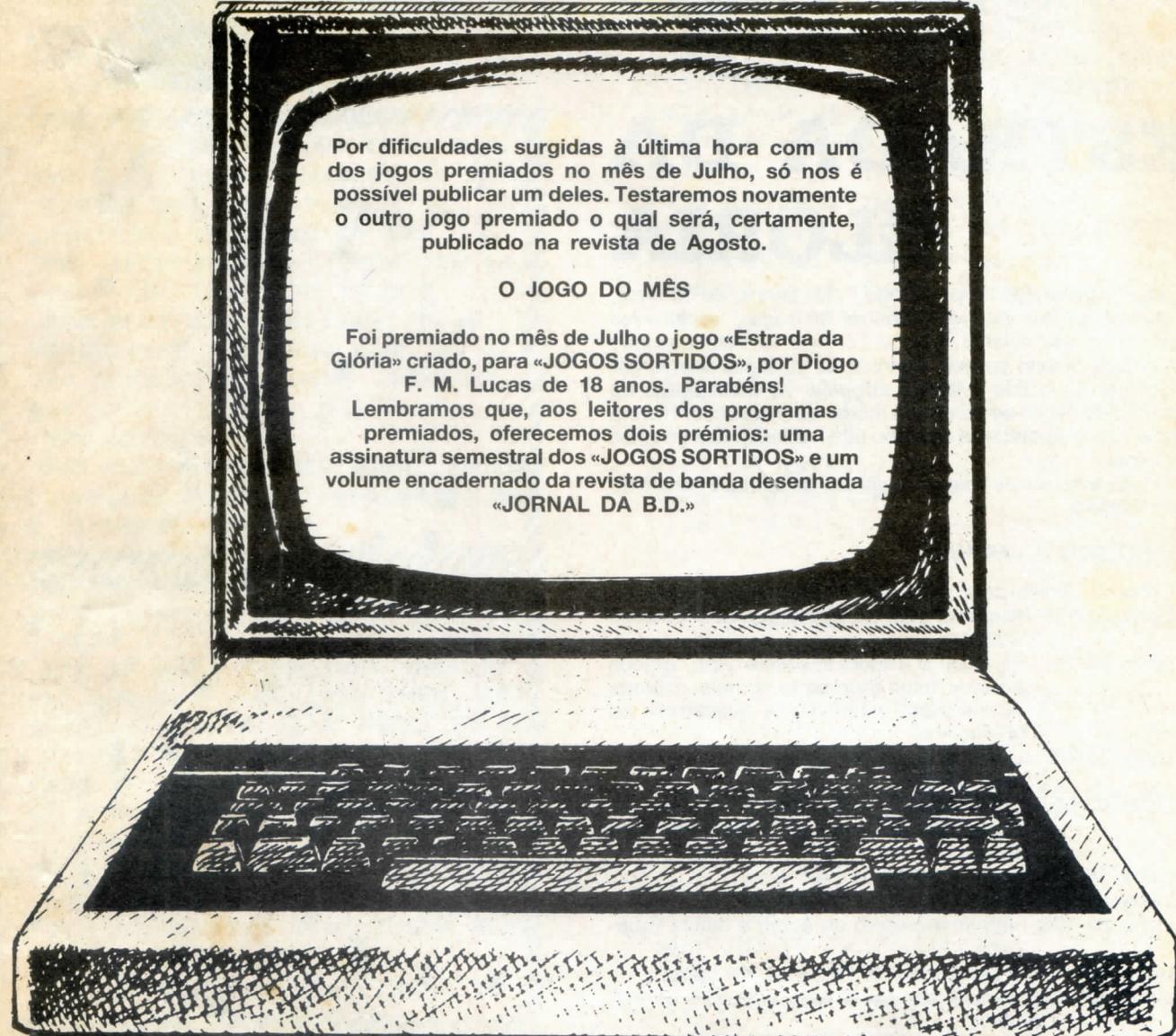


# JOGOS PARA O SEU MICROCOMPUTADOR

AGORA  
16  
PÁGINAS



Por dificuldades surgidas à última hora com um dos jogos premiados no mês de Julho, só nos é possível publicar um deles. Testaremos novamente o outro jogo premiado o qual será, certamente, publicado na revista de Agosto.

## O JOGO DO MÊS

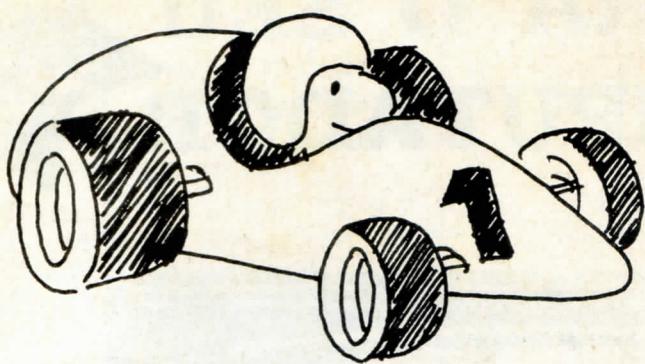
Foi premiado no mês de Julho o jogo «Estrada da Glória» criado, para «JOGOS SORTIDOS», por Diogo F. M. Lucas de 18 anos. Parabéns!  
Lembramos que, aos leitores dos programas premiados, oferecemos dois prémios: uma assinatura semestral dos «JOGOS SORTIDOS» e um volume encadernado da revista de banda desenhada «JORNAL DA B.D.»

## ENVIE-NOS OS SEUS PROGRAMAS ORIGINAIS E GANHE PRÉMIOS

Colabore connosco, enviando-nos o seu programa original, do seguinte modo:

1. Nome, morada, idade e n.º de telefone.
2. O programa de preferência em cassette, indicando o tipo e a capacidade do computador.
3. Uma descrição geral do jogo com as instruções necessárias.
4. Uma explicação detalhada da função das várias partes do programa.

Para: JOGOS SORTIDOS - Rua Duque de Palmela, 37, 2.º-Dto. - 1200 LISBOA



# ESTRADA DA GLÓRIA

Jogo original escrito por Diogo F. M. Lucas, de 18 anos, e cujo objectivo é o de apanhar 10 taças, espalhadas pelo ecrã, ao volante do seu Fórmula 1. Verá que não é tão fácil quanto parece, apanhar as 10 taças sem largar o volante do bólido evitando atropelar os comissários de pista ou esmagar-se contra os muros de protecção. Haverá ainda outros obstáculos que não são habituais nos grandes prémios.

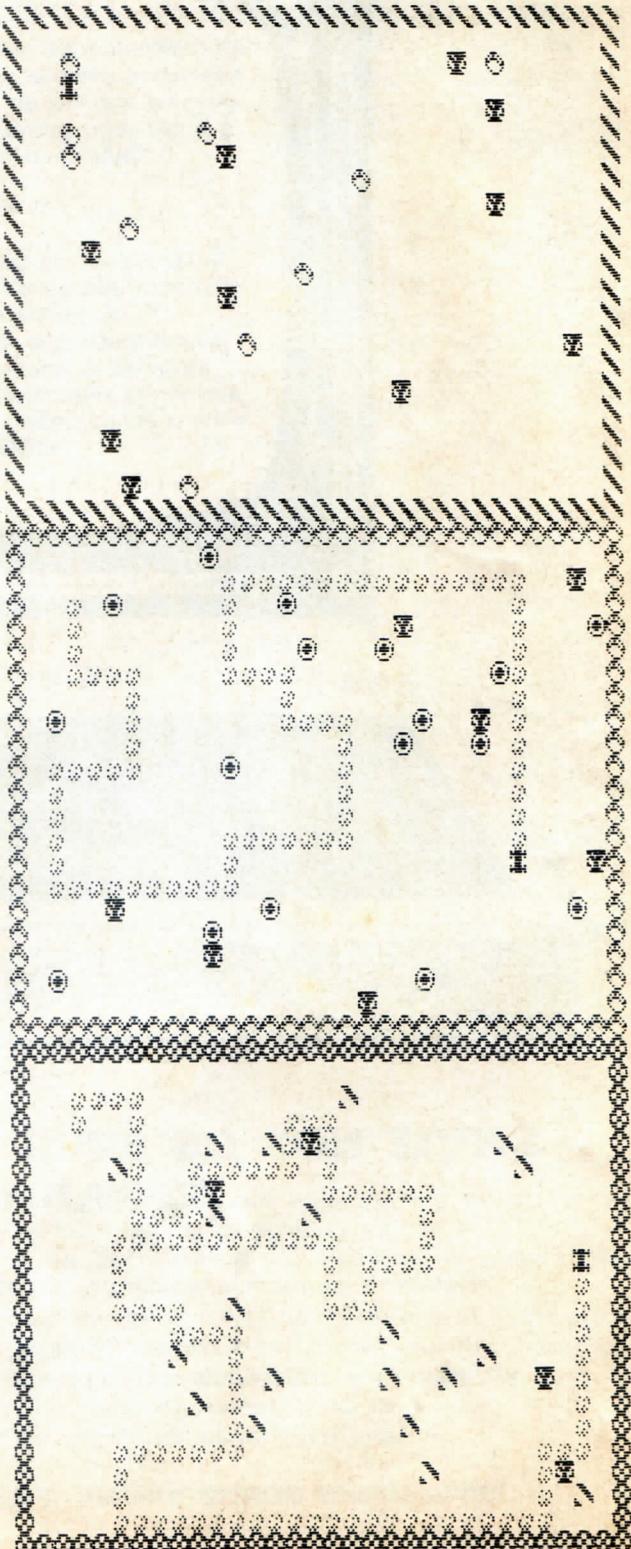
O jogo tem muitas fases e o número de carros é escolhido pelo jogador.

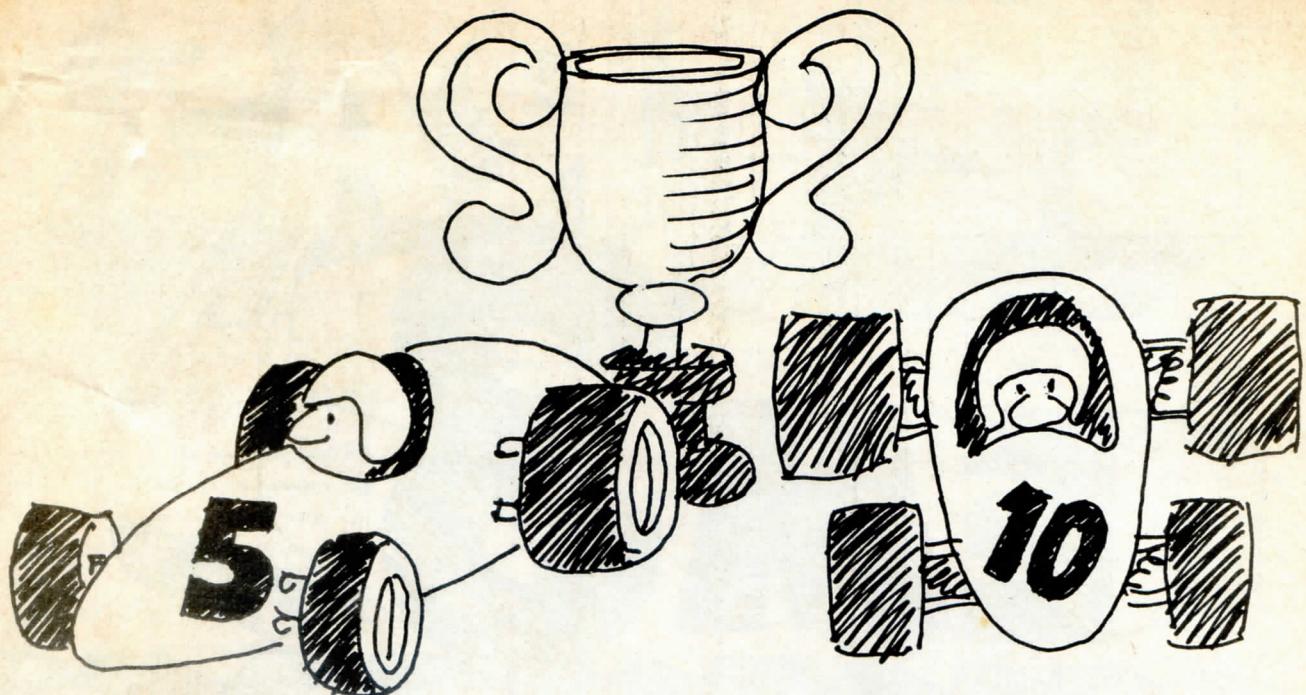
## TABULEIROS E VARIÁVEIS

- Linha 7: Envia para a linha 500, para ler os gráficos.
- Linha 11-17: Pergunta o n.º de carros que quer e define variáveis.
- Linha 20-25: Para definir a altura em que o carro começa a deixar fumo (que se tocar nele, explode de imediato) e também a quantidade de obstáculos.
- Linha 36-46: Limita o ecrã em toda a sua volta com uma parede.
- Linha 60-85: Faz a escolha dos gráficos que se vão seguir uns aos outros e espalha-os pelo ecrã.
- Linha 90-95: Espalha as taças pelo ecrã.
- Linhas seguintes (MOVIMENTO DO CARRO)
- Linha 97-135: Imprime o carro no ecrã e define variáveis.
- Linha 150-185: Movimento e direcções do carro.
- Linha 190: A variável «n» serve para descobrir os acidentes.
- Linha 195-208: Serve para tirar o rasto e imprimir o fumo.
- Linha 215-220: Faz mudar de obstáculo.
- Linha 225: Quando se chega ao fim de uma fase, começa tudo de novo mas com mais obstáculos.
- Linha 230: Tem relação com a linha 90. Serve para contar o n.º de carros.
- Linha 260: Se o (w) for igual ao n.º de carros por si escolhidos, envia para a 400.
- Linha 262: Faz um FLASH quando o carro choca.
- Linha 265: Imprime o n.º de carros que restam.
- Linha 280: Faz uma pequena pausa para lermos o n.º de carros.
- Linha 410: Imprime um aviso quando perdemos todos os carros. Faz uma pequena música, treme o BORDER e pergunta se quer outro jogo.

## GRÁFICOS

- Linha 500-530: Faz os gráficos.





```

7 GO SUB 500
11 PRINT AT 15,2;"Numero de ca
rrros ?": INPUT ca: CLS : IF ca<1
THEN GO TO 11
12 BORDER 5: LET w=0: LET p=7:
LET l$="": LET y$=""
17 LET v=1: LET r=10: LET k=1
20 IF v=11 THEN LET v=1: LET r
=r+10: LET p=7: LET y$=""
25 IF r=20 OR r=40 OR r=60 OR
r=80 THEN LET p=1: LET y$="@"
36 FOR i=0 TO 31
38 PRINT AT 0,i; INK 2;l$:AT 2
1,i;l$
40 NEXT i
42 FOR i=0 TO 21
44 PRINT AT i,0; INK 2;l$:AT i
,31;l$
45 NEXT i
50 LET l$=CHR$(v+147)
70 FOR i=1 TO r
80 PRINT AT RND*19+1,RND*29+1;
INK 2;l$:
85 NEXT i
90 FOR i=1 TO 10
92 PRINT AT i+i,RND*29+1; INK
3;"@"
95 NEXT i
97 PRINT AT 3,3;"■": PAUSE 0:
PRINT AT 3,3;" "
130 LET t=0: LET h=0: LET x=0
135 LET y=0: LET a=0: LET d=1
150 LET a#=INKEY$:
160 IF a$="5" OR a$="8" THEN LE
T d=0: LET a=SGN (VAL a$-6)
165 IF a$="6" OR a$="7" THEN LE
T a=0: LET d=SGN (VAL a$-6.5)*-1
185 LET X=X+A: LET Y=Y+D
190 LET n=ATTR (y,x)
195 IF a=0 THEN PRINT AT y,x; I
NK 1;""
197 IF a=1 THEN PRINT AT y,x-1;
INK p;y$:
199 IF a=-1 THEN PRINT AT y,x+1
; INK p;y$:
204 IF d=0 THEN PRINT AT y,x; I
NK 1;""
206 IF d=1 THEN PRINT AT y-1,x;

```

```

INK p;y$:
208 IF d=-1 THEN PRINT AT y+1,x
; INK p;y$:
215 IF n=59 THEN LET h=h+1
220 IF h=10 THEN LET v=v+1: CLS
: GO TO 20
225 IF v=11 THEN LET v=1: LET r
=r+10: CLS : GO TO 25
230 IF n=57 OR n=58 THEN LET w=
w+1: GO TO 260
240 GO TO 150
260 IF w=ca THEN GO TO 400
262 PRINT AT Y,X; FLASH 1;" "
265 PRINT AT 10,5;"RESTAM-LHE "
;ca-W;" CARROS!"
280 FOR F=1 TO 100: NEXT F: CLS
: GO TO 36
410 CLS : PRINT AT 10,5;"PERDEU
O ULTIMO CARRO";AT 12,10;"OUTRO
JOGO ?"
420 OUT 254,100: OUT 254,10: OU
T 254,0: OUT 254,120: OUT 254,90
: OUT 254,21
425 IF INKEY$="S" OR INKEY$="s"
THEN PAPER 7: RUN 11
430 GO TO 420
500 FOR f=USR "a" TO USR "n"+7:
READ a: POKE f,a: NEXT f
510 DATA 186,254,186,56,56,186,
254,186,0,231,66,255,255,255,66,
231,0,0,36,10,66,0,84,40,255,2000
,110,189,153,219,60,126,112,56,0
8,14,7,131,193,224,56,84,186,197
,131,65,34,28
520 DATA 24,24,62,88,24,20,34,0
4,60,0,129,153,153,129,0,60,195,
195,60,36,36,60,195,195,255,129,
189,165,165,189,129,255,90,219,2
4,231,231,24,219,90,231,165,255,
36,36,255,165,231,60,66,153,189,
189,153,66,60,60,102,231,153,153
,231,102,60
530 CLS : RETURN

```

A=■	B=■	C=■	D=■	E=■	F=■
G=■	H=■	I=■	J=■	K=■	L=■
M=■	N=■				

# LETRAS EM 3 DIMENSÕES

Este programa permite-lhe desenhar letras em três dimensões (3-D) nas cores e nas dimensões que escolher. Foi escrito por John Hunton para o ZX Spectrum e pretende ser mais do que um simples passatempo, ajudando a construir frases com letragem tri-dimensional de fácil aplicação em títulos de páginas ou cartazes.

```

2 RANDOMIZE
3 BORDER 7: PAPER 7: INK 0: C
LS
4 PRINT AT 10,12;"3D WORDS"
5 PRINT AT 21,4;"PRESS SPACE
TO CONTINUE"
6 RANDOMIZE USR 1316
8 POKE 23609,30
9 BORDER 7: PAPER 7: INK 0: C
LS
10 PRINT AT 0,10; INK 2; PAPER
6;"MAIN MENU"
11 PRINT AT 2,0;"1.Change Size
of letter."
12 PRINT "2.Instructions."
13 PRINT "3.PRINT 3D Words."
14 PRINT "4.LPRINT Menu."
15 PRINT "5.NEW program."
16 PRINT "6.LPRINT Instruction
s."; PRINT "7.LOAD """,SCREEN$
": PRINT AT 18,0;"Program is in

```

```

MEDIUM size letter
mode."
17 IF INKEY$="1" THEN GO TO 3
00
18 IF INKEY$="2" THEN GO TO 2
00
19 IF INKEY$="3" THEN GO TO 4
5
20 IF INKEY$="4" THEN COPY :
GO TO 10
21 IF INKEY$="5" THEN STOP
22 IF INKEY$="6" THEN GO TO 2
00
23 IF INKEY$="7" THEN GO TO 6
00
24 GO TO 17
45 CLS
50 PRINT '' PAPER 0: INK 7;AT
0,1;"Now please follow the prompt
ts."
64 PRINT AT 21,4; INK 7; PAPER

```

```

2;"PRESS SPACE TO CONTINUE"
65 RANDOMIZE USR 1316
67 BORDER 7: PAPER 7: INK 0: C
LS
70 CLS : FOR n=0 TO 10: BEEP .
02,n: NEXT n
80 INPUT "Pixels from top((ig8
)=8 pixels)";p
90 INPUT "Letters (7 max) ";a
$: IF LEN a$>7 OR LEN a$<1 THEN
BEEP 1,-30: GO TO 90
91 INPUT "Colour (0-6) ";p$#
92 IF p$="#1" THEN INK 1
93 IF p$="#2" THEN INK 2
94 IF p$="#3" THEN INK 3
95 IF p$="#4" THEN INK 4
96 IF p$="#5" THEN INK 5
97 IF p$="#6" THEN INK 6
98 IF p$="#0" THEN INK 0
99 IF p$="#7" THEN INK 7: IF p$#
>"7" OR p$<"0" THEN GO TO 91
100 LET a$=LEN a$: PRINT INK 7;
AT 21,0;a$: BEEP .1,1: BEEP .1,2
:BEEP .1,3: BEEP .1,4: BEEP .1,
5: BEEP .1,6
110 FOR f=0 TO 8*a-1: FOR n=0 T
0 7
120 IF POINT (f,n)=0 THEN GO T
0 160
130 PLOT f*4,n*4+135-p: DRAW 4,
0: DRAW 0,4: DRAW -4,0: DRAW 0,-
3: DRAW 3,0: DRAW 0,2: DRAW -2,0
:DRAW 0,-1: DRAW 2,0: DRAW -2,-
2
140 DRAW 5,5: DRAW 0,4: DRAW 0,
-4: DRAW 4,0: DRAW 0,4: DRAW 0,-
4: DRAW -5,-5
150 DRAW 0,4: DRAW 5,5: DRAW -4
,0: DRAW -5,-5
160 NEXT n: NEXT f
170 IF a$="3D WORD" THEN PAUSE
50: GO TO 40
180 INPUT "Write some more ? (y
/n)":w$ .
181 IF w$="n" THEN GO TO 240

```

```

182 IF w$="y" THEN GO TO 185
185 INPUT "Clear Screen ?";t$
186 IF t$="y" OR t$="Y" THEN C
LS : GO TO 80
187 IF t$="n" OR t$="N" THEN G
0 TO 80
188 GO TO 185
200 CLS
202 PRINT AT 0,0; INK 2; PAPER
6;"JOHN HUNTON" -- 3D WOR
DS"
204 PRINT AT 2,0;"This Program
allows you to "
205 PRINT "generate 3D letters
on your "
206 PRINT "Z.X.Spectrum."
208 PRINT
209 PRINT "First you must selec
t the size "
210 PRINT "that you want your l
etters to be"
211 PRINT "then type your lette
rs in and "
212 PRINT "the computer will do
the rest"
213 PRINT
215 PRINT ; INK 2;"Size 1 = Sma
11 20 pixels high."
216 PRINT ; INK 2;"Size 2 = Med
ium 30 pixels high."
217 PRINT INK 2;"Size 3 = Larg
e 40 pixels high."
218 PRINT
219 PRINT INK 1;"Size 1 = 9 ch
aracters per line."
220 PRINT INK 1;"Size 2 = 7 ch
aracters per line."
221 PRINT INK 1;"Size 3 = 5 ch
aracters per line."
223 PRINT AT 19,0; INK 4;"R=RET
URN Z=COPY"
224 IF INKEY$="r" OR INKEY$="R"
THEN RUN 10
225 IF INKEY$="z" OR INKEY$="Z"
THEN PRINT AT 19,0;"(32*sp)":
COPY : GO TO 200
226 GO TO 224
240 BORDER 7: PAPER 7: INK 7:
250 INPUT "Copy to Z.X.Printer?
";s$
251 IF s$="y" OR s$="Y" THEN G
0 TO 260
252 IF s$="n" THEN GO TO 270
260 INPUT "How Many Copies ?";a
$
261 IF a$="1" THEN COPY : GO T
0 180
262 IF a$="2" THEN COPY : COPY
263 IF a$="3" THEN COPY : COPY
: COPY
264 IF a$="4" THEN COPY : COPY
: COPY : COPY
265 GO TO 270
270 INPUT "Save SCREEN$ ?";a$
271 IF a$="y" THEN GO TO 273
272 IF a$="n" THEN GO TO 275
273 SAVE "3D SCREEN$"
275 INPUT "Return to Menu ?";w$
276 IF w$="y" OR w$="Y" THEN G
0 TO 9
277 IF w$="n" OR w$="N" THEN G
0 TO 180
278 GO TO 275
300 BQRDR 7: PAPER 7: INK 0: C
LS
301 PRINT AT 0,0; INK 2; PAPER
6;"JOHN HUNTON" -- 3D WOR
DS"
302 PRINT AT 2,0;"With this pro
gram you can "
303 PRINT "have three different
sizes of"
304 PRINT "letters."
305 PRINT
306 PRINT "(Refer to Instructio
ns.)"
307 PRINT
308 PRINT INK 2;"Enter Size Of

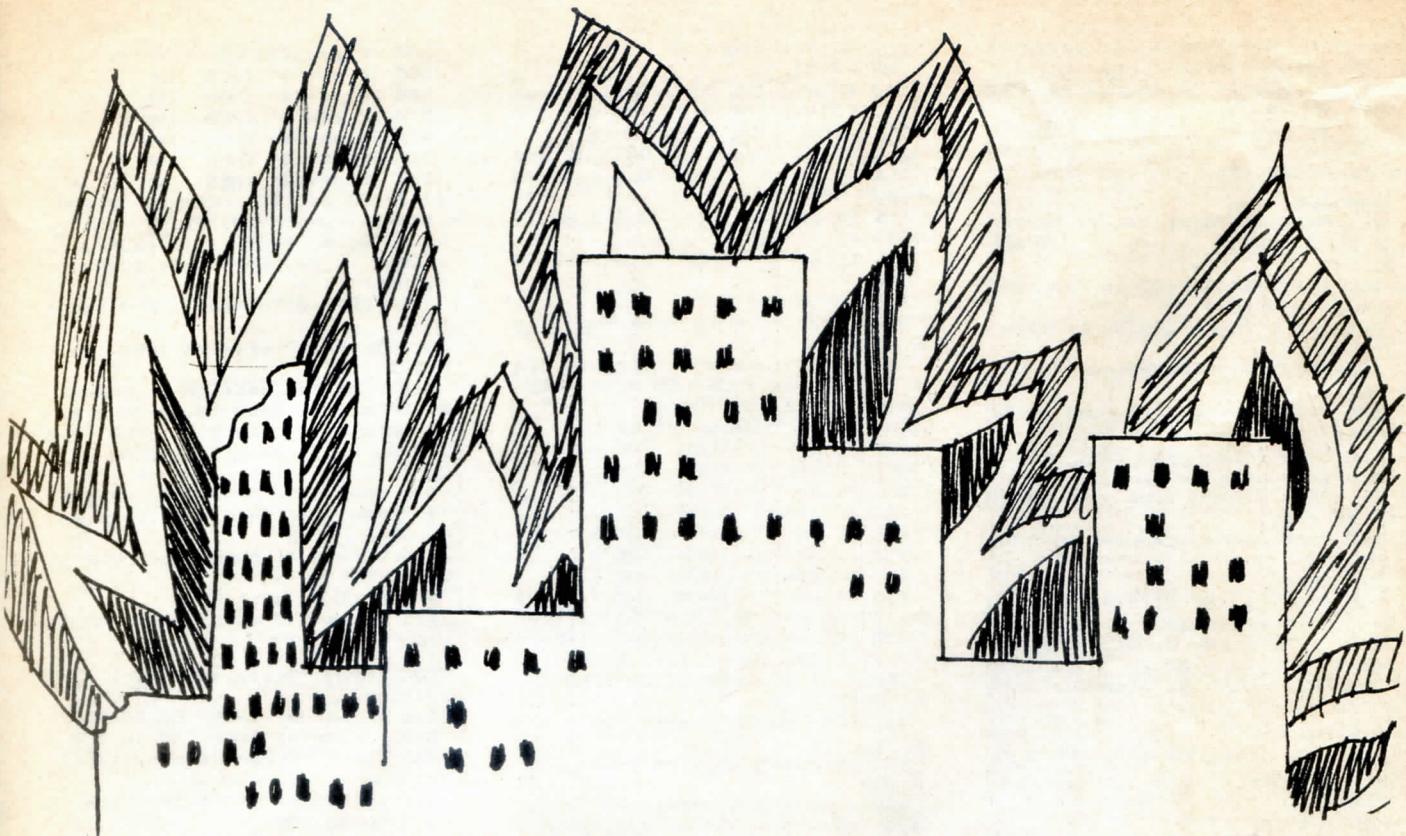
```

**Characters Require"**

```

309 PRINT
310 PRINT INK 4;"1.Small"
311 PRINT INK 4;"2.Medium"
312 PRINT INK 4;"3.Large"
313 INPUT "Size 1,2 OR 3. ?";q$
314 IF q$="1" THEN CLS : GO TO
400
315 IF q$="2" THEN CLS : GO TO
45
316 IF q$="3" THEN CLS : GO TO
500
317 GO TO 313
300 INPUT "Pixels from top ((ig
8)=8 pixels)";p
302 INPUT "Letters (9 max) ";a
$: IF LEN a$>9 OR LEN a$<1 THEN
BEEP 1,-30: GO TO 402
304 INPUT "Colour (0-6)";p$
306 IF p$="1" THEN INK 1
307 IF p$="2" THEN INK 2
308 IF p$="3" THEN INK 3
309 IF p$="4" THEN INK 4
310 IF p$="5" THEN INK 5
311 IF p$="6" THEN INK 6
312 IF p$="0" THEN INK 0
313 IF p$="7" THEN INK 7: IF p
$>"7" OR p$<"0" THEN GO TO 505
315 LET a=LEN a$: PRINT INK 7;
AT 21,0;a$: BEEP .1,1: BEEP .1,2
: BEEP .1,3: BEEP .1,4: BEEP .1,
5: BEEP .1,6
316 FOR f=0 TO 8*a-1: FOR n=0 T
0 7
317 IF POINT (f,n)=0 THEN GO T
0 522
318 PLOT f*5,n*5+140-p: DRAW 4,
0: DRAW 0,4: DRAW -4,0: DRAW 0,-
3: DRAW 3,0: DRAW 0,2: DRAW -2,0
: DRAW 0,-1: DRAW 2,0: DRAW -2,-
2
320 DRAW 5,5: DRAW 0,4: DRAW 0,
-4: DRAW 4,0: DRAW 0,4: DRAW 0,-
4: DRAW -5,-5
321 DRAW 0,4: DRAW 5,5: DRAW -4
,0: DRAW -5,-5
322 NEXT n: NEXT f
323 IF a$="3D WORD" THEN PAUSE
50: GO TO 40
325 INPUT "Write some more ? (y
/n)";w$
326 IF w$="n" THEN GO TO 535
327 IF w$="y" THEN GO TO 500
328 INPUT "Clear screen (y/n)";t
$
329 IF t$="y" OR t$="Y" THEN C
LS : GO TO 500
330 IF t$="n" OR t$="N" THEN G
0 TO 500
331 GO TO 525
332 INPUT "Copy to Z.X. Printer
?";s$
333 IF s$="y" OR s$="Y" THEN G
0 TO 540
334 IF s$="n" OR s$="N" THEN G
0 TO 550
335 GO TO 535
336 INPUT "How Many Copies ? ";
a$
337 IF a$="1" THEN COPY : GO T
0 550
338 IF a$="2" THEN COPY : COPY
339 IF a$="3" THEN COPY : COPY
: COPY
340 IF a$="4" THEN COPY : COPY
: COPY : COPY
341 GO TO 540
342 INPUT "Save SCREEN$ ?";a$
343 IF a$="y" THEN GO TO 445
344 IF a$="n" THEN GO TO 436
345 INPUT "Clear screen ?";t$
346 IF t$="y" OR t$="Y" THEN C
LS : GO TO 400
347 IF t$="n" OR t$="N" THEN G
0 TO 400
348 GO TO 436
349 CLS
350 INPUT "Copy to Z.X. Printer?
";s$
351 IF s$="y" OR s$="Y" THEN G
0 TO 448
352 IF s$="n" THEN GO TO 460
353 INPUT "How Many Copies ?";a
$
354 IF a$="1" THEN COPY : GO T
0 180
355 IF a$="2" THEN COPY : COPY
356 IF a$="3" THEN COPY : COPY
: COPY
357 IF a$="4" THEN COPY : COPY
: COPY : COPY
358 INPUT "Save SCREEN$ ?";a$
359 IF a$="y" THEN SAVE "3D"SC
REEN$: GO TO 560
360 IF a$="n" THEN GO TO 560
361 GO TO 550
362 INPUT "Return to Menu ? ";a
$
363 IF a$="y" OR a$="Y" THEN G
0 TO 9
364 IF a$="n" OR a$="N" THEN G
0 TO 525
365 GO TO 560
366 CLS : PRINT AT 0,3; INK 1;
PAPER 5;"SCORPI SOFTWARE 3D WOR
DS"
367 PRINT AT 3,0; INK 1; FLASH
1;"LOAD ""SCREEN$ MODE"
368 PRINT AT 5,0;"Change to siz
e of print required"
369 PRINT "then LOAD the SCREEN
$ you want"
370 PRINT "to work on."
371 PRINT AT 12,0; INK 2;"R=Ret
urn to menu J=LOAD SCREEN$"
372 IF INKEY$="r" OR INKEY$="R"
THEN GO TO 9
373 IF INKEY$="J" OR INKEY$="j"
THEN CLS : LOAD ""SCREEN$": BE
EP .1,0: GO TO 80
374 GO TO 606
375 SAVE "3D WORDS" LINE 1
376 VERIFY "3D WORDS"
377 RUN

```



# O GRANDE FOGO

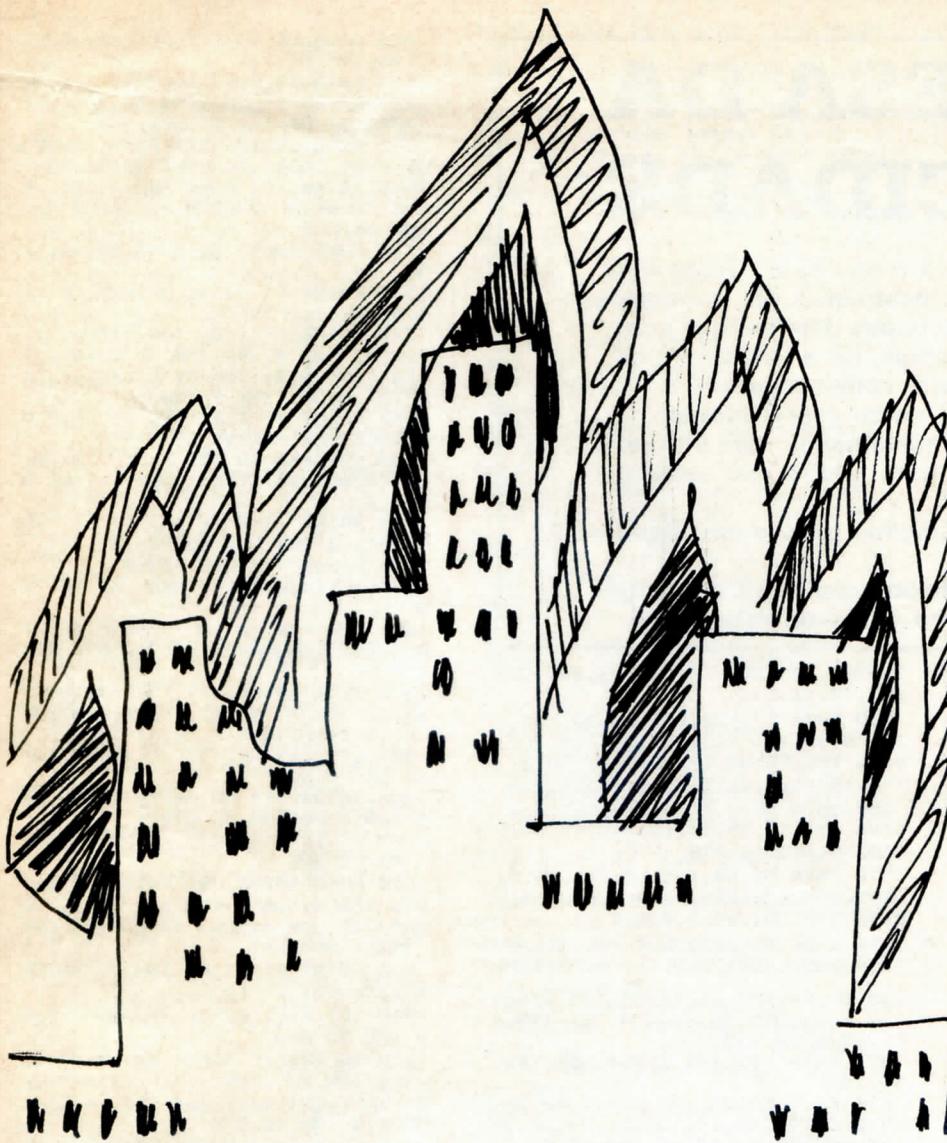
O calor começa a apertar no local onde o bombeiro se encontra para tentar dominar o braseiro. O «Grande Fogo» foi escrito por Martin Kirkwood para qualquer dos Spectrums.

Freddy, o bombeiro, terá que trepar para as sucessivas plataformas, evitando os fragmentos que ameaçam cair a qualquer momento, de maneira a atingir o foco do incêndio com o jacto de água. Depois terá que correr pelo tapete transportador, escapando à aranha, para apagar o fogo no rés-do-chão.

```

10 LET hi=0
15 LET sc=0: LET li=3: LET le=
1
20 GO SUB 500: REM Intro
30 GO SUB 1000: REM Initialise
40 GO SUB 2000: REM Screen
50 PRINT AT y2,x2;"(sp)":AT y2
-1,x2;"(sp)"
55 IF INKEY$=="s" THEN GO TO 3
0
60 PRINT AT y1,x1: INK 3;a$:AT
y1-1,x1: INK 4;b$
70 LET x2=x1: LET y2=y1
71 PRINT AT s2,20;"(2*sp)":AT
s1,20;"(sp)"
72 LET s2=s1: LET s1=s1+d: IF
s1>3 OR s1<1 THEN LET d=-d
80 LET x1=x1+(INKEY$=="x")-(INK
EY$=="z")
86 IF INKEY$=="(sp)" AND j=1 TH
EN GO SUB 150: REM Jump
90 IF x1>x2 THEN LET b$="L":
LET a$="U": LET dir=1
100 IF x1<x2 THEN LET a$="E":
LET b$="R": LET dir=-1
105 IF SCREEN$ (y1,x1)<>"(sp)""
THEN LET x1=x2: LET y1=y2
110 IF SCREEN$ (y1+1,x1)"(sp)""
THEN LET y1=y1+1: LET j=0: GO
TO 125
115 IF x1<0 THEN LET x1=0: IF
x1>31 THEN LET x1=31
120 LET j=1
125 PRINT AT 21,6;"Score: ";sc
132 IF b<>0 THEN GO TO 3500: R
EM Move ball (1)
135 IF RND*25<=1 THEN GO SUB 3
000
137 IF x1=a AND y1=b THEN GO T
O 4000: REM Hit by ball (F)
140 IF x1=5 AND y1=4 THEN GO T
O 5000: REM Stepped on conveyer
belt
142 IF y2>17 AND x2>27 THEN GO
TO 4000: REM Fell in fire
145 GO TO 50
149 REM Jump up through hole
150 IF SCREEN$ (y1-2,x1)<>"(sp)""
THEN GO TO 210
155 LET x2=x1: LET y2=y1
156 FOR f=1 TO 3
160 PRINT AT y2,x2;"(sp)"
170 PRINT AT y1,x1: INK 3;a$:AT
y1-1,x1: INK 4;b$
180 LET y2=y1: LET y1=y1-1
185 BEEP .01,f*10
190 NEXT f
195 LET sc=sc+1
200 LET x1=x1+dir
205 IF x1<0 THEN LET x1=0: IF
x1>31 THEN LET x1=31
210 RETURN
499 REM Intro
500 PAPER 0: BORDER 0: INK 7: C
LS
510 PRINT "14*,sp,*,sp,3*,2*
p,4*,sp,*,3*sp,*,2*sp,2*,2*sp,
*,2*sp,2*,4*sp,*,sp,*,2*sp,*,sp
*,*,4*sp,2*,sp,*,2*,sp,*,2*sp,*,sp
*,p,2*,sp,2*,4*sp,*,sp,*,3*,2*sp,
3*,2*sp,*,sp,*,sp,*,sp,4*,sp,*,sp
*,sp,5*,sp,*,sp,*,2*sp,*,sp,*,sp
*,4*sp,*,3*sp,*,sp,*,2*sp,*,sp,*,2
*sp,2*,4*sp,*,sp,*,2*sp,*,sp,*,4*
*,sp,*,3*sp,*,sp,*,2*sp,*,sp,*,2
*sp,2*,27*sp,*,2*sp,*,"
520 PRINT "(R,38*T,B)"
530 PRINT "(sp)By(32*sp)M.KIR
KWOOD"
550 PRINT "(2*sp)CONTROLS ARE-
(33*sp)Z.....LEFT(18*sp)X...
...,RIGHT(17*sp)'SPACE'....JUMP
"
560 PRINT "((3*sp))PRESS ANY
KEY TO CONTINUE"
565 LET e=0
570 RESTORE 6000: FOR f=1 TO 33
: READ p,d: BEEP d/80,(p-53)/4
580 IF INKEY$<>"" THEN LET f=3
3: LET e=1
590 NEXT f
595 PAUSE 10
600 IF e=1 THEN GO TO 620
610 GO TO 570
620 CLS
630 PRINT TAB 12;"FIREMAN"
640 PRINT "(2*sp)You are Fredd
ie the fireman. It is your job to
put out the fire at the bottom o

```



f the screen."

650 PRINT "(2\*sp) You must get to the top of the screen to collect the hosepipe. Watch out for the spider above(2\*sp)the conveyor belt."

660 PRINT "(2\*sp) Move Freddie using... (25\*sp) Z.....Left(18\*sp)X.....Right(18\*sp) Space..Jump"

670 PRINT AT 21,6;"Press Any Key To Start"

680 PAUSE 0

690 RETURN

999 REM Initialise

1000 RESTORE : FOR f=USR "a" TO USR "u"+7

1010 READ a: POKE f,a

1020 NEXT f

1030 DATA 60,126,126,255,66,226,20,116,28,42,107,235,106,60,200,252

1040 DATA 60,126,126,255,66,71,40,46,56,84,214,215,86,60,19,63

1050 DATA 0,64,127,70,71,71,79,60,0,0,0,127,127,255,255,255,0,28,8,156,159,252,220,192

1060 DATA 127,127,97,76,158,158,12,0,255,255,254,252,253,253,0,0,255,253,28,206,236,232,192,0

1070 DATA 0,249,249,249,0,159,159,159

1075 DATA 228,186,121,229,20,18,10,8

1076 DATA 0,0,0,BIN 11000000,32,16,16,16,16,16,16,16,16,16,16

1077 DATA 16,16,8,7,0,0,0,0,0,0,0,

0,255,0,0,0,0,56,56,56,56,56,56,56,16  
1078 DATA 63,66,153,165,165,153,66,63,252,66,153,165,165,153,66,252,255,0,0,0,0,0,0,255  
1079 DATA 39,93,150,167,40,72,80,16  
1080 LET z=0: LET x1=1: LET y1=1  
9: LET x2=x1: LET y2=y1  
1090 LET b=0: LET j=1: LET fuel=0: LET a\$="": LET b\$="": LET d  
ir=1  
1100 POKE 23562,1: LET s1=1: LET  
s2=s1: LET d=le/10  
1110 RETURN  
2000 INK 2: PAPER 0: BORDER 0: C  
LS  
2005 PRINT AT 5,0: PAPER 6;"(5\*  
)": INK 5; PAPER 0: AT 5,5;"(E,  
21\*  
)": PAPER 6; INK 2;"  
"  
2010 FOR f=8 TO 17 STEP 3: FOR g  
=0 TO 28  
2020 PRINT AT f,g: PAPER 6;"  
"  
2030 NEXT g  
2040 NEXT f  
2047 PRINT AT 2,0: PAPER 6;"(2\*  
)"  
2050 PRINT AT 0,0;"  
"; AT 1,0;"  
"  
2055 LET z=0  
2060 FOR f=8 TO 17 STEP 3  
2064 LET z1=z  
2065 LET z=2+INT (RND\*25)  
2066 IF z1=z OR z1-z=1 OR z1-z=  
1 THEN GO TO 2065  
2070 PRINT AT f,z;"(2\*sp)"  
2080 NEXT f

2085 PRINT AT 5,0;"(2\*sp)"  
2090 FOR f=255 TO 237 STEP -1  
2100 PLOT f,0  
2120 DRAW INK 2:0,RND\*24  
2130 NEXT f  
2135 FOR f=237 TO 255: PLOT INK  
6; OVER 1:f,RND\*24: PLOT OVER  
1:f,RND\*24: NEXT f  
2140 PRINT PAPER 6:AT 20,0;"(29  
\*)";AT 21,0;"(29\*)"  
2145 FOR f=1 TO 11: PRINT AT 21,  
f;"  
": NEXT f: PRINT AT 21,20;"H  
i:";hi  
2200 RETURN  
3000 LET a=0: LET a2=a: LET b=16  
-(INT (RND\*4)\*3): LET b2=b  
3010 PRINT AT b,a2;"(sp)";AT b,a  
:";  
3020 RETURN  
3500 PRINT AT b2,a2;"(sp)";AT b,  
a;"  
": LET a2=a: LET b2=b: LET a  
=a+1  
3505 IF SCREEN\$ (b+1,a) ="(sp)" T  
HEN LET b=b+1  
3510 IF a=28 THEN PRINT AT b2,a  
2;"(sp)": LET b=0: GO TO 137  
3515 IF SCREEN\$ (b+1,a) ="(sp)" T  
HEN LET b=b+1  
3520 GO TO 137  
4000 BEEP 1,4: BEEP 1,-4  
4010 LET li=li-1: IF li=0 THEN  
GO TO 4030  
4020 GO TO 30  
4030 PRINT AT 10,10: FLASH 1: IN  
K 5: PAPER 2;"Game Over"  
4035 RESTORE 4070  
4040 FOR f=1 TO 11  
4050 READ p,d: BEEP d/40,(p-53)/  
4  
4060 NEXT f  
4070 DATA 41,30,41,20,41,10,41,3  
0,53,20,49,10,49,20,41,10,41,20,  
37,20,41,40  
4080 IF sc>hi THEN LET hi=sc: P  
RINT AT 15,9;"N E W H I": FOR  
f=1 TO 10: FOR g=1 TO 10: BEEP  
-01,g: NEXT g: NEXT f  
4090 FOR f=1 TO 200: NEXT f  
4100 GO TO 15  
5000 REM hose  
5010 PRINT AT 0,3;"  
"; AT 1,3;"  
";  
; AT 2,3;"  
"; AT 3,3;"  
"; AT 4,3;"  
"  
5015 PRINT AT 4,x2;"  
"; AT 2,5;"(sp)": AT 3,4;"(sp)"  
5020 LET x2=x1: LET x1=x1+1  
5030 FOR f=1 TO 23  
5035 IF x2=20 AND s2>2 THEN GO  
TO 4000  
5040 PRINT AT 4,x2;"  
"; AT 3,x2;"  
(sp)": AT 4,x1;a\$: AT 3,x1;b\$  
5045 PRINT AT 52,20;"(L\*  
"; AT 51,20;"  
"; LET s2=s1: LET s1=s1+d:  
IF s1>3 OR s1<1 THEN LET d=-d  
5050 LET x2=x1: LET x1=x1+1  
5055 FOR g=0 TO 5: NEXT g  
5060 NEXT f  
5070 PRINT AT y1,x1;"  
"; AT y1+  
; x1+1;"  
"  
5075 INK 5  
5090 FOR f=6 TO 20: PRINT AT f,3  
0;"  
"; NEXT f  
5100 FOR f=0 TO 50: NEXT f  
5130 FOR f=6 TO 20: PRINT AT f,3  
0;"(sp)": NEXT f  
5135 INK 0  
5140 FOR f=237 TO 255 STEP 2  
5150 PLOT f,0: DRAW 0,24  
5160 FOR g=0 TO 10: NEXT g  
5170 NEXT f  
5180 LET le=le+1: LET sc=sc+(le#  
100): FOR f=1 TO 3: FOR g=0 TO 1  
0: BEEP .02,g: NEXT g: NEXT f  
5200 GO TO 30  
6000 DATA 33,10,33,15,41,5,33,10  
,53,10,49,10,41,10,33,30  
6010 DATA 25,20,25,10,21,20,21,1  
0,13,10,5,10,13,10,21,30,21,20  
6020 DATA 33,10,33,15,41,5,33,10  
,53,10,49,10,41,10,33,30  
6030 DATA 25,20,25,10,21,20,21,1  
0,13,10,5,10,13,10,5,40

# A DEFESA DA CIDADE

Neste jogo escrito para o seu SPECTRUM 48K, você tem que defender, destruindo. Os invasores do planeta aparecem em ondas que terá que combater imediatamente. Depois, há a batalha no espaço e tudo se resolverá, com certeza!

Os gráficos definidos estão representados na listagem em caracteres sublinhados. São introduzidos no modo gráfico, com a letra que está sublinhada.

Este programa utiliza muitas rotinas em linguagem máquina.

Deve-se ter um cuidado especial ao introduzir-se as instruções «DATA», no início da listagem.

```

10 FOR f=65368 TO 65535: READ
a: POKE f,a: NEXT f
20 DATA 24,24,255,255,189,189,
255,255
30 DATA 0,248,216,255,223,253,
223,255
40 DATA 0,0,0,0,0,0,85,255
50 DATA 0,0,3,15,63,255,255,25
5
60 DATA 60,60,255,255,85,255,8
5,255
70 DATA 0,0,3,15,13,63,53,255
80 DATA 0,255,129,255,129,255,
129,255
90 DATA 255,255,165,255,165,25
5,165,255
100 DATA 16,16,16,16,16,19,255,
255
110 DATA 0,0,0,7,31,149,255,255
120 DATA 231,255,165,231,165,23
1,165,255
130 DATA 24,60,24,60,24,255,255
,255
140 DATA 0,24,24,60,255,219,255
,255
150 DATA 0,15,15,13,253,255,181
,255
160 DATA 0,224,248,168,248,168,
255,170
170 DATA 0,0,48,48,38,62,62,255
180 DATA 0,0,0,118,84,126,76,78
190 DATA 254,97,255,255,127,121
,112,255
200 DATA 224,248,156,135,254,24
0,0,128
210 DATA 0,7,30,252,31,7,0,3
220 DATA 192,240,62,126,252,188
,14,155
300 CLEAR 39999: FOR f=40000 TO
40737: READ a: POKE f,a: NEXT f
305 DATA 17,224,255,58,80,195,1
11,58,81,195,103,6,8,26,119,19,3
6,16,250,58,80,195,60,111,58,81,
195,103,6,8,26,119,19,36,16,250
310 DATA 6,2,197,22,64,33,0,8,1
22,50,107,156,14,20,203,38,48,2,
14,0,35,6,31,203,38,48,3,43,52,3
5,35,16,246,43,121,254,10,48,1,5
2,122,60,87,122,254,72,32,213,62
,32,50,106,156,193,16,201,62,0,5
0,106,156
320 DATA 33,49,64,17,31,80,6,8,
126,254,128,56,15,197,62,170,6,8
,18,20,16,252,6,8,21,16,253,193,
36,123,30,32,131,95,16,228
330 DATA 33,17,64,17,30,72,6,8,
126,254,127,56,29,197,229,33,240
,255,6,8,126,18,20,35,16,250,6,8
,21,16,253,28,6,8,126,18,20,35,1
6,250,225,193,36,123,30,32,131,9
5,16,213
350 DATA 33,244,1,17,1,0,0,19,2
29,213,197,205,181,3,195,209,225
,43,43,16,243
400 DATA 17,120,195,58,80,195,1
11,58,81,195,103,6,8,26,119,19,3
6,16,250,58,80,195,60,111,58,81,
195,103,6,8,26,119,19,36,16,250
550 DATA 33,1,72,6,128,197,6,31
,126,43,119,35,35,16,249,43,54,0
,35,35,193,16,238
570 DATA 58,80,195,60,111,58,81
,195,103,126,254,0,40,6,62,255,5
0,96,234,201,24,3,0,0,0
571 DATA 33,0,72,6,8,126,254,0,
32,9,125,46,32,133,111,16,244,24
,23,58,84,195,61,50,84,195,254,0
,32,6,62,255,50,96,234,201,198,4
7,215,62,8,215
573 DATA 205,191,2,254,255,202,
64,156
574 DATA 58,85,195,254,0,40,56
575 DATA 205,191,2,254,79,32,49
,58,85,195,61,58,85,195,33,0,72,
6,128,197,6,32,126,254,170,40,2,
54,255,35,16,246,193,16,240,33,0
,72,6,128,197,6,32,126,254,170,4
0,2,54,0,35,16,246,193,16,240
590 DATA 205,191,2,254,65,32,38
,58,81,195,254,80,40,20,58,80,19
5,254,224,32,13,62,0,58,80,195,6
2,80,50,81,195,195,64,156,58,80,
195,198,32,50,80,195,195,64,156
600 DATA 205,191,2,254,81,32,46
,58,81,195,254,72,32,19,58,80,19
5,254,0,202,64,156,58,80,195,6
32,50,80,195,195,64,156,58,80,1
95,254,0,32,241,62,224,50,80,195
,62,72,50,81,195,195,64,156
610 DATA 205,191,2,254,80,40,34
,195,64,156
620 DATA 17,1,0,33,64,156,6,75,
77,126,237,121,38,0,111,229,213,
197,205,181,3,193,209,225,38,136
,105,44,16,234,201
625 DATA 33,0,0,17,1,0,6,110,22
9,213,197,205,181,3,193,209,225
,35,16,244
630 DATA 58,80,195,60,60,111,58
,81,195,60,60,60,103,6,30,126,25
4,0,32,37,54,85,35,16,246,1,0,15
,11,120,254,0,32,250,58,80,195,6
0,60,111,58,81,195,60,60,60,103
,6,38,54,0,35,16,251,195,64,156
640 DATA 205,61,158,58,80,195,6
0,60,111,58,81,195,60,60,60,103
,6,30,126,254,85,32,5,54,0,35,16
,246,58,81,195,254,80,202,64,156
650 DATA 37,37,37,6,8,54,0,36,1
6,251,6,8,37,16,253,44,6,8,54,0
,36,16,251,58,80,195,87,14,0,33,1
3,64,6,8,121,186,40,7,14,32,129
,79,36,16,245,126,254,0,32,3,44,2
4,243,203,38,48,252
655 DATA 58,83,195,61,200,50,83
,195,195,64,156
660 DATA 33,0,64,6,192,197,6,32
,203,62,35,16,251,193,16,245,201
700 LET H$=""": LET H=0
715 POKE 65528,192: POKE 50000,
0: POKE 50001,0: POKE 40183,24:
POKE 40184,19: POKE 40263,201: P
OKE 60000,0: BORDER 0: PAPER 0:
INK 6: CLS
720 POKE 40037,2: POKE 40244,12
8
730 PRINT AT 2,10; BRIGHT 1; IN
K 4;"CITY DEFENCE"
770 PRINT AT 4,0; INK 3;"Up.....
...[q]";AT 4,20; INK 4;"Down.....
.[a]";AT 5,0; INK 5;"Fire.....[p]
";AT 5,20; INK 7;"Smart....[o]"
780 PRINT AT 1,0; INK 0;"CITY D
EFENCE--by—R.EVA 1984--"
785 FOR f=0 TO 25. PLOT INK 0;
INT (RND*256),INT (RND*7)+168: N
EXT f
786 PRINT INK 7; BRIGHT 1;"RS
Press any key to begin TU"
790 RANDOMIZE USR 40000
800 IF INKEY$="" THEN GO TO 79
0
801 FOR F=0 TO 12: RANDOMIZE US
R 3583: RANDOMIZE USR 40509: NEX
T F
802 POKE 40183,33: POKE 40184,2
44: Pf(INT AT 21,0; INK 6; BRIGHT
1;"INSTRUCTIONS ? (y/n)"")
804 LET a$=INKEY$: IF a$="" THE
N GO TO 804
806 IF a$="Y" OR a$="y" THEN G
O SUB 2500: GO TO 810
808 IF a$<>"n" AND a$<>"N" THEN
GO TO 804
810 POKE 40263,58: PRINT AT 21,
21; INK 4;"NO": FOR F=1 TO 3: RA
NDOMIZE USR 40509: RANDOMIZE USR
3583: NEXT F
830 PRINT AT 21,0; INK 7; BRIGH
T 1;"Level 1 OR 2...."
840 LET A$=INKEY$: IF A$="" THE
N GO TO 840
850 IF A$="1" THEN PRINT AT 21
,21; INK 4;"LEVEL:1": LET W=5: L
ET X=1: LET Y=2: LET Z=7: POKE 6
5520,0: GO TO 875
860 IF A$="2" THEN PRINT AT 21
,21; INK 4;"LEVEL:2": LET W=0: L
ET X=0: LET Y=0: LET Z=0: POKE 6
5520,1: GO TO 875
870 GO TO 840
875 FOR F=1 TO 4: RANDOMIZE USR
40509: RANDOMIZE USR 3583: NEXT
F: PRINT INK 7; BRIGHT 1;AT 20
,0;"PRACTICE OTHER-(15*sp)WISE
ANY OTHER KEY"
877 IF INKEY$<>"" THEN GO TO 8
77
880 IF INKEY$="" THEN GO TO 88
0
890 IF INKEY$="1" THEN POKE 65
520,0: POKE 65528,0: PRINT AT 21
,21; INK 4;"PRACTICE": GO TO 950
900 PRINT AT 21,21; INK 4; BRIG
HT 1;"REAL"
950 FOR F=1 TO 4: RANDOMIZE USR
40509: RANDOMIZE USR 3583: NEXT
F: PRINT #0; INK 5; BRIGHT 1;TA
B 5:#PRESS 'S' TO BEGIN #"
960 IF INKEY$<>"" THEN GO TO 9
50
970 IF INKEY$<>"S" THEN GO TO
970
980 FOR F=0 TO 23: RANDOMIZE US
R 40509: RANDOMIZE USR 3582: NEX
T F
1000 LET J=0: LET S0=0
1005 LET L=3: POKE 50005,5: LET
V=20: POKE 40190,19
1008 POKE 23658,255: POKE 50003,
V+1: IF J>1 AND PEEK 65528<>0 T
HEN PRINT AT 3,23; INK 4;"SCREE
N "; FLASH 1; BRIGHT 1;V/4-4: GO
TO 1020
1009 IF PEEK 65528<>0 THEN PRIN
T AT 3,22; FLASH 1;"HYPERSPACE":
```

```

GO TO 1020
1010 PRINT AT 3,24; FLASH 1;"PRA
CTISE"
1020 PLOT 0,159: DRAW 255,0: PLO
T 0,158: DRAW 255,0: PLOT 0,114:
DRAW 255,0: PLOT 0,115: DRAW 25
5,0: PLOT 0,116: DRAW 255,0
1030 INK W: IF J=0 THEN FOR f=0
TO 31: PRINT AT 1,f;CHR$(INT(
RND*16)+144): NEXT f
1040 FOR f=0 TO V: LET A=INT(RN
D*256): LET B=INT(RND*256)
1042 LET A=INT(RND*256): LET B=
INT(RND*8)+168
1045 IF POINT(A,B)=1 OR POINT(
A,B-1)=1 THEN GO TO 1042
1050 PLOT A,B: NEXT F: INK 6
1060 FOR f=0 TO 1: PRINT AT f,0;
INK W; PAPER X; BRIGHT 1; OVER
1;"(32*sp)":AT f,13; PAPER Y; IN
K Z;"(4*sp)": NEXT f
1070 PRINT AT 6,0; INK 7; BRIGHT
1;"Score ";SO
1080 FOR F=8 TO 15: PRINT AT F,2
; INK INT(RND*6)+2; PAPER 0;"(3
*sp)": NEXT F
1090 PRINT AT 6,12; INK 3;"Hi-sc
ore "; INK 4;H; INK 5;" by "; IN
K 0; PAPER 3;H#
1100 POKE 50004,6: POKE 50000,96
: POKE 50001,72: PRINT AT 3,0;"(
9*sp)": PRINT AT 11,0;"(5*sp)": 
PRINT AT 3,0; INK 2; BRIGHT 1;"R
3 RS RS "( TO L*3): PRINT AT 3,
1; INK 7; BRIGHT 1;"PASS-5";CHR$ 
8: LET mc=USR 40000: IF PEEK 6
0000<>255 THEN GO TO 2000
1110 POKE 60000,0: POKE 40723,72
: POKE 40725,128: FOR f=0 TO 7:
LET MC=USR 40509: LET MC=USR 407
21: NEXT F: POKE 40723,64: POKE
40725,192
1115 PAUSE 60
1120 LET L=L-1: IF L>0 THEN GO
TO 1100
1130 PRINT AT 10,9; INK 5; BRIGH
T 1;"--GAME OVER--"; INK 4; PAPE
R 1;"'"(3*sp)Press any key to r
e-start(4*sp)"
1140 IF INKEY$<>"" THEN GO TO 1
140
1150 IF INKEY$="" THEN GO TO 11
50
1160 IF SCKH THEN GO TO 1190
1170 POKE 40263,58: INPUT "Initi
als (max 3 characters) "; LINE N
$
```

1180 IF LEN(M\$)>3 THEN LET N\$=N\$(
TO 3)
1190 LET J=0: POKE 40244,128: PO
KE 40037,2: SO TO 715
2000 FOR F=0 TO 6: LET MC=USR 40
721: LET MC=USR 40509: NEXT F: C
LS : LET V=V+4: LET S=PEEK 40190
: LET S=S-2
2005 IF INKEY\$="X" THEN GO TO 7
15
2010 IF S=0 AND J=1 THEN POKE
40183,24: POKE 40184,19: LET S=1
2020 IF V>=6 THEN LET V=8: LET
J=1: POKE 40037,1: POKE 40244,6
4: LET L=3: LET S=PEEK 50005: LE
T S=S+1: POKE 50005,S: LET S=25
2040 POKE 40190,S
2045 IF PEEK 65528=0 THEN GO TO
1008
2050 LET SD=SD+(L+PEEK 50005\*10+
(50-S))\*(J+1)
2060 GO TO 1008
2500 CLS : RANDOMIZE USR 40509
2510 PLOT 0,159: DRAW 255,0: PLO
T 0,158: DRAW 255,0: PLOT 0,114:
DRAW 255,0: PLOT 0,115: DRAW 25
5,0: PLOT 0,116: DRAW 255,0
2520 FOR f=0 TO 31: PRINT AT 1,f
; CHR\$(INT(RND\*16)+144): NEXT f
2530 FOR f=0 TO 20: LET A=INT(R
ND\*256): LET B=INT(RND\*8)+167:
PLOT A,B: NEXT F
2540 FOR f=0 TO 1: PRINT AT f,0;
INK 5; PAPER 1; BRIGHT 1; OVER
1;"(32\*sp)":AT f,13; PAPER 2; IN
K 7;"(4\*sp)": NEXT f
2550 PRINT AT 3,20; FLASH 1;"INS
TRUCTIONS":AT 3,11; FLASH 0;"PAS
S-5"
2560 PRINT AT 3,0; INK 2;"RS RS
RS"
2565 LET L\$="(9\*sp)REPORT START
#": GO SUB 3000
2570 LET L\$="WARNING-RED ALERT-D
ANGER AREA:- :CITY OF THRAAL:":
GO SUB 3000
2580 LET L\$="UNIDENTIFIED FLYING
VEHICLES REPORTED SIGHTED FR
OM VARIOUS LOCATIONS AROUND CI
TY...NUMEROUSHOT DEAD...": GO S
UB 3000
2590 LET L\$="COMMANDING OFFICER.
DO YOUR BEST": GO SUB 3000: LET
L\$="#REPORT END#"
2600 GO SUB 3000: LET L\$="": GO
SUB 3000
2610 LET L\$=" BRIEF FLYING INS
TRUCTIONS": GO SUB 3000
2620 LET L\$=" SCANNER

": GO SUB 3000
2630 LET L\$="SHOWS POSITIONS OF
BUILDINGS & ALIENS.PATCH OF CON
TRASTING COLOUR IN CENTRE SHOWS
SCREEN AREA VISIBLE.DOTS SHOW A
LIENS....": GO SUB 3000
2640 LET L\$=" LASER
": GO SUB 3000
2650 LET L\$="OPERATED USING KEY
'P':UNLIMITEDPOWER:DESTROYS OUTR
IGHT AN ALIENIN ITS DIRECT PATH.
---": GO SUB 3000
2660 LET L\$=" SMART BOMB
": GO SUB 3000
2670 LET L\$="OPERATED USING KEY
'Q':LIMITED TO 5:USE SPARINGLY-
AS LAST RES-ORT ONLY.DESTROYS A
NY ALIEN ON SCREEN - NOT ON SCA
NNER -": GO SUB 3000
2675 LET L\$=""
2680 LET L\$="AFTER 10 WAVES OF P
ROGRESSIVE DIFFICULTY,YOU WILL
ENTER HYPER-SPACE:THE FULL MISH
T OF THE ALIEN EMPIRE IS NOW
UNBOUNDED BYTHE FORCES OF GRAVI
TY AND SPEED UP CONSIDERABLY.THE
BUILDINGS WILL NOT APPEAR...":
GO SUB 3000
2685 LET L\$=""
2690 LET L\$="THE PASS NUMBER IS
DECREASED BY TH CURRENT LEVEL E
VERY TIME AN ALIEN SLIPS BY YOUR
SHIF. IF IT DECREASES PAST ZERO
A LIFE WILL BE LOST...": GO SUB
3000
2695 LET L\$=""
2700 LET L\$="AVOID CRASHING INTO
THE CITY, AGAIN-YOU WILL LOSE
A LIFE...": GO SUB 3000
2710 LET L\$=""
2800 LET L\$="WHEN YOUR 3 LIVES H
AVE BEEN LOSTTHE GAME IS OVER.HO
WEVER ENTER- ING HYPERSPACE REPL
ENISHES YOUR STORE AND IT WILL R
ETURN TO 3...": GO SUB 3000
2900 LET L\$="": GO SUB 3000
3000 LET A=1: LET C=0: FOR F=1 T
O LEN L\$:
3010 PRINT AT 21,C;L\$(A): RANDOM
IZE USR 40509: LET A=A+1: LET C=
C+1
3020 IF C<=31 THEN NEXT F
3030 RANDOMIZE USR 3583: LET C=0
: NEXT F
3040 FOR F=1 TO 4: RANDOMIZE USR
3583: RANDOMIZE USR 40509: NEXT
F: RETURN
9998 STOP
9999 CLEAR : SAVE "CITY" LINE 1:
RUN



# AS ALTAS MONTANHAS

Era uma vez... Numa longínqua galáxia, os seus habitantes ocupavam-se das tarefas do dia-a-dia de forma semelhante à dos habitantes de um planeta que, em tempos imemoriais, alguém chamara Terra.

Na pequena aldeia, jovens casais ocupavam algum tempo livre para lavarem e darem brilho aos seus carros enquanto os filhos se entretinham a garatujar as paredes e a destruir as cabines telefónicas. Enfim, naquela pequena aldeia de uma galáxia distante, todos os hábitos e vícios da civilização estavam patentes até ao dia em que ELES chegaram.

A noite ameaçava trovoada o que não levantou quaisquer suspeitas e, nem sequer a luz intensa que aparecia por trás das montanhas, preocupou ninguém. Nessa noite disputava-se a grande final do campeonato, no estádio local, repleto de gente e fortemente iluminado. Devia ser isso...

Mas... quando, na manhã seguinte, a aldeia despertou para mais um dia de trabalho, algo de dramático tinha transformado o ambiente. A princípio, muitos ainda protestaram por aquilo que supunham ser mais um dos habituals cortes de corrente da companhia de electricidade. No entanto, não era habitual que os cortes de corrente deixassem um buraco negro no sítio onde, antes, estivera a tomada da máquina de barbear, nem que a torradeira estivesse derretida e a máquina de lavar, carbonizada. E quando saíram de casa e depararam estarrecidas com as cinzas fumegantes do seu carro último modelo, começaram a desconfiar que se passava algo de mais complicado que um simples corte de corrente.

A voz ampliada que vinha das altas montanhas, confirmou as suspeitas do povo da aldeia. Todas as invenções dos dois últimos séculos tinham sido destruídos e, informava a voz, era proibido utilizar qualquer equipamento eléctrico ou mecânico. Qualquer resistência seria inútil e, passados séculos, as gentes civilizadas da aldeia tinham regressado ao estádio da barbárie mais primitiva.

Mas, finalmente, a opressão dos Senhores e dos Trípodes, uma espécie de polícia-robot, ultrapassou os limites e o povo decidiu destruir os seus carrascos.

A sua missão, se se decidir a aceitá-la voluntariamente, será a de destruir a Cidade Dourada onde residem os Senhores e os Trípodes. Para o conseguir, procure o balão em que subirá até às Altas Montanhas, encha-o de gás e use a última arma disponível.

Mas tenha cuidado – os opressores tiveram o cuidado de corromper e subornar alguns dos seus compatriotas e são eles que irão tentar impedir que a sua missão tenha êxito. Não confie em ninguém.

## O JOGO

As acções, são:

- Os Senhores e os Trípodes devem tentar destruir todo o povo que não é controlado pelos jogadores.
- O povo deve colaborar numa acção conjunta para destruir a Cidade Dourada.

As listagens do programa devem ser introduzidas na seguinte sequência: primeiro, a listagem n.º 1. Quando a figura se encontra registada na memória aparece no ecrã. Se se verificar alguma má-formação, a linha onde ocorreu o erro poderá ser detectada pela introdução da letra imperfeita. Se as figuras estiverem completamente erradas, terá que verificar todos os dados introduzidos. Logo que a figura esteja satisfatória, entrará «OK» e o programa confirmará os dados. Poderá então limpar o programa de memória e entrar com a listagem n.º 2. A seguir, faça o programa e siga as instruções. O programa pedirá a introdução dos dados da listagem n.º 1. Se, depois desta linha, verificar que se enganou em alguma linha da listagem n.º 2, faça GO TO 20.

**Tabela 1:**  
**Principais variáveis**

**Ordens:**

a\$0	Os nomes das figuras.
b\$0	Os nomes dos objectos.
a0	As posições das figuras.
e0	A força das figuras.
d0	A maleabilidade das figuras.
f0	A posição do objecto.
g0	A força do objecto.
i0	Objecto n.º 1 que as figuras podem transportar.
j0	Objecto n.º 2 que as figuras podem transportar.
\$0	Os números dos jogadores que movem as figuras.
d\$0	«Break down» da última ordem.

**Letras:**

no	Número de jogadores.
z	Número da figura que pertence ao jogador que está na sua vez de jogar.
q	Número do jogador que está a jogar.
r	Número de vezes já jogadas pelo jogador
v\$	Descrição da posição.
v,w,x,y,	Variáveis que determinam as direcções que as figuras podem tomar.
c\$	Ordens.
pos,	Usado para quebrar as ordens em palavras separadas.
begin	palavras separadas.

**Tabela n.º 2:**  
**Linha-a-Linha**

10	Instruções
140	Escolha das figuras
271	Programa principal, consistindo em:
290-379	Imprime o local onde você se encontra, as direcções para onde se pode mover e aquilo que pode ver.
380-389	Decide se alguém o está a atacar.
390-400	Dá entrada às suas ordens.
410-455	Interpreta as suas ordens.
460-606	O programa salta para a sub-rotina apropriada à ordem.
610-620	Rotina que informa se a sua ordem não foi compreendida.
650-662	Decide quando um dos «maus» ganhou o jogo.
670-680	Move os objectos que o jogador está a transportar.
1200	Rotina da escalada
1800	Rotina do trajecto
2400	Rotina da luta/morte

3200	Rotina de análise
3500	Rotina visual
3800	Rotina de inventarização
4100	Rotina de «pega-e-larga»
4700	Rotina de flutuação
5000	Rotina de acumulação
5600	Rotina do movimento para Norte
5700	Rotina do movimento para Sul
5800	Rotina do movimento para Leste
5900	Rotina do movimento para Oeste
6600	Rotina aberta
6800	Rotina para conservar o jogo (save game)
6800	Rotina para carregar o jogo (load game)
7500	Dados para os posicionamentos (104 posições)
8700	Rotina da metodologia do ataque
8800	Rotina para a vitória dos «bons»
8900	Rotina do movimento das figuras
9000	Variável da rotina de iniciação

**Listing 1**

```

10 CLEAR 43999: PRINT AT 5,0;"WAIT WHILE
THE NEW CHARACTER SET IS POKE INTO MEMORY
"
28 FOR J=15816 TO 16384
30 POKE (J+48384),PEEK J
48 NEXT J
68 RESTORE 1000
78 FOR J=64000 TO 64023: GO SUB 800: NEX
T J
98 FOR J=64208 TO 64215: GO SUB 800: NEX
T J
108 FOR J=64248 TO 64255: GO SUB 800: NEX
T J
118 FOR J=64264 TO 64471: GO SUB 800: NEX
T J
128 POKE 23606,0: POKE 23607,249
138 PRINT "":?ABCD EFGHIJKLMNOPQRSTUVWXYZ"
Z"
148 POKE 23607,68: PRINT "Do any of these
characters look wrong, if so input the character, else input 'ok'"
158 INPUT "COMMAND":t@s
168 IF t@s="ok" THEN GO TO 500
178 IF t@s="" OR t@s="?" OR t@s=":" THEN PR
INT "CHECK LINES 1000 to 1020": STOP
188 LET a$=CODE t@s-65
198 IF a$<0 OR a$>26 THEN GO TO 150
208 PRINT "CHECK LINE":1030+a$10: STOP
500 PRINT "INSERT A BLANK CASSETTE WITH
AT LEAST 5 min BLANK SPACE ON. THEN RE
WIND TAPE."
518 SAVE "chr$":CODE 64000,758
528 PRINT "NOW REWIND THE TAPE, AND PRESS
PLAY TO VERIFY THE DATA.": VERIFY "chr$"
CODE 64000,758
538 CLS : PRINT "OK, NOW THE PROGRAM WILL
CLEAR ITSELF FROM MEMORY READY FOR YOU
TO TYPE IN LISTING 2."
548 PRINT FLASH 1; INK 11:PRESS ANY KEY TO
0 CLEAR PROGRAM"
558 IF INKEY$="" THEN GO TO 550
568 NEW
588 READ a$: POKE J, a$: RETURN
1008 DATA 16,55,56,56,16,0
1018 DATA 0,108,108,72,0,0,0
1028 DATA 0,0,24,24,0,24,24,0
1038 DATA 0,68,126,182,28,48,0,48
1048 DATA 0,24,52,102,126,68,36,118
1058 DATA 0,124,125,102,124,102,126,92
1068 DATA 0,24,68,102,126,96,102,60,24
1078 DATA 0,120,124,102,102,102,124,98
1088 DATA 0,28,62,112,102,112,62,28
1098 DATA 0,14,62,112,120,112,96,64
1108 DATA 0,28,62,102,96,110,124,68
1118 DATA 0,182,182,102,126,126,102,118
1128 DATA 0,62,62,24,24,24,62,126
1138 DATA 0,38,18,5,5,78,124,54
1148 DATA 0,182,110,124,120,108,102,114
1158 DATA 0,48,48,96,96,126,60
1168 DATA 0,230,254,254,214,214,198,102
1178 DATA 0,38,118,126,126,110,102,54
1188 DATA 0,24,68,102,102,102,68,24
1198 DATA 0,68,126,102,102,124,96,48
1208 DATA 0,24,68,102,102,102,102,62,62
1218 DATA 0,92,122,126,126,124,78,102
1228 DATA 0,68,182,96,68,6,102,68
1238 DATA 0,126,96,24,24,24,24
1248 DATA 0,108,44,108,108,108,124,62
1258 DATA 0,38,38,102,102,118,68,24
1268 DATA 0,198,198,198,212,124,124,48
1278 DATA 0,6,102,124,56,48,48,56
1288 DATA 0,126,94,28,56,112,126,114
10 PRINT "LOAD THE DATA SAVED BY LISTING
1": LOAD "chr$":CODE 64000,758
20 PRINT "NOW REWIND THE TAPE TO SAVE T

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HE FINISHED PROGRAM"
30 SAVE "HIGH MTS" LINE 80: SAVE "chr$":C
ODE 64000,758
40 GO TO 98
80 CLS : PRINT FLASH 1; PAPER 1; INK 6:TA
P 18,51" LEAVE TAPE RUNNING ": INK 7: PAPE
R 7
85 LOAD "chr$":CODE 64000,758
98 POKE 23606,0: POKE 23607,249: POKE 23
658,0: POKE 23607,100: BORDER 0: PAPER 0:
INK 7
108 BORDER 0: PAPER 0: INK 6
118 CLS : PRINT AT 2,6;"THE HIGH MOUNTAIN
S"
111 INK 7
128 PRINT " IF YOU ARE EITHER A MASTER OR A
TRIPOD THEN THE OBJECT OF YOUR GAME IS
TO DESTROY ALL THE OTHERCHARACTERS WHO AR
E NOT BEING CONTROLLED BY OTHER PLAYERS
"
138 PRINT " IF YOU ARE NOT A MASTER OR A
TRIPOD THEN YOU MUST COLLECT THEAPPROPR
IATE OBJECTS AND CARRY OUT THE TASKS TO
ENABLE YOU TO DESTROY THE GOLDEN CITY."
132 PRINT " WHEN YOU THINK YOU HAVE THE
REQUIRED OBJECTS IN THEIR CORRECT
FORM, MOVE TO THE GOLDEN CITY AND FI
RE AWAY."
133 GO SUB 9000: PRINT FLASH 11; PAPER 6;
INK 11": PRESS ANY KEY TO BEGIN "
134 IF INKEY$="" THEN GO TO 134
135 CLS : PRINT INK 4 AT 2,6;"THE HIGH MO
UNTAINS"
136 PRINT "COMMANDS ARE ":"CLIMB":DIRE
CTION":KILL :HIDE :FIRE :HIT"
137 PRINT "EXAMINE":LOOK":TAKE":FILL":WI
TH":DROP":UNLOCK":FIRE":L
OAD":SAVE":AND DIRECTIONS TO MOVE."
138 PRINT FLASH 11; PAPER 6: INK 11": PR
ESS ANY KEY TO BEGIN "
139 IF INKEY$="" THEN GO TO 139
140 INK 4
158 CLS : PRINT AT 2,6;"THE CHARACTERS":
INK 5: PRINT
168 FOR J=1 TO 29 STEP 2: PRINT a$(j):TAB
161a$((j+1)): NEXT J
178 INPUT "THE NUMBER OF PLAYERS IS":n@i
188 IF n@i<1 OR n@i>5 THEN GO TO 178
198 IF j=1 TO n@i
208 INPUT "PLAYER":i@j":i@j
202 IF j-1<i@j THEN GO TO 250
218 FOR i@1 TO j-1: IF a$(j)=a$(i@1)) T
HEN GO TO 208
228 NEXT i
258 FOR k@1 TO 30: IF a$(j,:1)=a$(k,1
TO 4) THEN LET p@j=k: GO TO 270
268 NEXT k
265 GO TO 208
270 NEXT j
271 CLS
280 FOR q@1 TO n@i: LET z=p@q): DIM d@2,1
@1: LET d@1)="LOOK"
281 FOR j=1 TO n@i: IF c(p@j)>0 THEN GO T
O 283
282 NEXT j: PRINT FLASH 11; PAPER 11; INK 6
1"
END OF GAME , NO-ONE HAS WON THE
GAME
": FOR k=1 TO 10: BEEP .3,k: NEXT k: G
O TO 108
283 IF c(z)<0 THEN NEXT q: GO TO 280
284 PRINT : PRINT FLASH 11; BRIGHT 11; PAPE
R 71 INK 11": DIFFERENT PLAYER'S TURN##
*: PRINT
285 FOR r=1 TO d@z)
286 IF c(z)<0 THEN NEXT q: GO TO 280
287 LET k=INT (RND#38)+1: FOR U=1 TO n@i:
IF k@p@U) THEN GO TO 298
288 NEXT U: GO SUB 898#
290 PRINT PAPER 11 INK 4:"*****NOW YOUR TURN":Z@1"*
*****":*****":*****":*****":*****":*****
293 IF d@1,1 TO 2)="NO" OR d@1,1 TO 2)="*
" OR d@1,1 TO 2)="EA" OR d@1,1 TO 2)="WE"
OR d@1,1 TO 2)="SWIM" OR d@1,1 TO 2)="RIDE"
OR d@1,1="CLIMB" OR d@1,1="ENTER"
OR d@1,1="LOOK" THEN GO TO 295
294 GO TO 388
308 FOR u@1 TO c(z)
318 REM TELLS YOU WHERE YOU ARE
338 RESTORE ((10*a@z))+7498): READ v@,v@,
x@,y@
348 PRINT 6: INK 2: PRINT v@"
341 IF a@z=78 AND n@mbal=0 THEN PRINT "T
HE SHED IS LOCKED"
342 IF a@z=78 AND n@mbal=1 THEN PRINT "T
HE SHED IS NOT LOCKED"
343 RESTORE 9810: FOR j=1 TO 18: READ n@,
@: IF n@=a@z AND n@n@ THEN PRINT "THE CANAL
IS TO YOUR EAST"
345 IF n@=a@z AND n@n@ THEN PRINT "THE CAN
AL IS TO YOUR WEST"
346 NEXT j
348 PRINT "YOU CAN MOVE EITHER
"
350 IF v@=1 THEN PRINT "NORTH
"
352 IF w@=1 THEN PRINT "SOUTH
"
354 IF x@=1 THEN PRINT "EAST
"
356 IF y@=1 THEN PRINT "WEST
"
368 POKE 23692,255
370 FOR j=1 TO 15
371 IF f(j)=a@z THEN GO TO 373
372 GO TO 376
373 FOR i=1 TO 30: IF i@1=j OR j@1=i TH

```

**Listing 2**

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EN GO TO 379
374 IF j=7 AND nmbal=0 THEN NEXT j
375 NEXT i: PRINT "YOU CAN SEE : " ; i$=i
376 NEXT j
377 LET O=0:1
378 FOR j=1 TO 30: IF a(j)=a(z) AND j<>z THEN LET O=O+1: PRINT "YOU CAN SEE : " ; i$=i
379 NEXT j
380 LET l1=INT (RND*(18-0)+1): IF l1<1.1 THEN GO SU 879#
381 PAPER 0: INK 7: PRINT "WHAT DO YOU WANT TO DO NOW " ; i$=i
382 INPUT i:"COMMAND": i$=i
383 PRINT PAPER 7; INK 8iC
384 DIM d#(7,18)
385 LET begin=1: LET pos=1: FOR j=1 TO LE NC
386 IF c(j)="" THEN LET d#(pos)=c$begin
387 TO (j-1): LET begin=j+1: LET pos=pos+1
388 NEXT j
389 LET d#(pos)=c$(begin TO (LEN c$))
390 IF d#(1)="CLIMB" THEN d#(2)="IN"
391 THEN GO TO 120#
392 IF d#(1)="RIDE" THEN GO TO 180#
393 IF d#(1)="KILL" THEN GO TO 240#
394 IF d#(1)="FIGHT" THEN GO TO 240#
395 IF d#(1)="EXAMINE" THEN GO TO 320#
396 IF d#(1)="LOOK" THEN GO TO 350#
397 IF d#(1,1 TO 3)="INV" THEN GO TO 380#
398 IF d#(1)="GET" THEN GO TO 410#
399 IF d#(1)="TAKE" THEN GO TO 410#
400 IF d#(1)="SWIM" THEN GO TO 470#
401 IF d#(1)="FILL" THEN GO TO 500#
402 IF d#(1)="DROP" THEN GO TO 530#
403 IF d#(1)="LOAD" THEN GO TO 684#
404 IF d#(1)="SAVE" THEN GO TO 688#
405 IF d#(1,1 TO 2)="NO" THEN GO TO 560#
406 IF d#(1,1 TO 2)="SO" THEN GO TO 572#
407 IF d#(1,1 TO 2)="EA" THEN GO TO 580#
408 IF d#(1,1 TO 2)="WE" THEN GO TO 590#
409 IF d#(1,1 TO 2)="UNLOCK" THEN GO TO 660#
410 IF d#(1,1 TO 4)="FIRE" THEN GO TO 888#
411
618 PRINT "I DO NOT UNDERSTAND YOU !!"#
620 GO TO 380#
621 FOR j=17 TO 30: FOR u=1 TO NO
622 IF j=p(U), THEN GO TO 668#
623 NEXT U
624 IF c(j)>0 THEN GO TO 678#
625 NEXT J
626 IF z<17 THEN PRINT PAPER 1; INK 6; FL ASH 11#
627 EN D OF GAME ; i$=i
628 HAS WON THE GAME
629
630 FOR k=1 TO 18: BEEP .3,k: NEXT k: PAU SE 100: GO TO 100#
631 IF i$<>0 THEN LET f(((i$)))=a(z)
632 IF j(z)<>0 THEN LET f((j$))=a(z)
633 NEXT r: NEXT q: GO TO 28#
634 REM CLIMB IN
635 IF d#(3,1 TO 4)="BOAT" THEN GO TO 138#
636 IF d#(3,1 TO 4)="RIVE" THEN GO TO 140#
637
638 PRINT "THERE IS NOTHING TO CLIMB INTO HERE !!"#
639 GO TO 638#
640 IF f((13))>a(z) THEN PRINT "THE BOAT IS NOT HERE."; GO TO 638#
641 RESTORE 981#: FOR j=1 TO 18: READ n,m : IF n=a(z) THEN GO TO 133#
642 NEXT j: PRINT "THE BOAT DOES NOT MOVE BECAUSE YOU ARE NOT NEAR ANY WATER SO YOU CLIMB OUT OF IT AGAIN."; GO TO 638#
643 LET a(z)=0: IF i$<>0 THEN LET f(i$)=0#
644 IF j(z)<>0 THEN LET f(j$)=0#
645 IF c(z)>4 THEN PRINT "YOU HAVE CROSSE D THE RIVER IN SAFETY."; GO TO 638#
646 PRINT "YOU CROSSED THE RIVER, BUT WERE WEAK AND SO LOST SOME OF YOUR MANOURE ABILITY."
647 GO TO 638#
648 IF f((14))>a(z) THEN PRINT "THE RIVER DAT IS NOT HERE."; GO TO 638#
649 RESTORE 981#: FOR j=1 TO 18: READ n,m : IF n=a(z) THEN GO TO 143#
650 NEXT j: PRINT "THE RIVERBOAT DOES NOT MOVE BECAUSE YOU ARE NOT NEAR ANY WATER SO YOU CLIMB OUT OF IT AGAIN."; GO TO 638#
651 REM ride
652 IF d#(2)="HORSE" THEN GO TO 180#
653 IF d#(2)="CAR" THEN GO TO 199#
654 IF d#(2)="TRAIN" THEN GO TO 260#
655 PRINT "YOU ARE NOT ABLE TO RIDE THAT OBJECT."; GO TO 638#
656 IF a(z)<>9 THEN PRINT "THE HORSE I S NOT HERE SO YOU CANNOT RIDE IT."; GO TO 638#
657 FOR j=1 TO 4
658 RESTORE a(z)+18+749#: READ v$,v,v,w,x,y : IF d#(3,1 TO 2)="NO" AND v=1 THEN LET a(z)=a(z)-1
659 IF d#(3,1 TO 2)="SO" AND w=1 THEN LET a(z)=a(z)+1
660 IF d#(3,1 TO 2)="EA" AND x=1 THEN LET a(z)=a(z)+1
661 IF d#(3,1 TO 2)="WE" AND y=1 THEN LET a(z)=a(z)-1
662 NEXT J
663 GO TO 638#
664 IF a(z)<>f(8) THEN PRINT "THE CAR IS NOT HERE SO YOU CANNOT DRIVE IT."; GO TO 638#
665 FOR j=1 TO 6: GO TO 189#
666 IF a(z)<>f(18) THEN PRINT "THE TRAIN IS NOT HERE SO YOU CANNOT RIDE IN IT" ; i$=i

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667 THER NORTH OR SOUTH.": GO TO 638#
668 IF d#(3,1 TO 2)="EA" OR d#(3,1 TO 2)="WE" THEN PRINT "THE RAILWAY DOES NOT GO I N THAT DIRECTION.": GO TO 638#
669 FOR j=1 TO 4: GO TO 189#
670 REM kill
671 FOR j=1 TO 30: IF a(j)=a(z) AND a#(j,1 TO 4)=d#(2,1 TO 4) THEN GO TO 244#
672 NEXT j: PRINT d#(2)" IS NOT HERE TO FIGHT!": GO TO 638#
673 FOR k=1 TO no: IF p(k)=j THEN GO TO 2 400#
674 NEXT k
675 PRINT PAPER 2; INK 7;" DO YOU WA NT TO ATTACK " ; i$=i
676
677 POKE 23492,255
678 IF INKEY$="Y" THEN GO TO 250#
679 IF INKEY$="N" THEN PRINT "NO BLOW ME RE TAKEN": GO TO 638#
680
681 GO TO 240#
682 LET k=INT (RND*5)-2
683 LET kk=INT (RND*5)-2
684 IF c(j)+k=c(z)+kk THEN GO TO 252#
685 LET c(z)=c(z)-4: PRINT "YOU WERE BABL Y INJURED."
686 IF c(z)<=0 THEN PRINT "INFACt YOU HAV E BEEN KILLED.": LET a(z)=999: GO TO 638#
687 GO TO 247#
688 IF c(j)+k=c(z)+kk THEN GO TO 253#
689 LET c(j)=c(j)-4: PRINT a#(j)" WAS BA DLY INJURED."
690 IF c(j)<=0 THEN PRINT "INFACt "i$=i" 1" HAS BEENKILLED.": LET a(z)=999: GO TO 6 38#
691
692 GO TO 247#
693 IF c(j)+k>c(z)+kk THEN PRINT "YOU WER E SLIGHTLY INJURED.": LET c(z)=c(z)-1: GO TO 247#
694 IF c(j)+k<c(z)+kk THEN PRINT a#(j)" WAS SLIGHTLY INJURED.": LET c(z)=c(j)-1: GO TO 247#
695 PRINT "NO-ONE WAS INJURED."
696 GO TO 247#
697 IF c(j)<=0 THEN LET a(j)=999: LET i$=j: LET j(j)=0: PRINT a#(j)" WAS KILLED !": GO TO 638#
698 IF c(j)<=0 THEN LET a(z)=999: LET i$=z: LET j(z)=0: PRINT a#(z)" WAS KILLED !": GO TO 638#
699 PRINT a#(j)" DO YOU WANT TO DROP ALL YOU ITEMS AND CONCEDE ?"
700 POKE 23492,255
701 INPUT i:"COMMAND": i$=i
702 IF i$="YES" OR i$="Y" THEN GO TO 260#
703 PRINT "RIGHT TO BATTLE WE GO"
704 PRINT PAPER 2; INK 7;" DO YOU WA NT TO ATTACK " ; i$=i
705
706 IF IMKEY$="Y" THEN GO TO 264#
707 IF IMKEY$="N" THEN GO TO 638#
708 GO TO 2636
709
710 LET k=INT (RND*10)-4
711 LET kk=INT (RND*10)-4
712 IF c(j)+k>c(z)+kk THEN GO TO 267#
713 LET c(j)=c(j)-4: PRINT a#(j)" WAS BA DLY INJURED."
714 GO TO 266#
715 IF c(z)<=0 THEN GO TO 268#
716 LET c(z)=c(z)-4: PRINT a#(z)" WAS BA DLY INJURED."
717 IF c(z)+k>c(j)+kk THEN GO TO 268#
718 LET c(z)=c(z)-4: PRINT a#(z)" WAS BA DLY INJURED."
719 IF c(z)<=0 THEN GO TO 268#
720 GO TO 268#
721 IF c(z)+k>c(j)+kk THEN PRINT a#(z)" WAS SLIGHTLY INJURED.": LET c(z)=c(z)-1: GO TO 268#
722 IF c(z)<=0 THEN GO TO 268#
723 GO TO 268#
724 IF c(z)+k>c(j)+kk THEN PRINT a#(z)" WAS SLIGHTLY INJURED.": LET c(z)=c(z)-1: GO TO 268#
725 PRINT "NO-ONE WAS INJURED."
726 GO TO 268#
727
728 PRINT a#(j)" CONCEDES.": "NO MORE BLOW S WERE TAKEN."
729 LET i$=0: LET j(j)=0: GO TO 638#
730 REM examine
731 PRINT "I DO NOT SEE ANYTHING UNUSUAL ON"i$#(2)"": i$#(3)"": i$#(4)"
732 GO TO 638#
733 REM look
734 GO TO 329
735 REM inventory
736 PRINT "INVENTORY IS : "
737 IF j(z)<>0 THEN PRINT TAB 13:b#((j$))
738 GO TO 638#
739 REM get/take
740 IF d#(2)="BALLOON" AND nmbal=0 TH EN GO TO 414#
741 IF d#(2,1 TO 4)="GREN" AND z<17 THEN PRINT "BADDIES CANNOT PICK UP THE GR ENADES": GO TO 638#
742 FOR j=1 TO 15: IF d#(2,1 TO 3)=b#(j,1 TO 3) THEN GO TO 415#
743 NEXT j
744 PRINT "SORRY, I DO NOT SEE THAT OBJEC T."
745 GO TO 638#
746 FOR k=1 TO 30: IF j=j(k) THEN PRINT "I DO NOT SEE THAT OBJECT HERE.": GO TO 63 8#
747 NEXT k
748 FOR k=1 TO 30: IF j=j(k) THEN PRINT "I DO NOT SEE THAT OBJECT HERE.": GO TO 63 8#
749 IF i$<>0 AND j(z)<>0 THEN PRINT "YO U HAVE TOO MANY OBJECTS SO CANNOT PICK UP THE" ; i$=i
750 LET c(z)=c(z)+g(j)
751 IF i(z)=0 THEN LET i(z)=j: PRINT " O

```

```

K ":"; GO TO 638#
752 LET j(z)=j: PRINT " O K ":" GO TO 63 8#
753 REM swim
754 RESTORE 981#: FOR j=1 TO 18: READ n,m : IF n=a(z) THEN GO TO 471#
755 NEXT j
756 PRINT "THERE IS NOWHERE TO SWIM ACROS S HERE !!!": GO TO 638#
757 PRINT "YOU HAVE SWUM ACROSS THE RIVER , BUT IN DOING SO HAD TO LEAVE ALL THE OBJECTS YOU WERE CARRYING BEHIND."
758 IF i(z)<>0 THEN LET c(z)=c(z)-g((i(z)))
759 IF j(z)<>0 THEN LET c(z)=c(z)-g((j(z)))
760 IF c(z)<0 THEN PRINT "YOUR STRENGTH H AS RUN OUT AND YOU HAVE DIED.": NEXT r
761 LET i(z)=0: LET j(z)=0
762 LET a(z)=0: IF n+1=m THEN PRINT "YOU SWAM EAST"
763 IF n=1=m THEN PRINT "YOU SWAM WEST"
764 GO TO 638#
765 REM $111
766 IF d#(2)<>"BALLOON" THEN PRINT "YO U CANNOT FILL THE"i$#(2)" WITH "i$#(4)" .": GO TO 638#
767 IF i(z)<15 AND j(z)<15 THEN PRINT "YOU DO NOT HAVE THE HYDROGEN": GO TO 638#
768 PRINT "THE BALLOON FILLS UP WITH HYDROGEN, A DANGEROUS YET VERY IMPORTAN T GAS."
769 IF b#(1(z))="BALLOON" THEN LET b#(1(z))="BALLOON": LET f((j(z)))=999: LET j(z)=0: GO TO 638#
770 IF b#(j(z))="BALLOON" THEN LET b#(j(z))="BALLOON": LET f((l(z)))=999: LET l(z)=0: GO TO 638#
771 REM drop
772 FOR j=1 TO 15: IF d#(2,1 TO 3)=b#(j,1 TO 3) THEN GO TO 534#
773 NEXT j
774 PRINT "YOU ARE NOT CARRYING THAT OBJE CT !": GO TO 638#
775 IF b#(1(z),1 TO 3)=d#(2,1 TO 3) THEN LET c(z)=c(z)-g((i(z))): LET i(z)=0: PRINT " O K ":" GO TO 638#
776 IF b#(1(z),1 TO 3)=d#(2,1 TO 3) THEN LET c(z)=c(z)-g((j(z))): LET j(z)=0: PRINT " O K ":" GO TO 638#
777 GO TO 533#
778 REM R
779 REM M
780 IF v=0 THEN PRINT "YOU CANNOT MOVE IN THAT DIRECTION.": GO TO 328#
781 LET a(z)=a(z)-13
782 PRINT " O K ":" GO TO 638#
783 REM S
784 IF m=0 THEN PRINT "YOU CANNOT MOVE IN THAT DIRECTION.": GO TO 328#
785 LET a(z)=a(z)+13
786 PRINT " O K ":" GO TO 638#
787 REM E
788 IF x=0 THEN PRINT "YOU CANNOT MOVE IN THAT DIRECTION.": GO TO 328#
789 LET a(z)=a(z)+1
790 PRINT " O K ":" GO TO 638#
791 IF y=0 THEN PRINT "YOU CANNOT MOVE IN THAT DIRECTION.": GO TO 328#
792 LET a(z)=a(z)-1
793 PRINT " O K ":" GO TO 638#
660 REM unlock
661 IF b#(2)="SHED" THEN GO TO 662#
662 PRINT "IT'S NOT POSSIBLE TO UNLOCK TH AT": GO TO 638#
663 IF d#(4)="PEN" THEN GO TO 664#
664 PRINT "YOU CANNOT UNLOCK THE SHED WIT H THAT.": GO TO 638#
665 IF i(z)<3 AND j(z)<3 THEN PRINT "YO U DO NOT HAVE THE PEN.": GO TO 638#
666 PRINT "THE SHED IS NOW UNLOCKED"
667 LET nmbal=1: GO TO 638#
668 PRINT "SAVE GAME TO TAPE"
669 SAVE "SAVE LINE 686#
670 GO TO 380#
671 REM unlock
672 LOAD "SAVE"
673 PRINT "SAVED GAME HAS NOW LOADED"
674 GO TO 298#
675 DATA "THERE IS A SMALL HUT HERE, AND AFEW LOGS. ,0,1,1,0
676 DATA "YOU ARE ON A SMALL PATH NEXT TO SOME MURKY WOODS. ,0,1,1,1
677 DATA "YOU ARE ON A SMALL PATH. IN THE DISTANCE YOU CAN SEE MORE PATH. ",0,1,1,1
678 DATA "YOU ARE ON A SMALL PATH. IN THE DISTANCE THERE IS THE SHMARD FAIR. ",0,1,1,1
679 DATA "YOU ARE AT A DERELICT RAILWAY STATION. THE RAILWAY LINE LEADS SOUTH. ",0,1,1,1
680 DATA "YOU ARE ON A FLAT STEAMY MOOR. TO YOUR EAST THERE IS A CANAL",0,1,0,1
681 DATA "YOU ARE ON A FLAT STEAMY MOOR. TO YOUR WEST THERE IS A CANAL",0,1,1,0
682 DATA "YOU ARE IN THE EASTERN PART OF WICHESTER. ",0,1,1,1
683 DATA "YOU ARE IN A DAMP AND MYSTERIOUS GRAVEYARD. ",0,1,1,0
684 DATA "YOU ARE IN THE VILLAGE OF WICHESTER, AND CAN SEE A FEW HOUSES EI THER SIDE OF THE DUSTY STREET. ",0,1,1,1
685 DATA "YOU ARE ON THE EAST SIDE OF WICHESTER. ",0,1,1,1
686 DATA "YOU ARE IN A FIELD OF TURNIPS WITH A SCARECROW NEARBY. ",0,1,1,1

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7628 DATA "YOU ARE AT THE BACK OF A CAVE  
 AND CAN SEE THE WORDS ' YEK EHT SI MEP EH  
 T '.",  
 7639 DATA "YOU HAVE ENTERED A TUNNEL  
 THROUGH THE HIGH CLIFFS SURROUNDING THE DENSE FOREST.",  
 7640 DATA "YOU ARE AT THE EDGE OF THE DENSE FOREST.",  
 7650 DATA "YOU ARE IN A VALLEY IN THE DENSE FOREST AND IT IS SURROUNDED BY HIGH STEP SIDES.",  
 7658 DATA "YOU ARE AT THE NORTH EAST EDGE OF THE DENSE FOREST.",  
 7670 DATA "YOU ARE IN A LARGE FLAT FIELD WITH A RAILWAY RUNNING THROUGH IT.",  
 7680 DATA "YOU ARE IN A FIELD OF BARLEY AND CAN SEE THE GOLDEN CITY IN THE DISTANCE.",  
 7688 DATA "YOU ARE IN THE GOLDEN CITY. THE WALLS OF THE BUILDINGS GLEAM IN THE SUNLIGHT.",  
 7700 DATA "YOU ARE IN SOME FIELDS, AND CAN SEE A STOUT FENCE TO YOUR EAST.",  
 7710 DATA "YOU CAN SEE THE CHURCH.",  
 7720 DATA "YOU'RE IN THE SOUTHERN MOST PART OF WICHESTER.",  
 7730 DATA "YOU CAN SEE WILL'S FATHER'S SAW MILL.",  
 7740 DATA "YOU ARE IN A FIELD OF MAZE.",  
 7750 DATA "YOU HAVE JUST ENTERED A CAVE AND ARE SURROUNDED BY DARKNESS.",  
 7760 DATA "YOU CAN SEE PART OF THE TUNNEL THAT HAS FALLEN IN.",  
 7770 DATA "YOU ARE IN THE THICK FOREST.",  
 7780 DATA "YOU ARE IN THE MIDDLE OF THE DENSE FOREST.",  
 7790 DATA "YOU ARE IN THE DENSE FOREST.",  
 7800 DATA "YOU ARE NEXT TO THE RAILWAY.",  
 7810 DATA "YOU ARE ON A FLAT MOOR.",  
 7820 DATA "YOU CAN SEE THE GOLDEN CITY TO THE NORTH AND ARE ON A FLAT PLAIN.",  
 7830 DATA "YOU ARE IN A LARGE FIELD FULL OF FLOWERS.",  
 7840 DATA "YOU ARE IN THE VILLAGE PARK.",  
 7850 DATA "YOU ARE AT THE VILLAGE ENTRANCE",  
 7860 DATA "YOU ARE IN THE VILLAGE FARMING AREA.",  
 7870 DATA "YOU ARE AT THE EXTREME OF THE VILLAGE FARMLAND.",  
 7880 DATA "YOU CAN SEE A CAVE TO YOUR NORTH AND ARE IN A SMALL GLEN.",  
 7890 DATA "YOU ARE AT A PART OF THE TUNNEL THAT HAS FALLEN IN.",  
 7900 DATA "YOU ARE NEXT TO SOME HIGH CLIFF BUT ARE STILL IN THE FOREST.",  
 7910 DATA "YOU CAN SEE HIGH CLIFFS FROM THIS POINT IN THE FOREST.",  
 7920 DATA "THE FOREST IS THIN HERE.",  
 7930 DATA "YOU CAN SEE THE RAILWAY PASSING NEAR TO THE FOREST HERE.",  
 7940 DATA "THERE IS AN OLD DEEP PIT HERE.",  
 7950 DATA "YOU CAN SEE A LARGE TRIPOD FOOT PRINT HERE.",  
 7960 DATA "YOU CAN SEE A FIELD OF GOATS HERE.",  
 7970 DATA "THERE IS A WALL HERE WITH WINES GROWING ALL OVER IT.",  
 7980 DATA "YOU CAN JUST SEE THE VILLAGE HERE.",  
 7990 DATA "THERE IS A LARGE FIELD HERE",  
 8000 DATA "THERE IS A LARGE FIELD HERE",  
 8010 DATA "YOU ARE AT THE ENTRANCE TO A CAVE.",  
 8020 DATA "YOU ARE SOUTH OF THE LARGE CLIFFS.",  
 8030 DATA "YOU CAN SEE THE LARGE CLIFFS BUT ARE IN OPEN SPACE.",  
 8040 DATA "YOU CAN SEE REMAINS OF A TALL PYLON.",  
 8050 DATA "YOU CAN SEE A LARGE SIGN SAYING 'HIGH == T.E'.",  
 8060 DATA "YOU CAN SEE A LARGE ROCK RESEMBLING A PEN, OR IS IT A KEY.",  
 8070 DATA "YOU ARE ON A FLAT PLAIN NEXT TO THE CANAL.",  
 8080 DATA "YOU CAN SEE HOOF MARKS.",  
 8090 DATA "YOU ARE ON A BLEAK MOOR.",  
 8100 DATA "THERE IS A SHARP DROP TO THE SOUTH OF THE BARE ROCK ON WHICH YOU STAND.",  
 8110 DATA "YOU ARE STANDING ON A WELL TRODDED PATH.",  
 8120 DATA "YOU CAN SEE MOUNTAINS GLISTENING IN THEIR FULL GLORY.",  
 8130 DATA "YOU ARE IN THE REMAINS OF A GREAT CITY.",  
 8140 DATA "YOU ARE SURROUNDED BY HIGH MOUNTAINS.",  
 8150 DATA "YOU ARE STANDING ON A WHITE DOTTED LINE",  
 8160 DATA "THERE IS AN OLD WAREHOUSE HERE",  
 8170 DATA "THERE IS AN OLD WAREHOUSE HERE"

8170 DATA "A DRY RIVER PASSES THROUGH HERE.",  
 8180 DATA "THERE ARE REMAINS OF A BRIDGE HERE.",  
 8190 DATA "THERE IS THE REMAINS OF AN OLD STATION HERE.",  
 8200 DATA "YOU CAN SEE THE CANAL GLISTENING IN THE SUN.",  
 8210 DATA "YOU ARE AT A PUB ALONG SIDE THE CANAL.",  
 8220 DATA "THERE IS THE REMAINS OF A LARGE BOAT HERE.",  
 8230 DATA "THERE IS THE REMAINS OF A TRIPOLISHERE.",  
 8240 DATA "THERE IS THE REMAINS OF A DEAD SHEEP HERE.",  
 8250 DATA "YOU CAN SEE A LARGE MAN MADE TUNNEL.",  
 8260 DATA "YOU ARE IN A SMALL GREEN VALLEY.",  
 8270 DATA "YOU CAN SEE SOME GLOWING LIGHT BULBS IN AN OLD SHED AND WONDER WHAT POWER THEM.",  
 8280 DATA "THE LAND IS FLAT AND BEAUTIFUL.",  
 8290 DATA "YOU'RE IN A CITY OF THE ANCIENTS.",  
 8300 DATA "THERE ARE LARGE BUILDINGS ALL AROUND.",  
 8310 DATA "MANY LONG CARRIAGES ARE AROUND YOU.",  
 8320 DATA "THE CITY OF THE ANCIENTS LOOKS DARK AND WONDERFUL.",  
 8330 DATA "YOU ARE IN A SMALL MEADOW BY THE CANAL.",  
 8340 DATA "YOU CAN HEAR THE CANAL HORSES.",  
 8350 DATA "YOU ARE ON AN OLD TRACK.",  
 8360 DATA "THE OLD TRACK YOU STAND ON DIPS A LITTLE.",  
 8370 DATA "YOU'RE IN A VILLAGE BY THE MOUNTAINS.",  
 8380 DATA "YOU ARE ON TOP OF A LARGE MOUNTAIN AND CAN SEE A SMALL LIGHT TO THE EAST.",  
 8390 DATA "THE MOUNTAINS ARE NOT SO TALL HERE.",  
 8400 DATA "YOU ARE IN A LARGE FLAT VALLEY.",  
 8410 DATA "THERE IS A TALL CHIMNEY HERE.",  
 8420 DATA "YOU ARE IN A LARGE FACTORY.",  
 8430 DATA "TALL SKYSCRAPERS SURROUND YOU.",  
 8440 DATA "YOU CAN SEE LARGE WHITE BUILDINGS.",  
 8450 DATA "YOU HAVE SUDDENLY COME INTO DARKNESS.",  
 8460 DATA "YOU ARE ON A WEIRD FLAT METALLIC SURFACE.",  
 8470 DATA "THE CANAL IS NEXT TO YOU.",  
 8480 DATA "YOU CAN SEE THE SEA DOWN A LARGE DROP.",  
 8490 DATA "THERE IS A STONE WALL HERE.",  
 8500 DATA "THE AIR IS THIN AND YOU CANNOT SEE MUCH IN THE FOG.",  
 8510 DATA "THE HIGH MOUNTAINS AROUND YOU ARE DAMP.",  
 8520 DATA "IT IS RAINING HARD AND THE FOG MEANS YOU CAN SEE VERY LITTLE.",  
 8530 DATA "THE RAIN IS UNBEARABLE AS YOU BATTLE TO DEFEAT THE TRIPODS."

8540 REM random kill  
 8550 FOR J=1 TO 30: READ A: LET a(j)=A: NE XT J  
 8560 FOR J=1 TO 30: READ A: LET c(j)=A: NE XT J  
 8570 FOR J=1 TO 30: READ A: LET d(j)=A: NE XT J  
 9480 DATA 28, 28, 28, 28, 28, 6, 7, 8, 19, 21,  
 , 32, 33, 34, 100, 74, 15, 34, 4, 76, 41, 18, 1, 11, 78,  
 23, 24, 73, 47  
 9490 DATA 8, 7, 9, 8, 7, 6, 8, 8, 9, 4, 9, 9, 6, 5, 7, 6,  
 6, 8, 6, 7, 4, 2, 6, 6, 7, 8, 7, 6, 4  
 9500 DATA 8, 10, 18, 7, 4, 8, 9, 8, 6, 4, 9, 9, 5, 6, 18,  
 5, 7, 8, 6, 7, 6, 8, 7, 8, 5, 9, 7, 7, 4  
 9510 LET b(j)=1=SWORD"  
 9510 LET b(j)=2=MACE"  
 9520 LET b(j)=3=PEP"  
 9530 LET b(j)=4=MATCH"  
 9540 LET b(j)=5=BAG"  
 9550 LET b(j)=6=GRENADE"  
 9560 LET b(j)=7=BALLOON"  
 9570 LET b(j)=8=CAR"  
 9580 LET b(j)=9=HORSE"  
 9590 LET b(j)=10=TRAIN"  
 9600 LET b(j)=11=FLICKKNIFE"  
 9610 LET b(j)=12=ROPE"  
 9620 LET b(j)=13=BOAT"  
 9630 LET b(j)=14=RIVERBOAT"  
 9640 LET b(j)=15=HYDROGEN"  
 9650 FOR j=1 TO 15: READ A: LET g(j)=A: NE XT J  
 9660 FOR j=1 TO 15: READ A: LET g(j)=A: NE XT J  
 9670 DATA 1, 93, 48, 81, 18, 88, 78, 82, 58, 5, 99, 4  
 4, 7, 72, 13  
 9680 DATA 17, 16, 8, 2, 28, 19, 9, 8, 6, 5, 1, 1, 8,  
 9  
 9690 DATA 6, 7, 7, 8, 19, 28, 28, 19, 32, 33, 33, 32,  
 45, 46, 44, 43, 58, 59, 59, 58, 71, 72, 71, 84, 85,  
 85, 84, 97, 98, 98, 97, 118, 111, 111, 118  
 9999 RETURN

# MINOTAURO

Um inexplicável acidente impediu que este jogo tivesse sido publicado na íntegra no número de Abril dos JOGOS SORTIDOS.  
Do facto pedimos desculpa a todos os nossos leitores, aproveitando para agradecer a todos os que se nos dirigiram no sentido de reparamos a verdade de «MINOTAURO».

Neste jogo de C. C. Stock para o ZX SPECTRUM, você é o objecto de diversão de um rei de maus instintos, que o atira para dentro de um labirinto dominado por um terrível Minotauro. A primeira operação que terá que fazer é descobrir uma espada, uma armadura e um escudo, para se defender do Minotauro. Um mapa com os dados para esta descoberta é a única coisa que você possui. Com as armas e protecção em seu poder conseguirá matar o Minotauro... Todo o movimento do jogo é muito rápido. O Minotauro aparece-nos com 7 tamanhos diferentes, crescendo à medida que se aproxima de si. Prima «M» para ver o mapa. Enquanto o mapa aparece no ecrã o programa pára.

O labirinto é construído por 4 linhas; 2 para as passagens horizontais e 2 para os corredores verticais. «O» representa uma abertura no corredor; «5» representa o corredor normal e «1» – «4» os cruzamentos. Para desenhar novamente o labirinto, modifique as linhas 60 – 140 e 2401 e na linha 20 x1 e y1 refaça a posição do Minotauro + 2. Os números das linhas dos corredores do labirinto também devem ser alterados.

## Linhas / Funções

15-20 – Introdução  
 60-80 – Corredores do labirinto  
 100-180 – Mapa  
 200-280 – Desenha o corredor  
 300-350 – Desenha o cavaleiro  
 400-530 – Desenha as passagens laterais  
 610-630 – Pode ver-se o Minotauro?  
 700-770 – Controles  
 800-840 – Desenha o corredor final  
 850-870 – Quando voltar muda as variáveis  
 1000-1170 – Movimento do Minotauro  
 2000-2100 – Desenha o Minotauro  
 2401 – Desenha o mapa  
 3000-3030 – Fim  
 3200 – Posicionamento aleatório da armadura e do homem  
 3400-3440 – Apanha a armadura  
 4000-4540 – Minotauro e o homem  
 @> REM \*\*\*\*\* 3D MAZE \*\*\*\*\*  
 @ C.C. Stock 1983  
 10 INK Ø: PAPER 4: BORDER 2: C  
 LS  
 15 PRINT AT 6,7;" M I N O T A  
 U R "; AT 8,Ø;" For the amuse-  
 ent of the king you have been d-  
 ropped into the Minotaurs maze.  
 You only hope is to find 3 we  
 apons hidden in the maze using  
 a map provided "  
 20 GO SUB 4000  
 30 DIM a\$(4,34): LET a1=3: LET  
 l=-1: LET j=-1: LET x1=20: LET  
 y1=16: LET q1=1: LET s=1: LET t1  
 =0: LET t2=0: LET t3=0  
 40 LET k=1: IF RND <.5 THEN  
 LET k=-1

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    60 LET a$(1)="Ø354553554003554
    555355554530455530"
    70 LET a$(2)="Ø354553554553554
    555300004535455530"
    75 LET a$(3)="Ø155255510025551
    02551520"
    80 LET a$(4)="Ø155200015525551
    52001520"
    101 LET e$="-----■-----"
    110 LET f$="-----■-----"
    120 LET g$="-■-■-■-■-■-■-■-■-■-■-■-"
    130 LET h$="-■■■-■■■■-■■■■-■■■■-■■■■-"
    140 LET i$="■■-■■■■-■■■■-■■■■"
    145 PRINT AT 18,4;"Use keys 5,
    6,7&8 to move"; AT 20,8;"Press a
    ny key"
    150 IF INKEY$="" THEN GO TO
    150
    160 GO SUB 2400: GO SUB 3200
    170 PRINT AT 8,16; INVERSE 1;""
    Press"; AT 9,16;"any key": INK Ø
    : PAPER 6: FOR n=1 TO 3: PRINT
    AT w(1,n),w(2,n); "X": NEXT n
    180 BEEP .8,-16: BEEP .8,-22: I
    F INKEY$="" THEN GO TO 180
    190 INK 6: PAPER 2: CLS : PAPER
    Ø
    195 PRINT AT 3,17;"Press M for
    map"; AT 5,17;"Press A to pick"
    ; AT 6,17;" up armour "
    201 FOR n=Ø TO 21: PRINT AT n,
    Ø; ":" NEXT n
    205 LET m=8
    210 FOR n=Ø TO m-1
    230 IF a$(a,n*k+p)="Ø" THEN LE
    T m=n+1: GO TO 300
    260 PLOT 8*n,16*n: DRAW 8,16: D
    RAW Ø,159-16*n
    270 PLOT 127-8*n,16*n: DRAW -8,
    16: DRAW Ø,159-16*n
    280 NEXT n
    310 FOR n=Ø TO 6
    320 PRINT AT 14+n,6; INVERSE 1
    ;r$(1+4*n TO 4+4*n): NEXT n
    330 IF t1=1 THEN PRINT AT 15,
    5; INK 6;" "; AT 16,5;" "; AT 17
    ,5;" "; AT 9,17; INVERSE 1;" Swo
    rd "
    340 IF t2=1 THEN FOR n=Ø TO 3:
    PAPER 4: PRINT AT 15+n,9; INK
    Ø://"": NEXT n: PRINT AT 11,17;""
    Shield ": PAPER Ø: PLOT 72,48:
    DRAW 7,Ø: PLOT 72,32: DRAW 7,Ø
    350 IF t3=1 THEN PRINT AT 14,
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?; PAPER 2;"WW"; AT 10,17;" Helm
et "
410 PLOT 0,0: DRAW 8,16: DRAW
INVERSE 1;-7,0: PLOT 127,0: DRAW
-8,16: DRAW INVERSE 1;7,0
420 FOR n=m-1 TO 0 STEP -1
430 LET b= VAL a$(a,p+n*k)
440 IF b=5 THEN GO TO 520
450 IF b=0 THEN LET m=m-1: GO
TO 801
460 IF b=1 OR b=2 THEN IF a$(b
,x+k)="0" THEN GO TO 490
470 IF b=4 OR b=3 THEN IF a$(b
,y-k)="0" THEN GO TO 501
480 PLOT 8*n,16*n: DRAW INVERS
E 1;8,16: DRAW -7,0: DRAW 7,0: D
RAW 8,16: DRAW INVERSE 1;-7,0
490 IF b=1 OR b=2 THEN IF a$(b
,x-k)="0" THEN GO TO 520
501 IF b=3 OR b=4 THEN IF a$(b
,y+k)="0" THEN GO TO 520
510 PLOT 127-8*n,16*n: DRAW IN
VERSE 1;-8,16: DRAW 7,0: DRAW -7
,0: DRAW -8,16: DRAW INVERSE 1;
7,0
520 NEXT n
530 PLOT m*8,m*16: DRAW INVERS
E 1;8,16: PLOT 127-m*8,m*16: DRA
W INVERSE 1;-8,16
601 PAUSE 30: IF RND <.7 THEN
GO SUB 1000
610 IF x=x1 AND y=y1 THEN GO T
O 3000
620 IF q=-1 THEN LET y=p: IF x
=x1 AND (y1-y)*k <= m THEN LET
d=(y1-y)*k: IF d>-1 THEN GO SUB
2010
630 IF q=1 THEN LET x=p: IF y
=y1 AND (x1-x)*k<m THEN LET d=(x
1-x)*k: IF d>-1 THEN GO SUB 201
0
640 INK 6
710 IF INKEY$ ="a" THEN BEEP
,1,24: GO TO 3400
720 IF INKEY$ ="m" THEN GO SU
B 2400: GO TO 170
730 IF INKEY$ ="6" THEN LET k
=k*-1: GO TO 201
740 IF INKEY$ ="7" THEN IF a$(
,a,p+k) <> "0" THEN LET p=p+k:
BEEP .2,0: GO TO 401
750 IF INKEY$ ="5" AND b <> 5
THEN LET k=-q*k: GO SUB 850: GO
TO 201
760 IF INKEY$ ="8" AND b <> 5
THEN LET k=q*k: GO SUB 850: GO
TO 201
770 GO TO 601
810 PLOT 8*(n+1),175: DRAW INV
ERSE 1,0,-159+16*n: DRAW INVERS
E 1,-8,-16: DRAW 16*(7-n)+15,0:

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DRAW INVERSE 1;-8,16: DRAW INV
ERSE 1;0,159-16*n
820 PLOT 8*(n+1),16*(n+1): DRAW
INVERSE 1;16*(6-n)+15,0
830 PLOT 48,48: DRAW 31,0: PLOT
48,32: DRAW 31,0
840 GO TO 520
850 IF b=1 OR b=2 THEN LET p=x
860 IF b=3 OR b=4 THEN LET p=y
870 LET a=b: LET q=-q: RETURN
1001 IF q1=1 THEN IF a$(a1,y1)=
"5" THEN LET y1=y1+j: RETURN
1010 IF q1=-1 THEN IF a$(a1,x1)
="5" THEN LET x1=x1+1: RETURN
1020 IF x < x1 THEN LET l=-1
1030 IF x > x1 THEN LET l=1
1040 IF y < y1 THEN LET j=-1
1050 IF y > y1 THEN LET j=1
1060 IF q1=-1 THEN GO TO 1120
1070 LET b1= VAL a$(a1,y1)
1080 IF x=x1 THEN IF a$(a1,y1+j)
) <> "0" THEN LET y1=y1+j: RETU
RN
1090 IF a$(b1,x1+1) <> "0" THEN
LET a1=b1: LET q1=-1: LET x1=x1
+1: RETURN
1101 IF a$(b1,y1+j) <> "0" THEN
LET y1=y1+j: RETURN
1110 LET j=-j: LET l=-l: GO TO 1
E90
1120 LET b1= VAL a$(a1,x1)
1130 IF y=y1 THEN IF a$(a1,x1+1)
) <> "0" THEN LET x1=x1+1: RETU
RN
1140 IF a$(b1,y1+j) <> "0" THEN
LET a1=b1: LET q1=1: LET y1=y1+
j: RETURN
1160 IF a$(a1,x1+1) <> "0" THEN
LET x1=x1+1: RETURN
1170 LET j=-j: LET l=-l: GO TO 1
140
2015 INK 3
2020 GO TO 2030+10*d
2040 FOR e=0 TO 8: PRINT AT 5+e
,4; INVERSE 1;n$(7*e+1 TO 7*e+7)
: NEXT e: RETURN
2050 FOR e=0 TO 8: PRINT AT 5+e
,5; INVERSE 1;n$(1+e*6 TO 6+e*6)
: NEXT e: RETURN
2060 FOR e=0 TO 8: PRINT AT 5+e
,5; INVERSE 1;b$(1+e*5 TO 5+e*5)
: NEXT e: RETURN
2070 FOR e=0 TO 7: PRINT AT 5+e
,6; INVERSE 1;p$(1+e*4 TO 4+e*4)
: NEXT e: RETURN
2080 FOR e=0 TO 5: PRINT AT 5+e
,7; INVERSE 1;q$(1+e*3 TO 3+e*3)
: NEXT e: RETURN
2090 FOR e=0 TO 3: PRINT AT 5+e
,7; INVERSE 1;q$(19+e*2 TO 20+e*2)

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2): NEXT e: RETURN
2101 PRINT AT 5,7; "A": AT 6,7; "
A"
2110 RETURN
2401 PAPER 0: INK 4: PRINT AT 0
,0;e$: PRINT g$;g$;f$;h$;h$;h$;e
$;i$;i$;f$;g$;g$;g$;e$;i$;f$;h$;
h$;e$;g$;f$: RETURN
3010 IF t1=1 AND t2=1 AND t3=1 T
HEN IF SCREENS (8,7)="M" THEN
PRINT AT 21,01 FLASH 1;" You
have killed the minotauro": GO T
O 3030
3020 INK 5: PAPER 1: PRINT AT 2
0,0; FLASH 1;" You have failed a
nd payed the price of failure
3030 FOR n=1 TO 2E: BEEP .2, INT
( RND *30): NEXT n: INK 3: GO S
UB 2040: INK 6: PAPER 0: STOP.
3210 DIM W(2,4)
3220 FOR n=1 TO 4
3230 LET w1= INT ( RND *22): LET
w2= INT ( RND *32)
3240 IF SCREENS (w1,w2)="--" THE
N LET w(1,n)=w1: LET w(2,n)=w2:
NEXT n: GO TO 3300
3250 LET w1=w1+1: LET w2=w2+1: I
F w1>21 THEN LET w1=2
3260 IF w2>31 THEN LET w2=2
3270 GO TO 3240
3301 LET y=w(1,4)+2: LET x=w(2,4
)+2
3330 IF a$(3,w1+2)="2" OR a$(3,w
1+2)="1" THEN LET b= VAL a$(3,w
1+2): LET q=-1: GO SUB 850: GO T
O 170
3350 LET b= VAL a$(1,w2+2): LET
q=1: GO SUB 850: GO TO 170
3410 IF y-2=w(1,1) AND x-2=w(2,1
) THEN LET t1=1
3420 IF y-2=w(1,2) AND x-2=w(2,2
) THEN LET t2=1
3430 IF y-2=w(1,3) AND x-2=w(2,3
) THEN LET t3=1
3440 GO TO 330
4010 LET m$="EBD CAEBB AEAE" +
CHR$ 129+" "+CHR$ 130+"AE"+CHR
$ 131+"F M G"+CHR$ 131+
D C D C D C "
4020 LET n$="EDC"+CHR$ 133+"EE
E"+CHR$ 136+CHR$ 132+CHR$ 133
+"EE"+CHR$ 132+CHR$ 136+"E
D C D C D C EDCD
C"
4030 LET o$="EE "+CHR$ 133+"EE
"+CHR$ 133+"E"+CHR$ 131+CHR$ 130+
"~"+CHR$ 129+CHR$ 131+
C DC D-D C EDECEDECE
4040 LET p$="BDCEDDC" C DC
DB ABCDABCD
4050 LET q$="B AF G E E E"+CH
R$ 133+"E"+CHR$ 133+"E"+CHR$ 133+
" "+CHR$ 136+CHR$ 132+"E
+CHR$ 133
4060 LET r$="E E"+CHR$ 131+
"+CHR$ 131+"=V== "+" "+CHR$ 136
+" "+CHR$ 136+"E"+CHR$ 133+"E
"+CHR$ 133+"E"+CHR$ 133+"E"+C
HR$ 133
4510 FOR n=0 TO 55: READ a: POKE
USR CHR$ 144+n, a: NEXT n: RET
URN
4520 DATA 127,127,127,127,127,12
7,127,127,254,254,254,254,254,25
4,254,254
4530 DATA 1,1,1,1,1,1,1,1,128,12
8,128,128,128,128,128,128
4540 DATA 24,24,24,24,24,24,24,24,2
4
4550 DATA 254,254,254,254,0,0,0,
0,127,127,127,127,0,0,0,0

```

## CORREIO DO MÊS

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O programa «ASTER» foi novamente testado e não foi detectado qualquer erro na sua listagem. Se referir em concreto qual é a sua dificuldade em programá-lo, talvez o possamos ajudar. Quanto ao jogo «MINOTAURO», concerteza já reparou, pode encontrar a sua listagem completa nas páginas desta revista.

Renovamos o nosso habitual convite: enviem-nos os vossos programas originais, para teste e publicação nas páginas de «JOGOS SORTIDOS». Se, por qualquer motivo, não possui algum dos números de «JOGOS SORTIDOS» nesta sua NOVA FASE, dirija os seus pedidos para:

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