 DATA 95,0000000000010204
,96,18E,97,000000000000804,9
8,4040404040408080,99,000000
000000C02,100,10101010101010
2,101,202040408
190 CALL CHAR(120,"2424FF242
424FF2424"&RPT$("0",46),124,
"4040405E62424C70"&RPT$("0",
48),128,"808080F8888888F8080
808"&RPT$("0",42))
200 CALL CLEAR :: DISPLAY AT
(5,14):"MENU" :: DISPLAY AT(
6,14):"----" :: DISPLAY AT(1
4,2):"1) KEYBOARD" :: DISPLA
Y AT(16,2):"2) ACCIDENTALS"
:: DISPLAY AT(18,2):"3) TONI
C TRIADS" :: DISPLAY AT(20,2
):"4) END"
210 CALL KEY(0,K,S):: IF S=0
THEN 210 :: K=K-48 :: IF K<
1 OR K>4 THEN 210 :: ON K GO
TO 280,390,450,220
220 FOR S=1 TO 4 :: CALL SOU
ND(100,110$S,S):: NEXT S ::
END
230 CALL CLEAR :: FOR R=2 TO
10 STEP 2 :: CALL HCHAR(R,6
,33,26):: NEXT R :: RESTORE
250 :: FOR CH=1 TO 28 :: REA
D RX,CX,DX :: CALL HCHAR(RX,
CX,DX):: NEXT CH
240 FOR C=6 TO 30 STEP 2 ::
CALL HCHAR(11,C,46):: NEXT C
:: RETURN
250 DATA 5,2,34,6,2,35,7,2,3
6,8,2,37,9,2,38,10,2,39,2,3,
42,3,3,43,4,3,135,5,3,58,6,3
,59,7,3,60
260 DATA 8,3,61,9,3,62,10,3,
63,1,4,64,2,4,91,3,4,92,4,4,
93,6,4,94,8,4,95,9,4,96,1,5,
97,2,5,98
270 DATA 3,5,93,6,5,99,7,5,1
00,8,5,101
280 CALL CLEAR :: CALL CHAR(
134,RPT$("F",16),135,RPT$("F
7",8)):: CALL HCHAR(2,1,134,
288):: FOR R=2 TO 10 :: FOR
C=4 TO 31 STEP 3 :: CALL VCH
AR(R,C,135):: NEXT C :: NEXT
R
290 CALL COLOR(13,16,2):: CA
LL VCHAR(2,4,143,5):: CALL V
CHAR(2,7,143,5):: CALL VCHAR
(2,13,143,5):: CALL VCHAR(2,
16,143,5)
300 CALL VCHAR(2,19,143,5)::
CALL VCHAR(2,25,143,5):: CA
LL VCHAR(2,28,143,5):: RESTO
RE 310 :: FOR R=1 TO 11 :: R
EAD A,N :: CALL HCHAR(10,A,N
):: NEXT R
310 DATA 3,67,6,68,9,69,12,7
0,15,71,18,65,21,66,24,67,27
,68,30,69,32,70
320 DISPLAY AT(12,1):"IN PRE
VIOUS ARTICLES, TONES AND SE
MITONES CROPPED UP WITH T
HE CONSTRUCTION OF A MAJOR
SCALE. NOW YOU WILL "
330 DISPLAY AT(16,1):"BE ABL
E TO SEE AND, HOPEFUL
LY, UNDERSTAND HOW TONES
AND SEMITONES ARE USED TO MAK
E UP A MAJOR SCALE" :: GOSUB
1060 :: GOSUB 1070
340 DISPLAY AT(12,1):"REMEMB
ER THE DISTANCES BETWEE
N THE NOTES C TO D IS A TONE
D TO E IS A TONE AND E TO F
IS A SEMITONE. YOU COULD
ALSO REMEMBER THE"
350 DISPLAY AT(17,1):"PATTER
N OF THE SCALE BY JUST SAYING
TONE, TONE, SEMITONE FOR TH
E FIRST TETRACHORD (TETRA
IS GREEK FOR FOUR) AND RE
PEATING THIS PATTERN"
360 DISPLAY AT(22,1):"FOR TH
E SECOND TETRACHORD" :: GOSU
B 1060 :: GOSUB 1070 :: DISP
LAY AT(12,1):"THE SAME PATTE
RN APPLIES FOR THE BLACK KEYS
C SHARP TO D SHARP IS A F
ULL TONE"
370 DISPLAY AT(15,1):"C SHAR
P TO D IS A SEMITONE. THE SC
ALE OF C SHARP MAJOR USES A
LL THE BLACK KEYS" :: DISPL
AY AT(23,1):"PRESS A FOR REP
EAT OR ANY KEY FOR MENU."
380 CALL KEY(0,K,S):: IF S=0
THEN 380 :: CALL CLEAR :: I
F K=65 THEN 280 ELSE 200
390 CALL CLEAR :: DISPLAY AT
(2,8):"ACCIDENTALS" :: CALL
SPRITE(81,120,5,40,16):: DIS
PLAY AT(8,1):"THE SHARP RAIS
ES A NOTE BY ONE SEMITONE."
400 DISPLAY AT(10,1):"I.E.
F TO F SHARP" :: GOSUB 1060
:: CALL CLEAR :: CALL SPRITE
(81,124,5,40,16):: DISPLAY A
T(8,1):"THE FLAT LOWERS A NO
TE BY ONE SEMITONE."
410 DISPLAY AT(10,1):"I.E.
B TO B FLAT" :: GOSUB 1060
:: CALL CLEAR :: CALL SPRITE
(81,128,5,40,16):: DISPLAY AT
(8,1):"THE NATURAL RESTORES
A NOTE TO ITS ORIGINAL PITCH
."
420 DISPLAY AT(10,1):"I.E.
B FLAT TO B OR F SHARP TO F"
:: DISPLAY AT(22,1):"PRESS A
FOR REPEAT, OR ANY OTHER K
EY TO CONTINUE."
430 REM DON'T FORGET ABOUT
DOTTED NOTES
440 CALL KEY(0,K,S):: IF S=0
THEN 440 :: CALL DELSPRITE(
ALL):: IF K=65 THEN 390 ELSE
200
450 CALL CHAR(135,"030306060
A122242"):: CALL CLEAR :: DI
SPLAY AT(12,1):"A MAJOR TRIA
D IS CONSTRUCTED FROM THE FIR
ST, THIRD AND FIFTH DEGREE
S OF A MAJOR SCALE."
460 DISPLAY AT(17,1):"I.E.
TAKE THE SCALE OF E MAJOR.
THE FIRST OR TONIC OF THE
SCALE IS E, THE THIRDO MED
IANT IS G SHARP, THE FIFTH
OR DOMINANT IS B"
470 GOSUB 1060 :: GOSUB 1070
:: DISPLAY AT(12,1):"THIS F
ORMATION IS KNOWN AS ATONIC
TRIAD. IF YOU WERE TO WRITE
THESE NOTES ON SOME MANUSC
RIPT PAPER YOU WOULD"
480 DISPLAY AT(16,1):"FIND T
HAT ALL THE NOTES WILL APPEAR
ON THE LINES USING A TREBLE
CLEF AND IN SPACES USING
THE BASS CLEF. AGAIN, THERE
ARE VARIATIONS SUCH AS"
490 DISPLAY AT(21,1):"INVERS
IONS BUT WE WILL DEAL WITH T
HESE SIMPLE TRIADS" :: GOSUB
1060 :: GOSUB 1070
500 DISPLAY AT(12,1):"THE FO
LLOWING TRIADS WILL HAVE T
HE FIRST, THIRD AND FIFTH
DEGREES PLAYED INDIVI
DUALY (ARPEGGIO) AND THEN H
OW THEY SOUND TOGETHER"
510 GOSUB 1060 :: GOSUB 1070
520 CALL CLEAR :: CALL COLOR
(13,2,1):: DISPLAY AT(2,1):"
-----
PRESS
-----" ::
DISPLAY AT(6,1):"C
C"
530 DISPLAY AT(7,1):"C SHARP
CS D
D E FLAT
EF E
E F
F "

```

SOUND ADVICE

BY

PHIL DONALD

```

540 DISPLAY AT(12,1):"F SHAR : 680 CALL SOUND(2000,294,1,37 : 840 CALL SOUND(2000,370,1,46 : 1000 CALL SOUND(2000,466,1,5
P      FS      G      : 0,1,440,1):: DISPLAY AT(16,1 : 6,1,554,1):: DISPLAY AT(16,1 : 87.1.698,1):: DISPLAY AT(16,
      G      A FLAT : ): "D MAJOR TRIAD" :: GOSUB 1 : ): "F SHARP MAJOR TRIAD" :: 6 : 1): "B FLAT MAJOR TRIAD" :: 6
      AF      A      : 050 :: GOTO 660 : 050 1050 :: GOTO 820 : 050 1050 :: GOTO 980
      A      B FLAT : 690 IF T<>"EF" THEN 730 : 850 IF T<>"G" THEN 890 : 1010 IF T<>"B" THEN 32767
      BF"      : 700 RESTORE 710 :: FOR SP=1 : 860 RESTORE 870 :: FOR SP=1 : 1020 RESTORE 1030 :: FOR SP=
550 DISPLAY AT(17,1):"B : TO 5 :: READ CH,LX,LY :: CAL : TO 3 :: READ LX,LY :: CALL S : 1 TO 5 :: READ CH,LX,LY :: C
      B      : L SPRITE(#SP,CH,5,LX,LY):: N : PRITE(#SP,116,5,LX,LY):: NEX : ALL SPRITE(#SP,CH,5,LX,LY)::
      Q      : EXT SP :: CALL SOUND(500,311 : T SP :: CALL SOUND(500,392,1 : NEXT SP :: CALL SOUND(500,4
      QUIT"      : ,1):: CALL SOUND(500,392,1):: : ): CALL SOUND(500,494,1):: : 94,1):: CALL SOUND(500,622,1
560 ACCEPT AT(22,1)VALIDATE( : : CALL SOUND(500,466,1) : CALL SOUND(500,587,1) : ): CALL SOUND(500,740,1)
UALPHA):T$ :: IF T$="Q" THEN : 710 DATA 116,71,80,116,55,80 : 870 DATA 55,80,38,80,23,80 : 1030 DATA 116,39,80,116,23,8
200 :: GOSUB 230 :: IF T<> : ,116,38,80,124,69,60,124,37, : 880 CALL SOUND(2000,392,1,49 : 0.116,7.80,120,21,60,120,5,6
"C" THEN 600 : 60 : 4,1,587,1):: DISPLAY AT(16,1 : 0
570 RESTORE 580 :: FOR SP=1 : 720 CALL SOUND(2000,311,1,39 : ): "G MAJOR TRIAD" :: GOSUB 1 : 1040 CALL SOUND(2000,494,1,6
TO 3 :: READ CH,LX,LY :: CAL : 2,1,466,1):: DISPLAY AT(16,1 : 050 :: GOTO 860 : 22,1,740,1):: DISPLAY AT(16,
L SPRITE(#SP,CH,5,LX,LY):: N : ): "E FLAT MAJOR TRIAD" :: 60 : 890 IF T<>"AF" THEN 930 : 1): "B MAJOR TRIAD" :: GOSUB
EXT SP :: CALL SOUND(500,262 : SUB 1050 :: GOTO 690 : 900 RESTORE 910 :: FOR SP=1 : 1050 :: GOTO 1020
,1):: CALL SOUND(500,330,1): : 730 IF T<>"E" THEN 770 : TO 5 :: READ CH,LX,LY :: CAL : 1050 DISPLAY AT(24,1):"PLAY
: CALL SOUND(500,392,1) : 740 RESTORE 750 :: FOR SP=1 : L SPRITE(#SP,CH,5,LX,LY):: N : TRIAD AGAIN Y/N" :: CALL KEY
580 DATA 112,86,80,116,71,80 : TO 4 :: READ CH,LX,LY :: CAL : EXT SP :: CALL SOUND(500,415 : (0,K,S):: IF S=0 THEN 1050 :
,116,55,80 : L SPRITE(#SP,CH,5,LX,LY):: N : ,1):: CALL SOUND(500,523,1): : IF K=89 THEN RETURN ELSE C
590 CALL SOUND(2000,262,1,33 : EXT SP :: CALL SOUND(500,330 : : CALL SOUND(500,622,1) : ALL DELSPRITE(ALL):: GOTO 52
0,1,392,1):: DISPLAY AT(16,1 : ,1):: CALL SOUND(500,415,1): : 910 DATA 116,49,80,116,31,80 : 0
): "C MAJOR TRIAD" :: GOSUB 1 : : CALL SOUND(500,494,1) : ,116,17,80,124,46,60,124,12, : 1060 DISPLAY AT(24,1):"PRESS
050 :: GOTO 570 : 750 DATA 116,71,80,116,55,80 : 60 : : ANY KEY" :: CALL KEY(0,K,S)
600 IF T<>"CS" THEN 650 : ,116,38,80,120,53,60 : 920 CALL SOUND(2000,415,1,52 : : IF S=0 THEN 1060 :: RETUR
610 RESTORE 620 :: FOR SP=1 : 760 CALL SOUND(2000,330,1,41 : 3,1,622,1):: DISPLAY AT(16,1 : N
TO 6 :: READ CH,LX,LY :: CAL : 5,1,494,1):: DISPLAY AT(16,1 : ): "A FLAT MAJOR TRIAD" :: 60 : 1070 FOR R=12 TO 24 :: DISPL
L SPRITE(#SP,CH,5,LX,LY):: N : ): "E MAJOR TRIAD" :: GOSUB 1 : SUB 1050 :: GOTO 900 : AY AT(R,1):" " :: NEXT R ::
EXT SP :: CALL SOUND(500,277 : 050 :: GOTO 740 : 930 IF T<>"A" THEN 970 : RETURN
,1):: CALL SOUND(500,349,1): : 770 IF T<>"F" THEN 810 : 940 RESTORE 950 :: FOR SP=1 :
: CALL SOUND(500,415,1) : 780 RESTORE 790 :: FOR SP=1 : TO 4 :: READ CH,LX,LY :: CAL :
620 DATA 112,86,80,116,71,80 : TO 0 :: READ LX,LY :: CALL S : L SPRITE(#SP,CH,5,LX,LY):: N :
,116,55,80,120,84,60,120,69, : PRITE(#SP,116,5,LX,LY):: NEX : EXT SP :: CALL SOUND(500,440 :
60,120,53,60 : T SP :: CALL SOUND(500,349,1 : ,1):: CALL SOUND(500,554,1): :
630 CALL SOUND(2000,277,1,34 : ): CALL SOUND(500,440,1):: : CALL SOUND(500,659,1) :
9,1,415,1):: DISPLAY AT(16,1 : CALL SOUND(500,523,1) : 950 DATA 116,49,80,116,31,80 :
): "C SHARP MAJOR TRIAD" :: 6 : 790 DATA 63,80,49,80,31,80 : ,116,17,80,120,31,60 :
050 1050 :: GOTO 610 : 800 CALL SOUND(2000,349,1,44 : 960 CALL SOUND(2000,440,1,55 :
640 CALL JOYST(2,X,Y):: CALL : 0,1,523,1):: DISPLAY AT(16,1 : 4,1,659,1):: DISPLAY AT(16,1 :
NOTION(#7,-Y#2,X#2):: CALL : ): "F MAJOR TRIAD" :: GOSUB 1 : ): "A MAJOR TRIAD" :: GOSUB 1 :
POSITION(#7,A,B):: DISPLAY A : 050 :: GOTO 780 : 050 :: GOTO 940 :
T(20,1):A,B :: GOTO 640 : 810 IF T<>"FS" THEN 850 : 970 IF T<>"BF" THEN 1010 :
650 IF T<>"D" THEN 690 : 820 RESTORE 830 :: FOR SP=1 : 980 RESTORE 990 :: FOR SP=1 :
660 RESTORE 670 :: FOR SP=1 : TO 6 :: READ CH,LX,LY :: CAL : TO 4 :: READ CH,LX,LY :: CAL :
TO 4 :: READ CH,LX,LY :: CAL : L SPRITE(#SP,CH,5,LX,LY):: N : L SPRITE(#SP,CH,5,LX,LY):: N :
L SPRITE(#SP,CH,5,LX,LY):: N : EXT SP :: CALL SOUND(500,370 : EXT SP :: CALL SOUND(500,466 :
EXT SP :: CALL SOUND(500,294 : ,1):: CALL SOUND(500,466,1): : ,1):: CALL SOUND(500,587,1): :
,1):: CALL SOUND(500,370,1): : : CALL SOUND(500,554,1) : : CALL SOUND(500,698,1) :
: CALL SOUND(500,440,1) : 830 DATA 116,63,80,116,49,80 : 990 DATA 116,39,80,116,23,80 :
670 DATA 116,77,80,116,63,80 : ,116,31,80,120,61,60,120,46, : ,116,7,80,124,37,60 :
,116,49,80,120,61,60 : 60,120,31,60 :

```

COMPETITION

YES FOLKS YET ANOTHER PARCO COMPETITION AND GREAT PRIZE AT THE END OF IT. THE WINNER WILL HAVE HIS OR HER PROGRAM PUBLISHED IN THE MAGAZINE AND ALSO RECEIVE TWENTY FIVE POUNDS WORTH OF PARCO SOFTWARE VOUCHERS.

PLEASE USE "WORD BREAKER" AS THE HEADING FOR YOUR PROGRAM.

THE TITLES & MUSIC (IF ANY) WILL BE TAKEN INTO CONSIDERATION BUT SPEED OF EXECUTION IS MOST IMPORTANT.

WHAT YOU HAVE TO DO:-

```
10 W$="PARCO"
20 FOR N=1 TO 5
30 L$(N)=SEG$(W$,N,1)
40 NEXT N
50 FOR A=1 TO LEN(W$)
60 FOR B=1 TO LEN(W$)
70 FOR C=1 TO LEN(W$)
80 FOR D=1 TO LEN(W$)
90 IF A=B OR A=C OR B=C OR A=D OR B=D OR C=D THEN 110
100 PRINT L$(A);L$(B);L$(C);L$(D);"<SPACE BAR>";
110 NEXT D::NEXT C::NEXT B::NEXT A
```

THIS PROGRAM IS ADEQUATE BUT COULD BE MORE CONCISE AND FASTER.

1. ALLOW INPUT OF UP TO 16 LETTERS.
2. FAST EXECUTION TIME.
3. USE LESS FOR-NEXT LOOPS, IF POSSIBLE.
4. PROGRAM CAN BE IN BASIC, X BASIC OR MACHINE CODE. THE JUDGES WILL TAKE THIS INTO CONSIDERATION.
5. PROGRAM MUST USE ALL THE LETTERS INPUT AND PRINT EVERY POSSIBLE COMBINATION.

THE ABOVE PROGRAM PRINTS OUT 120 WORDS.

IF YOU USE 16 FOR-NEXT LOOPS YOUR FIRST ANSWER WILL COME ABOUT TWO DAYS AFTER YOU HAVE RUN IT.

GOOD LUCK.



ODD ONE OUT COMPETITION RESULT

IN VOL 2 ISSUE 2

THE ODD ONE OUT WAS NO 2

THE REASON... ALL THE OTHER PICTURES RELATED TO ARTICLES
NO 2 WAS FROM A COMPETITION

THE WINNER..... S BARNES

THE PRIZE..... SHAMUS

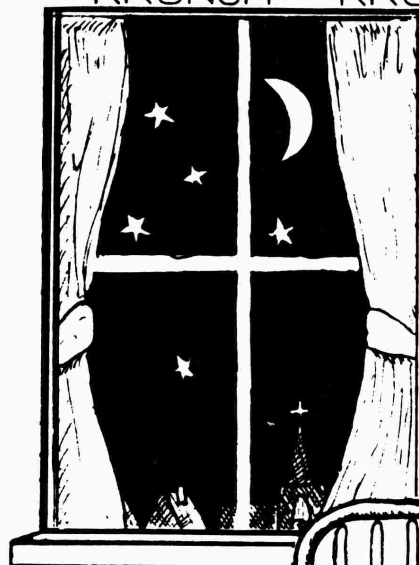
IT'S ON ITS WAY TO YOU

KEYBOARD KRUNCHERS

THE LIST

PAGE ****	TITLE *****	PROG IN *****
10	ALL WHITE BY NOEL CHARLES	BASIC
11	SKEET SHOOT BY MARK ROULSTON	EX. BASIC
15	BATTLESHIPS BY D. J. IRWIN	EX. BASIC

KRUNCH * KRUNCH



KRUNCH
KRUNCH

KRUNCH
KRUNCH * KRUNCH * KRUNCH

WELL HERE'S A SET OF KEYBOARD KRUNCHERS TO BLOW YOUR MINDS. I REFER MAINLY TO THE FIRST GAME CALLED "ALL WHITE". THE OBJECT OF THE GAME IS TO CHANGE ALL THE SQUARES WHITE. THE NUMBER YOU SELECT TO BE CHANGED WILL ALSO CHANGE ANY OTHER COLOUR IN THAT ROW OR COLUMN, PROVIDING THE COLOUR YOU CHANGE IS IN THE CENTRE OF THAT ROW OR COLUMN. THE EXCEPTION BEING THE FOUR CORNER SQUARES WHICH WHEN CHANGED ALSO CHANGE THE COLOUR OF THE SQUARES TO THE LEFT, RIGHT OR UP AND DOWN OF THAT SQUARE. I THINK THAT'S WHITE!!! WHITE BLACK IF YOU THINK OTHERWISE!! IF YOU RUN THIS FIRST AND TRY TO PLAY IT, YOU MAY NEVER GET TO THE 2ND AND 3RD LISTINGS THIS YEAR. "SKEET SHOOT" IN EXTENDED BASIC ALLOWS FOR TWO SHOTS ONLY PER SKEET. "BATTLESHIPS" IS THE OLD FAVOURITE GAME BUT YOU PLAY AGAINST THE COMPUTER, AND I AM TOLD BY THE AUTHOR THAT THE COMPUTER PROMISES NOT TO CHEAT AND LOOK WHERE YOU PLACE YOUR PIECES.

WE HAD SO MANY COMPLAINTS ABOUT THE SMALL SIZE OF OUR PROGRAM LISTINGS THAT WE HAVE CHANGED TO A NEW STYLE OF LISTING, AND I HOPE FROM THIS WE GET FEWER COMPLAINTS.

IF YOU HAVE A PROGRAM YOU WOULD LIKE TO SUBMIT FOR LISTING IN KEYBOARD KRUNCHERS, OR IN FACT ANY ARTICLE FOR THE MAGAZINE, WRITE TO ME:

THE EDITOR,
99/4 MAGAZINE,
2 DEVONSHIRE COURT,
HEATH PARK, HONITON, DEVON. EX14 8SB

I HOPE YOU ENJOY THIS MONTHS PROGRAMS.

HAPPY KRUNCHING.

2021 note: This listing includes graphics characters with no indication of how or what to key in!
(Line 500 is a puzzle)

ALL WHITE

BY

Noel Charles

```

100 RANDOMIZE
110 CALL CLEAR
120 CALL CHAR(74,"00444428101010
10")
130 CALL SCREEN(5)
140 FOR A=1 TO 8
150 CALL COLOR(A,15,5)
160 NEXT A
170 PRINT "      A L L   W H I T
E ?      -----
"::"      BY"::"      N
DEL CHARLES"::
180 PRINT "      ,(1986)"::
:::
190 FOR A=1 TO 1500
200 NEXT A
210 CALL CLEAR
220 PRINT "::::::::::"
1 = EASY"::"      2 = HARD"
::::"      SELECT A LEVEL"::
::::
230 CALL KEY(O,K,S)
240 IF (S=0)+(K<49)+(K>50)THEN 2
30
250 SK=K-48
260 PRINT "      PLEASE WAIT":
:::
270 FOR A=1 TO 300
280 NEXT A
290 CALL CLEAR
300 CALL SCREEN(2)
310 SY=18
320 SX=24
330 FOR A=1 TO 16
340 CALL COLOR(A,2,2)
350 NEXT A
360 FOR A=88 TO 152 STEP 8
370 CALL CHAR(A,"00")
380 NEXT A
390 CALL CHAR(33,"FFFFFFFFFFFF
FF")
400 CALL CHAR(41,"FF7F3F1F0F0703
01")
410 CALL CHAR(42,"FFFEFCF8F0E0C0
80")
420 CALL CHAR(43,"0103070F1F3F7F
FF")
430 CALL CHAR(44,"80C0E0F0F8FCFE
FF")
440 CALL CHAR(40,"FFFFFFFFFFFF
FF")
450 CALL CHAR(64,"000000FFFF")

```

```

460 PRINT "      A L L   W H I T
E ?      @@@@0000000000000000
@":::
470 PRINT " ,!!!!!!!!!!!!!!+
(      (
( XXX \ \ \ HHH (      "
480 PRINT " ( XZX \A\ HIH ( LOW
SCORE ( XXX \ \ \ HHH ( @@@@@@@@
@@ (      (
490 PRINT " ( PPP XXX (
( PPF XYX (      "
( PPP XXX (      "
500 PRINT " (      ( M
OVES (      ( @@@@@@
( / E S (      "
510 PRINT " (      (
(      (
*!!!!!!!!!!!!!!)      "
:::
520 CALL CHAR(90,"18383818181818
7E")
530 CALL CHAR(97,"7EC3033E60C0C0
FF")
540 CALL CHAR(105,"7EC3031E0303C
37E")
550 CALL CHAR(113,"0C1C3C6CCCFE0
C0C")
560 CALL CHAR(121,"FFC0C0FE0303C
37E")
570 CALL CHAR(129,"1E70C0C0FEC3C
37E")
580 CALL CHAR(137,"FF03060C18303
030")
590 CALL CHAR(145,"7EC3C37EC3C3C
37E")
600 CALL CHAR(153,"7EC3C37F03030
E78")
610 RESTORE 670
620 FOR A=1 TO 8
630 READ COL,BAC
640 IF COL=0 THEN 680
650 CALL COLOR(A,COL,BAC)
660 NEXT A
670 DATA 10,11,7,11,5,11,5,11,5,
11,5,11,5,11,0,0
680 CALL COLOR(2,7,10)
690 CALL SCREEN(3)
700 CH$(1)="124"
710 CH$(2)="213"
720 CH$(3)="326"
730 CH$(4)="417"
740 CH$(5)="52684"
750 CH$(6)="639"
760 CH$(7)="748"
770 CH$(8)="879"
780 CH$(9)="968"
790 L=1000
800 CALL HCHAR(12,24,32,3)
810 FOR A=1 TO 9
820 CO$(A)="-1"
830 NEXT A

```

```

840 FOR A=8 TO 16
850 CALL COLOR(A,8,2)
860 NEXT A
870 IF SK=1 THEN 910
880 RC=INT(RND*9)+8
890 CD$(RC-7)="1"
900 CALL COLOR(RC,8,16)
910 CALL HCHAR(21,22,32,7)
920 CALL HCHAR(23,24,32,3)
930 CALL HCHAR(18,24,32,3)
940 M$="0"
950 M=0
960 CALL KEY(0,K,S)
970 IF K=6 THEN 810
980 IF K=15 THEN 210
990 IF (S=0)+(K<49)+(K>57) THEN 960
1000 K=K-48
1010 M=M+1
1020 MS$=STR$(M)
1030 GOSUB 1350
1040 FOR A=1 TO LEN(CH$(K))
1050 B=VAL(SEG$(CH$(K),A,1))
1060 CD$(B)=STR$(-VAL(CD$(B)))
1070 CALL COLOR(B+7,11,(VAL(CD$(B))+1)*7+2)
1080 NEXT A
1090 FOR A=1 TO 9
1100 IF CD$(A)="-1" THEN 960
1110 NEXT A
1120 IF M>=L THEN 1170
1130 L=M
1140 SY=12
1150 MS$=STR$(L)
1160 GOSUB 1350
1170 FOR A=1 TO 5
1180 CALL SOUND(100,1000,2)
1190 NEXT A
1200 MS$="AGAIN ?"
1210 SY=21
1220 SX=21
1230 GOSUB 1350
1240 SY=23
1250 SX=23
1260 MS$="J:N"
1270 GOSUB 1350
1280 CALL KEY(0,K,S)
1290 IF K=15 THEN 210
1300 IF S=0 THEN 1280
1310 IF (K<>89)*(K<>78) THEN 1280
1320 IF K=89 THEN 810
1330 CALL CLEAR
1340 END
1350 FOR A=1 TO LEN(MS$)
1360 CALL VCHAR(SY,SX+A,ASC(SEG$(MS$,A,1)))
1370 NEXT A
1380 SY=18
1390 SX=24
1400 RETURN

```

SKEET SHOOT

BY
M. ROULSTON

```

10 REM*****
20 REM*
30 REM* SKEET SHOOT *
40 REM*
50 REM* WRITTEN BY *
60 REM*
70 REM* MS.ROULSTON *
80 REM*
90 REM*****
95 UA$="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
YZ"
100 RANDOMIZE
120 CALL CLEAR :: CALL CHARSET :
: CALL SCREEN(16)
130 CALL CHAR(128,"000000FFFF000
000")
140 CALL CHAR(64,"3C42B9A1A1B942
3C")
150 CALL COLOR(13,7,1)
160 DISPLAY AT(1,9):"SKEET SHOOT
"
170 CALL HCHAR(2,1,128,32)
180 DISPLAY AT(4,9):"WRITTEN FOR
"
190 DISPLAY AT(6,5):"-----
"
200 CALL HCHAR(8,1,128,32)
210 DISPLAY AT(9,7):"BY MARK ROU
LSTON"
220 DISPLAY AT(15,1):" JOYSTICK
S ARE REQUIRED"
230 CALL HCHAR(10,1,128,32)
240 CALL HCHAR(22,1,128,32)
250 DISPLAY AT(23,8):"PRESS ANY
KEY"
260 CALL HCHAR(24,1,128,32)
270 CALL KEY(0,K,S):: IF S=0 THE
N 270
280 CALL CLEAR
290 DISPLAY AT(12,6):"<1> OR <2>
PLAYERS"
300 CALL KEY(0,K,S):: IF S=0 THE
N 300
310 PLA=0
320 IF K=49 THEN PLA=1
330 IF K=50 THEN PLA=2
340 IF PLA=0 THEN 300
350 REM*SKEET SHOOT*
360 CALL MAGNIFY(3)
370 CALL CLEAR :: CALL SCREEN(2)
380 FOR G=0 TO 8 :: CALL COLOR(G
16,1):: NEXT G

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```

1110 CALL COLOR(1,2,1)
1120 CALL CHAR(35,"FFFFFFFFFFFFFFF")
1130 CALL COLOR(1,5,1)
1140 CALL COLOR(2,13,1)
1150 CALL COLOR(3,16,2,4,16,2)
1160 CALL COLOR(12,2,13)
1170 REM SET UP SCREEN
1180 CALL CLEAR
1190 CALL SCREEN(6)
1200 PRINT "
"
1210 PRINT "      (*(*
      (*("
1220 PRINT "####)+)+      +)
      +)+####"
1230 PRINT "# #,...      ..
      ...# #"
1240 PRINT "####-/-/      -/-
      -/####"
1250 PRINT "))))))))))))))))))))))))))
      )))))))"
1260 PRINT "))))))))))))))))))))))))))
      )))))))"
1270 PRINT "))))))))))))))))))))))))))
      )))))))"
1280 DISPLAY AT(16,9)SIZE(6):"PU
      LLED"
1290 FOR G=5 TO 8 :: CALL COLOR(
      G,16,2):: NEXT G
1300 DISPLAY AT(18,9)SIZE(LEN(N$
      (1))):N$(1)
1310 DISPLAY AT(20,9)SIZE(LEN(N$
      (2))):N$(2)
1320 DISPLAY AT(16,16)SIZE(1):ST
      R$(PL)
1330 DISPLAY AT(18,16)SIZE(1):ST
      R$(SC(1))
1340 DISPLAY AT(20,16)SIZE(1):ST
      R$(SC(2))
1350 PL=00
1360 PR=1
1370 CALL DELSPRITE(ALL)
1380 IF PLA=2 THEN JO=PR
1390 CALL SPRITE(#4,96,CS(PR),15
      0,120)
1400 CALL SPRITE(#5,100,CS(PR),1
      66,120)
1410 CALL SPRITE(#6,104,11,150,1
      20)
1420 CALL SPRITE(#7,108,CH(PR),1
      50,120)
1430 CALL SPRITE(#8,112,2,166,12
      0)
1440 CALL SPRITE(#9,128,7,145,12
      0)
1450 CALL SPRITE(#1,140,5,80,120
      )
1460 CALL SPRITE(#2,116,7,141,24
      )
1470 CALL SPRITE(#3,116,7,141,20
      8)

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```

1480 DISPLAY AT(1,9):"READY "&N$(
      PR):: DISPLAY AT(9,9):"PRESS FI
      RE"
1490 CALL KEY(JO,K,S):: IF S=0 T
      HEN 1490
1510 SKD=0 :: ST=0
1520 DISPLAY AT(1,9):"      " :: DI
      SPLAY AT(9,9):"      "
1530 FOR DELAY=1 TO 200 :: NEXT
      DELAY
1540 CALL SOUND(1,-6,0)
1550 IF PLA=1 THEN PL=PL+2
1560 IF PLA=2 AND PR=2 THEN PL=P
      L+2
1570 CALL MOTION(#2,-RND*10-10,R
      ND*10+10,#3,-RND*10-10,-RND*10-1
      0)
1580 CALL JOYST(JO,X,Y)
1590 IF X=4 THEN CALL PATTERN(#9
      ,136)
1600 IF X=-4 THEN CALL PATTERN(#
      9,132)
1610 IF Y=4 THEN CALL PATTERN(#9
      ,128)
1620 CALL MOTION(#1,-Y*10,X*10)
1630 CALL POSITION(#2,RO1,CO1,#3
      ,RO2,CO2)
1640 IF RO1<60 THEN CALL MOTION(
      #2,RND*20+12,RND*3+1)
1650 IF RO1>160 THEN SKD=SKD+1 :
      : CALL DELSPRITE(#2):: IF SKD=2
      THEN 1750
1660 IF RO2<60 THEN CALL MOTION(
      #3,RND*20+12,-RND*3+1)
1670 IF RO2>160 THEN SKD=SKD+1 :
      : CALL DELSPRITE(#3):: IF SKD=2
      THEN 1750
1680 CALL KEY(JO,K,S):: IF S=0 T
      HEN 1580
1690 IF ST=2 THEN 1580
1700 ST=ST+1
1710 CALL DISTANCE(#1,#2,D1):: C
      ALL DISTANCE(#1,#3,D2)
1720 CALL SOUND(90,-7,0)
1730 IF D1<150 OR D2<150 THEN 18
      40
1740 GOTO 1580
1750 DISPLAY AT(16,16)SIZE(LEN(S
      TR$(PL))):STR$(PL)
1760 DISPLAY AT(18,16)SIZE(LEN(S
      TR$(SC(1))):STR$(SC(1))
1770 DISPLAY AT(20,16)SIZE(LEN(S
      TR$(SC(2))):STR$(SC(2))
1780 IF PL=SK THEN 1890
1790 IF PLA=2 THEN 1800 ELSE PR=
      1 :: GOTO 1370
1800 IF PR=1 THEN PR=2 :: GOTO 1
      370
1810 IF PR=2 THEN PR=1 :: GOTO 1
      370
1820 IF PR>2 OR PR<1 THEN PR=1
1830 GOTO 1370

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```

1840 SH=0 :: IF D1<150 THEN CALL
PATTERN(#2,120):: SH=SH+1
1850 IF D2<150 THEN CALL PATTERN
(#3,120):: SH=SH+1
1860 CALL SOUND(200,-5,0)
1870 SC(PR)=SC(PR)+SH
1880 GOTO 1580
1890 CALL DELSPRITE(ALL):: FOR D
=1 TO 600 :: NEXT D :: DISPLAY A
T(16,9):"GAME OVER "
1900 FOR DELAY=1 TO 400 :: NEXT
DELAY
1910 CALL CLEAR
1920 CALL CHARSET
1930 FOR G=0 TO 12 :: CALL COLOR
(G,16,1):: NEXT G
1940 CALL SCREEN(2)
1950 DISPLAY AT(1,7):"FINAL SCOR
ES"
1960 DISPLAY AT(2,7):"~~~~~"
1970 DISPLAY AT(5,3):"PLAYER:"&N
$(1)
1980 DISPLAY AT(7,3):"SCORE:"&ST
R$(INT(SC(1)/SK*100))&"%"
1990 SS=SC(1):: GOSUB 2170
2000 DISPLAY AT(9,3):"STATUS:"&S
T$
2010 IF PLA=1 THEN 2120
2020 DISPLAY AT(12,3):"PLAYER:"&
N$(2)
2030 DISPLAY AT(14,3):"SCORE:"&S
TR$(INT(SC(2)/SK*100))&"%"
2040 SS=SC(2):: GOSUB 2170
2050 DISPLAY AT(16,3):"STATUS:"&
ST$
2060 IF SC(1)>SC(2) THEN WIN=1
2070 IF SC(2)>SC(1) THEN WIN=2
2080 IF SC(1)=SC(2) THEN WIN=0
2090 IF WIN=1 OR WIN=2 THEN DISP
LAY AT(20,7):"WINNER:"&N$(WIN)
2100 IF WIN=0 THEN DISPLAY AT(20
,9):"RESULT:DRAW"
2110 IF WIN=0 THEN 2320
2120 DISPLAY AT(24,6):"NEW GAME(
Y OR N)?"
2130 CALL KEY(O,K,S):: IF S=0 TH
EN 2130
2140 IF K=ASC("Y") OR K=ASC("Y") T
HEN 280
2150 IF K=ASC("N") OR K=ASC("N") T
HEN CALL CLEAR :: END
2160 GOTO 2130
2170 REM*STATUS*
2180 PP=SS
2190 SS=PP/SK*100
2200 IF SS=0 THEN ST$="RUBBISH"
2210 IF SS>0 THEN ST$="VERY BAD"
2220 IF SS>5 THEN ST$="BAD"
2230 IF SS>10 THEN ST$="NOVICE"
2240 IF SS>20 THEN ST$="AVERAGE"
2250 IF SS>40 THEN ST$="ABOVE AV
ERAGE"
2260 IF SS>50 THEN ST$="VERY GOOD"
2270 IF SS>60 THEN ST$="EXCELLEN
T"
2280 IF SS>70 THEN ST$="PROFESSI
ONAL"
2290 IF SS>85 THEN ST$="CHAMPION"
2300 IF SS=100 THEN ST$="PERFECT
!!!"
2310 RETURN
2320 DISPLAY AT(24,9):"PRESS SPA
CEBAR"
2330 CALL KEY(O,K,S):: IF K<>32
THEN 2330
2340 CALL CLEAR
2350 DISPLAY AT(1,12):"DRAW"
2360 DISPLAY AT(2,12):"~~~~~"
2370 DISPLAY AT(5,4):"AS THE RES
ULT IS A DRAW"
2380 DISPLAY AT(7,4):"YOU MAY DE
CIDE WHICH"
2390 DISPLAY AT(9,4):"OPTION YOU
WOULD LIKE:"
2400 DISPLAY AT(12,4):"<1> 6 SKE
ET TIE BREAKER"
2410 DISPLAY AT(14,4):"<2> 10 SK
EET TIE BREAKER"
2420 DISPLAY AT(16,4):"<3> FINIS
H THE GAME NOW"
2430 DISPLAY AT(18,4):"<4> REPLA
Y"
2440 DISPLAY AT(24,8):"SELECT NO
W!"
2450 CALL KEY(O,K,S):: IF S=0 TH
EN 2450
2460 IF K=49 THEN 2510
2470 IF K=50 THEN 2540
2480 IF K=51 THEN 2560
2490 IF K=52 THEN 2630
2500 GOTO 2450
2510 REM*6*
2520 SK=6 :: SC(1)=0 :: SC(2)=0
:: PLA=2
2530 GOTO 930
2540 SK=10 :: SC(1)=0 :: SC(2)=0
:: PLA=2
2550 GOTO 930
2560 CALL CLEAR
2570 DISPLAY AT(1,7):"FINAL RESU
LT"
2580 DISPLAY AT(2,7):"~~~~~"
2590 DISPLAY AT(6,1):" THE FINAL
RESULT WAS....."
2600 DISPLAY AT(9,8):STR$(SC(1)/
PL*100)&"%-"&STR$(SC(2)/PL*100)&
"%"
2610 DISPLAY AT(12,10):"A DRAW!"
2620 GOTO 2120
2630 REM*REPLAY*
2640 SC(1)=0 :: SC(2)=0
2650 GOTO 930

```

BATTLESHIPS

BY

DJ IRWIN

```
100 REM***BATTLESHIPS***
110 REM***D.J.IRWIN*****
120 REM ***FEBRUARY 1985*
130 CALL CLEAR
140 CALL SCREEN(2)
150 OPTION BASE 1
160 DIM COM(12),R1(12),C1(12)
170 REM SPECIAL CHARS
172 FOR I=1 TO 10
173 READ AA,A$
174 CALL CHAR(AA,A$)
175 NEXT I
176 DATA 104,"FF80808080808080",
112,"000000FF3F1F0F",113,"20387C
FFFFFF",114,"000000FFFEFCFC"
177 DATA 115,"24272FFF7FFFFFF",11
6,"0078E0FFFFFFEFC",117,"24272FFF
7FFFFFF",118,"0078E0FFFFFFEFC"
178 DATA 128,"834A34FC3C2C4381",
136,"7E7E3C3C2C2C2C2C"
179 RESTORE 230
180 FOR I=1 TO 5
190 A$="00000008FF"
200 READ AA
210 CALL CHAR(AA,A$)
220 NEXT I
230 DATA 119,120,121,122,123
260 A$="00000008FF"
340 REM SPECIAL COLORS
350 CALL COLOR(10,1,12)
360 CALL COLOR(11,2,12)
370 CALL COLOR(12,2,12)
380 CALL COLOR(13,16,7)
390 CALL COLOR(14,16,6)
400 REM TITLES
410 GOSUB 4450
420 REM SCREEN LAYOUT
430 GOSUB 1080
440 REM LOC COMPUTER SHIPS
450 GOSUB 1620
460 REM LOC PLAYER SHIPS
```

```
470 GOSUB 1940
480 CA=0
490 FR1=0
500 FR2=0
510 SUBS=0
520 CH=0
530 HIT=0
540 FOR I=3 TO 8
550 CALL COLOR(I,16,14)
560 NEXT I
570 CALL COLOR(1,16,14)
580 M$="YOU FIRE FIRST"
590 ROW=22
600 COL=4
610 GOSUB 4130
620 FOR P=1 TO 200
630 REM FIRING ROUTINE
640 GOSUB 2780
650 REM COMPUTER FIRES
660 GOSUB 3690
670 NEXT P
680 REM PLAYER WINS
690 CALL CLEAR
700 M$="YOU'RE A CLEVER PLAYER"
710 ROW=12
720 COL=4
730 GOSUB 4130
740 M$="YOU'VE WON!"
750 ROW=14
760 COL=4
770 GOSUB 4130
780 M$="ANOTHER GAME?Y/N"
790 ROW=22
800 COL=8
810 GOSUB 4130
820 GOTO 1020
830 REM COM WINS
840 CALL CLEAR
85 M$="SORRY, I'VE BEATEN YOU"
860 ROW=12
870 COL=4
880 GOSUB 4130
890 GOTO 980
900 M$="I'M SAD YOU'VE GIVEN UP!
"
910 ROW=12
920 COL=4
930 GOSUB 4130
940 M$="I WAS ENJOYING MYSELF!"
950 ROW=14
960 COL=4
970 GOSUB 4130
980 M$="ANOTHER GAME?Y/N"
990 ROW=22
1000 COL=8
1010 GOSUB 4130
1020 CALL KEY(0,CODE,ST)
1030 IF ST=0 THEN 1020
1040 IF CODE<>89 THEN 1070
1050 CALL CLEAR
1060 GOTO 420
1070 END
```

```

1080 REM SCREEN LAYOUT
1090 CALL CLEAR
1100 CALL SCREEN(9)
1110 FOR I=5 TO 19 STEP 2
1120 FOR L=4 TO 14 STEP 2
1130 CALL HCHAR(I,L,104)
1140 CALL HCHAR(I,L+1,104)
1150 CALL HCHAR(I+1,L,104)
1160 CALL HCHAR(I+1,L+1,104)
1170 NEXT L
1180 NEXT I
1190 CALL SCREEN(5)
1200 FOR I=5 TO 19 STEP 2
1210 FOR L=18 TO 28 STEP 2
1220 CALL HCHAR(I,L,104)
1230 CALL HCHAR(I,L+1,104)
1240 CALL HCHAR(I+1,L,104)
1250 CALL HCHAR(I+1,L+1,104)
1260 NEXT L
1270 NEXT I
1280 CALL SCREEN(8)
1290 FOR I=2 TO 8
1300 CALL COLOR(I,16,5)
1310 NEXT I
1320 B=65
1330 FOR I=4 TO 15
1340 CALL HCHAR(4,I,B)
1350 B=B+1
1360 NEXT I
1370 B=65
1380 FOR I=18 TO 29
1390 CALL HCHAR(4,I,B)
1400 B=B+1
1410 NEXT I
1420 B=65
1430 FOR I=5 TO 20
1440 CALL VCHAR(I,3,B)
1450 B=B+1
1460 NEXT I
1470 B=65
1480 FOR I=5 TO 20
1490 CALL VCHAR(I,17,B)
1500 B=B+1
1510 NEXT I
1520 M$="MY SCORE:"
1530 ROW=1
1540 COL=2
1550 GOSUB 4130
1560 M$="YOUR SCORE:"
1570 ROW=1
1580 COL=16
1590 GOSUB 4130
1600 CALL SCREEN(2)
1610 RETURN
1620 REM LOC COMPUTER SHIPS
1630 M$="I'M LOCATING MY SHIPS"
1640 ROW=22
1650 COL=3
1660 GOSUB 4130
1670 RANDOMIZE
1680 FOR Z=1 TO 12
1690 IF Z<>1 THEN 1720

```

```

1700 COM(Z)=112
1710 GOTO 1750
1720 COM(Z)=COM(Z-1)+1
1730 IF (COM(Z)=113)+(COM(Z)=116)
)+(COM(Z)=118) THEN 1850
1740 IF COM(Z)=114 THEN 1880
1750 R1(Z)=INT(RND*16)+5
1760 C1(Z)=INT(RND*12)+4
1770 IF C1(Z)>12 THEN 1760
1780 IF COM(Z)>=115 THEN 1790 EL
SE 1900
1790 FOR I=1 TO (Z-1)
1800 IF (R1(Z)=R1(Z-1))*(C1(Z)=C
1(Z-1)) THEN 1840
1810 IF (R1(Z)=R1(Z-1))*(C1(Z)+1
=C1(Z-1)) THEN 1840
1820 NEXT I
1830 GOTO 1900
1840 GOTO 1750
1850 C1(Z)=C1(Z-1)+1
1860 R1(Z)=R1(Z-1)
1870 GOTO 1900
1880 C1(Z)=C1(Z-2)+2
1890 R1(Z)=R1(Z-2)
1900 REM HCHAR(R1(Z),C1(Z),COM(
Z))
1910 CALL SOUND(20,1000,0)
1920 NEXT Z
1930 RETURN
1940 REM LOC PLAYER SHIPS
1950 FOR K=1 TO 8
1960 IF K=1 THEN 2000
1970 IF K=2 THEN 2020
1980 IF K=3 THEN 2020
1990 IF K=4 THEN 2040
2000 M$="LOCATE YOUR CARRIER"
2010 GOTO 2050
2020 M$="LOCATE YOUR FRIGATE"
2030 GOTO 2050
2040 M$="LOCATE YOUR SUB"
2050 GOSUB 4410
2060 CALL HCHAR(23,18,104)
2070 CALL HCHAR(23,18,95)
2080 CALL KEY(0,CE,ST)
2090 IF ST=0 THEN 2060
2100 IF (CODE<65)+(CODE>80) THEN
2060
2110 R=(CODE-64)+4
2120 CALL HCHAR(23,18,CODE)
2130 CALL HCHAR(23,28,104)
2140 CALL HCHAR(23,28,95)
2150 CALL KEY(0,CE,ST)
2160 IF ST=0 THEN 2130
2170 IF (CE<65)+(CE>76) THEN 2130
2180 C=(CE-64)+17
2190 CALL HCHAR(23,28,CE)
2200 REM CALL HCHAR(R,C,104)
2210 IF K<>1 THEN 2250
2220 IF (C<18)+(C>27) THEN 2060
2230 GOSUB 2660
2240 GOTO 2640
2250 IF K<>2 THEN 2400

```

```

2260 IF (C<18)+(C>28) THEN 2060
2270 CALL GCHAR(R,C,GB)
2280 IF GB=104 THEN 2320 ELSE 22
90
2290 CALL HCHAR(R,C,GB)
2300 CALL SOUND(50,523,0)
2310 GOTO 2360
2320 CALL GCHAR(R,C+1,GB)
2330 IF GB=104 THEN 2380 ELSE 23
40
2340 CALL HCHAR(R,C+1,GB)
2350 CALL SOUND(50,523,0)
2360 GOSUB 5080
2370 GOTO 2060
2380 GOSUB 2700
2390 GOTO 2640
2400 IF K<>3 THEN 2550
2410 IF (C<18)+(C>29) THEN 2060
2420 CALL GCHAR(R,C,GB)
2430 CALL HCHAR(R,C,GB)
2440 IF GB=104 THEN 2470
2450 CALL SOUND(50,523,0)
2460 GOTO 2510
2470 CALL GCHAR(R,C+1,GB)
2480 IF GB=104 THEN 2530
2490 CALL HCHAR(R,C+1,GB)
2500 CALL SOUND(50,523,0)
2510 GOSUB 5080
2520 GOTO 2060
2530 GOSUB 2730
2540 GOTO 2640
2550 CALL GCHAR(R,C,GB)
2560 IF GB=104 THEN 2610
2570 CALL HCHAR(R,C,GB)
2580 CALL SOUND(50,523,0)
2590 GOSUB 5080
2600 GOTO 2060
2610 GOSUB 2760
2620 CALL HCHAR(23,18,104)
2630 CALL HCHAR(23,28,104)
2640 NEXT K
2650 RETURN
2660 CALL HCHAR(R,C,112)
2670 CALL HCHAR(R,C+1,113)
2680 CALL HCHAR(R,C+2,114)
2690 RETURN
2700 CALL HCHAR(R,C,115)
2710 CALL HCHAR(R,C+1,116)
2720 RETURN
2730 CALL HCHAR(R,C,117)
2740 CALL HCHAR(R,C+1,118)
2750 RETURN
2760 CALL HCHAR(R,C,119)
2770 RETURN
2780 REM FIRING ROUTINE*****
*****
2790 M$="YOUR SHOT"
2800 GOSUB 4410
2810 CALL HCHAR(23,4,104)
2820 CALL HCHAR(23,4,95)
2830 CALL KEY(0,CD,ST)
2840 IF ST=0 THEN 2810

```

```

2850 IF (CD<32)+(CD>32) THEN 2880
2860 GOSUB 4910
2870 GOTO 900
2880 IF (CD<65)+(CD>80) THEN 2830
2890 R2=(CD-64)+4
2900 CALL HCHAR(23,4,CD)
2910 CALL HCHAR(23,15,104)
2920 CALL HCHAR(23,15,95)
2930 CALL KEY(0,CD,ST)
2940 IF ST=0 THEN 2910
2950 IF (CD<65)+(CD>76) THEN 2930
2960 C2=(CD-64)+3
2970 CALL HCHAR(23,15,CD)
2980 GOSUB 4350
2990 CALL GCHAR(R2,C2,6)
3000 IF (G=136)+(G=67)+(G=70)+(G
=83) THEN 2790 ELSE 3020
3010 REM CHECK SQ
3020 FOR Z=1 TO 12
3030 AA=COM(Z)
3040 IF (R1(Z)=R2)*(C1(Z)=C2) THE
N 3070
3050 NEXT Z
3060 GOTO 3580
3070 IF (AA=112)+(AA=113)+(AA=11
4) THEN 3080 ELSE 3180
3080 CA=CA+1
3090 IF CA<>3 THEN 3130
3100 M$="YOU HAVE SUNK MY CARRIE
R"
3110 GOSUB 4410
3120 GOTO 3150
3130 M$="YOU HAVE HIT MY CARRIER
"
3140 GOSUB 4410
3150 AS=67
3160 HIT=HIT+500
3170 GOTO 3520
3180 IF (AA=115)+(AA=116) THEN 31
90 ELSE 3290
3190 FR1=FR1+1
3200 IF FR1<>2 THEN 3240
3210 M$="YOU HAVE SUNK MY FRIGAT
E"
3220 GOSUB 4410
3230 GOTO 3260
3240 M$="YOU HAVE HIT MY FRIGATE
"
3250 GOSUB 4410
3260 AS=70
3270 HIT=HIT+300
3280 GOTO 3520
3290 IF (AA=117)+(AA=118) THEN 33
00 ELSE 3400
3300 FR2=FR2+1
3310 IF FR2<>2 THEN 3350
3320 M$="YOU HAVE SUNK MY FRIGAT
E"
3330 GOSUB 4410
3340 GOTO 3370
3350 M$="YOU HAVE HIT MY FRIGATE
"

```



```

3360 GOSUB 4410
3370 AS=70
3380 HIT=HIT+300
3390 GOTO 3520
3400 IF (AA=119)+(AA=120)+(121)+
(AA=122)+(AA=123) THEN 3410 ELSE
3580
3410 SUBS=SUBS+1
3420 IF SUBS>5 THEN 3460
3430 M$="YOU HAVE SUNK ALL SUBS"
3440 GOSUB 4410
3450 GOTO 3480
3460 M$="YOU HAVE SUNK A SUB"
3470 GOSUB 4410
3480 AS=83
3490 HIT=HIT+100
3520 CALL HCHAR(R2,C2,AS)
3530 CALL SOUND(500,-6,0)
3550 GOTO 3610
3580 CALL HCHAR(R2,C2,136)
3590 CALL SOUND(100,-5,0)
3610 GOSUB 4250
3620 IF HIT=3200 THEN 3630 ELSE
3650
3630 GOSUB 4910
3640 GOTO 680
3650 CALL HCHAR(23,4,104)
3660 CALL HCHAR(23,15,104)
3670 RETURN
3680 REM **COMPUTER FIRES**
3690 M$="I'M FIRING NOW!"
3700 GOSUB 4410
3710 R3=INT(RND*16)+5
3720 C3=INT(RND*12)+18
3730 CALL GCHAR(R3,C3,GA)
3740 IF (GA=136)+(GA=128) THEN 37
50 ELSE 3760
3750 GOTO 3710
3760 IF (GA<>112)*(GA<>113)*(GA<
>114) THEN 3860
3770 IF GA=112 THEN 3780 ELSE 38
00
3780 GOSUB 5130
3790 GOTO 3850
3800 IF GA=113 THEN 3810 ELSE 38
30
3810 GOSUB 5200
3820 GOTO 3850
3830 IF GA=114 THEN 3840 ELSE 38
50
3840 GOSUB 5260
3850 GOTO 4020
3860 IF (GA<>115)*(GA<>116) THEN
3930
3870 IF GA=115 THEN 3880 ELSE 39
00
3880 GOSUB 5320
3890 GOTO 3920
3900 IF GA=116 THEN 3910 ELSE 39
20
3910 GOSUB 5370
3920 GOTO 4020

```

```

3930 IF (GA<>117)*(GA<>118) THEN
4000
3940 IF GA=117 THEN 3950 ELSE 39
70
3950 GOSUB 5320
3960 GOTO 3990
3970 IF GA=118 THEN 3980 ELSE 39
90
3980 GOSUB 5370
3990 GOTO 4020
4000 IF (GA<>119)*(GA<>120)*(GA<
>121)*(GA<>122)*(GA<>123) THEN 40
60
4010 CH=CH+100
4020 GOSUB 5420
4030 GOTO 4100
4060 CALL HCHAR(R3,C3,136)
4070 CALL SOUND(500,-6,0)
4090 GOTO 4120
4100 GOSUB 4300
4110 IF CH=4200 THEN 830
4120 RETURN
4130 REM PRINT ROUTINE
4140 FOR I=1 TO LEN(M$)
4150 CALL HCHAR(RDW,COL+1,ASC(SE
G$(M$,I,1)))
4160 NEXT I
4170 FOR J=1 TO 250
4180 NEXT J
4190 CALL HCHAR(22,1,104,32)
4200 RETURN
4210 FOR I=1 TO LEN(M$)
4220 CALL HCHAR(RDW,COL+1,ASC(SE
G$(M$,I,1)))
4230 NEXT I
4240 RETURN
4250 REM PRINT HIT ROUTINE
4260 FOR I=1 TO LEN(STR$(HIT))
4270 CALL HCHAR(1,28+I,ASC(SEG$(
STR$(HIT),I,1)))
4280 NEXT I
4290 RETURN
4300 REM PRINT COM.HIT ROUTINE
4310 FOR I=1 TO LEN(STR$(CH))
4320 CALL HCHAR(1,11+I,ASC(SEG$(
STR$(CH),I,1)))
4330 NEXT I
4340 RETURN
4350 CALL SOUND(10,150,0,155,0,1
60,0,-5,0)
4360 FOR SD=15 TO 0 STEP -1
4370 CALL SOUND(10,-1,SD)
4380 NEXT SD
4390 CALL SOUND(100,110,0,115,0,
120,0,-7,0)
4400 RETURN
4410 RDW=22
4420 COL=2
4430 GOSUB 4140
4440 RETURN
4450 REM TITLES
4460 CALL CLEAR

```



```

4470 CALL SCREEN(6)
4480 FOR II=1 TO 24 STEP 4
4490 FOR I=3 TO 30 STEP 3
4500 CALL HCHAR(II,I,112)
4510 CALL HCHAR(II,I+1,113)
4520 CALL HCHAR(II,I+2,114)
4530 NEXT I
4540 NEXT II
4550 FOR COLOR=1 TO 9
4560 CALL COLOR(COLOR,16,1)
4570 NEXT COLOR
4580 M$="BATTLESHIPS"
4590 ROW=12
4600 COL=6
4610 GOSUB 4210
4660 FOR D=1 TO 1000
4670 NEXT D
4680 CALL CLEAR
4690 CALL SCREEN(5)
4700 PRINT "DO YOU WANT INSTRUCTIONS?Y/N"
4710 CALL KEY(0,CODE,ST)
4720 IF ST=0 THEN 4710
4730 IF CODE<>89 THEN 4900
4740 CALL CLEAR
4750 PRINT "INSTRUCTIONS": "-----
      ": : : "YOU ARE PLAYING AGAINST": "THE COMPUTER."
4760 PRINT : : "TO FIRE TYPE IN GRID": "CO-ORDINATES-ROW LETTER IS T.": : "YOU CAN GIVE UP AT ANY TIME"
4770 PRINT "JUST PRESS THE SPACE BAR": "AND THE COMPUTER POSITIONS": "WILL BE REVEALED.": : :
4780 PRINT "(PRESS ANY KEY TO CONTINUE.)"
4790 CALL KEY(0,CODE,ST)
4800 IF ST=0 THEN 4790
4810 CALL CLEAR
4820 PRINT "BEWARE!! ONCE THE": "COMPUTER HITS A SHIP IT": "WILL SINK IT IMMEDIATELY-IT": "KNOWS THE LENGTH OF":
4830 PRINT "ANY SHIP - SO IT'S AT": "A SLIGHT ADVANTAGE.": : "SCORE 500 POINTS FOR": "PART OF A CARRIER":
4840 PRINT "300 POINTS FOR ANY": "PART OF A FRIGATE AND": "100 POINTS FOR EACH OF": "5 SUBMARINES."
4850 CALL KEY(0,K,S)
4860 PRINT : : : : "(PRESS ANY KEY TO CONTINUE.)"
4870 CALL KEY(0,K,S)
4880 IF S=0 THEN 4870
4890 CALL CLEAR
4900 RETURN
4910 REM**REVEAL COM.SHIPS**
4920 FOR Z=1 TO 12
4930 CALL HCHAR(R1(Z),C1(Z),COM(Z))
4940 NEXT Z
4950 IF HIT<>3200 THEN 5000
4960 CALL SOUND(500,262,0,330,0,392,0)
4970 FOR D=1 TO 1000
4980 NEXT D
4990 GOTO 5070
5000 M$="PRESS ANY KEY TO CONTINUE"
5010 ROW=22
5020 COL=3
5030 GOSUB 4130
5040 CALL KEY(0,K,S)
5050 IF S=0 THEN 5040
5060 CALL CLEAR
5070 RETURN
5080 M$="TRY AGAIN! SQUARE OCCUPIED."
5090 ROW=22
5100 COL=3
5110 GOSUB 4130
5120 RETURN
5130 REM COMPUTER DESTROYS CARRIER*****
5140 GOSUB 5420
5150 C3=C3+1
5160 GOSUB 5420
5170 C3=C3+1
5180 CH=CH+1500
5190 RETURN
5200 GOSUB 5420
5210 C3=C3-1
5220 GOSUB 5420
5230 C3=C3+2
5240 CH=CH+1500
5250 RETURN
5260 GOSUB 5420
5270 C3=C3-1
5280 GOSUB 5420
5290 C3=C3-1
5300 CH=CH+1500
5310 RETURN
5320 REM SINK PLAYER FRIGATE****
*****
5330 GOSUB 5420
5340 C3=C3+1
5350 CH=CH+600
5360 RETURN
5370 GOSUB 5420
5380 C3=C3-1
5390 CH=CH+600
5400 RETURN
5410 CH=CH+600
5420 REM EXPLOSION SYMBOL*****
*****
5430 GOSUB 4350
5440 FOR I=1 TO 5
5450 CALL HCHAR(R3,C3,32)
5460 CALL HCHAR(R3,C3,128)
5470 CALL SOUND(100,-6,0)
5480 NEXT I
5490 RETURN

```

HELP

ON ADVENTURES
BY
SCOTT
COPELAND



THE COUNT

What goes up must come down. Entering very tight spaces will lead you to some very strange places. A dumbwaiter or an oven, all have things which are of need. However, timing is a factor - keep up the speed!



ADVENTURELAND



If you get lost in the dungeons below,
there is a way, whether fast or slow,
To return to the stump to continue your quest.
A flying carpet is best for the test.

If you have that 'sinking feeling' do not fear.
If you have Paul Bunyon's axe, the exit is clear.
A treasure you will find, and limbo you will meet.
A direction you may choose, to bring you to your feet.



GOLDEN VOYAGE

One and One are Two, Two and One are Three.
These stones give you a clue and all for free.
Read the stone, it will tell you what to do.
Unite them all and you'll find the clue.

Climbing mountains isn't fun for everyone.
See it, and say it, when you find the sun.
Then again, where do you speak?
Try the foot of the mountain, and not the peak.



VOODOO CASTLE

When entering the lab, which is a scientists field,
Your only recourse for action is protection with a shield.

This game requires not only skill, but luck
Without the four leaf clover you surley will be stuck.
Count Cristo needs some luck, the rabbits foot is there.
Why not make a trade ? He is sure to be fair.



SAVAGE ISLAND PART I



Examining the bear, your face turns to sweat.
Evaporating is the clue, and also getting wet.
Spilling salt water in a very hot place,
Will evaporate it to find something is its space.
Give your findings to the bear,
And soon he won't give a care.

SAVAGE ISLAND PART II

A bandanna can be worn to make it keep its fit.
For some real help in this direction, try tying it.
A loop can be helpful, but then what do you do ?
Try dropping it in every room, soon you'll find a clue.



ZORK I



To save time and moves for a score that is best.
the mirror room provides much help in your quest.
A look in the mirror provides insight,
and after a laugh, what else could be right ?
A look or a feel, or something of such....
Maybe what's required is a mystical touch ?

At the end of the rainbow is said to be a pot of gold.
What could this rainbow possibly hold ?
To cross is the question! And as you cannot walk on air,
To make a rainbow of stone, would be quite fair.
What treasure do you own, which may be colorful ?
The answer lies within it, and results are wonderful.

ZORK II

Spinning wheels, spinning tyres, a carousel is so...
When making an exit, which way do you go ?
Until it's turned off, the attemp's will be slow,
The answer lies to the East of a room that is 'low'.
To avoid electrical shock attempting this feat,
a robot can be found, whose help just can't be beat.

To obtain the key from the unicorn,
You must find the lady of scorn.
and in order to accomplish this feat,
a feisty dragon you must meet.
When you find the lady, a maiden fair as can be,
why not follow her to see what you can see ?

 *
 * SKIING FOR THE 48K TI99/4A WITH E/A MODULE AND DISK DRIVE BY G.MARSHALL*
 *

DEF PROG
 REF VSB, VMB, VSBW, VWTR, KSCAN

Graham Marshall.

```

PROG  BL  @SETCHA  *
      BL  @SETSRN  *
      BL  @DRAMAN  *
      BL  @COUNT  *
      BL  @WAIT    *
      CLR @SLPPOS  *
START CLR  R6      *
AGAIN MOV  @DLSP, R9 *
      AI  R9, 1000 *
LOOPA BL  @COUNT  *
      AI  R9, -1000 *
      CI  R9, 1000 *
      JGT LOOPA    *
      BL  @SUP      *
      BL  @CHJYST   *
      MOV @JOYST, R0 *
      CI  R0, >0400 *
      JNE CONT1     *
      BL  @SLEFT    *
      BL  @RGTMAN   *
      LI  R0, 401    *
      MOV R0, @CHEQ  *
      JMP CONT3      *
CONT1 CI  R0, >FC00  *
      JNE CONT2     *
      BL  @SRIGHT   *
      BL  @LFTMAN   *
      LI  R0, 399    *
      MOV R0, @CHEQ  *
      JMP CONT3      *
CONT2 BL  @DNMAN    *
      LI  R0, 400    *
      MOV R0, @CHEQ  *
CONT3 BL  @CEQHIT   *
      BL  @DRASRN   *
      MOV @SLPPOS, R0 *
      CI  R0, 4927   *
      JLT AGAIN     *
      INC @LAP      *
      CLR @SLPPOS   *
      C  @LAP, @LAPNO *
      JNE START     *
      LI  R0, -1     *
      MOV R0, @TIME  *
      LI  R0, 576    *
      MOV R0, @SLPPOS *
      CLR @LAP      *
      CLR R0        *
LOOP9 INC  R0      *
      CI  R0, >FFFF  *
      JNE LOOP9     *
      BL  @WAIT     *

```

```

      BL  @SETSRN  *
      BL  @DRASRN  *
      CLR R0      *
LOOP10 INC  R0     *
      CI  R0, >FFFF *
      JNE LOOP10   *
      JMP PROG     *
LAP  DATA 0      *
LAPNO DATA 2     *

```

```

*****
SETSRN CLR  R2      *
      LI  R0, >2000 *
LOOP0  MOV  R0, @SCREEN(R2) *
      INC  R2      *
      CI  R2, 576  *
      JNE LOOP0    *
      RT          *

```

```

*****
SLPPOS DATA 576
SCREEN BSS 576
TEXT '
SUP  LI  R1, 32
     CLR R2
LOOP1 MOV  @SCREEN(R1), @SCREEN(R2)
      INC  R2
      INC  R1
      CI  R1, 576
      JNE LOOP1

```

```

*
LI  R2, 544
MOV @SLPPOS, R1
LOOP2 MOV  @SLOPE(R1), @SCREEN(R2)
      INC  R1
      INC  R2
      CI  R2, 576
      JNE LOOP2
      LI  R0, 32
      A  R0, @SLPPOS
      RT
      NOP

```

```

*****
NXTDRA DATA >0000 *
SLEFT  NOP          *
      DEC  @NXTDRA  *
      RT          *
*
SRIGHT NOP          *
      INC  @NXTDRA  *
      RT          *

```

**BRIGHT
SPARKS**



```

*****
DRASRN NOP *
    LI R0,192 *
    A @NXTDRA,R0 *
    LI R1,SCREEN *
    LI R2,576 *
    S @NXTDRA,R2 *
    BLWP @VMBW *
    RT *
*****

```

```

DLYSP DATA 4000
JOYST EQU >B376
CHJYST LI R0,>0100
    MOVB R0,>B374
    BLWP @KSCAN
    SWPB @JOYST

```

```

*
    MOVB @>B375,R1
    LI R2,>FF00
    CB R1,R2
    JNE SLO
FST LI R0,-200
    A R0,@DLYSP
    CLR R0
    C @DLYSP,R0
    JEQ SLO
    JMP DELLP
SLO LI R0,200
    A R0,@DLYSP
    LI R0,10000
    C @DLYSP,R0
    JEQ FST
DELLP CLR R0
LOOP6 INC R0
    C R0,@DLYSP
    JNE LOOP6
    B *R11

```

```

*****
SETCHA LI R0,2872
    LI R1,TREE
    LI R2,96
    BLWP @VMBW
    LI R0,909
    LI R1,TRECOL
    LI R2,2
    BLWP @VMBW
*SET BORDER TO BLACK
    LI R0,>0701
    BLWP @VWTR
*SET FOREGRODND TO WHITE
    LI R0,>0384
    LI R1,>1F00
    BLWP @VSBW
    LI R0,0
    LI R1,>6700
    LI R2,160
    BLWP @VMBW
    RT

```

```

TREE DATA >0000,>0000,>0000,>0000
    DATA >0001,>0002,>0307,>070E
    DATA >C0C0,>E0C0,>6060,>6070
    DATA >0905,>1419,>1A13,>1A36
    DATA >F0F8,>E0F8,>E8EC,>ACB0
    DATA >3327,>3E3B,>182B,>497C
    DATA >BCBC,>96FE,>FEFC,>FCF4
    DATA >537F,>6723,>3BC9,>FFC7
    DATA >F2FD,>F9FD,>FED9,>FFFF
    DATA >0101,>030E,>0001,>0000
    DATA >C0C0,>B0F0,>B000,>0000

```

```

    DATA >0C32,>C201,>0000,>0000
TRECOL DATA >CF8F

```

```

*****
MANDN DATA >0003,>0301,>0707,>070B
    DATA >0A0A,>0604,>0402,>0202
    DATA >0080,>B000,>C0C0,>C0A0
    DATA >A0A0,>C040,>4080,>B080
    DATA >0000,>00C0,>DD32,>5858
    DATA >2849,>8F05,>0A14,>E870
    DATA >0020,>4080,>0000,>0040
    DATA >A040,>B000,>0000,>0000
    DATA >0004,>0201,>0000,>0002
    DATA >0502,>0100,>0000,>0000
    DATA >0000,>0003,>BB4C,>1E1A
    DATA >1492,>F1A0,>5028,>170E

```

```

SPTAT DATA >517D,>B004,>D000
DRAMAN NOP
    LI R0,>400
    LI R1,MANDN
    LI R2,96
    BLWP @VMBW
    LI R0,>01E2
    BLWP @VWTR
    SWPB R0
    MOVB R0,>B3D4
    LI R0,>300
    LI R1,SPTAT
    LI R2,5
    BLWP @VMBW
    RT

```

```

*****
RGTMAN LI R0,>302
    LI R1,>8800
    BLWP @VSBW
    RT

```

```

*
LFTMAN LI R0,>302
    LI R1,>8400
    BLWP @VSBW
    RT

```

```

*
DNMAN LI R0,>302
    LI R1,>B000
    BLWP @VSBW
    RT

```



```

CHEQ    DATA 400
CEQHIT  MOV R11,R10
        MOV @CHEQ,R0
        BLWP @VSWR
        ANDI R1,>FF00
        CI R1,>2000
        JEQ RETURN
        CI R1,>7200
        JNE HITREE
        LI R0,>300
        LI R1,>4C00
        BLWP @VSWB
        BL @BEEP
        LI R0,>300
        LI R1,>5100
        BLWP @VSWB
        MOV @JOYST,R1
        ANDI R1,>FF00
        CI R1,0
        JNE CHQ1
        BL @SUP
        JMP RETURN
CHQ1     CI R1,>FC00
        JNE CHQ2
        BL @SRIGHT
        JMP RETURN
CHQ2     CI R1,>0400
        JNE RETURN
        BL @SLEFT
RETURN   B *R10
*
HITREE   B @CRASH
HT       MOV @SLPP05,R2
        AI R2,-576
        CLR R1
        LI R3,800
        DIV R3,R1
        CLR R2
        MPY R3,R1
        AI R2,576
        MOV R2,@SLPP05
        CLR @NXTDRA
        MOV @SLPP05,R1
        AI R1,-576
        CLR R2
LOOP3    MOV @SLOPE(R1),@SCREEN(R2)
        INC R1
        INC R2
        CI R2,576
        JNE LOOP3
        MOV R11,R10
        BL @DRASRN
        CLR R8
DELAY1   INC R8
        BL @COUNT
        CI R8,10
        JNE DELAY1
DELAY4   INC R8
        CI R8,>FFFF
        JNE DELAY4
        LI R0,4000
        MOV R0,@DLYSP
        B *R10

TEN      DATA 10
TIME     DATA -1
COUNT   INC @TIME
        MOV @TIME,R4
        MOV R4,R5
        MOV R4,R2
        LI R0,6
LOOP4    MOV R4,R5
        CLR R4
        DIV @TEN,R4
        MOV R5,R1
        AI R1,>30
        SWPB R1
        BLWP @VSWB
        DEC R0
        CI R0,2
        JNE LOOP4
        MOV R2,R4
        RT
*****
WAIT     LI R0,>0100
        MOVB R0,@>8374
        BLWP @KSCAN
        MOVB @>8375,R0
        CI R0,>FF00
        JEQ WAIT
        RT
*****
SNDBUF   EQU >1000
H01      BYTE >01
        EVEN
CRASH    LI R0,SNDBUF
        LI R1,CDATA1
        LI R2,32
        BLWP @VMBW
LOOP7    LIM 0
        LI R10,SNDBUF
        MOV R10,@>83CC
        SOCB @H01,@>83FD
        MOVB @H01,@>83CE
        LIM 2
        MOVB @>83CE,@>83CE
        JEQ LOOP7
        CLR R0
DELAY2   INC R0
        CI R0,>FFFF
        JNE DELAY2
        LIM 0
        B @HT
CDATA1   BYTE >03,>9F,>E4,>F2,5
        BYTE >02,>E4,>F0,12
        BYTE >02,>E4,>F2,10
        BYTE >02,>E4,>F4,8
        BYTE >02,>E4,>F6,6
        BYTE >02,>E4,>F8,4
        BYTE >02,>E4,>FA,2
        BYTE >01,>FF,0
BEEP     LI R0,SNDBUF
        LI R1,CDATA2
        LI R2,8
        BLWP @VMBW

```



```

LOOP8      LIM1 0
           LI   R9,SNDBUF
           MOV  R9,@>83CC
           SOCB @H01,@>83FD
           MOV  @H01,@>83CE
           LIM1 2
           MOV  @>83CE,@>83CE
           JEQ  LOOP7
           CLR  R0
DELAY3     INC  R0
           CI   R0,>800
           JNE  DELAY3
           LIM1 0
           RT
CDATA2     BYTE >03,>8D,>11,>93,2
           BYTE >1,>9F,0
*****
FOR SLOPE
*****12345678901234567890123456789012*
TEXT 'SLOPE VERSION 6
TEXT ' hi hi
TEXT ' jk jk
TEXT ' lm lm
TEXT ' no no
TEXT ' pqhi pq
TEXT ' jk hi
TEXT ' lm jk
TEXT ' no lm
TEXT ' pq hi pq
TEXT ' hi jk
TEXT ' jk nm
TEXT ' lm lm
TEXT ' no no
TEXT ' pq pqhi
TEXT ' hi hi jk
TEXT ' jk jk jm
TEXT ' no nm no
TEXT ' pq lo pq
TEXT ' hipq hi
TEXT ' jk jk
TEXT ' lm lm
TEXT ' no no
TEXT ' pq pq
TEXT ' hi hi
TEXT ' jk jk
TEXT ' lm lm
TEXT ' no no
TEXT ' pq pq
TEXT ' hi hi
TEXT ' jk jk
TEXT ' lm lm
TEXT ' nohi no
TEXT ' pqjk pqhi
TEXT ' lm jk
TEXT ' no lm
TEXT ' pq no
TEXT ' hi pq
TEXT ' jk pq
TEXT ' lm hi hi
TEXT ' no jk hi
TEXT ' pq lm jk
TEXT ' hi hipq no hi lm no
TEXT ' jk jk pq jk no pq
TEXT ' lm lm lm pq hi
TEXT ' nm hino no
TEXT ' no jkpk hipq lm
TEXT ' pq lm hi jk
TEXT ' hi pq jkhi lm
TEXT ' jk lmjk no hi
TEXT ' lm nolm pq hi jk hi
TEXT ' no hi hipqpq jklm jk

```

TEXT	°	pqhi	jk		lmpq	lm	
TEXT	°	jk	lm		hino	no	
TEXT	°	lmno	no	hi	jkpq	pq	
TEXT	°	nopq	pq	jk	lm	hihi	
TEXT	°	hipqqq		hilm	no	jkjk	
TEXT	°	jk		jkno	pq	noim	
TEXT	°	lm	hi	lmpq		pqno	
TEXT	°	no	hi	jk		pq	
TEXT	°	pq	jk	lm		hi	
TEXT	°	hi	lmnm		hi	jk	
TEXT	°	jk	pqno		jk	lm	
TEXT	°	nm	pq		lm	no	
TEXT	°	lm	rr		no	pqhi	
TEXT	°	no	rr		pq	jk	
TEXT	°	pq	rr			lm	
TEXT	°	hi	rr			hipq	
TEXT	°	jk	rr		hi	jk	
TEXT	°	lmhihihi			jk	lm	
TEXT	°	jkjkjkhi	rr		lm	nm	
TEXT	°	hilm	jk	r	no	no	
TEXT	°	jk	pqqqlm		hi	pq	
TEXT	°	lm	nohi		jk	hi	
TEXT	°	no	pqjk		lm	r	
TEXT	°	pq	lm		no	rr	
TEXT	°	hi	nohi		pq	r	
TEXT	°	jk	pqjk	hi		pq	
TEXT	°	lm	lm	jk	rr	hi	
TEXT	°	no	pq	lmpq	r	jk	
TEXT	°	pq	hi	nm	pqrr	rr	
TEXT	°	hi	jk	no		pqno	
TEXT	°	jk	lm	pq		pq	
TEXT	°	lm	hipq	hi		hi	
TEXT	°	no	jk	jk	rrr	jk	
TEXT	°	pq	lm	lm	rrr	pq	
TEXT	°	hi	no	no	rrr	no	
TEXT	°	jk	hipqr	pq		pq	
TEXT	°	lm	jk		pq	pqhi	
TEXT	°	no	lm	pq		jk	
TEXT	°	pq	no	pq		hihilm	
TEXT	°	hi	pq			pqjkjkno	
TEXT	°	jk	hirr			nlmmpq	
TEXT	°	no	jk	rrr		lonohi	
TEXT	°	pqhi	lmhi	rr		pqpqjk	
TEXT	°	jk	nojkh		rrr	lm	
TEXT	°	nm	pqlmjkh			pq	
TEXT	°	lo	pqlmjk			hi	
TEXT	°	pq	pqno	rr		jk	
TEXT	°	hi	pq	pq	rr	lm	
TEXT	°	jk		pq	rr	pqpq	
TEXT	°	lm		pqpq		no	
TEXT	°	no				pqpq	
TEXT	°	pq	hi			hi	
TEXT	°	hi	jk			hi	
TEXT	°	jk	lm	hi	hi	jk	
TEXT	°	lm	no	jk	jk	lm	
TEXT	°	no	pq	lm	hi	lm	
TEXT	°	pqhi	hi	pq	jk	no	
TEXT	°	jk	jk		lm	pq	
TEXT	°	lm	lm		no	lm	
TEXT	°	hino	no		pq	no	

TEXT * jk pq hi hi hipq *
 TEXT * lm hi hi jk jk jk *
 TEXT * no jk jk lm lm lm *
 TEXT * pq lm lm no pq no *
 TEXT * hi nm no pq pq hi *
 TEXT * jk no pq hi jk *
 TEXT * lm pq jk hi lm *
 TEXT * pq hi lm hi jk nm *
 TEXT * hi jk no jk lm lo *
 TEXT * jk lm hi pq lm no pq *
 TEXT * nm nm jk pq pq hi *
 TEXT * lm no lm jk *
 TEXT * no pq pq nm *
 TEXT * pq lm *
 TEXT * hi no *
 TEXT * jk pq pq pq *
 TEXT * lm rr rr hi *
 TEXT * nm rr rr rr jk *
 TEXT * no hi rr rr pqrr lm *
 TEXT * pq jk rr rr rr pqrr no *
 TEXT * hi lm rr pq rr pqrrpq *
 TEXT * jk no rr rrpq hi *
 TEXT * lm pq rrpqrr rr pqpqpjk *
 TEXT * no rr rr pqpq lm *
 TEXT * pq pqr rr pq rrpq no *
 TEXT * hi rr pq pq hipq *
 TEXT * jk rr rr pq jk *
 TEXT * lm pq rr pq lm *
 TEXT * no pq rr rrpq no *
 TEXT * pqpq rr rr rr pq *
 TEXT * hi rr rr pq rr rr hi *
 TEXT * jk rr pq pq jk *
 TEXT * lm pq rr lm *
 TEXT * no hi rr pq pqpqpno *
 TEXT * pjk pq rr hi pq *
 TEXT * lm pq hijk hi *
 TEXT * nm hijklm jk *
 TEXT * lo jklmno lm *
 TEXT * pq hi lmno pq no *
 TEXT * hi hi jkhi nqpq pq *
 TEXT * jk jkhi lmjk pq hi *
 TEXT * lm lmjk nolmhi jk *
 TEXT * no nolmhi pnojk lm *
 TEXT * pq pnojkhi pqlm lm *
 TEXT * hi pqlmjk no no *
 TEXT * jk pqlmhi pqhi pq *
 TEXT * lmhi nojk hi jk hi *
 TEXT * nokl pqlm jk lm jk *
 TEXT * pqlm pq lm no lm *
 TEXT * hi no hi rnm pq no *
 TEXT * jk pq jk no hi hipq *
 TEXT * lm lm hipq jk jk *
 TEXT * no no jk lm lm *
 TEXT * pahi hipq lm no na *
 TEXT * jk jk nm pq pqhi *
 TEXT * lm lm no hi jk *
 TEXT * no no pq jk lm *
 TEXT * pq hipq hi lm no *
 TEXT * hi jk jk no pq *
 TEXT * jk lm lm pq hi *

TEXT * lm no no hi jk *
 TEXT * no pq pq jk lm *
 TEXT * pq rr lm nm *
 TEXT * hi pq no no *
 TEXT * jk pq pq *
 TEXT * lm rr hi *
 TEXT * nm rr rr rr rr jk *
 TEXT * lohi rr nm *
 TEXT * pjk rr rr lm *
 TEXT * lm rr no *
 TEXT * pqpq pq pq pq pq pq pq *
 TEXT *
 END PROG

SPECIAL OFFER

To Readers —



ONLY
£ 7

Was
19.95

FROM **PARCO
Electrics**

Extended Basic

BY

P. TEMPLER

MEMBERS FILE

```
10 CALL CLEAR :: CALL SCREEN : 250 DISPLAY AT(3,3):"TYPE 'E : 430 M=M+1 :: IF M<=J THEN 49 : 680 DISPLAY AT(10,3):"PLEASE
(16) : ND' TO FINISH" : 0 : USE YES OR NO" :: FOR T=1 T
20 DIM A$(100),B$(100),C$(10 : 260 DISPLAY AT(5,1):"SURNAME : 440 DISPLAY AT(24,3):"NO SUC : 0 400 :: NEXT T :: GOTO 640
0),D$(100),E$(100),F$(100),G : " :: ACCEPT AT(5,15)BEEP:A$ : H PERSON ON FILE " :: GOTO 4 : 690 CALL CLEAR :: FOR T=1 TO
$(100),H$(100) : (J):: IF A$(J)="END" THEN 36 : 0 : 20 :: PRINT TAB(7);"BYE FOR
30 J=1 : 0 : : NOW" :: NEXT T :: STOP
40 CALL CLEAR :: DISPLAY AT( : 270 DISPLAY AT(7,1):"FIRST N : 450 ! ** SEARCH ** : 700 CALL CLEAR :: DISPLAY AT
3,3):"1--LOAD FILE" :: DISPL : AME" :: ACCEPT AT(7,15)BEEP: : (12,3):"ARE YOU USING 'CS1'
AY AT(5,3):"2--UPDATE FILE" : B$(J) : (12,5):"WHICH RECORD REQUIRE : NOW ?" :: ACCEPT AT(14,3)BEE
:: DISPLAY AT(7,3):"3--DISPL : 280 DISPLAY AT(9,1):"ADDRESS : D " :: DISPLAY AT(14,5):"SUR : P:T$
AY FILE" : " :: ACCEPT AT(9,9)BEEP:C$( : NAME PLEASE" : 710 IF T$="YES" THEN 170
50 DISPLAY AT(9,3):"4--DISPL : J) : 470 ACCEPT AT(16,5)BEEP:Z$ : 720 IF T$="NO" THEN 40
AY 1 FILE" :: DISPLAY AT(11, : 290 DISPLAY AT(11,1):"TOWN/C : 480 FOR M=1 TO J : 730 DISPLAY AT(16,3):"PLEASE
3):"5--SAVE FILE" :: DISPLAY : ITY" :: ACCEPT AT(11,15)BEEP : 490 IF Z$=A$(M)THEN 750 : USE YES OR NO" :: FOR T=1 T
AT(13,3):"6--END PROGRAM" : :D$(J) : 500 NEXT M : 0 400 :: NEXT T :: GOTO 700
60 DISPLAY AT(15,3):"7--HOW : 300 DISPLAY AT(13,1):"COUNTY : 510 DISPLAY AT(24,5):"RECORD : 740 DISPLAY AT(20,1):"YOU HA
MANY ON FILE" : " :: ACCEPT AT(13,15)BEEP:F$ : NOT IN FILE" :: FOR T=1 TO : VE ";J-1;:: DISPLAY AT(20,16
70 INPUT "YOUR CHOICE (1-7) : (J) : 400 :: NEXT T :: GOTO 40 : ): "ON FILE" :: FOR T=1 TO 40
":CH : 310 DISPLAY AT(15,1):"POST C : 0 :: NEXT T :: GOTO 40
80 IF CH<1 OR CH>7 THEN 70 : ODE" :: ACCEPT AT(15,15)BEEP : 520 ! ** SAVE FILE ** : 750 CALL CLEAR
90 ON CH GOTO 100,240,370,45 : :F$(J) : 530 CALL CLEAR : 760 DISPLAY AT(3,3):A$(M)::
0,520,640,740 : 320 DISPLAY AT(17,1):"PHONE : 540 DISPLAY AT(12,3):"SAVE F : DISPLAY AT(5,3):B$(M):: DISP
: NO." :: ACCEPT AT(17,15)BEEP : ILE ? YES OR NO" :: ACCEPT A : LAY AT(7,3):C$(M):: DISPLAY
100 ! ** LOAD FILE ** : :G$(J) : T(14,3)BEEP:K$ : AT(9,3):D$(M)
110 CALL CLEAR : 330 DISPLAY AT(19,1):"MEMBER : 550 IF K$="YES" THEN 580 : 770 DISPLAY AT(11,3):E$(M)::
120 DISPLAY AT(12,3):"LOAD F : SHIP NO." :: ACCEPT AT(19,15 : 560 IF K$="NO" THEN 40 : DISPLAY AT(13,3):"POST CODE
ILE? YES OR NO " : )BEEP:H$(J) : 570 DISPLAY AT(14,3):"TYPE Y : .";F$(M):: DISPLAY AT(15,3):
130 ACCEPT AT(14,3)BEEP:K$ : 340 J=J+1 : ES OR NO" :: FOR T=1 TO 400 : "TEL.";G$(M)
140 IF K$="YES" THEN 170 : 350 CALL CLEAR :: GOTO 240 : :: NEXT T :: GOTO 540580 OPE : 780 DISPLAY AT(17,3):"MEMBER
150 IF K$="NO" THEN 40 : 360 GOTO 40 : N #3:"CS1",INTERNAL,OUTPUT,F : S NO.";H$(M)
160 DISPLAY AT(14,3):"TYPE Y : : IXED 128 : 790 FOR T=1 TO 500 :: NEXT T
ES OR NO" :: FOR T=1 TO 400 : 370 ! ** PRINT ALL RECORDS * : 590 FOR M=1 TO J : 800 DISPLAY AT(20,3):"LOOK F
:: NEXT T :: GOTO 130 : : 600 PRINT #3:A$(M),B$(M),C$( : OR ANOTHER WITH " :: DISPLAY
170 OPEN #2:"CS1",INTERNAL,I : 380 CALL CLEAR : M),D$(M),E$(M),F$(M),G$(M),H : AT(22,3):"THE SAME NAME?" :
NPUT ,FIXED 128 : 390 FOR M=1 TO J : $(M) : : ACCEPT AT(22,24)BEEP:T$
180 INPUT #2:A$(J),B$(J),C$( : 400 DISPLAY AT(3,3):A$(M):: : 610 NEXT M : 810 IF T$="YES" THEN 430
J),D$(J),E$(J),F$(J),G$(J),H : DISPLAY AT(5,3):B$(M):: DISP : 620 CLOSE #3 : 820 IF T$="NO" THEN 40
$(J) : LAY AT(7,3):C$(M):: DISPLAY : 630 GOTO 40 : 830 DISPLAY AT(24,3):"PLEASE
190 IF A$(J)="END" THEN 220 : AT(9,3):D$(M) : 640 CALL CLEAR :: DISPLAY AT : USE YES OR NO " :: FOR T=1
200 J=J+1 : 410 DISPLAY AT(11,3):E$(M):: : (3,3):"YOU ARE ABOUT TO LOSE : TO 400 :: NEXT T :: GOTO 800
210 GOTO 180 : DISPLAY AT(13,3):F$(M):: DI : ALL YOUR RECORDS,DO YOU W :
220 CLOSE #2 : SPLAY AT(15,3):G$(M):: DISPL : ANT CSINOW...YES OR NO " :
230 GOTO 40 : AY AT(17,3):H$(M) : 650 ACCEPT AT(7,3)BEEP:P$ :
240 CALL CLEAR :: ! ** UPDAT : 420 FOR T=1 TO 500 :: NEXT T : 660 IF P$="YES" THEN 700 :
E FILE ** : : NEXT M :: GOTO 40 : 670 IF P$="NO" THEN 690 :
```

THIS PROGRAM WOULD BE IMPROVED IF IT WERE POSSIBLE TO PRINT OUT THE FILE
ANYONE OUT THERE WANT TO SEND US AN UPDATE FOR THIS, THERE'S A \$5 VOUCHER
FOR THE BEST UPDATE

ED.

KIDS CORNER

BATTLE MAZE

IN BASIC

THINK OF A NUMBER

IN EXTENDED BASIC

O,s & X,s

IN EXTENDED BASIC

BATTLE MAZE BY E ARMSTRONG

```

10 RANDOMIZE
20 FOR A=1 TO 11
30 READ C,B$
40 CALL CHAR(C,B$)
50 NEXT A
60 DATA 104,"0000001818",112,"FF
00FF00FF00FF",120,"FFFF00FFFF00F
F",128,"18187E5A183C2466"
70 DATA 129,"3C3C18FFBDBD2466",1
36,"0006066464202",137,"00040426
26606",138,"001878000001E06"
80 DATA 139,"006078000001E18",140
,"",145,"5AA55AA55AA55AA5"
90 CALL SCREEN(2)
100 FOR A=2 TO 8
110 CALL COLOR(A,2,2)
120 NEXT A
130 CALL CLEAR
140 PRINT :: " M M M M M ":"
A A A A A ":" Z Z Z Z Z
":" E E E E E ":::
150 PRINT "M A Z E ":" EDWIN"
:: " ARMSTRONG ":"
1985 "::: "xxxPRESS ANY KEY TO
BEGINxxx"::::
160 GOSUB 1190
170 CALL CLEAR
180 INPUT "
xxxNAME PLEASE PLAYER 1:x
xx ":A$
190 IF LEN(A$)<9 THEN 220

```

```

200 PRINT :: "x8 LETTERS MAXIMUM
PLEASEx"::
210 GOTO 180
220 INPUT "
xxxNAME PLEASE PLAYER 2:x
xx ":B$
230 IF LEN(B$)<9 THEN 260
240 PRINT :: "x8 LETTERS MAXIMUM
PLEASEx"::
250 GOTO 220
260 CALL CLEAR
270 PRINT "MAZE IS A STRATEGY GA
ME FOR": "TWO PLAYERS.TRY AND KI
LL":::
280 PRINT "YOUR OPPONENT BY BLOC
KING": "HIM OFF.YOU ARE NOT ALLO
WED": "TO WALK ON ANY FOOTSTEPS
OR":::
290 PRINT "WALK INTO THE WALLS.I
F YOU": "ARE CORNERED USE A BLAS
TER": "TO CLEAR THE WAY.YOU HAVE
"::
300 PRINT "THREE BLASTERS.(CANNO
T BE": "USED AT SCREEN EDGES)"::
310 GOSUB 1190
320 CALL CLEAR
330 PRINT " x x x x xCONTROLSx x
x x x": "YOU WILL TAKE IT IN TU
RNS TO": "MOVE. ";A$;" WILL STAR
T."

```



BATTLE MAZE CONT'D

```

340 PRINT :A$;" WILL USE KEYS:"
: "E(UP) S(LEFT)": "D(RIGHT) X(D
OWN) Q(BLAST)":
350 PRINT :B$;" WILL USE KEYS:"
: "I(UP) K(LEFT)": "J(RIGHT) M(DO
WN) P(BLAST)":
360 GOSUB 1190
370 SCA=0
380 SCB=0
390 BA=3
400 BB=3
410 R=14
420 C=16
430 X=10
440 Y=16
450 CALL CLEAR
460 CALL COLOR(10,2,2)
470 CALL COLOR(11,2,2)
480 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
490 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
500 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
510 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
520 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
530 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH"
540 PRINT "HHHHHHHHHHHHHHHHHHHHHHHH
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
HHH":
550 GOSUB 1190
560 RESTORE 610
570 FOR D=1 TO 6
580 READ E,F,G
590 CALL COLOR(E,F,G)
600 NEXT D
610 DATA 10,8,2,11,3,1,12,7,2,13
,16,2,14,16,2,15,10,2
620 CALL HCHAR(R,C,129)
630 CALL HCHAR(X,Y,128)
640 CALL KEY(1,K,S)
650 IF S=0 THEN 640
660 IF (K+1<>1)*(K<>5)*(K<>3)*(K
<>2)*(K<>18) THEN 640
670 IF K<>18 THEN 770
680 IF (X<3)+(X>22)+(Y<3)+(Y>30)
THEN 640
690 IF BA=0 THEN 880
700 BA=BA-1
710 FOR N=1 TO 3
720 CALL HCHAR(X-2+N,Y-1,145,3)
730 CALL HCHAR(X-2+N,Y-1,32,3)
740 NEXT N
750 CALL SOUND(-200,440,0,550,0,
-7,0)

```

```

760 GOTO 860
770 U=140
780 U=U+4*(K=5)+3*(K+1=1)+2*(K=3
)+1*(K=2)
790 CALL HCHAR(X,Y,U)
800 X=X-(K+1=1)+(K=5)
810 Y=Y-(K=3)+(K=2)
820 CALL GCHAR(X,Y,B)
830 IF (B=104)+(B=32)+(B=128) THE
N 860
840 SCB=SCB+1
850 GOTO 1090
860 CALL HCHAR(R,C,129)
870 CALL HCHAR(X,Y,128)
880 CALL KEY(2,K,S)
890 IF S=0 THEN 880
900 IF (K+1<>1)*(K<>5)*(K<>3)*(K
<>2)*(K<>11) THEN 880
910 IF K<>11 THEN 1010
920 IF (R<3)+(R>22)+(C<3)+(C>30)
THEN 880
930 IF BB=0 THEN 640
940 BB=BB-1
950 FOR N=1 TO 3
960 CALL HCHAR(R-2+N,C-1,145,3)
970 CALL HCHAR(R-2+N,C-1,32,3)
980 NEXT N
990 CALL SOUND(-200,440,0,550,0,
-6,0)
1000 GOTO 620
1010 U=140
1020 U=U+4*(K=5)+3*(K+1=1)+2*(K=
3)+1*(K=2)
1030 CALL HCHAR(R,C,U)
1040 C=C-(K=3)+(K=2)
1050 R=R-(K+1=1)+(K=5)
1060 CALL GCHAR(R,C,B)
1070 IF (B=104)+(B=32)+(B=128) TH
EN 620
1080 SCA=SCA+1
1090 FOR A=1120 TO 120 STEP -100
1100 CALL SOUND(100,A,0,A-10,0,-
6,5)
1110 NEXT A
1120 CALL CLEAR
1130 PRINT " x SCORES: x
":A$;"=":SCA:":B$;"=":SCB:
:": " x x PRESS REDO OR BACK x x
":
1140 GOSUB 1190
1150 CALL KEY(3,K,S)
1160 CALL COLOR(12,INT(RND*13)+3
,2)
1170 IF K=6 THEN 390
1180 IF K=15 THEN 90 ELSE 1150
1190 CALL VCHAR(1,31,120,98)
1200 CALL HCHAR(23,1,120,130)
1210 FOR I=2 TO 8
1220 CALL COLOR(I,16,2)
1230 NEXT I
1240 CALL KEY(3,K,S)
1250 CALL COLOR(12,INT(RND*13)+3
,2)
1260 IF S=0 THEN 1240
1270 RETURN

```

THINK OF A NUMBER BY T. STEVENS

6 17 6 8 0 0

```

100 CALL CLEAR :: RANDOMIZE
105 DISPLAY AT(15,4):"HELLO I'M
THE TI-99/4A"
110 FOR A=1 TO 28
120 CALL SPRITE(#A,63,INT(A/3)+3
,92,124,A*INT(RND*4.5)-2.25+A/2*
SGN(RND-.5),A*INT(RND*4.5)-2.25+
A/2*SGN(RND-.5))
130 NEXT A
140 CALL CHAR(91,"7C82BAA2A2BA82
7C")
150 DISPLAY AT(2,6):"THINK OF A
NUMBER"
160 DISPLAY AT(3,6):"*****
*****"
170 DISPLAY AT(5,5):"BY T. STEVE
NS [1986"
180 DISPLAY AT(15,3):"I CAN READ
YOUR MIND!!!!"
190 DISPLAY AT(18,5):"DON'T BELI
EVE ME THEN WAIT.."
200 FOR A=1 TO 2000 :: NEXT A
210 CALL SCREEN(12)
220 CALL CLEAR
230 X=0 :: B=01
240 DISPLAY AT(8,2):"THINK OF A
NUMBER BETWEEN" :: DISPLAY AT(10
,12):"1 & 59" :: CALL KEYSET
250 DISPLAY AT(8,1):"I WILL NOW
DISPLAY A FEW NUMBERS, IF YOU
R NUMBER IS THERE PRESS Y ELSE
PRESS N"
    
```

```

260 CALL KEYSET
270 CALL CLEAR :: GOSUB 390
280 PRINT : : : : : " IS YOUR N
UMBER HERE? (Y/N)"
290 CALL KEY(O,K,S)
300 IF K<>89 AND K<>78 THEN 290
310 IF K=89 THEN X=X+B
320 IF B=32 THEN 340
330 B=B*2 :: GOTO 270
340 CALL CLEAR :: IF X=0 THEN DI
SPLAY AT(8,12):" YOU MADE A MI
STAKE OR CHEATED !!!"
:: CALL KEYSET :: GOTO 210
350 DISPLAY AT(10,1):"YOU THOUGH
T OF NUMBER ";X
360 FOR A=1 TO 500 :: NEXT A
370 CALL KEYSET
380 GOTO 210
390 C=01 :: N=B :: S=01
400 PRINT N:
410 IF S=8 THEN S=0
420 IF N>=59 THEN RETURN
430 N1=N+1+(B AND C=B)
440 IF C=B THEN C=0
450 C=C+1 :: N=N1 :: S=S+1
460 GOTO 400
470 SUB KEYSET
480 PRINT TAB(3):"PRESS ANY KEY
TO GO ON"
490 CALL KEY(O,K,S)
500 IF S=0 THEN 490
510 CALL CLEAR
520 SUBEND
    
```



ODD ONE OUT

DUE TO THE SUCCESS OF THE FIRST ODD ONE OUT HERE'S ANOTHER FIRST CORRECT ANSWER TO BE OPENED AT OUR OFFICES WINS TEN POUND VOUCHER TO SPEND ON ANY OF OUR TI PRODUCTS.



O & X

BY

M. TURNER

```
100 CALL CLEAR :: CALL SCREEN(2)
:: FOR C=2 TO 8 :: CALL COLOR(C,
6,1):: NEXT C :: OPTION BASE 1 :
: DISPLAY AT(1,6):"NOUGHTS AND C
ROSSSES"
110 DISPLAY AT(10,6):"NORMAL RUL
ES APPLY" :: DISPLAY AT(22,1)SIZ
E(13):"YOUR SCORE:0" :: DISPLAY
AT(22,16)SIZE(11):"MY SCORE:0"
120 DISPLAY AT(4,1):"THE BOXES N
UMBER 1 TO 9 FROM
```

```
THE TOP LE
FT" :: DISPLAY AT(24,1)SIZE(28):
"BY MIKE TURNER & NIGEL MAKIN" :
: !1986
```

```
130 CALL CHAR(96,"000000000000000
0000000000000000FF01010101010101
0101010101010101FF"):: FOR C=1 T
O 500
```

```
140 NEXT C :: CALL HCHAR(10,6,32
,20):: FOR C=1 TO 36 :: READ RD,
CD,CH :: CALL HCHAR(RD,CD,CH)::
NEXT C :: CALL COLOR(9,11,1,10,1
1,1)
```

```
150 DATA 10,14,96,11,14,97,10,15
,98,11,15,99,10,16,96,11,16,97,1
0,17,98,11,17,99
```

```
160 DATA 10,18,96,11,18,97,10,19
,96,11,19,97,12,14,96,13,14,97,1
2,15,98,13,15,99
```

```
170 DATA 12,16,96,13,16,97,12,17
,98,13,17,99,12,18,96,13,18,97,1
2,19,96,13,19,97
```

```
180 DATA 14,14,96,15,14,96,14,15
,98,15,15,98,14,16,96,15,16,96,1
4,17,98,15,17,98
```

```
190 DATA 14,18,96,15,18,96,14,19
,96,15,19,96
```

```
200 DATA 10,14,10,16,10,18,12,14
,12,16,12,18,14,14,14,16,14,18
```

```
210 DATA 3,2,3,2,4,2,3,2,3
```

```
220 FOR C=1 TO 9 :: READ J,K ::
R(C)=J :: B(C)=K :: NEXT C
```

```
230 FOR C=1 TO 9 :: V(C),L(C)=0
:: NEXT C
```

```
240 FOR C=1 TO 9 :: READ I :: N(
C)=I :: NEXT C
```

```
250 L$="123456789147258369159357
"
```

```
260 CALL KEY(O,Y,S):: IF S=0 THE
N 260 :: IF Y<49 OR Y>57 THEN 26
0 :: Y=Y-48
```

```
270 FOR C=1 TO 18 :: CALL COINC(
#C,A(Y)*8-8,B(Y)*8-6,0,XD):: IF
XD=-1 THEN 260
```

```
280 NEXT C :: V(Y)=1 :: IF Y=0 T
HEN 500
```

```
290 IF Y=0 THEN 500 :: CALL MAGN
IFY(2):: X=Y :: CALL SPRITE(#X,8
8,9,A(Y)*8-8,B(Y)*8-6)
```

```
300 FOR T=1 TO 8 :: M$=SEG$(L$,(<
T*3)-2,3):: FOR S=1 TO 3 :: K$=S
EG$(M$,S,1):: IF VAL(K$)=Y THEN
GOSUB 530
```

```
310 NEXT S :: NEXT T
```

```
320 L(1)=V(1)+V(2)+V(3):: L(2)=V
(4)+V(5)+V(6):: L(3)=V(7)+V(8)+V
(9):: L(4)=V(1)+V(4)+V(7):: L(5)
=V(2)+V(5)+V(8)
```

```
330 L(6)=V(3)+V(6)+V(9):: L(7)=V
(1)+V(5)+V(9):: L(8)=V(3)+V(5)+V
(7):: FOR C=1 TO 8 :: IF L(C)=3
THEN GOTO 440
```

```
340 NEXT C
```

```
350 FOR C=1 TO 8 :: IF L(C)=-2 T
HEN 450
```

```
360 NEXT C :: FOR C=1 TO 8 :: IF
L(C)=2 THEN 450
```

```
370 NEXT C :: E=0 :: FOR C=1 TO
9 :: IF V(C)=0 THEN E=1
```

```
380 NEXT C :: IF E=0 THEN 500 EL
SE GOSUB 540
```

```
390 FOR C=1 TO 9 :: P(C)=0 :: NE
XT C
```

```
400 H=0 :: FOR C=1 TO 9 :: IF H<
N(C) THEN H=N(C)
```

```
410 NEXT C
```

```
420 RANDOMIZE :: Y=INT(RND*9)+1
:: IF N(Y)<>H THEN 420 :: IF V(Y)
=0 THEN 470 ELSE 420
```

```
430 DISPLAY AT(20,10)BEEP:"I WIN
" :: FOR C=1 TO 200 :: NEXT C ::
MS=MS+1 :: GOTO 500
```

```
440 DISPLAY AT(20,10)BEEP:"YOU W
IN" :: FOR C=1 TO 200 :: NEXT C
:: YS=YS+1 :: GOTO 500
```

```
450 FOR T=1 TO 3 :: T$=SEG$(L$,(<
C*3)-2,3):: T$=SEG$(T$,T,1):: Y=
VAL(T$):: IF V(Y)=0 THEN 470
```

```
460 NEXT T
```

```
470 V(Y)=-1 :: D=Y+9 :: CALL SPR
ITE(#D,79,4,A(Y)*8-8,B(Y)*8-6)
```

```
480 FOR T=1 TO 8 :: IF L(T)=-2 T
HEN 430
```

```
490 NEXT T :: GOTO 260
```

```
500 DISPLAY AT(22,12)SIZE(2)BEEP
:YS :: DISPLAY AT(22,25)SIZE(2)B
EEP:MS :: DISPLAY AT(20,4):"ANDT
HER GAME(YN) Y"
```

```
510 ACCEPT AT(20,21)VALIDATE("YN
")SIZE(-1)BEEP:K$ :: IF K$="Y" T
HEN 520 ELSE IF K$="N" THEN CALL
CLEAR :: END
```

```
520 CALL HCHAR(20,4,32,20):: CAL
L DELSPRITE(ALL):: RESTORE 210 :
: GOTO 230
```

```
530 FOR D=1 TO 3 :: R$=SEG$(M$,D
,1):: Z=VAL(R$):: N(Z)=N(Z)-1 ::
NEXT D :: RETURN
```

```
540 FOR C=1 TO 9 :: IF V(C) THEN
N(C)=0
```

```
550 NEXT C :: RETURN
```

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JUNGLE HUNT	32,160*
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STEPHEN LEACH	on	MICROSURGEON
PHIL DONALD	on	MINER 2049er
SIMON STEWART	on	MOONSWEEPER
STEPHEN MEADOWS	on	POLE POSITION
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