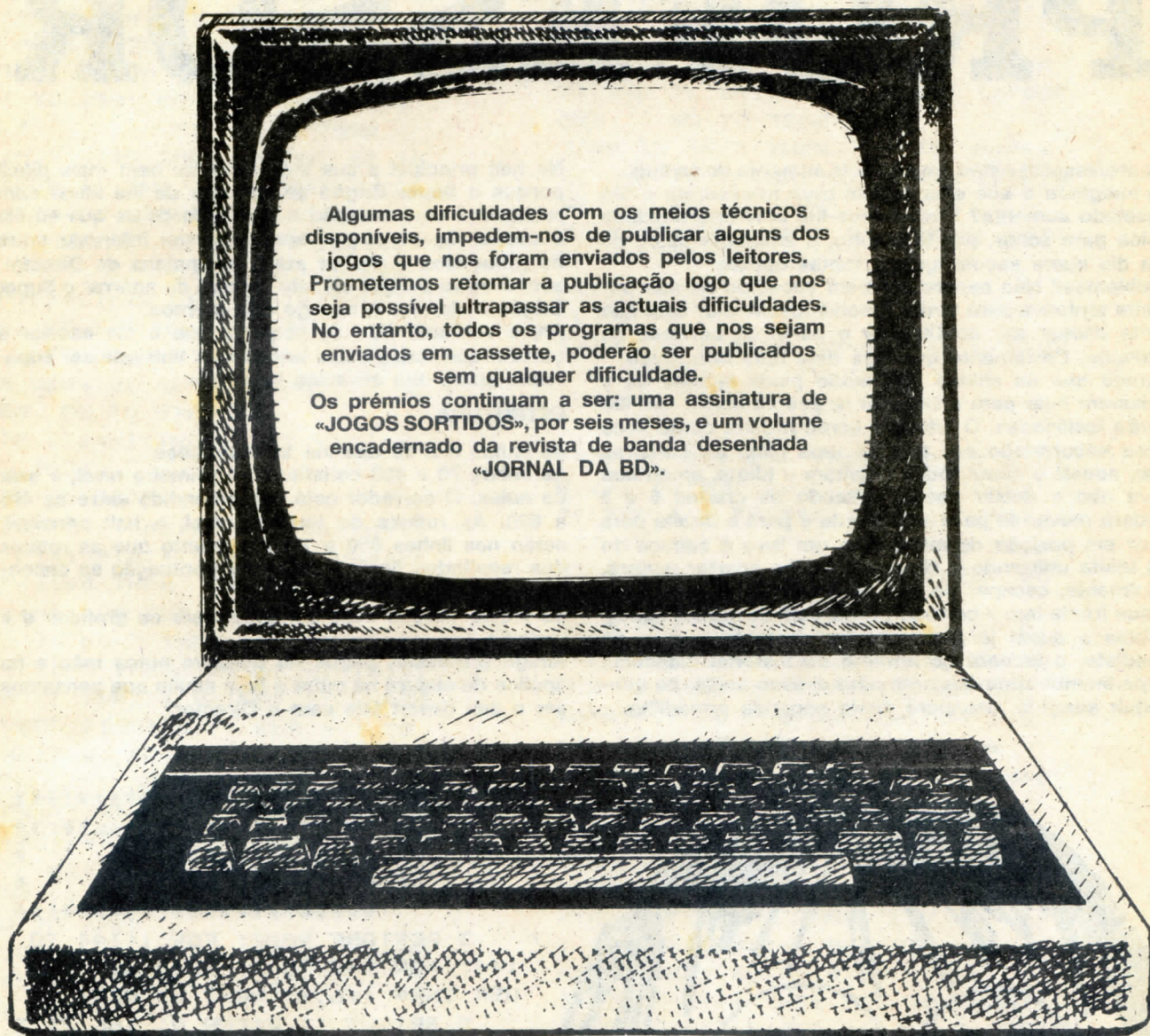


JOGOS PARA O SEU MICROCOMPUTADOR

AGORA
16
PÁGINAS



Algumas dificuldades com os meios técnicos disponíveis, impedem-nos de publicar alguns dos jogos que nos foram enviados pelos leitores. Prometemos retomar a publicação logo que nos seja possível ultrapassar as actuais dificuldades. No entanto, todos os programas que nos sejam enviados em cassette, poderão ser publicados sem qualquer dificuldade.

Os prémios continuam a ser: uma assinatura de «JOGOS SORTIDOS», por seis meses, e um volume encadernado da revista de banda desenhada «JORNAL DA BD».

ENVIE-NOS OS SEUS PROGRAMAS ORIGINAIS E GANHE PRÉMIOS

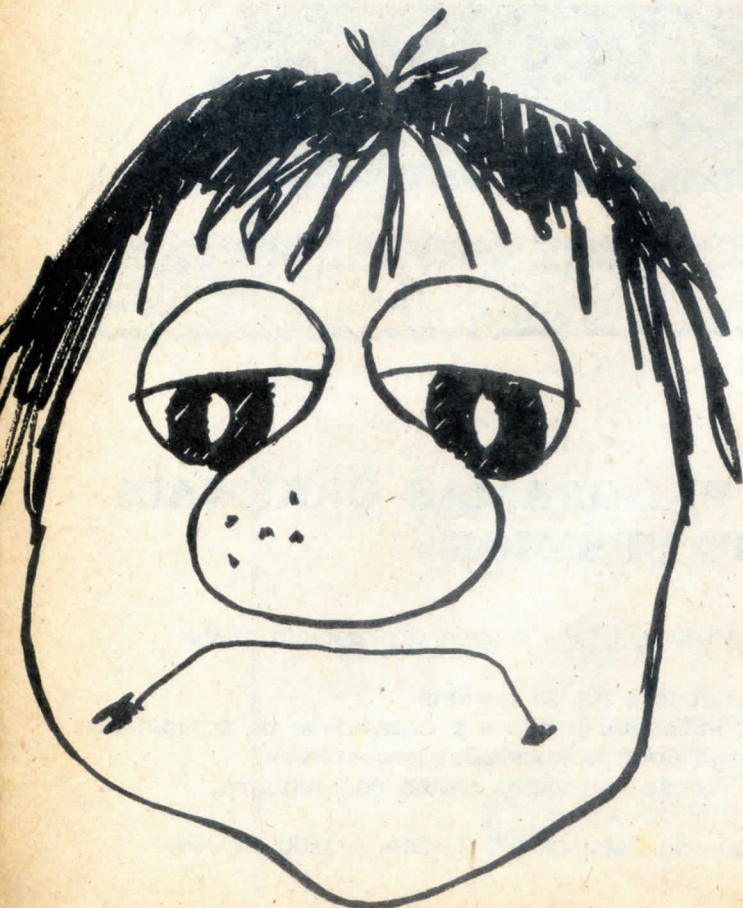
Colabore connosco, enviando-nos o seu programa original, do seguinte modo:

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

POBRE PROFESSOR

Os professores estão em luta pelo aumento do salário. Já imaginou o que eles sofrem para merecerem o tão desejado aumento? Oferecemos-lhe uma oportunidade única para sentir, por si próprio, o ambiente típico de um dia numa escola igual a tantas outras. Problemas? Não espere ser bem sucedido na sua primeira tentativa para tentar resolvê-los. Melhor será que tente chegar até ao Director e pô-lo ao corrente da situação. Certamente que terá dele uma boa ajuda. Parece que os alunos não estão pelos ajustes de o deixarem falar com o Director e, acerca disso, não lhe darão facilidades. O primeiro écran mostra como você ficou encurralado por trás de uma pilha de carteiras que, aquele a quem todos chamam o Idiota, amontou para não o deixar passar. Usando as chaves 5 e 8 poderá mover-se para a esquerda e para a direita para ficar em posição de atirar com um livro à cabeça do tal Idiota utilizando a chave O. Se lhe acertar poderá, finalmente, escapar do seu cativeiro. À sua frente tem o corredor, onde está de atalaia aquele cábula a quem já prometeu um chumbo, e que, de imediato, o fechará no armário do material didáctico. Experimente atirar-lhe com uma dessas bolas. Se conseguir atingi-lo, escapará desta segunda armadilha.



No hall principal a sua vida torna-se bem mais difícil porque o Super Brigão se lembrou de lhe atirar com rebuçados em sucessão e com a força de que só ele é capaz. Se conseguir aproveitar um intervalo entre os rebuçados e chegar até à campainha do Director, estará salvo porque ele não deixará de agarrar o Super Brigão e dar-lhe o castigo que merece. Ah, é verdade! Não se esqueça que o dia escolar é curto e que todas estas armadilhas têm que ser superadas antes que as aulas terminem.

ESTRUTURA

As linhas 3 a 60 dão-lhe as instruções. As linhas 70 a 490 constituem o primeiro nível, a sala de aulas. O corredor está compreendido entre as 495 a 820. As rotinas do terceiro nível, o hall principal, estão nas linhas 830 a 1070 enquanto que as rotinas dos resultados finais e da maior pontuação se encontram nas linhas 1080 a 8130. As linhas 9000 a 9400 compreendem os gráficos e a melodia. Amigo professor, pegue no ponteiro numa mão e na apólice de seguro na outra e faça aquilo que pensamos ser o seu dever: fale com o Director.

```

1 REM *****
  *Underlined characters*
  *are entered in      *
  *GRAPHICS mode.      *
  *****

3 RESTORE 9000: FOR i=144 TO
144: FOR n=0 TO 7: READ a: POKE
USR CHR$ i+n,a: NEXT n: NEXT i
5 BRIGHT 1: PAPER 0: INK 7: B
ORDER 0: CLS
6 LET hi=0: LET a$="..."
10 LET o$="

ATTACK O
F THE MUTANT WAL
LIES . . . . .
. . . Guide yourself past the
'IDIOTS' , 'BURKS' , and DRE
ADED , HORRIBLE , SUPER WALLY !
! ! ! . . . . .
20 LET o$=o$+" . . . . . You m
ust get out of the Formroom , Go
down the corridor , And get thr
ough the Entrance Hall to get to
the Headmaster's study to tell
him how bad they have been."
30 LET o$=o$+" . . . . . Y

```


ou use '5' to move Left , '8'
to move right , '7' to move up
, '6' to move down and '0' to
fire. Goo
d Luck (You'll need it !!!)

```

Press any key to start
35 PRINT AT 0,0; INK 2; PAPER
7;"XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXX";AT 2,0; INK 2; PAPER 7;"XXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
40 FOR i=1 TO LEN o$-31: PRINT
AT 1,0; INK 1; PAPER 6;:o$(i TO
i+31): FOR n=0 TO 10: NEXT n: B
EEP .001,40: NEXT i
50 PRINT AT 1,0; INK 5; PAPER
1;" Press any key to start
"
60 IF INKEY$="" THEN GO TO 60
70 LET o$=" Press any key t
o start 'IDIOT'
has trapped you in the back of t
he formroom with desks. You must
try to shoot Idiot and escape t
hrough the CYAN door. . . .
"
90 FOR i=1 TO LEN o$-31: PRINT
AT 1,0; INK 5; PAPER 1;o$(i TO
i+31): FOR n=0 TO 10: NEXT n: BE
EP .001,40: NEXT i
95 RESTORE 9000: FOR i=144 TO
164: FOR n=0 TO 7: READ a: POKE
USR CHR$ i+n,a: NEXT n: NEXT i
97 CLS
100 PLOT 0,0: DRAW 255,0: DRAW
0,175: DRAW -255,0: DRAW 0,-175
110 PRINT AT 0,12; PAPER 2; INK
7;"FORMROOM"
120 PRINT AT INK 6;"BC";
FLASH 1; PAPER 7;"EE"; FL
ASH 0; INK 6; PAPER 0;"BC BC BC
BC BC BC BC BC BC"
130 PRINT AT 18,1; INK 6;"■";
FLASH 1; INK 2; PAPER 7;"EE"; FL
ASH 0; INK 6; PAPER 0;"■ ■ ■
■ ■ ■ ■ ■ ■"
140 PRINT AT 1,31; INK 5;"D";AT
2,31;"E"
150 PRINT AT 0,2; INK 7; PAPER
0;" HIJ KLM "
151 PRINT AT 21,1; INK 6; PAPER
1;"Time : 100. Hi : By :
"1a$
152 PRINT AT 21,18; INK 6; PAPE
R 1;hi
155 LET x=29: LET a=2: LET b=1:
LET t=100: LET z=10: LET s=0
180 PRINT AT 21,1; INK 6; PAPER

```

ENTRANCE HALL.



Time : 33 Hi : 0 By : ...

```

1;"Time : "1t;" "
190 PRINT AT 19,x;" "1AT 20,x;
"
200 LET x=x+(INKEY$="8" AND x<2
9)-(INKEY$="5" AND x>1)
210 PRINT AT 19,x; INK 2;"B3";A
T 20,x; INK 2;"TU"
220 IF INKEY$="0" THEN GO TO 3
00
225 IF z=1 THEN GO TO 300
227 PRINT AT a,b;" "1AT a+1,b;
"
230 IF RND>.5 THEN LET b=b+1
240 IF RND<.5 THEN LET b=b-1
250 IF RND>.5 THEN LET a=a+1
260 IF RND<.5 THEN LET a=a-1
265 BEEP .01,-20
270 IF a<2 THEN LET a=a+2
280 IF a>15 THEN LET a=a-2
281 LET t=t-1
282 IF t<0 THEN GO TO 8000
290 IF b<2 THEN LET b=b+2
291 IF b>29 THEN LET b=b-2
292 PRINT AT a,b; INK 3;"N0";AT
a+1,b; INK 3;"P0"
293 GO TO 180
300 IF z=1 THEN GO TO 320
305 IF x=7 OR x=10 OR x=13 OR x
=16 OR x=19 OR x=22 OR x=25 OR x
=28 THEN GO TO 315
310 GO TO 225
315 LET c=18: LET d=x
320 LET z=1: PRINT AT c,d;" ":
IF c=a AND d=b OR c=a+1 AND d=b
OR c=a AND d=b+1 OR c=a+1 AND d=
b+1 THEN GO TO 400
330 LET c=c-1: PRINT AT c,d; IN
K 5;"0": IF c=2 THEN LET z=10:
PRINT AT 1,d;" "1AT 2,d;" "
340 GO TO 227
400 LET s=s+t
405 FOR i=b TO 3 STEP -1

```



```

OR c=a AND b=12 OR c=a+1 AND b=
12 OR c=a AND b=11 OR c=a+1 AND
b=11 THEN GO TO 750
725 IF c=1 THEN LET z=10: PRIN
T AT c,13;" "
730 GO TO 610
750 FOR i=b TO 5 STEP -1: PRINT
AT a,i; INK 7; FLASH 1; PAPER 3
;"BBQ";AT a+1,i; INK 7; PAPER 2;
"DEF": BEEP .25,i: PRINT AT a,i;
" ";AT a+1,i;" ": NEXT i
755 LET s=s+t
760 FOR i=a TO 19: PRINT AT i,5
; INK 7; FLASH 1; PAPER 3;"BBQ";
AT i+1,5; INK 7; PAPER 2;"DEF":
BEEP .25,i: PRINT AT i,5;" ";AT
i+1,5;" ": NEXT i
770 FOR i=5 TO 10: PRINT AT 19,
i; INK 7; PAPER 3; FLASH 1;"BBQ"
;AT 20,i; INK 7; PAPER 2;"DEF":
BEEP .25,i: PRINT AT 19,i;" ";
AT 20,i;" ": NEXT i
780 FOR i=1 TO 16: PRINT AT i,1
0; PAPER 0; FLASH 0;" ": N
EXT i
790 FOR i=13 TO 3 STEP -1: PRIN
T AT 19,i; INK 2;"BS";AT 20,i; I
NK 2;"IU": BEEP .012,20: PRINT A
T 19,i;" ";AT 20,i;" ": NEXT i
800 FOR i=19 TO 10 STEP -1: PRI
NT AT i,3; INK 2;"BS";AT i+1,3;
INK 2;"IU": BEEP .012,21: PRINT
AT i,3;" ";AT i+1,3;" ": NEXT
i
810 FOR i=3 TO 25: PRINT AT 10,
i; INK 2;"BS";AT 11,i; INK 2;"IU"
": BEEP .012,22: PRINT AT 10,i;"
";AT 11,i;" ": NEXT i
820 FOR i=10 TO 0 STEP -1: PRIN
T AT i,25; INK 2;"BS";AT i+1,25;
INK 2;"IU": BEEP .012,23: PRINT
AT i,25;" ";AT i+1,25;" ": NE
XT i
830 RESTORE 9200: FOR i=144 TO
160: FOR n=0 TO 7: READ a: POKE
USR CHR# i+n,a: NEXT n: NEXT i
840 CLS : PRINT AT 0,0; PAPER 7
; INK 2;"EEEEEEEEEEEEEEEEEEEEEE
EEEEEEEEEE";AT 2,0; INK 2; PAPER
7;"EEEEEEEEEEEEEEEEEEEEEEEEEE
EEE"
850 LET o$="

```

You are now in t
he Entrance Hall. But the SUPER
WALLY is throwing sweets at you
from the tuck shop. You must dod
ge the food and reach the WALLY

ALARM BELL. Then the nearest tea
cher will suspend all the WALLY'
S!!!

```

860 FOR i=1 TO LEN o$-31: PRINT
AT 1,0; PAPER 1; INK 5;o$(i TO
i+31): BEEP .001,40: FOR j=0 TO
5: NEXT j: NEXT i
870 FOR i=1 TO 500: NEXT i
880 CLS : PLOT 0,0: DRAW 255,0:
DRAW 0,175: DRAW -255,0: DRAW 0
,-175: PRINT AT 0,9; INK 7; PAPE
R 2;"ENTRANCE HALL.";AT 0,2; PAP
ER 0;" "
890 PRINT AT 21,1; INK 6; PAPER
1;" "
" ;AT 21,1; INK 6; PAPER 1;"Tim
e : 50. Hi : ";hi;AT 21,21;" ". By
: ";a$
900 PRINT AT 10,29; INK 6;"EQ="
;AT 11,29; INK 6;" "; INK 3;"BB"
;AT 12,29; INK 6;" "; INK 3;"CD"
;AT 13,29; INK 6;"GH="
910 LET o$="I JK L I J KK LL KL
I JK L JK L JK K L JK K J KJ
L J L JK JKK KJ KJLI JKLI"
915 LET y=2: LET x=2: PRINT AT
20,10; INK 5;"MN": LET t=50
920 FOR i=1 TO LEN o$-28: PRINT
AT 11,1; INK 7; PAPER 0;o$(i TO
i+28): BEEP .001,40
930 PRINT AT y,x;" ";AT y+1,x;
" "
940 LET y=y+(INKEY$="6" AND y<1
9)-(INKEY$="7" AND y>2)
943 LET t=t-1: IF t=0 THEN GO
TO 8000
944 PRINT AT 21,8; INK 6; PAPER
1;t;" ": PAPER 0
945 LET x=x+(INKEY$="8" AND x<2
5)-(INKEY$="5" AND x>2)
946 IF SCREEN# (y,x)<>" " AND S
CREEN# (y+1,x)<>" " AND SCREEN#
(y,x+1)<>" " AND SCREEN# (y+1,x+
1)<>" " THEN GO TO 7990
950 PRINT AT y,x; INK 2;"BS";AT
y+1,x;"IU"
960 NEXT i
970 GO TO 920
1000 FOR i=1 TO 6: BEEP .01,20:
BEEP .01,21: BEEP .01,22: BEEP .
01,23: BEEP .01,22: BEEP .01,21:
NEXT i
1001 LET s=s+t
1010 FOR i=0 TO 5: PRINT AT i,3;
INK 2;"BQ";AT i+1,3;"IU": BEEP
.012,20: PRINT AT i,3;" ";AT i+
1,3;" ": NEXT i

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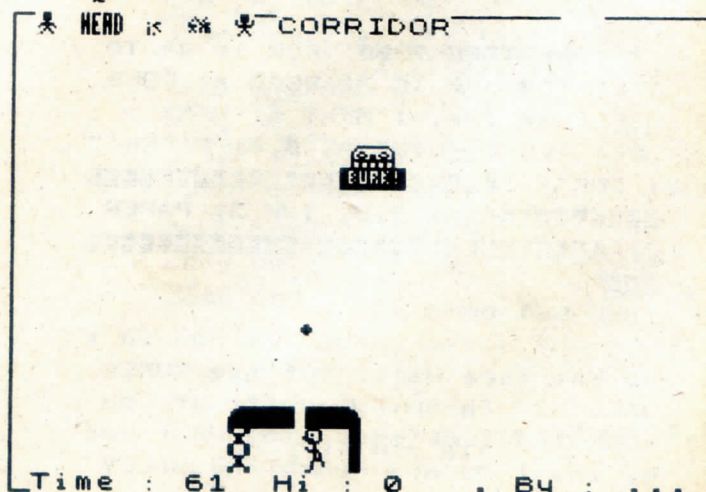
1020 FOR i=3 TO 30: PRINT AT 5,i
  I INK 2;"PQ";AT 6,i;"IU": BEEP .
012,21: PRINT AT 5,i;" "AT 6,i
  I " ": NEXT i
1030 FOR i=5 TO 10: PRINT AT 1,3
0; INK 2;"PQ";AT 1+1,30;"IU": BE
EP .012,22: PRINT AT 1,30;" "AT
1+1,30;" ": NEXT i
1040 FOR i=1 TO 50: NEXT i
1050 FOR i=10 TO 5 STEP -1: PRIN
T AT 1,30; INK 2;"PQ";AT 1+1,30;
"IU";AT 1+2,30; INK 3;"BB";AT 1+
3,30; INK 3;"QQ": BEEP .012,23:
PRINT AT 1,30;" "AT 1+1,30;"
"AT 1+2,30;" "AT 1+3,30;" ":
NEXT i
1060 FOR i=30 TO 3 STEP -1: PRIN
T AT 5,i; INK 2;"PQ";AT 6,i;"IU"
;AT 7,i; INK 3;"BB";AT 8,i; INK
3;"QQ": BEEP .012,24: PRINT AT 5
,i;" "AT 6,i;" "AT 7,i;" "
AT 8,i;" ": NEXT i
1070 FOR i=5 TO 0 STEP -1: PRINT
AT 1,3; INK 2;"PQ";AT 1+1,3;"IU"
;"AT 1+2,3; INK 3;"BB";AT 1+3,3;
INK 3;"QQ": BEEP .012,25: PRINT
AT 1,3;" "AT 1+1,3;" "AT 1+
2,3;" "AT 1+3,3;" ": NEXT i
1080 RESTORE 9070: FOR i=148 TO
151: FOR n=0 TO 7: READ a: POKE
USR CHR$ i+n,a: NEXT n: NEXT i
1090 RESTORE 9100: FOR i=152 TO
157: FOR n=0 TO 7: READ a: POKE
USR CHR$ i+n,a: NEXT n: NEXT i
1100 RESTORE 9300: FOR i=158 TO
160: FOR n=0 TO 7: READ a: POKE
USR CHR$ i+n,a: NEXT n: NEXT i
1101 CLS : PRINT AT 21,7; PAPER
2; INK 7;"HEADMASTER'S STUDY."
1102 PAPER 0
1110 PRINT AT 15,10; INK 3;"EE
IJK BB";AT 16,10; INK 3;"GH
"; INK 7; PAPER 2;"LMN"; INK 3;
PAPER 0;" QQ"
1120 PRINT AT 2,0; INK 7;"Ha Ha!
"; INK 2;"RS";AT 3,7; INK 2;"IU
"
1130 FOR i=1 TO 100: NEXT i
1140 FOR i=1 TO 15: PRINT AT 1,1
0; INK 7;"Q";AT 1+1,10; INK 7;"P
Q": FOR n=0 TO 10: NEXT n: PRINT
AT 1+1,10;" "AT 1,10;" ": BEE
P .009,i: NEXT i
1150 BEEP 1,-40
1160 FOR i=1 TO 15: PRINT AT 1,1
5; INK 7;"Q";AT 1+1,15; INK 7;"P
Q": FOR n=0 TO 10: NEXT n: PRINT

```

```

AT 1+1,15;" "AT 1,15;" ":
BEEP .009,i: NEXT i
1170 BEEP 1,-40
1180 FOR i=1 TO 15: PRINT AT 1,2
1; INK 7;"Q";AT 1+1,21; INK 7;"P
Q": FOR n=0 TO 10: NEXT n: PRINT
AT 1+1,21;" "AT 1,21;" ": BEE
P .009,i: NEXT i
1190 BEEP 1,-40
1195 PRINT AT 0,0;
1200 RESTORE 9400: FOR i=1 TO 8:
  READ a: READ b: BEEP a/4,b: NEX
T i
1201 LET c=1
1205 FOR i=0 TO 6
1210 PRINT INK c;"||| | |
  ||| | | |
1220 PRINT INK c+1;"||| | |
  ||| | | |
1230 PRINT INK c+2;"||| | |
  ||| | | |
1240 LET c=c+3: IF c>7 THEN LET
c=1
1250 NEXT i
1260 FOR i=1 TO 100: NEXT i
1270 RESTORE 9000: FOR n=0 TO 7:
  READ a: POKE USR CHR$ 144+n,a:
NEXT n: NEXT i
1275 CLS
1280 GO TO 8020
7989 STOP
7990 IF x=10 AND y=19 OR x=9 AND
y=19 THEN GO TO 1000
8000 FOR i=21 TO 0 STEP -1: PRIN
T AT 1,0; PAPER 0;"
": BEEP .12,i
: NEXT i
8005 RESTORE 9000: FOR n=0 TO 7:
  READ a: POKE USR CHR$ 144+n,a:
NEXT n: NEXT i
8010 BEEP 1,0: BEEP 1,5: BEEP 1,
0

```




```

8020 PRINT AT 0,0; INK 3; PAPER
7;"Score : ";TAB 12;". Hi : ";
hi;TAB 23;".By : ";a$
8030 IF s>hi THEN GO TO 8100
8040 PRINT AT 2,0; INK 6; PAPER
2;"Unfortunately ,you didn't get
the High-score
.
8045 FOR i=1 TO 500: NEXT i
8050 PRINT AT 21,0; INK 2; PAPER
7;"APRESS ANY KEY TO PLAY AGAI
N.00"
8060 IF INKEY$="" THEN GO TO 80
60
8065 CLS
8067 LET s=0
8070 LET o$=""
'HUDDLESTON' has tra
pped you in the back of the form
room with desks. You must try to
shoot Huddleston and escape thr
ough the CYAN door. . . . .
8075 PRINT AT 0,0; INK 2; PAPER
7;"00000000000000000000000000000000
000";AT 2,0; INK 2; PAPER 7;"000
00000000000000000000000000000000"
8080 GO TO 90
8100 PRINT AT 2,0; PAPER 7; INK
1;" YOU HAVE THE HIGH-SCORE!
.
8110 INPUT PAPER 2; INK 7;"PLEA
SE ENTER YOUR INITIALS..... (m
ax. 3 letters) : "; LINE a$
8120 IF LEN a$<>3 THEN GO TO 81
10
8122 LET hi=s
8125 PRINT AT 0,0; INK 3; PAPER
7;"Score : ";TAB 12;". Hi : ";
hi;TAB 23;".By : ";a$
8130 GO TO 8045
9000 DATA 192,48,12,3,3,12,48,19
2
9010 DATA 255,254,254,255,128,25
5,255,255,255,127,127,255,1,255,
255,255
9013 DATA 15,123,227,227,227,239
,243,227,227,243,239,227,163,227
,123,15
9016 DATA 195,195,60,24,24,60,19
5,195
9030 DATA 16,56,116,238,91,54,28
,8
9040 DATA 255,130,130,124,68,68,
40,40
9050 DATA 252,130,130,68,72,80,9
6,64
9060 DATA 255,136,136,73,73,73,4

```

```

2,42,160,160,160,31,17,17,10,10,
128,128,128,2,5,7,5,21,0,0,0,55,
68,71,68,55
9070 DATA 15,16,161,225,99,110,1
10,99,240,8,133,135,198,118,118,
198,161,33,40,47,47,39,16,15,133
,132,20,244,244,228,8,240
9080 DATA 7,8,10,24,14,7,1,9,128
,64,64,64,64,128,0,0,7,1,1,1,2,2
,2,12,128,64,64,192,32,32,0,0
9100 DATA 3,4,9,10,9,15,9,9,255,
0,129,90,153,255,36,36,192,32,14
4,80,144,240,144,144
9110 DATA 255,230,234,230,234,23
0,255,255,255,162,170,166,170,42
,255,255,255,183,119,247,127,183
,255,255
9120 DATA 192,48,12,3,3,12,48,19
2
9130 DATA 195,195,60,24,24,60,19
5,195
9140 DATA 0,0,24,60,60,24,0,0
9150 DATA 15,63,127,127,255,255,
255,255,240,252,254,254,255,255,
255,255
9160 DATA 28,28,28,8,62,73,20,34
,87,84,84,118,118,84,84,87,118,8
5,85,117,117,85,85,86,0,0,0,76,1
6,72,68,80,0,34,84,139,230,75,17
1,0
9170 DATA 28,28,93,73,62,8,20,34
9200 DATA 15,16,166,233,102,96,1
05,239,240,8,101,151,102,6,150,2
47,175,47,47,47,47,39,16,15,245,
244,244,244,244,228,8,240
9210 DATA 192,48,12,3,3,12,48,19
2
9220 DATA 15,63,127,127,255,255,
255,255,255,255,255,255,127,127,
63,15
9230 DATA 192,240,248,252,255,25
5,255,255
9240 DATA 4,6,31,60,60,248,96,32
,0,24,60,102,102,60,24,0,0,8,28,
28,62,62,28,0
9250 DATA 8,28,58,119,46,28,8,0
9260 DATA 99,111,159,191,129,255
,255,255,192,240,248,252,128,255
,255,255
9270 DATA 255,255,255,255,252,24
8,240,192,0,7,67,134,76,39,19,9,
32,192,128,64,64,64,128,0
9300 DATA 0,127,130,66,65,34,68,
130,65,130,130,129,128,128,134,1
21,0,0,211,47,1,66,180,8
9400 DATA 1,20,0.5,20,0.5,20,1,2
0,1,24,1,20,1,24,2,27

```


AS ÁGUIAS



Sem sombra de dúvida que a aviação teve um papel preponderante nas operações da Primeira Guerra Mundial. São conhecidos os nomes de muitos dos heróis que, nessa época, inscreveram o seu nome nos anais da história, protagonistas que foram de duros e acrobáticos combates aéreos.

Com a apresentação deste jogo, desenhado para o 48 K, será possível reviver um desses combates pleno de emoção em que a perícia, a coragem e o sangue-frio, estarão sempre presentes.

Poderão jogar dois oponentes que se enfrentarão num duro combate de que sairá vencedor o mais hábil. Para pilotar o seu avião nas quatro direcções possíveis, os dois jogadores disporão dos seguintes comandos:

	Subir	Descer	Esq.	Dir.	Disparo
Jogador A -	Q	A	Z	X	1
Jogador B -	P	L	N	M	0

DADOS GRÁFICOS

```

800 BORDER 0: PAPER 0: INK 2: C
L
804 PRINT INK 5; AT 4,13; "EAGLE"
; AT 18,10; "©1985 J-MPP": PAUSE 1
00: CLS
810 PRINT AT 2,13; "TECLAS:"
820 PRINT AT 7,0; "Arriba....0."
....P....; AT 9,0; "Abajo....A...."
....L....; AT 11,0; "Derecha....X...."
....; AT 13,0; "Izquierda....Z....N."
; AT 15,0; "Fuego....1....0."
830 PAUSE 200
900 FOR i=65368 TO 65495
905 READ n: POKE i,n: NEXT i
910 DATA 191,136,61,255,33,191,
136,12,131,7,255,249,255,254,4,0
,193,224,255,159,255,127,32,0
920 DATA 253,17,188,255,132,253
,61,48,107,6,61,45,239,237,41,61
,61,60,60,60,60,50,118,55,31

```

```

930 DATA 248,236,110,60,60,60,6
0,188,188,150,181,247,180,188,16
,212,0,0,204,0,51,0,0,0
940 DATA 4,4,16,16,4,4,16,16,10
6,148,65,160,128,72,107,148,46,2
33,18,129,66,129,106,149
950 DATA 2,7,47,127,255,255,255
,255,0,192,248,252,253,255,255,2
55,0,0,0,1,131,195,231,255,0,33,
99,247,255,255,255,255
1000 PAPER 5: INK 5: BORDER 3: B
RIGHT 0: CLS
1005 PRINT INK 0; AT 21,0; "
1010 LET x=20: LET y=0: LET m=0:

```

```

LET n=0: LET a=20: LET b=31: LE
T r=0: LET s=0: LET der=2: LET i
zq=0
1015 LET f=0: LET g=0: LET j=0:
LET k=0
1500 IF izq=2 THEN GO TO 2100
1510 IF izq=3 THEN GO TO 2200
1520 IF izq=4 THEN GO TO 2300
2000 LET m=x: LET n=y
2010 IF INKEY$="q" THEN GO TO 20
50
2011 IF INKEY$="a" THEN GO TO 20
75
2012 IF INKEY$("<")="1" THEN GO TO 2
025

```



```

2014 IF y>25 THEN GO TO 2025
2017 IF x<>a AND x<>r THEN GO TO 2019
2019 IF (b-y<6 AND b-y>0) OR (s-y<6 AND s-y>0) THEN GO TO 2020
2019 FOR z=1 TO 6: PRINT INK 3;A
T x,y,z; NEXT z: FOR z=1 TO 6: PRINT AT x,y+z; NEXT z: GO TO 2025
2020 LET di=b-y: LET dis=s-y: IF di<dis THEN GO TO 2022
2021 FOR z=1 TO (di-1): PRINT INK 3;AT x,y+z; NEXT z: FOR z=1 TO (dis-1): PRINT AT x,y+z; NEXT z: GO TO 2023
2022 FOR z=1 TO (di-1): PRINT INK 3;AT x,y+z; NEXT z: FOR z=1 TO (di-1): PRINT AT x,y+z; NEXT z: GO TO 2023
2023 PRINT INK 1;AT a,b; AT r,s; GO TO 7000
2025 LET y=y+1: IF y>31 OR ATTR (x,y)<>45 THEN GO TO 7100
2030 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2035 LET f=m: LET g=n
2040 GO TO 2500
2050 LET x=x-1: IF x<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2060 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2065 LET f=m: LET g=n
2070 LET izq=4: IF x>21 OR ATTR (x,y)<>45 THEN GO TO 7100
2080 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2085 LET f=m: LET g=n
2090 LET izq=4: GO TO 2500
2100 LET m=x: LET n=y
2110 IF INKEY$="q" THEN GO TO 2150
2112 IF INKEY$="a" THEN GO TO 2175
2113 IF INKEY$<>"1" THEN GO TO 2130
2114 IF y<6 THEN GO TO 2130
2116 IF x<>a AND x<>r THEN GO TO 2117
2117 IF (y-b<6 AND y-b>0) OR (y-s<6 AND y-s>0) THEN GO TO 2120
2118 FOR z=1 TO 6: PRINT INK 3;A T x,y-z; NEXT z: FOR z=1 TO 6: PRINT AT x,y-z; NEXT z: GO TO 2130
2120 LET di=y-b: LET dis=y-s: IF di<dis THEN GO TO 2122
2121 FOR z=1 TO (di-1): PRINT INK 3;AT x,y-z; NEXT z: FOR z=1 TO (dis-1): PRINT AT x,y-z; NEXT z: GO TO 2125
2122 FOR z=1 TO (di-1): PRINT INK 3;AT x,y-z; NEXT z: FOR z=1 TO (di-1): PRINT AT x,y-z; NEXT z: GO TO 2125
2125 PRINT INK 1;AT a,b; AT r,s; GO TO 7000
2130 LET y=y+1: IF y<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2140 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2142 LET f=m: LET g=n
2145 GO TO 2500
2150 LET x=x-1: IF x<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2160 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2162 LET f=m: LET g=n
2165 LET izq=4: GO TO 2500
2170 LET izq=4: GO TO 2500
2175 LET x=x+1: IF x>21 OR ATTR (x,y)<>45 THEN GO TO 7100
2180 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2182 LET f=m: LET g=n
2185 LET izq=4: GO TO 2500
2190 LET m=x: LET n=y
2200 IF INKEY$="z" THEN GO TO 2275
2211 IF INKEY$="x" THEN GO TO 2275
2212 IF INKEY$<>"1" THEN GO TO 2230
2214 IF x<6 THEN GO TO 2230
2217 IF y<>b AND y<>s THEN GO TO 2219
2219 IF (x-a<6 AND x-a>0) OR (x-r<6 AND x-r>0) THEN GO TO 2220
2219 FOR z=1 TO 6: PRINT INK 3;A T x-z,y; NEXT z: FOR z=1 TO 6: PRINT AT x-z,y; NEXT z: GO TO 2230
2220 LET di=x-a: LET dis=x-r: IF di<dis THEN GO TO 2222
2221 FOR z=1 TO (di-1): PRINT INK 3;AT x-z,y; NEXT z: FOR z=1 TO (dis-1): PRINT AT x-z,y; NEXT z: GO TO 2225
2222 FOR z=1 TO (di-1): PRINT INK 3;AT x-z,y; NEXT z: FOR z=1 TO (di-1): PRINT AT x-z,y; NEXT z: GO TO 2225
2225 PRINT INK 1;AT a,b; AT r,s; GO TO 7000
2230 LET x=x-1: IF x<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2240 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2242 LET f=m: LET g=n
2245 GO TO 2500
2250 LET y=y-1: IF y<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2260 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2262 LET f=m: LET g=n
2270 LET izq=2: GO TO 2500

```

```

2275 LET y=y+1: IF y>31 OR ATTR (x,y)<>45 THEN GO TO 7100
2280 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2285 LET f=m: LET g=n
2290 LET izq=1: GO TO 2500
2300 LET m=x: LET n=y
2310 IF INKEY$="z" THEN GO TO 2330
2311 IF INKEY$="x" THEN GO TO 2330
2312 IF INKEY$<>"1" THEN GO TO 2330
2314 IF x>15 THEN GO TO 2330
2317 IF y<>b AND y<>s THEN GO TO 2319
2319 IF (a-x<6 AND a-x>0) OR (r-x<6 AND r-x>0) THEN GO TO 2321
2320 FOR z=1 TO 6: PRINT INK 3;A T x+z,y; NEXT z: FOR z=1 TO 6: PRINT AT x+z,y; NEXT z: GO TO 2330
2321 LET di=a-x: LET dis=r-x: IF di<dis THEN GO TO 2323
2322 FOR z=1 TO (di-1): PRINT INK 3;AT x+z,y; NEXT z: FOR z=1 TO (dis-1): PRINT AT x+z,y; NEXT z: GO TO 2325
2323 FOR z=1 TO (di-1): PRINT INK 3;AT x+z,y; NEXT z: FOR z=1 TO (di-1): PRINT AT x+z,y; NEXT z: GO TO 2325
2325 PRINT INK 1;AT a,b; AT r,s; GO TO 7000
2330 LET x=x+1: IF x>21 OR ATTR (x,y)<>45 THEN GO TO 7100
2340 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2342 LET f=m: LET g=n
2345 GO TO 2500
2350 LET y=y-1: IF y<0 OR ATTR (x,y)<>45 THEN GO TO 7100
2360 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2362 LET f=m: LET g=n
2365 LET izq=2: GO TO 2500
2370 LET izq=2: GO TO 2500
2375 LET y=y+1: IF y>31 OR ATTR (x,y)<>45 THEN GO TO 7100
2380 PRINT INK 2;AT m,n; AT x,y; PRINT AT f,g;
2382 LET f=m: LET g=n
2385 LET izq=1: GO TO 2500
2390 LET der=2 THEN GO TO 3100
2395 LET der=3 THEN GO TO 3100
2400 LET r=a: LET s=b
2410 IF INKEY$="p" THEN GO TO 3075
2411 IF INKEY$="l" THEN GO TO 3075
2412 IF INKEY$<>"0" THEN GO TO 3075
2414 IF b>25 THEN GO TO 3028
2416 IF a<>x AND a<>m THEN GO TO 3018
2418 IF (y-b<6 AND y-b>0) OR (n-b<6 AND n-b>0) THEN GO TO 3020
2418 FOR z=1 TO 6: PRINT INK 3;A T a+b,z; NEXT z: FOR z=1 TO 6: PRINT AT a+b,z; NEXT z: GO TO 3026
2420 LET di=y-b: LET dis=m-b: IF di<dis THEN GO TO 3022
2421 FOR z=1 TO (di-1): PRINT INK 3;AT a+b,z; NEXT z: FOR z=1 TO (dis-1): PRINT AT a+b,z; NEXT z: GO TO 3025
2422 FOR z=1 TO (di-1): PRINT INK 3;AT a+b,z; NEXT z: FOR z=1 TO (di-1): PRINT AT a+b,z; NEXT z: GO TO 3025
2425 PRINT INK 2;AT x,y; AT m,n; GO TO 7000
2428 LET b=b+1: IF b>31 OR ATTR (a,b)<>45 THEN GO TO 7200
2430 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2432 LET j=r: LET k=s
2435 GO TO 1500
2440 LET a=a-1: IF a<0 OR ATTR (a,b)<>45 THEN GO TO 7200
2450 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2452 LET j=r: LET k=s
2455 LET der=3: GO TO 1500
2460 LET a=a+1: IF a>21 OR ATTR (a,b)<>45 THEN GO TO 7200
2470 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2472 LET j=r: LET k=s
2475 LET der=4: GO TO 1500
2480 LET r=a: LET s=b
2490 IF INKEY$="p" THEN GO TO 3150
2491 IF INKEY$="l" THEN GO TO 3150
2492 IF INKEY$<>"0" THEN GO TO 3150
2494 IF b<6 THEN GO TO 3130
2496 IF a<>x AND a<>m THEN GO TO 3118
2498 IF (b-y<6 AND b-y>0) OR (b-n<6 AND b-n>0) THEN GO TO 3120
2498 FOR z=1 TO 6: PRINT INK 3;A T a+b,z; NEXT z: FOR z=1 TO 6: PRINT AT a+b,z; NEXT z: GO TO 3130
2500 LET di=b-y: LET dis=b-n: IF di<dis THEN GO TO 3122
2501 FOR z=1 TO (di-1): PRINT INK 3;AT a+b,z; NEXT z: FOR z=1 TO (dis-1): PRINT AT a+b,z; NEXT z: GO TO 3125
2502 FOR z=1 TO (di-1): PRINT INK 3;AT a+b,z; NEXT z: FOR z=1 TO (di-1): PRINT AT a+b,z; NEXT z: GO TO 3125
2505 PRINT INK 2;AT x,y; AT m,n; GO TO 7000
2510 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2512 LET j=r: LET k=s
2515 LET der=2: GO TO 1500
2520 LET b=b+1: IF b>31 OR ATTR (a,b)<>45 THEN GO TO 7200
2530 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2532 LET j=r: LET k=s
2535 GO TO 1500
2540 LET b=b-1: IF b<0 OR ATTR (a,b)<>45 THEN GO TO 7200
2550 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
2552 LET j=r: LET k=s
2555 LET der=1: GO TO 1500
2560 PRINT PAPER 2: INK 0;#0;"OT RA PARTIDA? (s/n)"
2570 IF INKEY$="s" THEN GO TO 1000
2580 IF INKEY$="n" THEN STOP
2590 IF INKEY$<>"0" OR INKEY$<>"n" THEN GO TO 7010
2600 PRINT INK 2;AT f,g; AT m,n; GO TO 7000
2610 PRINT INK 1;AT j,k; AT r,s; GO TO 7000

```

```

NEXT z
3125 PRINT INK 2;AT x,y; AT m,n; GO TO 7000
3130 LET b=b-1: IF b<0 OR ATTR (a,b)<>45 THEN GO TO 7200
3140 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3142 LET j=r: LET k=s
3145 GO TO 1500
3150 LET a=a-1: IF a<0 OR ATTR (a,b)<>45 THEN GO TO 7200
3160 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3162 LET j=r: LET k=s
3165 LET der=3: GO TO 1500
3170 LET a=a+1: IF a>21 OR ATTR (a,b)<>45 THEN GO TO 7200
3180 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3182 LET j=r: LET k=s
3185 LET der=4: GO TO 1500
3200 LET r=a: LET s=b
3210 IF INKEY$="n" THEN GO TO 3275
3211 IF INKEY$="m" THEN GO TO 3275
3212 IF INKEY$<>"0" THEN GO TO 3275
3214 IF a<6 THEN GO TO 3230
3216 IF b<>y AND b<>n THEN GO TO 3218
3218 IF (a-x<6 AND a-x>0) OR (a-n<6 AND a-n>0) THEN GO TO 3220
3218 FOR z=1 TO 6: PRINT INK 3;A T a-z,b; NEXT z: FOR z=1 TO 6: PRINT AT a-z,b; NEXT z: GO TO 3230
3220 LET di=a-x: LET dis=a-n: IF di<dis THEN GO TO 3222
3221 FOR z=1 TO (di-1): PRINT INK 3;AT a-z,b; NEXT z: FOR z=1 TO (dis-1): PRINT AT a-z,b; NEXT z: GO TO 3225
3222 FOR z=1 TO (di-1): PRINT INK 3;AT a-z,b; NEXT z: FOR z=1 TO (dis-1): PRINT AT a-z,b; NEXT z: GO TO 3225
3225 PRINT INK 2;AT x,y; AT m,n; GO TO 7000
3230 LET a=a-1: IF a<0 OR ATTR (a,b)<>45 THEN GO TO 7200
3240 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3242 LET j=r: LET k=s
3245 GO TO 1500
3250 LET b=b-1: IF b<0 OR ATTR (a,b)<>45 THEN GO TO 7200
3260 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3262 LET j=r: LET k=s
3265 LET der=2: GO TO 1500
3270 LET der=2: GO TO 1500
3275 LET b=b+1: IF b>31 OR ATTR (a,b)<>45 THEN GO TO 7200
3280 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3282 LET j=r: LET k=s
3285 LET der=1: GO TO 1500
3290 LET r=a: LET s=b
3300 IF INKEY$="n" THEN GO TO 3350
3311 IF INKEY$="m" THEN GO TO 3350
3312 IF INKEY$<>"0" THEN GO TO 3350
3314 IF a>15 THEN GO TO 3330
3316 IF b<>y AND b<>n THEN GO TO 3318
3318 IF (x-a<6 AND x-a>0) OR (m-a<6 AND m-a>0) THEN GO TO 3320
3318 FOR z=1 TO 6: PRINT INK 3;A T a+z,b; NEXT z: FOR z=1 TO 6: PRINT AT a+z,b; NEXT z: GO TO 3330
3320 LET di=x-a: LET dis=m-a: IF di<dis THEN GO TO 3322
3321 FOR z=1 TO (di-1): PRINT INK 3;AT a+z,b; NEXT z: FOR z=1 TO (dis-1): PRINT AT a+z,b; NEXT z: GO TO 3325
3322 FOR z=1 TO (di-1): PRINT INK 3;AT a+z,b; NEXT z: FOR z=1 TO (dis-1): PRINT AT a+z,b; NEXT z: GO TO 3325
3325 PRINT INK 2;AT x,y; AT m,n; GO TO 7000
3330 LET a=a+1: IF a>31 OR ATTR (a,b)<>45 THEN GO TO 7200
3340 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3342 LET j=r: LET k=s
3345 GO TO 1500
3350 LET b=b-1: IF b<0 OR ATTR (a,b)<>45 THEN GO TO 7200
3360 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3362 LET j=r: LET k=s
3365 LET der=2: GO TO 1500
3370 LET der=2: GO TO 1500
3375 LET b=b+1: IF b>31 OR ATTR (a,b)<>45 THEN GO TO 7200
3380 PRINT INK 1;AT r,s; AT a,b; PRINT AT j,k;
3382 LET j=r: LET k=s
3385 LET der=1: GO TO 1500
3390 PRINT PAPER 2: INK 0;#0;"OT RA PARTIDA? (s/n)"
3400 IF INKEY$="s" THEN GO TO 1000
3410 IF INKEY$="n" THEN STOP
3420 IF INKEY$<>"0" OR INKEY$<>"n" THEN GO TO 7010
3430 PRINT INK 2;AT f,g; AT m,n; GO TO 7000
3440 PRINT INK 1;AT j,k; AT r,s; GO TO 7000

```


BOLETIM METEOROLÓGICO

Já lhe passou pela cabeça fazer previsões meteorológicas para o seu fim-de-semana? O passeio programado para o próximo domingo será estragado por uma daquelas chuvadas de molhar a roupa interior ou, pelo contrário, poderá deixar o blusão de penas pendurado no armário?

O seu Spectrum 48 K funcionará em termos de boletim meteorológico para as próximas 24 horas e o programa, testado e mais do que testado, dar-lhe-á garantias a, pelo menos, 80%.

É colorido e bem divertido este programa que lhe propomos, mas não aceitamos reclamações nem fornecemos qualquer tipo de comprimidos anti-gripais.

E, já agora, compare os seus resultados com o Boletim Meteorológico.

```

10 REM *****
   * SPECTROMETEO *
   *****

11 REM
12 REM
13 REM *****
   * OF.HARDY-1984 *
   *****
14 REM LE 5-9-84 A ETAULIERS
15 REM
16 REM
17 REM
18 REM
19 REM *****
   * DATAS DES VENTS *
   *****

20 RESTORE 25: DIM V$(8,10): F
OR F=1 TO 8: READ V$(F): NEXT F
25 DATA "NORD", "NORD-EST", "EST",
   "SUD-EST", "SUD", "SUD-OUEST", "O",
   "UEST", "NORD-OUEST"

26 REM *****
   * DATAS DES SAISONS *
   *****

30 RESTORE 35: DIM S$(4,9): FO
R F=1 TO 4: READ S$(F): NEXT F
35 DATA "ETE", "AUTOMNE", "HIVER",
   "PRINTEMPS"
40 POKE 23656,8: POKE 23609,20
50 LET U=0: GO TO 8000
60 GO SUB 9997
65 REM

*****
* INTRODUCTION *
*****

70 PRINT "Pour vos previsions

```

```

vous aurez besoin :": PRINT : P
RINT "1)d'un barometre": PRINT :
PRINT "2)de savoir la direction
du vent"
80 PRINT : PRINT "En ce qui co
ncerne cette der- niere, sachez
que la vent vient toujours a g
auches de la direc- tion indique
e par une girouette (de 1/8eme d
e tour environ)...
90 PRINT AT 16,6: "Lorsque vous
aurez reuni": AT 19,6: "tous ces
ingredients,": AT 20,6: "tapez une
touche...": PAUSE 0

```

```

95 REM *****
   * DEBUT DE LA PREVISION *
   *****

```

```

100 GO SUB 9997
110 INPUT "Pression (en mm de me
rcure) ?": P: PRINT AT 20,10: "Pres
sion: ": P: LET P=(P>765)+2*(P>76
0 AND P<=765)+3*(P>765 AND P<=76
0)+4*(P<=765)
115 LET U=1
120 PRINT AT 0,0: "Quelle est la
direction du vent?"
130 PRINT : PRINT "1-->
NORD": PRINT "2--> NORD-EST": P
RINT "3-->EST": PRINT "4-->SUD-E
ST": PRINT "5-->SUD"
140 PRINT "6-->SUD-OUEST": PRIN
T "7-->OUEST": PRINT "8-->NORD-O
UEST"
150 INPUT "No correspondant ?":
V: IF V<1 OR V>8 THEN GO TO 150
151 PRINT AT 21,10: "Vent : "
; V$(V): GO SUB 9997
152 LET V=(V=1)+2*(V=2 OR V=3)+
3*(V=4 OR V=5)+4*(V=6)+5*(V=7 OR
V=8)
160 PRINT "Quelle est la saison
en cours ?": PRINT : PRINT : PR
INT "1-->ETE": PRINT : PRINT "2-
->AUTOMNE": PRINT : PRINT "3-->H
IVER": PRINT : PRINT "4-->PRINTE
MPS"
170 INPUT "No correspondant ?":
S: IF S<1 OR S>4 THEN GO TO 170
171 PRINT AT 18,10: "Saison : "
; S$(S): GO SUB 9997
200 RESTORE S*1000+P*100+V*10
250 READ T$,U$
260 PRINT TAB 9; "SPECTROMETEO
*****"
: PRINT : PRINT : PRINT : PRINT
: PRINT : PRINT
300 PRINT T$: PRINT U$: PRINT :
PRINT AT 17,10: FLASH 1: "Tapez:
C>Copie<>S>Suite"
310 IF INKEY$<"S" AND INKEY$<"
C" THEN GO TO 310
320 IF INKEY$="C" THEN PRINT AT
17,10: "
COPY
330 LET U=0: GO SUB 9997
340 PRINT "Vous desirez :": PRI
NT : PRINT : PRINT "1-->Revoir l
a presentation": PRINT : PRINT "2-
->Obtenir une autre prevision"
: PRINT : PRINT "3-->Quitter le
programme"
350 IF INKEY$<"1" OR INKEY$>"3"

```



```

THEN GO TO 350
350 IF INKEY$="1" THEN RUN

```

```

370 IF INKEY$="2" THEN GO TO 10
380 CLS : PRINT "AU REVOIR...":
PAUSE 50: CLS : STOP
994 REM
995 REM

```

```

*****
#DATAS DES PREVISIONS #
*****

```

```

995 REM
997 REM
999 REM
1000 REM

```

```

*****
# ETE
*****

```

```

1110 DATA "Beau ou assez beau.",
"Journées chaudes, nuits fraîches"
1120 DATA "Beau.", "Journées chau-
des, nuits fraîches."
1130 DATA "Beau, mais orages possi-
bles.", "Très chaud le jour, chau-
d la nuit."

```

```

1140 DATA "Beau ou très beau.", "
Chaud ou très chaud."
1150 DATA "Beau.", "Chaud dans la
journee, assez frais la nuit"

```

```

1210 DATA "Assez beau, ondes pos-
sibles.", "Assez chaud."
1220 DATA "Beau ou assez beau, av-
ec parfois averses orageuses.",
"Chaud ou assez chaud le jour,
nuits fraîches."
1230 DATA "Beau, avec possibilité
s d'averses orageuses.", "Chaud."
1240 DATA "Beau, ondes orageuses
possibles.", "Assez chaud."
1250 DATA "Assez beau, mais ondes
s possibles en montagne.", "Tempé-
rature douce."
1310 DATA "Ondes ou averses ora-
geuses.", "Températures douces."
1320 DATA "Pluie orageuses.", "Te-
mpérature douce."
1330 DATA "Temps lourd et orages
avec averses.", "Chaud."
1340 DATA "Temps lourd et orages
possibles.", "Assez chaud."
1350 DATA "Ondes et averses ave-
c un peu de vent.", "Température d-
ouce."
1410 DATA "Pluie et vent.", "Temp-
érature douce."
1420 DATA "Pluies orageuses avec
un peu de vent.", "Temps lourd e-
t humide."
1430 DATA "Averses orageuses et
vents violents.", "Chaud et
humide."
1440 DATA "Orages et averses ora-
geuses.", "Assez chaud."
1450 DATA "Pluie a tendance orag-
euse avec vent.", "Doux et humid-
e."

```

```

1999 REM
2000 REM *****
# AUTOMNE
*****

```

```

2110 DATA "Beau ou assez beau.",
"Chaud le jour, Gelées a craindre
la nuit."

```

```

2120 DATA "Beau ou assez beau.",
"Chaleur modérée: gelées a
craindre."
2130 DATA "Beau ou assez beau.",
"Assez chaud le jour, frais la
nuit: gelées possibles."
2140 DATA "Beau.", "Chaud ou asse-
z chaud le jour, nuits fraîches."

```

```

2150 DATA "Beau ou modérément nu-
ageux.", "Chaleur modérée le jour

```

```

,nuits fraîches."
2210 DATA "Ondes locales.", "Tem-
pératures fraîches."
2220 DATA "Assez beau, avec possi-
bilités d'ondes.", "Frais le
jour et gelées locales."
2230 DATA "Nuages modérés, ondes
et éclaircies.", "Assez chaud."
2240 DATA "Ondes locales et ven-
ts faibles.", "température douce."

```

```

2250 DATA "Assez beau, avec ondes
s locales et giboules en monta-
gnes.", "Température douce, parfoi-
s un peu fraîche."
2310 DATA "Averses.", "Temps frai-
s."

```

```

2320 DATA "Ondes en plaines, gib-
oules en montagnes.", "Temps fr-
ais."

```

```

2330 DATA "Nuageux, avec pluies e-
parses et vent modéré.", "Temps
doux."

```

```

2340 DATA "Pluie possibles, vent
modéré.", "Température douce."

```

```

2350 DATA "Ondes en plaine, gibo-
ules en montagne, vent faible."
"Temps frais."

```

```

2410 DATA "Averses de pluie ou d-
e neige.", "Temps froid et temper-
ature en baisse."

```

```

2420 DATA "Averses orageuses et
vent modéré.", "Temps frais"

```

```

2430 DATA "Pluie et parfois aver-
ses orageuses avec vents
assez forts", "Température douce."

```

```

2440 DATA "Pluie et vent fort.",
"Temps doux et humide."

```

```

2450 DATA "Fortes pluies et vent
fort, bourrasques de neige
en montagne", "Temps frais."

```

```

2999 REM

```

```

3000 REM *****
# HIVER
*****

```

```

3110 DATA "Beau, avec tendance a
la brume et au brouillard.", "Temp-
érature fraîche."

```

```

3120 DATA "Beau ou assez beau, un
peu brumeux.", "Journées f-
roides et gelées nocturnes."

```

```

3130 DATA "Beau ou assez, parfois
brumeux.", "Température modérée
le jour, nuits froides; gelée-
s possibles."

```

```

3140 DATA "Beau ou assez beau, br-
umes.", "Température douce ou ass-
ez douce le jour; gelées nocturnes"

```

```

3150 DATA "Beau et un peu brumeu-
x.", "Températures modérées le jo-
ur, fortes gelées la nuit."

```

```

3210 DATA "Assez beau; giboules
en montagne.", "Froid."

```

```

3220 DATA "Temps brumeux; giboule-
es ou neige.", "Froid."

```

```

3230 DATA "Assez beau a modérème-
nt nuageux, avec ondes possibles"
"Température douce."

```

```

3240 DATA "Quelques nuages, ondes
s.", "Température fraîches."

```

```

3250 DATA "Modérément nuageux, gi-
boules en montagne.", "Froid."

```

```

3310 DATA "Neige ou giboules.",
"Froid."

```

```

3320 DATA "Neige ou giboules.",
"Froid."

```

```

3330 DATA "Pluie possible, avec v-
ent fort.", "Température douce."

```

```

3340 DATA "Pluie ou neige avec v-
ent.", "Température douce."

```

```

3350 DATA "Giboules ou neige.",
"Froid."

```

```

3410 DATA "Neige et vent parfois
violent.", "Froid."

```

```

3420 DATA "Giboules, neige possi-
ble; vent modéré a assez fort."
"Froid."

```

```

3430 DATA "Pluie ou neige fondue
avec vents forts.", "Temps assez
froid, parfois doux."

```

```

3440 DATA "Pluie ou neige avec v-
ent violent", "Température douce."

```

```

3450 DATA "Pluie et bourrasques,
ou neige.", "Froid."

```

```

3999 REM
4000 REM *****
# PRINTEMPS
*****

```

```

4110 DATA "Beau ou assez beau.",

```



```

"Journées chaudes, nuits fraîches
; gelees matinales."
4120 DATA "Beau ou assez beau."
"Journées douces ou assez chaude
sNuits fraîches; gelees possibles
4130 DATA "Beau ou assez beau."
"Journées chaudes, nuits fraîches
4140 DATA "Beau.", "Assez chaud."
4150 DATA "Beau.", "Assez chaud d
ans la journée, frais la nuit
; gelees possibles au petit mati
n."
4210 DATA "Ondees ou gibouleees."
"Températures fraîches."
4220 DATA "Gibouleees.", "Journées
fraîches, nuits froides; gelees
a craindre."
4230 DATA "Assez beau ou ondees
orangeuses.", "Journées un peu cha
udes, nuits un peu fraîches."
4240 DATA "Ondees ou aversees.", "
Température douce."
4250 DATA "Nuageux, avec ondees p
ossibles; gibouleees en montagne
." "Temps frais."
4310 DATA "Ondees ou gibouleees."
"Température fraîche."
4320 DATA "Ondees ou gibouleees a
vec vent.", "Temps frais."
4330 DATA "Pluie ou aversees avec
un peu de vent.", "Temps doux."
4340 DATA "Pluie et vent assez f
ort.", "Assez doux."
4350 DATA "Ondees en plaine, gibo
ulees en montagne.", "Temps fra
is."
4410 DATA "Pluie ou neige avec v
ent.", "Température basse."
4420 DATA "Ondees, gibouleees ou a
verses orangeuses; neige en mo
ntagne. Vent faible ou modere.", "T
empérature basse."
4430 DATA "Pluie et vent assez f
ort.", "Température douce."
4440 DATA "Pluie et vent assez f
ort.", "Température douce."
4450 DATA "Pluie en plaine, neige
en montagne.", "Temps fra
is."
7800 REM
7900 REM *****
* PRESENTATION *
*****
7995 REM
7999 REM
8000 PAPER 4: INK 4: BORDER 4: C
LS
8010 FOR f=1 TO 22: PRINT PAPER
5:
": NEXT f: PAPER 5: INK 5: BO
RDER 5:
8020 FOR f=0 TO 2*PI STEP PI/20
8025 PLOT INK 6: 55, 120
8030 DRAW INK 6: COS f*((RND*20)+
30), SIN f*((RND*20)+30)
8040 NEXT f
8045 REM *****
* PETIT NUAGE *
*****
8050 RESTORE 8080: FOR f=USR "a"
TO USR "a"+87: READ a: POKE f,a
: NEXT f
8060 LET l=13: LET c=2: LET z=1
8063>PRINT AT l,c: INK 7;"ABCDE
"
8064 PRINT AT l+1,c: INK 7;"FG
"
8065 PRINT AT l+2,c: INK 7;"IJ
"
8070 IF z=2 THEN GO TO 8100
8071 LET l=5: LET c=20: LET z=2:
GO TO 8063
8080 DATA 0,0,0,1,BIN 00000011,B
IN 00000011,BIN 00000111,BIN 000
01111
8081 DATA 0,0,0,BIN 11111110,255
,255,255,255
8082 DATA 0,0,0,0,BIN 10000111,B
IN 10011111,BIN 10111111,255
8083 DATA 0,0,0,BIN 01111111,255
,255,255,255
8084 DATA 0,0,0,BIN 10000000,BIN
11000000,BIN 11100000,BIN 11100
000,BIN 11100000
8085 DATA 0,0,0,1,BIN 00000111,B
IN 00001111,BIN 00001111,BIN 000
11111
8086 DATA BIN 00001111,BIN 00011
111,BIN 00011111,BIN 11011111,25
5,255,255,255
8087 DATA BIN 11100000,BIN 11000
000,BIN 10100000,BIN 11100000,BI
N 11111000,BIN 11111100,BIN 1111
1110,BIN 11111110
8088 DATA BIN 00011111,BIN 00011
111,BIN 00011111,BIN 00011111,BI
N 00001111,BIN 00000111,BIN 0000
001,0
8089 DATA 255,255,255,255,255,25
5,255,BIN 00011111
8090 DATA BIN 11111110,BIN 11111

```

```

110,BIN 11111100,BIN 11111100,BI
N 11111000,BIN 11110000,BIN 1110
0000,BIN 11000000
8095 REM *****
* GROS NUAGE BLANC *
*****
8096>REM
8100 RESTORE 8150: FOR f=USR "a"
TO USR "a"+127: READ a: POKE f,
a: NEXT f
8110 PRINT AT 14,17: INK 7;"ABC
DEF"
8111 PRINT AT 15,17: INK 7;"GH
I"
8112 PRINT AT 16,17: INK 7;"J
K"
8113 PRINT AT 17,17: INK 7;"L MN
OP"
8150 DATA 0,0,0,BIN 00000011,BIN
00001111,BIN 00011111,BIN 00011
111,BIN 00011111
8151 DATA 0,0,BIN 01111100,255,2
55,255,255,255
8152 DATA 0,0,BIN 00000011,BIN 1
1011111,255,255,255,255
8153 DATA 0,0,255,255,255,255,25
5,255
8154 DATA 0,0,BIN 11100000,BIN 1
1110000,BIN 11111000,BIN 1111110
0,BIN 11111011,255
8155 DATA 0,0,0,0,0,0,BIN 111000
00,BIN 11111000
8156 DATA 0,0,BIN 00000011,BIN 0
0011111,BIN 00011111,BIN 0011111
1,BIN 00111111,BIN 00111111
8157 DATA BIN 00011111,BIN 00111
111,255,255,255,255,255
8158 DATA BIN 11111000,BIN 11111
100,BIN 11111100,BIN 11111100,BI
N 11111100,BIN 11111100,BIN 1111
1100,BIN 11111100
8159 DATA 127,127,127,127,127,12
7,127,127
8160 DATA BIN 11111100,BIN 11111
000,BIN 11111000,BIN 11111000,BI
N 11110000,BIN 11100000,BIN 1110
0000,BIN 11000000
8161 DATA BIN 00111111,BIN 00011
111,BIN 00011111,BIN 00000111,0,
0,0,0
8162 DATA BIN 11101111,BIN 11100
111,BIN 11000011,BIN 00000001,0,
0,0,0
8163 DATA 255,255,255,255,255,BIN 00
111111,BIN 00000011,0,0
8164 DATA 255,BIN 11111110,BIN 1
1111100,BIN 11111100,BIN 1111100
0,BIN 11100000,0,0
8165 DATA BIN 11111110,0,0,0,0,0
,0,0
8166 REM *****
* PERSONNAGE SOURIANT *
*****
8167 REM
8170 RESTORE 8171: FOR f=USR "a"
TO USR "a"+31: READ a: POKE f,a
: NEXT f
8171 DATA 0,0,0,1,BIN 000000110,B
IN 00001000,BIN 00010010,BIN 000
10001,0,0,0,BIN 10000000,BIN 011
00000,BIN 00010000,BIN 01001000,
BIN 00001000
8172>DATA BIN 00010100,BIN 00010
011,BIN 00001000,BIN 00000110,1,
1,1,1,BIN 01001000,BIN 10001000,
BIN 00010000,BIN 11100000,0,0,0,
0
8180 INK 0: PLOT 79,10: DRAW -4,
-9: PLOT 79,10: DRAW 4,-9: PLOT
79,10: DRAW 0,18: PRINT AT 17,9:
"AB": AT 18,9: "CD": PLOT 79,17: D
RAW 5,5: PLOT 79,17: DRAW -7,7
8190 REM *****
* IERE MUSIQUE *
*****
8200 RESTORE 8230: FOR f=1 TO 9
8210 READ h,d: BEEP d,h
8220 NEXT f
8230 DATA 12,3,9,.57,69,.07,9,
3,10,.3,12,.33,21,.52,21,.52,17,
.6
8240 RESTORE 8270: PAUSE 20: FOR
f=1 TO 8
8250 READ h,d: BEEP d,h
8260 NEXT f
8270 DATA 12,3,9,.63,9,.3,10,.3
,9,33,12,.52,12,.52,10,.4
8290 REM *****
* GROS NUAGE NOIR ET *
* PLUIE *
*****
8300 RESTORE 8330: FOR f=USR "a"
TO USR "a"+159
8310 READ a: POKE f,a
8320 NEXT f
8330 DATA 0,0,0,0,BIN 00000011,B
IN 00011111,BIN 01111111,255
8331 DATA 0,0,0,BIN 01111111,255
,255,255,255
8332 DATA 0,0,0,BIN 10000000,BIN
11100001,BIN 11111011,255,255
8333 DATA 0,0,BIN 00001111,BIN 0
1111111,255,255,255,255

```



```

8334 DATA 0,BIN 00011110,255,255
255,255,255,255
8335 DATA 0,0,BIN 11100000,BIN 1
1111000,255,255,255,255
8336 DATA 0,0,0,0,BIN 11000000,B
IN 11100000,BIN 111
10000
8337 DATA 1,BIN 00000111,BIN 000
01111,BIN 00001111,BIN 00011111,
BIN 00011111,BIN 00111111,BIN 00
11111
8338 DATA BIN 11000000,BIN 11110
000,BIN 11111000,BIN 11111110,25
5,255,255,255
8339 DATA 0,0,BIN 00000011,BIN 0
0001111,BIN 00011111,BIN 0011111
1,BIN 01111111,255
8340 DATA BIN 00111111,BIN 00011
111,BIN 11011111,255,255,255,255
,255
8341 DATA 255,BIN 11111110,BIN 1
111110,BIN 11111100,255,255,255
,255
8342 DATA 0,0,0,0,0,BIN 10000000
,BIN 11111000,BIN 11111110
8343 DATA 1,BIN 00000011,BIN 000
00111,BIN 00000111,BIN 00001111,
BIN 00001111,BIN 00001111,BIN 00
1111
8344 DATA BIN 10000000,BIN 11100
000,BIN 11110000,BIN 11111000,BI
N 11111100,BIN 11111100,BIN 1111
1110,BIN 11111110
8345 DATA BIN 00001111,BIN 00001
111,BIN 00001111,BIN 00001111,BI
N 00000011,0,0,0
8346 DATA 255,255,255,255,255,255,BI
N 01111111,BIN 00011111,BIN 0000
0011
8347 DATA BIN 11111110,BIN 11111
110,BIN 11111110,BIN 11111100,BI
N 11111000,BIN 11110000,BIN 1110
0000,BIN 11000000
8348 DATA 1,BIN 00000010,BIN 000
00100,0,BIN 00010000,BIN 0010000
0,BIN 01000000,BIN 10000000
8349 DATA 1,BIN 00000010,BIN 000
00100,BIN 00001000,0,BIN 0010000
0,BIN 01000000,BIN 10000000
8400 DIM E$(22,26)
8410 RESTORE 8420: FOR f=1 TO 22
: READ a$: LET E$(f)=a$: NEXT f
8420 DATA "","","","","","",""
8421 DATA " ABCDEFGH"
8422 DATA " H I J K L M N O P Q R S T U V W X Y Z"
8423 DATA " JK LM"
8424 DATA " N O P Q R S"
8425 DATA " P Q R S"
8426 DATA " S S S S"
8427 DATA " T T T T T"
8428 DATA " T T T T T"
8429 DATA " T T T T T"
8430 DATA " T T T T"
8431 DATA " T T T T"
8432 DATA " S S S S"
8433 DATA "","","","","","",""
8440 FOR c=1 TO 26: FOR l=4 TO 1
5
8450 PRINT AT l-1,32-c; INK 0+(l
>=9)*7;E$(l,1 TO c)
8450 NEXT l: NEXT c: PRINT AT 0,
0: FOR f=1 TO 22: PRINT INK 0+(
f>=9)*7; PAPER 1;" "+E$(f):
NEXT f: BORDER 1
8465 REM *****
* PERSONNAGE PARAPLUIE*
*****
8466 REM
8470 RESTORE 8475: FOR f=USR "a"
TO USR "a"+31: READ a: POKE f,a
: NEXT f
8475 DATA 0,0,0,1,BIN 00000110,B
IN 00001000,BIN 00010010,BIN 000
10001,0,0,0,BIN 10000000,BIN 011
00000,BIN 00010000,BIN 01001000,
BIN 00001000
8476 DATA BIN 00010011,BIN 00010
100,BIN 00001000,BIN 00000110,1,
1,1,1,BIN 10001000,BIN 01001000,
BIN 00010000,BIN 11100000,0,0,0,
0
8480 INK 5: PAPER 1: PLOT 79,10:
DRAW -4,-9: PLOT 79,10: DRAW 4,
-9: PLOT 79,10: DRAW 0,18: PRINT
AT 17,9;"AB";AT 18,9;"CD"; PLOT
79,17: DRAW 5,5: PLOT 79,17: DR
AW -7,7
8481 INK 0: PLOT 71,24: DRAW 0,1
9: PLOT 92,36: DRAW -40,0,1.5
8485 REM *****
* 2eme MUSIQUE *
*****
8490 RESTORE 8530
8500 FOR f=1 TO 13
8510 READ h,d: BEEP d,h
8520 NEXT f
8530 DATA 7,.3,10,.5,7,.3,10,.5,
7,.35,3,.7,-2,8,3,.25,3,.25,3,.
25,5,.55,5,3,7,.6
8550 PAUSE 100
8550 REM *****
* 2eme TABLEAU ANIME *
*****
8560 PRINT AT 21,0: PAPER 3: FOR
f=1 TO 22: POKE 23692,10: PRINT

```

```

": NEXT f: CLS
8620 INK 7: FOR f=0 TO 31
8630 IF f<=20 THEN PRINT AT f,14
";AT f+1,14;"I"
8640 IF f>=5 AND f<=25 THEN PRIN
T AT f-5,8;" ";AT f-4,8;"E"
8650 IF f>=6 AND f<=26 THEN PRIN
T AT f-6,31;" ";AT f-5,31;"E"
8660 IF f>=9 AND f<=29 THEN PRIN
T AT f-9,22;" ";AT f-8,22;"G"
8670 IF f>=11 AND f<=31 THEN PRI
NT AT f-11,2;" ";AT f-10,2;"N"
8680 NEXT f
8690 FOR f=1 TO 15
8900 PRINT AT 21,31-f;"E "
8910 IF f<=7 THEN PRINT AT 21,22
-f;"G"
8920 IF f<=10 THEN PRINT AT 21,f
+1;"N"
8930 IF f<=5 THEN PRINT AT 21,f+
7;"E"
8940 NEXT f
8945 PAUSE 20
8950 FOR f=0 TO 4: PAUSE 2: PRIN
T AT f,1;"I I I";AT f+1,1;"PLUIE"
: NEXT f
8955 PAUSE 30
8960 FOR f=0 TO 5: PRINT AT f,25
: INK 5;"* * *" AND f/2-INT (f/
2)=0)+(" * * *" AND f/2-INT (f/2
<>0);AT f+1,25;"GRELE": NEXT f
8965 PAUSE 20
8970 LET a$="TORNADES": FOR f=7
TO 1 STEP -1: PRINT AT 17,0; INK
6;a$(f TO 1: NEXT f
8980 FOR f=0 TO 19: PRINT AT 17,
f; INK 6;" "+a$: NEXT f
8990 FOR f=17 TO 8 STEP -1: PRIN
T AT f,20; INK 6;a$(f+1,20);
: NEXT f
9000 FOR f=20 TO 2 STEP -1: PRIN
T AT 8,f; INK 6;a$+" ": NEXT f
9010 FOR f=8 TO 17: PRINT AT f,2
: INK 6;a$(f-1,2);
: NEXT f
9020 PAUSE 20: FOR f=30 TO 24 ST
EP -1: PAUSE 3: PRINT INK 4;AT 1
1,f;"U ";AT 12,f;"E ";AT 13,f;"N
 ";AT 14,f;"T ": NEXT f
9025 PAUSE 50
9026 REM *****
* EXPLICATIONS *****
*****
9030 DIM a$(22,32): RESTORE 9040
: FOR f=1 TO 22: READ a$(f): NEX
T f
9040 DATA ""," FREDDY HA
RDY","
A","
B","
PRESENT:
9041 DATA "
B","
C","
C","
9042 DATA " SPECTROMETEO
*****
*
C","
C","
C","
C","
9043 DATA "
D","
E","
F","
G","
HIJ","
9044 DATA " LA","
GRENOUILLE"," AB
CDEFGH
IJK LMNO
PQRSTU
"ABCDEF"
9180 LET c=15
9190 FOR l=10 TO 5 STEP -1: LET
c=c-1: PRINT AT l,c: FOR e=1 TO
22-l+2: BEEP .03,0: PRINT TAB c
: PAPER 1;a$(L+E,C+1 TO 15-C+15)
9200 NEXT e: NEXT l
9205 REM *****
* THERMOMETRE ET *
* GRENOUILLE *
*****
9300 RESTORE 9310: FOR F=USR "A"
TO USR "A"+79: READ A: POKE F,A
: NEXT F
9310 DATA 60,66,66,129,129,129,1
29,129,129,129,129,129,129,1
29,129,129,143,129,143,129,143,1
29,191,1,3,7,15,31,63,63,63,128,
192,224,240,248,252,252,252,63,6
3,63,63,31,31,15,7,252,252,252,0
52,248,248,240,224,3,1,0,0,0,0,0
,0,255,255,0,0,0,0,0,0,192,128,0
0,0,0,0,0
9320 PRINT AT 0,0: FOR F=1 TO 9
: PRINT INK 7; PAPER 1;a$(F): NE
XT F: FOR F=10 TO 12: PRINT PAPER
1;a$(F, TO 28); INK 7; PAPER 2
;a$(F,29); PAPER 1: NEXT F
: FOR F=13 TO 15: PRINT INK 2; P
APER 1;a$(F): NEXT F
9325 FOR f=17 TO 21: PRINT AT f,
0: PAPER 3;a$(1): NEXT f: PRINT
AT 15,0
9330 RESTORE 9350: FOR F=USR "A"
TO USR "A"+167: READ A: POKE F,
A: NEXT F

```



```

9340 FOR F=16 TO 21: PRINT INK 4
: PAPER 1;A$(F): NEXT F
9350 DATA 0,0,0,0,0,0,0,3,0,0,0,
0,0,48,200,7,0,0,0,0,7,8,16,32,0,
0,7,120,128,0,0,0,0,0,255,0,0,0,
0,0,12,48,192,0,0,0,0,0,120,132,
0,164,136,112,3,124,64,192,60,2,1
2,112,128,96,16,0,0,0,0,1,1,2,
0,0,1,2,262,6,16,16,32,64,128,0,
0,0,0,0,0,0,0,0,0,7,8,0,0,0,0,
0,0,0,128,32,31,0,3,28,32,64,120,
0,216,32,192,0,0,0,0,4,4,7,4,
8,8,4,32,32,64,192,65,56,6,1
9360 DATA 0,0,0,248,7,0,248,0,
0,0,0,0,128,112,16,32,32,65,65,
65,129,129,129,130,132,8,6,16,3,
2,64,4,2,1,0,0,0,0,128,64,48,1
36,102,17,14,1,6,1,0,0,0,252,3,2
58,0,4,4,2,2,16,248,44,129,129,3,2
4,32,112,136,4,3,128,0,128,64,3,2
24,71,252,0,0,0,0,0,0,128,0,0
9370 FOR F=USR "A" TO USR "A"+55
: READ A: POKE F,A: NEXT F: PRIN
T INK 4; PAPER 1;A$(22): PAUSE 5
00
9390 GO SUB 9997: PAUSE 100
9400 PAPER 1: INK 7: PRINT AT 0,
9;"SPECTROMETEO
*****"

```

```

9410 PRINT : PRINT : PRINT : PRI
NT "Ce programme va vous permett
re de realiser vos propres prev
i- sions meteorologiques...": P
RINT : PRINT "L'algorithme princ
ipal est base sur une methode mi
se au point par l'abbe MOREUX
ipal est base sur une methode mi
se au point par l'abbe MOREUX
(1867-1954)": PRINT : PRINT "Ce
tte methode donne 80% de ch
ances de reussite pour des pr
evisions d'une echeance de 24h"
9420 PRINT AT 18,10;"Pour contin
uer": AT 19,10;"tapez une touche
": PAUSE 0
9430 GO TO 60
9996 REM *****
* SS-PROGRAMME "CLS" *
*****
9997 LET f$="": LET b$="
9998 PRINT AT 0,0: FOR f=0 TO 1
5: PRINT PAPER 1;f$: NEXT f: IF
U=1 THEN PRINT AT 0,0: RETURN
9999 FOR f=17 TO 21: PRINT AT f,
8; PAPER 1;b$: NEXT f: PRINT AT
0,0: RETURN

```

BOA PESCA

O «Jogo das Famílias» é bem conhecido de todos. A sua simulação para o Spectrum vem dar um novo aliciente a este jogo porque, desta vez, o seu parceiro não é um qualquer.

O programa distribuirá uma mão para si e outra para o Spectrum e cada um dos parceiros pedirá ao outro as cartas do valor que lhe interessa para completar a família. Mas só poderá pedir cartas dum dado valor se tiver em mão pelo menos uma do valor que pedir. Quer dizer: se tiver, por exemplo, um rei, pedirá ao Spectrum todos os reis que ele tiver. Como é evidente, o seu parceiro fará o mesmo e nenhum dos dois poderá reter em mão qualquer das cartas pedidas. Se o jogador a quem foram pedidas cartas tiver alguma desse valor,

```

1000 LET Update=9500
1010 LET end= 9600
1020 GO SUB 9000
1030
1040 FOR n=1 TO 13
1050 LET D(n)=n
1060 LET D(n+13)=n
1070 LET D(n+26)=n
1080 LET D(n+39)=n
1090 NEXT n
1100
1110 FOR n=1 TO 52
1120 LET a=INT (RND*52+1)
1130 LET b=INT (RND*52+1)
1140 IF a=b THEN GO TO 1130
1150 LET c=D(a)
1160 LET D(a)=D(b)
1170 LET D(b)=c
1180 NEXT n
1190
1200 FOR n=1 TO 7
1210 LET a=D(n)
1220 LET P(a)=P(a)+1
1230 LET b=D(n+7)
1240 LET S(b)=S(b)+1
1250 NEXT n
1260
1270 BORDER 5: PAPER 5: INK 0:

```

aparecerá no écran a mensagem «GOOD FISHING» e as cartas serão adicionadas ao total das cartas do jogador que as pediu. Quando o total das cartas do mesmo valor, na mão de cada jogador, for de quatro, será conseguido um «book» e o primeiro jogador a conseguir sete «books» ganhará o jogo.

Se o jogador pedir uma carta que o oponente não tenha, aparecerá a mensagem «GO FISH» e o jogador terá que ir buscar outra carta ao monte passando, para o oponente, o direito de jogar, a menos que a carta tirada do monte corresponda ao valor da carta pedida. Neste caso o jogador continuará a jogar. Não se esqueça do aviso que lhe fizemos no princípio: o seu oponente é muito forte.

CLS

```

1280 PRINT PAPER 6; BRIGHT 1; AT
0,12;" FISH "
1290 PRINT PAPER 2; BRIGHT 1; I
NK 7; AT 3,0;" PLAYER ";pb; AT 3,2
0;" SPECTRUM ";sb
1300 PRINT PAPER 1; BRIGHT 1; I
NK 7; AT 8,3;" A 2 3 4 5 6 7 8 9
T J Q K "
1310 FOR n=9 TO 13
1320 PRINT PAPER 6; BRIGHT 1; AT
n,3;"
"
1330 NEXT n
1340
2000 REM PLAYER'S TURN
2010
2020 GO SUB Update
2030 INPUT PAPER 0; INK 7; BRIG
HT 1;"WHICH CARD ? "; LINE A$
2040 IF A$(1)="T" THEN LET c=10
: GO TO 2100
2050 IF A$(1)="J" THEN LET c=11
: GO TO 2100
2060 IF A$(1)="Q" THEN LET c=12
: GO TO 2100
2070 IF A$(1)="K" THEN LET c=13
: GO TO 2100

```



```

2080 IF A$(1)="A" THEN LET c=1
: GO TO 2100
2090 LET c=CODE A$-48: IF c<1 OR
c>13 THEN GO TO 2030
2100 IF P(c)=0 THEN PRINT BRIG
HT 1; PAPER 7; INK 2; AT 18,11; F
LASH 1; " CHEAT ": FOR n=1 TO 250
: NEXT n: PRINT AT 18,11; "
": GO TO 2030
2110 IF S(c)=0 AND top<53 THEN
PRINT AT 18,12; PAPER 2; INK 7;
BRIGHT 1; FLASH 1; " GO FISH ": F
OR n=1 TO 250: NEXT n: PRINT AT
18,12; " ": GO TO 2500
2120 IF S(c)>0 THEN PRINT AT 18
,9; PAPER 1; INK 7; BRIGHT 1; FL
ASH 1; " GOOD FISHING ": FOR n=1
TO 250: NEXT n: PRINT AT 18,9; "
": LET flag=1: LET
P(c)=P(c)+S(c): LET S(c)=0: LET
T(c)=1: GO SUB Update: IF P(c)=4
THEN LET pb=pb+1: LET T(c)=0:
GO SUB Update: GO SUB end: IF pb
=7 THEN GO TO 9700
2130 IF flag=1 THEN LET flag=0:
GO TO 2030
2140 GO TO 3000
2500 LET d=D(top): LET top=top+1
: LET P(d)=P(d)+1: GO SUB Update
: IF P(d)=4 THEN LET pb=pb+1: L
ET T(d)=0: GO SUB Update: GO SUB
end: IF pb=7 THEN GO TO 9700
2510 IF c=d THEN PRINT AT 18,9;
PAPER 1; INK 7; BRIGHT 1; FLASH
1; " GOOD FISHING ": FOR n=1 TO
250: NEXT n: PRINT AT 18,9; "
": GO TO 2030
2520 PRINT AT 18,8; PAPER 7; FLA
SH 1; BRIGHT 1; " You fished a ";
2530 IF d>1 AND d<11 THEN PRINT
PAPER 7; FLASH 1; BRIGHT 1; d; "
": GO TO 2700
2540 IF d=1 THEN PRINT PAPE
R 7; FLASH 1; BRIGHT 1; "ACE " :
GO TO 2700
2550 IF d=11 THEN PRINT PAPE
R 7; FLASH 1; BRIGHT 1; "JACK " :
GO TO 2700
2560 IF d=12 THEN PRINT PAPE
R 7; FLASH 1; BRIGHT 1; "QUEEN ":
GO TO 2700
2570 PRINT PAPER 7; FLASH 1; BR
IGHT 1; "KING "
2700 FOR n=1 TO 250: NEXT n: PRI
NT AT 18,8; "
"
3000 REM SPECTRUM'S TURN
3010
3020 LET e=1
3030 IF T(e)=1 AND S(e)>0 AND S(
e)<4 THEN LET f=e: GO TO 3060
3040 IF e<13 THEN LET e=e+1: GO
TO 3030

```

```

3050 LET f=INT (RND*13)+1: IF S(
f)=0 OR S(f)=4 THEN GO TO 3050
3060 PRINT PAPER 2; INK 7; BRIG
HT 1; FLASH 1; AT 21,9; " HOW MANY
";
3070 IF f=1 THEN PRINT PAPER
2; INK 7; BRIGHT 1; FLASH 1; "AC
ES " : GO TO 3200
3080 IF f=11 THEN PRINT PAPER
2; INK 7; BRIGHT 1; FLASH 1; "JA
CKS " : GO TO 3200
3090 IF f=12 THEN PRINT PAPER
2; INK 7; BRIGHT 1; FLASH 1; "QUE
ENS " : GO TO 3200
3100 IF f=13 THEN PRINT PAPER
2; INK 7; BRIGHT 1; FLASH 1; "KIN
GS " : GO TO 3200
3110 PRINT PAPER 2; INK 7; BRIG
HT 1; FLASH 1; f; "s "
3200 INPUT " "
LINE A$
3210 LET c=CODE A$-48: IF c<0 OR
c>13 THEN GO TO 3200
3220 PRINT AT 21,9; "
"
3230 IF P(f)<>c THEN PRINT AT 1
8,11; BRIGHT 1; FLASH 1; " CHEAT
": FOR n=1 TO 250: NEXT n: PRINT
AT 18,11; " ": GO TO 3060
3235 IF c=0 AND top<53 THEN GO
TO 3260
3240 LET S(f)=S(f)+P(f): LET P(f
)=0: LET T(f)=0: LET flag=1: GO
SUB Update: IF S(f)=4 THEN LET
sb=sb+1: GO SUB Update: GO SUB e
nd: IF sb=7 THEN GO TO 9700
3250 IF flag=1 THEN LET flag=0:
GO TO 3020
3255 GO TO 2000
3260 LET c=D(top): LET top=top+1
3270 LET S(c)=S(c)+1: GO SUB Upd
ate: IF S(c)=4 THEN LET sb=sb+1
: GO SUB Update: GO SUB end: IF
sb=7 THEN GO TO 9700
3275 IF c<>f THEN GO TO 2000
3280 PRINT PAPER 1; INK 7; BRIG
HT 1; FLASH 1; AT 18,9; " I FISHED
A ";
3290 IF c=1 THEN PRINT PAPER
1; INK 7; BRIGHT 1; FLASH 1; "ACE
" : GO TO 3500
3300 IF c=11 THEN PRINT PAPER
1; INK 7; BRIGHT 1; FLASH 1; "JA
CK " : GO TO 3500
3310 IF c=12 THEN PRINT PAPER
1; INK 7; BRIGHT 1; FLASH 1; "QU
EEN " : GO TO 3500
3320 IF c=13 THEN PRINT PAPER
1; INK 7; BRIGHT 1; FLASH 1; "KI
NG " : GO TO 3500
3330 PRINT PAPER 1; INK 7; BRIG
HT 1; FLASH 1; c; " "
3500 FOR n=1 TO 250: NEXT n: PRI

```



```

9530 PRINT PAPER 2; INK 7; BRIG
HT 1; AT 3,8; pb; AT 3,30; sb
9540 RETURN
9550
9600 REM CHECK FOR FINISH
9610
9620 LET check1=0: LET check2=0
9630 FOR I=1 TO 13
9640 IF S(1)>0 AND S(1)<4 THEN
LET check1=1
9650 IF P(1)>0 AND P(1)<4 THEN
LET check2=1
9660 NEXT I
9670 IF check1>0 AND check2>0
THEN RETURN
9680
9700 REM END OF GAME
9710
9720 INPUT PAPER 0; INK 7; BRIG
HT 1; "ANOTHER GAME ?"; LINE A$
9730 IF A$(1)="Y" THEN GO SUB 9
000: GO TO 1040
9740 STOP

```

```

NT AT 18,9;"
GO TO 3020
9000 REM SET-UP
9010
9020 DIM P(13): REM Player's
9030 DIM S(13): REM Spectrum's
9040 DIM D(52): REM Deck
9050 DIM T(13): REM Spec's loses
9060 DIM A$(2): REM Request
9070
9080 LET top=15: LET flag=0
9090 LET pb=0: LET sb=0
9100 POKE 23658,8
9110 RETURN
9200
9500 REM UPDATE
9510
9520 PRINT PAPER 0; INK 7; BRIG
HT 1; AT 11,3;" ";P(1);" ";P(2);"
";P(3);" ";P(4);" ";P(5);" ";P(
6);" ";P(7);" ";P(8);" ";P(9);"
";P(10);" ";P(11);" ";P(12);" ";
P(13);" "

```

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Cada vez mais todos sentimos que os computadores se tornam parte da nossa rotina quotidiana: as revistas que lemos são impressas por computadores; os arquitectos desenham as nossas casas com a ajuda de computadores; os nossos recibos de ordenados são impressos em computador; pagamos facturas emitidas por computador através de cheques identificados por símbolos susceptíveis de utilização informática, pagamentos esses que dão origem à emissão via computador de extractos bancários. Enfim, poderíamos referir um sem número de exemplos a este propósito. Mas, ainda mais directamente ligados com as máquinas estão aqueles que deles se servem no seu trabalho de todos os dias - cientistas e gestores de stocks, empregados de escritório e directores, soldados e marinheiros, contabilistas e engenheiros - para além do crescente número de técnicos responsáveis pelo funcionamento da máquina a todos os níveis. Cada um de nós, leigo, utilizador ou técnico de computador, sentirá por vezes dificuldades na terminologia informática. O objectivo deste livro é precisamente o de constituir um meio acessível de resolução de problemas desse tipo.

Um lançamento da



EDITORIAL Domingos Barreira

RUA DO ZAMBEZE, N.º 404 - TEL. 81 70 66 - 4000 PORTO