

LE MAGAZINE DE LA MICRO PASSION

**MICRO**  
**v.o**

**D.A.O**  
**ROBINET**  
**TRONNY**  
**GEO-TEST**  
**LE TEMPLE D'AMON**  
**TAROTS**  
**COTATIONS**  
**METEOR**  
**INITIATION**  
**ON A LA COTE**  
**FM VOICING 3**

**LE**  
**CAHIER**  
**DU**  
**LOGICIEL**

**CAHIER DES AS**

**N°3**

# EDITO

**E**videmment ! Si vous ne lisez pas les éditos... Hups ! J'allais écrire une bêtise, car si vous ne lisez pas les éditos, vous n'êtes pas en train de lire celui-ci, donc je l'écris pour rien. Vous êtes donc déjà au courant. Vous savez que nous publions des programmes de lecteurs, les vôtres donc. Que pour cela il vous suffit d'envoyer vos chefs-d'œuvre sur cassette, ou sur disquette (si vous nous l'envoyez sur carte postale, je ne garantis pas que nous vous renverrons une carte vierge). Vous savez aussi qu'il faut que vous mettiez, lisiblement, le nom de la machine sur laquelle vous avez réalisé le programme en question. Basic Microsoft ne suffit pas, surtout s'il s'agit d'un Oric. Le Basic de l'Oric n'étant Microsoft que par l'arrière-cousine de sa belle-mère, et encore. Tiens, à propos ! Il y a des petits malins qui nous envoient des programmes en « AUTORUN » et protégés, c'est-à-dire qui démarrent tout seul et que l'on ne peut pas arrêter par des moyens normaux. C'est très bien, ça fait pro. Mais nous n'avons pas l'intention de jouer les déplombes. Alors, s'il vous plaît, évitez les écrans de présentation (pour faire patienter), les « autorun » et toutes ces choses qui ne seront pas imprimées dans le journal et qui nous font perdre du temps inutilement. Envoyez-nous plutôt des explications sur vos programmes. Par ailleurs, le « Cahier du Logiciel » ouvre ses pages toutes grandes aux professeurs qui désireraient sortir de leur isolement informatique (aux autres aussi d'ailleurs, mais ne chipotons pas). Pour le moment, chacun réinvente la roue de son côté. Nous sommes prêts à vous aider à communiquer entre vous et vous et l'extérieur. Si vous ne vous sentez pas capables de réaliser certaines de vos idées, d'autres le peuvent (nous, par exemple). Ça nous changera un peu des programmes Tzim Boum !!!

A bonne entenduse. Salut !

**François Dupin**

**MSX**

# D.A.O

Langage : Basic

**C**e programme permet de faire un dessin à l'écran et de le sauvegarder.

« SELECT » pour accéder au menu, puis flèche droite pour le choix des couleurs ou flèche gauche pour quitter le menu ou choix couleurs.

Utilisez les touches directionnelles pour dessiner,

« ESC » pour changer de couleur pendant le dessin.

MENU :

- 1. Laisse un trait après le crayon ;
- 2. Laisse un trait pointillé après le crayon ;
- 3. Trace un trait d'un crayon à l'autre ;
- 4. Ecriture (Se placer - Barre espace - taper la lettre) ;
- 5. Colorie une surface ;
- 6. Trace un cercle ;
- 7. Efface l'écran ;
- 8. Trace un pavé vide ;
- 9. Trace un pavé plein ;
- 10. Efface l'écran et change la couleur du pourtour ;
- 11. Lecture d'un écran ;
- 12. Sauvegarde d'un écran.

Dans les choix 3, 6, 8 et 9, « RETURN » place le petit crayon à la place du crayon principal.

CHOIX SPECIAL :

A la suite de ce menu existe un choix spécial auquel on accède en appuyant continuellement sur la flèche du bas :

- Touche gauche : retour au menu normal ;
- Touche droite : choix des couleurs ;
- Barre d'espace : trace un trait ;
- « TAB » : trace un pavé plein ;
- « EFE » : trace un cercle ;
- « INS » : trace un pavé vide.

COORDONNEES :

- X : Abscisse du crayon ;
- Y : Ordonnée du crayon ;
- x : Abscisse du petit crayon ;
- y : Ordonnée du petit crayon ;
- xX : Distance entre les deux crayons (Abscisse) ;
- yY : Distance entre les deux crayons (Ordonnée) ;
- CTRL + B : stoppe les coordonnées ;
- CTRL + A : active les coordonnées. ■

Programme gagnant  
un COMMODORE 64

Vu Anh TUAN

```

100 SCREENZ,2,0,2
110 CLEAR900,&HC5CA:GOTO130
120 GOTO180
130 GOSUB1220
140 MAXFILES=2:OPEN"GRP:"AS#1:OPEN"GRP:"
AS#2
150 X=128:Y=96:Z=128:T=96:CD=1:CR=2
160 GOSUB1610
170 FD=1:CR=3:J=1
180 GOSUB1700
190 PUTSPRITE0,(X,Y),CR,16:PUTSPRITE1,(Z
,T),CR,1
200 ONF060SUB330,390,460,550,650,720,850
,920,1010,1100,1170,1190,2140
210 A=STICK(0):K%=INKEY%
220 CR=CD-1:IFCR=0THENCR=2
230 IFA=1THENY=Y-1:PUTSPRITE0,(X,Y),CR,1
6:GOSUB2480
240 IFA=5THENY=Y+1:PUTSPRITE0,(X,Y),CR,1
6:GOSUB2480
250 IFA=7THENX=X-1:PUTSPRITE0,(X,Y),CR,1
6:GOSUB2480
260 IFA=3THENX=X+1:PUTSPRITE0,(X,Y),CR,1
6:GOSUB2480
270 IFA=2THENX=X+1:Y=Y-1:PUTSPRITE0,(X,Y
),CR,16:GOSUB2480
280 IFA=4THENX=X+1:Y=Y+1:PUTSPRITE0,(X,Y
),CR,16:GOSUB2480
290 IFA=6THENX=X-1:Y=Y+1:PUTSPRITE0,(X,Y
),CR,16:GOSUB2480
300 IFA=8THENX=X-1:Y=Y-1:PUTSPRITE0,(X,Y
),CR,16:GOSUB2480
310 IFA=0THENONJGOSUB2380,2470
320 GOTO190
330 Q=1
340 IFK%=CHR$(1)THENJ=1
350 IFK%=CHR$(2)THENJ=2
360 IFK%=CHR$(27)THENGOTO1940
370 IFK%=CHR$(24)THENGOTO120
380 PSET(X,Y),CD:RETURN
390 Q=2
400 IFK%=CHR$(1)THENJ=1
410 IFK%=CHR$(2)THENJ=2
420 IFK%=CHR$(27)THENGOTO1940
430 IFK%=CHR$(24)THENGOTO120:RETURN
440 IFK%=CHR$(32)THENPSET(X,Y),CD:RETURN
450 RETURN
460 Q=3:PUTSPRITE1,(Z,T),CR,1
470 IFK%=CHR$(1)THENJ=1
480 IFK%=CHR$(2)THENJ=2
490 IFK%=CHR$(27)THENGOTO1940
500 IFK%=CHR$(24)THENGOTO120
510 IFK%=CHR$(32)THENLINE(Z,T)-(X,Y),CD
520 IFK%=CHR$(9)THENGOTO2060
530 IFK%=CHR$(13)THENZ=X:T=Y:PUTSPRITE1,
(Z,T),CR,1:RETURN
540 RETURN
550 Q=4
560 IFK%=CHR$(1)THENJ=1
570 IFK%=CHR$(2)THENJ=2
580 IFK%=CHR$(27)THENGOTO1940
590 IFK%=CHR$(24)THENGOTO120
600 IFK%=CHR$(32)THENGOTO620:RETURN

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610 RETURN
620 K%=INKEY%
630 IFK%=""THENGOTO620
640 COLORCD:PSET(X,Y),CD:PRINT#1,K%:GOTO
550
650 Q=5
660 IFK%=CHR$(1)THENJ=1
670 IFK%=CHR$(2)THENJ=2
680 IFK%=CHR$(27)THENGOTO1940
690 IFK%=CHR$(24)THENGOTO120
700 IFK%=CHR$(32)THENPAINT(X,Y),CD:RETUR
N
710 RETURN
720 ONERRORGOTO830
730 Q=6:C=ABS(X-Z):S=ABS(Y-T)
740 PUTSPRITE1,(Z,T),CR,1
750 IFK%=CHR$(1)THENJ=1
760 IFK%=CHR$(2)THENJ=2
770 IFK%=CHR$(27)THENGOTO1940
780 IFK%=CHR$(9)THENH=2:GOTO2060
790 IFK%=CHR$(24)THENGOTO120
800 IFK%=CHR$(13)THENZ=X:T=Y:PUTSPRITE1,
(Z,T),CR,1
810 IFK%=CHR$(32)THENIFC>STHENCIRCLE(Z,T
),C,CD,,S/CELSECIRCLE(Z,T),S,CD,,S/C:R
ETURN
820 RETURN
830 IFERR=11ANDERL=810THENPRINT
840 RESUME120
850 Q=7
860 IFK%=CHR$(1)THENJ=1
870 IFK%=CHR$(2)THENJ=2
880 IFK%=CHR$(27)THENGOTO1940
890 IFK%=CHR$(24)THENGOTO120
900 IFK%=CHR$(32)THENLINE(0,0)-(256,167)
,CD,BF:COLOR,CD
910 RETURN
920 Q=8:PUTSPRITE1,(Z,T),CR,1
930 IFK%=CHR$(1)THENJ=1
940 IFK%=CHR$(2)THENJ=2
950 IFK%=CHR$(27)THENGOTO1940
960 IFK%=CHR$(9)THENH=3:GOTO2060
970 IFK%=CHR$(24)THENGOTO120
980 IFK%=CHR$(13)THENZ=X:T=Y:PUTSPRITE1,
(Z,T),CR,1
990 IFK%=CHR$(32)THENLINE(Z,T)-(X,Y),CD,
B:RETURN
1000 RETURN
1010 Q=9:PUTSPRITE1,(Z,T),CR,1
1020 IFK%=CHR$(1)THENJ=1
1030 IFK%=CHR$(2)THENJ=2
1040 IFK%=CHR$(27)THENGOTO1940
1050 IFK%=CHR$(24)THENGOTO120
1060 IFK%=CHR$(9)THENH=4:GOTO2060
1070 IFK%=CHR$(32)THENLINE(Z,T)-(X,Y),CD
,BF:RETURN
1080 IFK%=CHR$(13)THENZ=X:T=Y:PUTSPRITE1
,(Z,T),CR,1
1090 RETURN
1100 Q=10
1110 IFK%=CHR$(1)THENJ=1
1120 IFK%=CHR$(2)THENJ=2
1130 IFK%=CHR$(27)THENGOTO1940

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1140 IFK%=CHR$(24)THENGOTO120
1150 IFK%=CHR$(32)THENCOLOR,,CD:SCREEN2:
RETURN
1160 RETURN
1170 Q=11:IFK%=CHR$(27)THENGOTO1940
1180 L=USR(0):L=USR1(0):MOTORON:MOTOROFF
:BLOAD"DAD":L=USR(1):L=USR1(1):GOTO1700
1190 Q=12:IFK%=CHR$(27)THENGOTO1940
1200 FORS=0TO24:PUTSPRITES,(236,97),0,S:
NEXTS
1210 L=USR(0):L=USR1(0):MOTORON:MOTOROFF
:BSAVE"DAD",&HC600,&HEFF:L=USR(1):L=USR
1(1):GOTO1700
1220 DIMA$(64)
1230 FORN=1TO64
1240 FORQ=1TO8
1250 READX
1260 A$(N)=A$(N)+CHR$(X)
1270 NEXTQ
1280 NEXTN
1290 DATA64,48,40,20,10,5,2,0,0,0,0,0,0,
0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1300 DATA255,255,128,128,191,160,160,160
,160,160,160,191,128,128,255,255,255,255
,1,1,253,5,5,5,5,5,253,1,1,255,255
1310 DATA255,255,128,135,135,135,135,135
,135,135,135,135,135,128,255,255,255,255
,1,225,225,225,225,225,225,225,225,225,2
25,1,255,255
1320 DATA255,255,128,136,148,162,162,162
,162,162,148,137,128,128,255,255,255,255
,1,49,73,133,133,73,49,1,249,5,249,1,255
,255
1330 DATA255,255,128,144,174,161,160,160
,159,159,159,143,135,128,255,255,255,255
,1,1,1,129,121,5,253,253,253,253,249,1,2
55,255
1340 DATA255,255,128,128,159,160,191,191
,191,191,160,159,128,128,255,255,255,255
,1,1,249,5,253,253,253,253,5,249,1,1,255
,255
1350 DATA255,255,159,170,170,170,187,174
,160,145,142,132,191,128,255,255,255,255
,1,129,129,129,129,129,129,1,1,1,253,1,2
55,255
1360 DATA255,255,159,170,170,170,187,174
,160,145,142,132,128,128,255,255,255,255
,1,129,129,129,129,129,129,1,1,1,1,1,255
,255
1370 DATA255,255,128,128,128,129,129,130
,136,148,162,190,162,128,255,255,255,255
,33,81,161,65,129,1,241,137,241,137,241,
1,255,255
1380 DATA255,255,128,128,159,191,191,191
,191,191,191,159,128,128,255,255,255,255
,1,1,249,253,253,253,253,253,253,249,1,1
,255,255
1390 DATA255,255,128,132,130,145,136,132
,130,129,128,128,128,128,255,255,255,255
,1,1,1,1,129,65,65,161,97,17,9,1,255,255
1400 DATA0,0,0,64,70,73,105,9,6,0,0,0,0,
0,0,0,0,0,0,0,0,64,160,224,172,10,10
,12,0,0

```



# ROBINET

Langage : Basic

**T**iti et Robinets : un problème bien parisien. On ne peut pas y résister. Il faut équilibrer le contenu de plusieurs récipients, reliés les uns aux autres par des tuyaux, en ouvrant des robinets et en soulevant les récipients eux-mêmes. Il vous faudra en outre vous battre contre le temps. Le mode d'emploi se trouve au début du jeu.  
Allez, bon vent !

Christian LE MAROIS

```

100 GO SUB 2390
110
120 REM *****
130 REM *
140 REM * liaisons/rempli. *
150 REM * des recipients *
160 REM *
170 REM *****
180
190 DIM l(8): DIM p(6)
200 DIM c(6): RESTORE 410
210 FOR i=1 TO 6
220 READ x
230 LET c(i)=x
240 LET l(i)=i
250 NEXT i
260 FOR i=1 TO 15
270 LET w=INT (RND*6)+1
280 LET x=INT (RND*6)+1
290 LET y=INT (RND*6)+1
300 LET z=INT (RND*6)+1
310 LET v1=l(w)
320 LET v2=c(y)
330 LET l(w)=l(x)
340 LET c(y)=c(z)
350 LET l(x)=v1
360 LET c(z)=v2
370 NEXT i
380 LET l(7)=INT (RND*6)+1
390 IF l(6)=l(7) THEN GO TO 380
400 LET l(8)=l(1)
410 DATA 12,8,8,4,4,0
420
430 REM *****
440 REM *
450 REM * ecran de jeu *
460 REM *
470 REM *****
480
490 BORDER 5: PAPER 5: INK 1: C
LS
500 PRINT AT 0,0;"#####
#####
#####"

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510 PRINT AT 15,0;"#####
#####
#####"
520 PRINT AT 21,0;"#####
#####
#####"
530 FOR i=0 TO 20
540 PRINT AT i,0;"A"
550 PRINT AT i,31;"A"
560 IF i>14 THEN PRINT AT i,22;
"A"
570 IF i>15 THEN PRINT PAPER 6;
AT i,23;" "
580 NEXT i
590
600 FOR i=1 TO 6
610 PLOT OVER 1;i*33-12,119
620 DRAW OVER 1;0,-13
630 DRAW OVER 1;24,0
640 DRAW OVER 1;0,13
650 BEEP .01,30
660 NEXT i
670
680 GO SUB 2240
690
700 FOR i=1 TO 6
710 PLOT i*33,105
720 DRAW 0,-48
730 NEXT i
740
750 FOR i=1 TO 7
760 PLOT l(i)*33+1,107-i*6
770 DRAW 0,-2
780 DRAW (l(i+1)-l(i))*33,0
790 DRAW 0,2
800 BEEP .006,0
810 NEXT i
820
830 FOR i=4 TO 24 STEP 4
840 PRINT AT 3,i;i/4
850 CIRCLE INK 0;i*8+3,147,5
860 BEEP .01,50
870 NEXT i
880

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```

890 INK 2
900 FOR i=0 TO 1
910 PLOT 184+i,8+i
920 DRAW 63-i*2,0: DRAW 0,39-i*
2
930 DRAW -63+i*2,0: DRAW 0,-39+
i*2
940 NEXT i
950 INK 1
960
970 REM *****
980 REM *
990 REM * options/tests *
1000 REM *
1010 REM *****
1020
1030 LET sc=1000
1040
1050 FOR i=16 TO 20
1060 PRINT PAPER 0;AT i,1;"
"
1070 NEXT i
1080 INK 6: PAPER 0
1090 PRINT AT 17,3;"0-> ouvrir"
1100 PRINT AT 18,3;"L-> lever"
1110 PRINT AT 19,3;"D-> descendr
e"
1120 PRINT AT 20,3;"C-> contenu"
1130 PAPER 6: INK 2
1140 PRINT AT 17,24;"score"
1150 PRINT AT 18,25;sc;" "
1160 INK 1: PAPER 5
1170 LET a$=INKEY$
1180 IF a$="" THEN GO TO 1170
1190 FOR i=16 TO 20
1200 PRINT PAPER 0;AT i,1;"
"
1210 BEEP .01,35-i*2
1220 NEXT i
1230 IF a$="o" THEN GO TO 1300
1240 IF a$="l" THEN GO TO 1570
1250 IF a$="d" THEN GO TO 1570
1260 IF a$="c" THEN GO TO 1780
1270 GO TO 1080

```

```

1280
1290
1300 REM ##ouverture robinet##
1310 PRINT INK 4; PAPER 0; AT 17,
2; "quel robinet ?"
1320 PRINT INK 4; PAPER 0; AT 18,
2; "(recip. qu'il relit)"
1330 LET a$=INKEY$
1340 IF a$="" THEN GO TO 1330
1350 BEEP .1, -10; PAUSE 30
1360 LET a$=a$+INKEY$
1370 IF LEN a$ < 2 THEN GO TO 1360
1380 BEEP .1, -10
1390 FOR i=1 TO 7
1400 IF a$=STR$ 1(i)+STR$ 1(i+1)
OR a$=STR$ 1(i+1)+STR$ 1(i) THE
N GO TO 1420
1410 NEXT i: GO TO 1050
1420 IF c(1(i))+c(1(i+1)) > 12 AND
p(1(i)) < p(1(i+1)) THEN GO TO 1
050
1430 GO SUB 2240
1440 IF p(1(i))=p(1(i+1)) THEN L
ET c(1(i))=(c(1(i))+c(1(i+1)))/2
: LET c(1(i+1))=c(1(i))
1450 IF p(1(i)) > p(1(i+1)) THEN L
ET c(1(i+1))=c(1(i+1))+c(1(i)):
LET c(1(i))=0
1460 IF p(1(i)) < p(1(i+1)) THEN L
ET c(1(i))=c(1(i))+c(1(i+1)): LE
T c(1(i+1))=0
1470 LET sc=sc-8
1480 GO SUB 2240
1490 LET t=0
1500 FOR i=2 TO 6
1510 LET t=t+(INT (c(i)+.1)=INT
(c(i-1)+.1))
1520 NEXT i
1530 IF t=5 THEN GO TO 1900
1540 GO TO 1050
1550
1560
1570 REM #recipient levé#
1580 LET sc=sc-15
1590 PRINT INK 4; PAPER 0; AT 18,
2; "quel recipient?"
1600 LET a$=INKEY$
1610 IF a$="" OR CODE a$ > 54 OR C
ODE a$ < 49 THEN GO TO 1600
1620 GO SUB 1710
1630 PLOT OVER 1; VAL a$#33, 118
1640 DRAW OVER 1; 0, -12
1650 GO SUB 2240
1660 LET p(VAL a$)=NDT p(VAL a$)
1670 GO SUB 1710
1680 GO SUB 2240
1690 GO TO 1050
1700
1710 PLOT OVER 1; VAL a$#33-12, 11

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```

9+p(VAL a$)#13
1720 DRAW OVER 1; 0, -13
1730 DRAW OVER 1; 24, 0
1740 DRAW OVER 1; 0, 13
1750 RETURN
1760
1770
1780 REM #contenu recipients#
1790 LET y=15
1800 FOR i=1 TO 6
1810 PRINT INK 4; PAPER 0; AT i+y
, 2; "recip. "; i; "->";
1820 IF c(i)=0 THEN PRINT INK 7;
PAPER 0; " 0 1 "
1830 IF c(i) <> 0 THEN PRINT INK 7
; PAPER 0; " 1/"; INT (12/c(i))#10)
/10; " 1"
1840 IF i=5 THEN PAUSE 0: PAUSE
0: LET y=14
1850 NEXT i
1860 PAUSE 0
1870 GO TO 1050
1880
1890
1900 REM #routine fin#
1910 FOR i=1 TO 200: NEXT i
1920 PAPER 6: INK 2: CLS
1930 CIRCLE 111, 150, 10: CIRCLE 1
26, 150, 10: CIRCLE 141, 150, 10
1940 CIRCLE 118, 135, 10: CIRCLE 1
33, 135, 10
1950 FOR i=-2 TO 4
1960 FOR j=0 TO 6
1970 BORDER j: BEEP .05, i#j
1980 NEXT j
1990 NEXT i
2000 BORDER 5
2010 PRINT PAPER 5; AT 14, 13; "
"
2020 PRINT PAPER 5; AT 15, 9; "
"
2030 PRINT INK 5; AT 16, 9; "
"
2040 PRINT PAPER 5; INK 2; AT 15,
15; 1
2050 INK 1: PRINT AT 8, 15; "BC"
2060 PRINT AT 9, 14; "DEF"
2070 PRINT AT 10, 15; "GH"
2080 PRINT AT 11, 15; "IJ"
2090 PRINT AT 12, 15; "KL"
2100 PRINT AT 13, 14; "MN"
2110 BEEP .5, 5: BEEP .2, 5: BEEP
.1, 7: BEEP .5, 7: BEEP .5, 7: BEEP
1, 9
2120 FOR i=0 TO 30
2130 INK 2: PRINT AT i/1.45, 0; "F
"
2140 PRINT AT i/1.45, 31; "F"
2150 PRINT AT 0, i; "F"; AT 21, i; "

```

```

>HHHH>"
2160 NEXT i
2170 PRINT AT 17, 10; FLASH 1; "sc
ore-> "; sc
2180 PRINT #1; "voulez-vous rejuo
er(o/n)"
2190 LET a$=INKEY$
2200 IF a$="" THEN GO TO 2190
2210 IF a$="o" THEN RUN 190
2220 STOP
2230
2240 REM #####
2250 REM #
2260 REM # rempli.recipient #
2270 REM #
2280 REM #####
2290
2300 FOR k=1 TO 6
2310 IF c(k)=0 THEN NEXT k: RETU
RN
2320 FOR l=1 TO INT (c(k)+.5)
2330 PLOT OVER 1; k#33-10, 107+l+p
(k)#13
2340 DRAW OVER 1; 20, 0
2350 NEXT l
2360 NEXT k
2370 RETURN
2380
2390 REM #####
2400 REM #
2410 REM # initialisation #
2420 REM # explications #
2430 REM #
2440 REM #####
2450
2460 RESTORE 2620
2470 FOR i=0 TO 119
2480 READ x: POKE USR "a"+i, x
2490 NEXT i
2500
2510 BORDER 1: PAPER 5: INK 0: C
LS
2520 PRINT AT 1, 12; FLASH 1; "ROB
INET"
2530 PRINT AT 5, 0; "vous allez pa
rticiper aux ler", "olympiades de
robinet."
2540 PRINT AT 8, 0; "vous disposez
de 6 recipients", "que vous deve
z remplir avec la"
2550 PRINT AT 10, 0; "meme quantit
e d'eau."
2560 PRINT AT 12, 0; "pour cela, vo
us pouvez lever", "descendre les
recipients et"
2570 PRINT AT 14, 0; "ouvrir les r
obinets qui les", "isolent"
2580 PRINT #1; "appuyez sur une t
ouche"

```

```

2590 LET a$=INKEY$
2600 IF a$="" THEN GO TO 2590
2610 CLS
2620 DATA 170,85,170,85,170,85,1
70,85
2630 DATA 127,63,31,15,8,29,56,1
12
2640 DATA 224,192,128,0,128,192,
224,240
2650 DATA 0,1,3,3,3,1,1,0
2660 DATA 224,199,207,154,157,20
7,199,198
2670 DATA 112,56,156,206,206,156

```

```

,56,184
2680 DATA 105,95,63,63,63,31,31,
31
2690 DATA 216,224,240,240,224,22
4,224,192
2700 DATA 31,31,31,6,23,31,63,63
224,224
2710 DATA 192,192,192,0,192,192,
224,224
2720 DATA 59,59,74,113,121,249,2
49,240
2730 DATA 224,0,224,224,224,240,
240,248
2740 DATA 0,1,1,1,0,3,7,7

```

```

2750 DATA 240,224,224,32,192,224
,224,224
2760 DATA 248,248,120,96,24,60,6
3,63
2770 RETURN
2780 REM carac.graphique->
2790 REM A.....A
2800 REM BC.....BC
2810 REM DEF.....DEF
2820 REM GH.....GH
2830 REM IJ.....IJ
2840 REM KL.....KL
2850 REM MND.....MND

```

## AMSTRAD CPC464

# TRONNY

```

60 DIM tb(40,25)
70 GOSUB 1040
80 d$=INKEY$
90 SOUND 1,426,10,6:SOUND 1,506,10,6
100 hb=(d$="L")-(d$=":")+(d$="1")
110 vb=(d$="P")-(d$=".")+(d$="p")
120 ha=(d$="A")-(d$="S")+(d$="a")-(d$="s")
130 va=(d$="W")-(d$="Z")+(d$="w")-(d$="z")
140 IF ha <> 0 THEN h1=ha:v1=0
150 IF va <> 0 THEN v1=va:h1=0
160 IF hb <> 0 THEN h2=hb:v2=0
170 IF vb <> 0 THEN v2=vb:h2=0
180 IF TE<0 THEN TE=1
190 IF bo2=1 THEN 320
200 x1=x1+h1
210 y1=y1+v1
220 IF tb(x1,y1)=1 THEN FX=X1:FY=Y1:GOTO 520
230 IF tb(x1,y1)=2 THEN f1=f1+10:te=te-40
240 IF tb(x1,y1)=3 THEN bon=1:f1=f1+10
250 LOCATE x1,y1
260 PEN 1
270 chan$=nr$:nr$=nr2$:nr2$=chan$:PRINT nr$:
280 tb(x1,y1)=1:cox1=x1:coy1=y1
290 IF bon>0 THEN bon=bon+1
300 IF bon<36 AND bon>0 THEN 420
310 BON=0
320 x2=x2+h2
330 IF tb(abc2,ord2)=3 THEN PEN 3:LOCATE ab
sc2,ord2:PRINT CHR$(238)
340 y2=y2+v2
350 IF tb(x2,y2)=1 THEN FX=X2:FY=Y2:GOTO 580
360 IF tb(x2,y2)=2 THEN f2=f2+10:te=te-40
370 IF tb(x2,y2)=3 THEN bon=1:bo2=1:f2=f2+10
380 LOCATE x2,y2
390 PEN 0
400 PRINT nr2$:
410 tb(x2,y2)=1:cox2=x2:coy2=y2
420 IF bon>0 THEN bon=bon+1

```

```

430 IF BON>35 THEN BO2=0
440 FOR i=1 TO INT (te/2):NEXT i
450 IF tb(abc2,ord2)=3 THEN PEN 1:LOCATE ab
sc2,ord2:PRINT CHR$(238)
460 FOR i=1 TO INT (te/2):NEXT i
470 IF bo2=1 THEN 500
480 PEN 3:LOCATE cox1,coy1:PRINT no$
490 IF bon<36 AND bon>0 THEN 80
500 PEN 3:LOCATE cox2,coy2:PRINT no2$
510 GOTO 80
520 f2=f2+25
530 IF f2>500 THEN 640
540 GOSUB 890
550 IF INKEY$<>" " THEN 550
560 GOSUB 1110
570 GOSUB 80
580 f1=f1+25
590 IF f1>500 THEN 730
600 GOSUB 890
610 IF INKEY$<>" " THEN 610
620 GOSUB 1110
630 GOTO 80
640 CLS
650 INK 3,6,2:PEN 3:LOCATE 18,2
660 PRINT CHR$(211);CHR$(204);CHR$(201);CHR$
(212);CHR$(212);CHR$(215)
670 PEN 1
680 LOCATE 11,7
690 PRINT "LE JOUEUR DROIT GAGNE";
700 LOCATE 16,12
710 PRINT f2;"A";f1;
720 GOTO 810
730 CLS
740 INK 3,6,2:PEN 3:LOCATE 18,2
750 PRINT CHR$(211);CHR$(204);CHR$(201);CHR$
(212);CHR$(212);CHR$(215)
760 PEN 1
770 LOCATE 11,7

```

Deux soldats, chargés l'un de grenades, l'autre de bâtons de dynamite, s'affrontent sur un terrain clos par des barbelés électrifiés. Des bouteilles, disséminées ici et là, permettent aux combattants de prendre des forces et d'accélérer le pas. En outre, un repas (couverts clignotants) permet à son consommateur d'immobiliser son adversaire pendant un certain laps de temps.

Le but du jeu consiste à pousser l'adversaire vers les grenades, la dynamite ou la clôture, ceci tout en absorbant le plus de bouteilles possible.

Une bouteille ou un repas valent 10 points, et 25 points sont attribués au gagnant de chaque manche.

Les déplacements se font par les touches suivantes (selon leur disposition sur le clavier) :

Joueur 1 : W - A - S - Z

Joueur 2 : P - L - - - »

Good Leuc et Allez Louya, Brozeur ! ■

Xavier BONNAUD

```

780 PRINT "LE JOUEUR GAUCHE GAGNE";
790 LOCATE 16,12
800 PRINT f1;"A";f2;
810 LOCATE 12,17
820 PRINT "VOULEZ-VOUS REJOUER?";
830 d$=INKEY$
840 IF d$="" THEN 830
850 IF d$="o" OR d$="O" THEN RUN
860 IF d$="n" OR d$="N" THEN 880
870 GOTO 830
880 CLS:END
890 SOUND 7,0,3,6,,15:SOUND 7,100,3,5:SOUND
7,0,-1,6,2,,5
900 FOR FI= 1 TO 4
910 INK 1,6,2:PEN 1
920 LOCATE FX,FY:PRINT CHR$(144)
930 FOR I=1 TO 200:NEXT I
940 LOCATE FX,FY:PRINT CHR$(239)
950 FOR I= 1 TO 200:NEXT I: NEXT FI
960 INK 1,16:LOCATE FX,FY:PRINT CHR$(245):LO
CATE FX,FY+1:PRINT CHR$(246)
970 RESTORE 1020:FOR i=1 TO 11
980 READ freq,dur,esp

```

```

990 SOUND 1,freq,dur,7
1000 FOR tea=1 TO esp:NEXT tea
1010 NEXT i
1020 DATA 426,40,700,426,50,500,426,30,300,4
26,30,600,358,50,500,379,30,300,379,30,500,4
26,30,300,426,30,500,451,30,300,426,25,100
1030 RETURN
1040 GOSUB 1430
1050 CLS:INK 1,16
1060 INK 2,0
1070 INK 3,24
1080 INK 0,17
1090 PAPER 2
1100 BORDER 23
1110 ERASE tb
1120 DIM tb(40,25)
1130 CLS
1140 SYMBOL 255,24,24,60,60,60,60,60,60
1150 SYMBOL 252,0,0,66,255,36:SYMBOL 249,8,1
2,24,8,24,12,8,8
1160 n$=CHR$(252):no$=CHR$(254):nr$=CHR$(251)
1170 s$=CHR$(7):coup$=CHR$(255):NO2$=CHR$(25
3)
1180 nr2$=CHR$(250)
1190 PEN 1
1200 FOR x1=2 TO 39
1210 LOCATE x1,1:PRINT n$:tb(x1,1)=1
1220 LOCATE x1,24:PRINT n$:tb(x1,24)=1
1230 NEXT x1
1240 FOR y1= 2 TO 23
1250 LOCATE 1,y1:PRINT CHR$(249):tb(1,y1)=1
1260 LOCATE 40,y1:PRINT CHR$(249):tb(40,y1)
=1
1270 NEXT y1
1280 LOCATE 1,1:PRINT CHR$(150):LOCATE 40,1:
PRINT CHR$(156)
1290 LOCATE 1,24:PRINT CHR$(147):LOCATE 40,2
4:PRINT CHR$(153)
1300 LOCATE 2,25:PEN 3
1310 PRINT J6$:f1;
1320 LOCATE 22,25:PEN 4
1330 PRINT JD$:f2:GOSUB 2190
1340 PEN 4: FOR zz=1 TO 10
1350 absc=INT(RND(1)*38+2):ord=INT(RND(1)*21
+2)
1360 tb(absc,ord)=2:LOCATE absc,ord:PRINT co
up$
1370 NEXT zz
1380 absc2=INT(RND(1)*38+2):ord2=INT(RND(1)*
21+2)
1390 tb(absc2,ord2)=3:PEN 3:LOCATE absc2,ord
2:PRINT CHR$(238)
1400 x1=9:y1=12:x2=32:y2=12:h1=1:v1=0:te=300
1410 h2=-1:v2=0:s1=0:s2=0:RETURN
1420 REM --- PRESENTATION ---
1430 INK 0,17:PAPER 0:MODE 1:CLS
1440 SYMBOL AFTER 200
1450 SYMBOL 200,124,16,8,4,2,34,34,60
1460 SYMBOL 201,58,68,68,68,68,68,36,24
1470 SYMBOL 202,198,68,68,68,68,68,36,24
1480 SYMBOL 203,&1C,&22,&20,&1C,&20,&44,&44,
&38
1490 SYMBOL 253,32,16,8,28,28,28,28,28
1500 SYMBOL 245,24,24,126,126,24,24,24,24
1510 SYMBOL 251,56,56,144,124,18,40,72,136
1520 SYMBOL 204,126,34,36,60,40,40,37,98
1530 SYMBOL 205,28,34,34,64,78,68,72,56
1540 SYMBOL 206,6,9,9,18,30,34,34,195

```

```

1550 SYMBOL 207,28,34,34,32,64,64,100,24
1560 SYMBOL 208,17,17,34,62,68,68,136,200
1570 SYMBOL 209,60,18,17,33,33,33,162,124
1580 SYMBOL 238,170,171,251,35,34,34,34,35
1590 SYMBOL 239,153,90,36,195,195,36,90,153
1600 SYMBOL 210,8,0,8,8,16,16,16,12
1610 SYMBOL 211,255,153,16,16,16,16,16,28
1620 SYMBOL 250,56,56,18,124,144,40,36,34
1630 SYMBOL 212,17,26,26,42,44,76,68,196
1640 SYMBOL 215,17,18,34,60,4,68,68,56
1650 J$=CHR$(200)+CHR$(201)+CHR$(202)+CHR$(2
03)+CHR$(202)+CHR$(204):C$=CHR$(32)+CHR$(205
)+CHR$(206)+CHR$(202)+CHR$(207)+CHR$(208)+CH
R$(203)+CHR$(32)+CHR$(58)
1660 J6$=J$+C$:CD$=CHR$(32)+CHR$(209)+CHR$(2
04)+CHR$(201)+CHR$(210)+CHR$(211)+CHR$(32)+C
HR$(58):JD$=J$+CD$
1670 w$=CHR$(213):w2$=CHR$(213)+CHR$(213):tr
$(1)=w2$+w2$+w2$+w2$+w2$+w2$+w2$+w2$+w2$
+w2$+w2$+w$
1680 v$=CHR$(32):v2$=CHR$(253):tr$(2)=v$+v$+
w2$+v$+w2$+v$+v$+tr$(3)=" "+w2$+
v$+w2$+v$+v$+w2$+v$+v$+v$+v$+v$+v$+v$+
v$+v$+v$+v$+v$
1690 tr$(4)=" "+w2$+v$+w$+v$+w$+v$+v$+w$
+v$+v$+v2$+v$+v$+v$+v2$+v$+v$+w2$+v$+v$:TR$(
5)=" "+w2$+v$+w2$+v$+v$+v$+v$+v$+v$+v$+
v$+v$+v$+v$+v$+ " "+w$+v$
1700 SYMBOL 213,170,85,170,85,170,85,170,85
1710 tr$(6)=" "+w2$+v$+w$+v$+v2$+v$+w2$+w$+
v$+w$+v$+v$+v$+v$+v$+v$+w2$+w$+v$:tr$(7)=
tr$(2)
1720 din$=CHR$(143)+CHR$(143)+CHR$(143)+CHR$(
143)+CHR$(143):INK 1,0
1730 PEN 1:FOR i=1 TO 7:LOCATE 7,i+6:PRINT t
r$(i):NEXT i
1740 pre$="MALEY CONFECTIONSS"
1750 FOR i=1 TO LEN(pre$):LOCATE 12,15:PRINT
RIGHT$(pre$,i)
1760 SOUND 1,119,1,7:NEXT i
1770 pre$="Xavier Bonnaud - Juil.85"
1780 FOR i=1 TO LEN(pre$):LOCATE 8,16:PRINT
RIGHT$(pre$,i)
1790 SOUND 1,95,1,7:NEXT i
1800 SYMBOL 222,31,0,129,255,135,3,1,3
1810 SYMBOL 223,255,64,240,216,252,252,32,25
2
1820 SYMBOL 224,186,186,84,56,16,56,40,40
1830 SYMBOL 225,28,28,40,62,10,120,8,8
1840 SYMBOL 254,0,62,50,122,122,120,120,48
1850 SYMBOL 246,&FF,&81,&FF
1860 SYMBOL 226,56,56,16,124,146,40,40,40
1870 SYMBOL 227,255,2,15,27,63,63,4,63
1880 SYMBOL 228,248,0,129,255,225,192,128,19
2
1890 INK 3,24:PEN 3:LOCATE 33,15:PRINT CHR$(
254)
1900 hel$=CHR$(222)+CHR$(223):PEN 1
1910 FOR i=2 TO 36:LOCATE i,2:CALL &BD19:PRI
NT " ";hel$:LOCATE i,3:CALL &BD19:PRINT " "
;CHR$(224)
1920 SOUND 1,4000,10,7,0,0,1:NEXT i
1930 SOUND 1,4000,50,7,0,0,1
1940 FOR i=2 TO 14:LOCATE 37,i-1:CALL &BD19:
PRINT " ":LOCATE 37,i:CALL &BD19:PRINT hel$
:LOCATE 37,i+1:CALL &BD19:PRINT " ";CHR$(224)
)
1950 SOUND 1,4000,10,7,0,0,1:NEXT i
1960 SOUND 1,4000,50,7,0,0,1

```

```

1970 LOCATE 38,15:PRINT CHR$(226)
1980 FOR i=13 TO 2 STEP -1:LOCATE 37,i+1:PRI
NT " ":LOCATE 37,i:PRINT hel$
1990 SOUND 1,4000,10,7,0,0,1:NEXT i
2000 SOUND 1,4000,50,7,0,0,1
2010 FOR i=37 TO 38:LOCATE i,2:PRINT " ";hel
$
2020 SOUND 1,4000,15,7,0,0,1:NEXT i:LOCATE 3
9,2:PRINT " ":CHR$(222)
2030 FOR i=1 TO 20:NEXT i:LOCATE 38,2:PRINT
" "
2040 FOR i=1 TO 700:NEXT i
2050 FOR i=38 TO 35 STEP -2:LOCATE i,15
2060 CALL &BD19:PRINT CHR$(251):" ":SOUND 1,
0,3,7,0,0,1:FOR tea=1 TO 80:NEXT tea
2070 LOCATE i-1,15:CALL &BD19:PRINT CHR$(226
);" "
2080 SOUND 1,0,3,6,0,0,4:FOR tea=1 TO 80:NEXT
tea:NEXT i
2090 LOCATE 34,15:PRINT CHR$(225):" ":FOR TE
=1 TO 80:NEXT tea
2100 PEN 3:LOCATE 33,15:PRINT CHR$(254):FOR
tea=1 TO 60:NEXT tea
2110 FOR i=32 TO 29 STEP -1:LOCATE i,15
2120 CALL &BD19:PRINT CHR$(254):" ":FOR tea=
1 TO 60:NEXT tea:NEXT i
2130 INK 3,6,2:PEN 3:LOCATE 29,15:PRINT CHR$(
239)
2140 SOUND 7,0,3,6,,15:SOUND 7,100,3,6:SOUN
D 7,0,-1,6,2,,5
2150 FOR tea= 1 TO 1000:NEXT tea
2160 LOCATE 29,15:PRINT " "
2170 FOR i=1 TO 2500:NEXT i
2180 RETURN
2190 HEL2$=CHR$(227)+CHR$(228)
2200 FOR I=0 TO 6:PEN 1:LOCATE 2+I,6:CALL &B
D19:PRINT " ";HEL2$;" "
2210 LOCATE 2+I,7:CALL &BD19:PRINT " ";CHR$(
224):" ":PEN 0
2220 SOUND 1,4000,13,7,0,0,1:LOCATE 37-1,6:C
ALL &BD19:PRINT HEL2$;" "
2230 LOCATE 37-1,7:CALL &BD19:PRINT CHR$(224
);" ":NEXT i
2240 SOUND 1,4000,50,7,0,0,1
2250 FOR I=0 TO 5:PEN 1:LOCATE 9,5+I:PRINT "
":LOCATE 9,6+I
2260 CALL &BD19:PRINT HEL$:LOCATE 10,7+I:CAL
L &BD19:PRINT CHR$(224):PEN 0
2270 SOUND 1,4000,13,7,0,0,1:LOCATE 31,5+I:P
RINT " "
2280 LOCATE 31,6+I:CALL &BD19:PRINT HEL2$:LO
CATE 31,7+I:CALL &BD19:PRINT CHR$(224):NEXT
I
2290 SOUND 1,4000,50,7,0,0,1
2300 PEN 1:LOCATE 10,12:PRINT CHR$(226):PEN
0:LOCATE 31,12:PRINT CHR$(226)
2310 FOR I=5 TO 0 STEP -1:PEN 1:LOCATE 9,5+I
2320 CALL &BD19:PRINT HEL$:LOCATE 9,6+I:PRI
NT " ":PEN 0
2330 SOUND 1,4000,13,7,0,0,1:LOCATE 31,5+I:C
ALL &BD19:PRINT HEL2$:LOCATE 31,6+I:PRINT "
":NEXT I
2340 SOUND 1,4000,50,7,0,0,1
2350 FOR I=1 TO 6:PEN 1:LOCATE 9-1,5:CALL &B
D19:PRINT HEL2$:" ":PEN 0:LOCATE 30+1,5:CALL
&BD19:PRINT " ";HEL$:NEXT I
2360 FOR i=1 TO 20:NEXT i:LOCATE 37,5:PRINT
" ":LOCATE 2,5:PRINT " "
2370 RETURN

```

# GEO-TEST

Langage : Basic  
Programme de 20 Ko.

```

20 REM **** REGLES DU JEU ****
25 CONSOLE0,24,0,0:CLS:SCREEN1,0,0:ATTRB
1,1:LOCATE0,0,0:CONSOLE6,24
30 LOCATE 10,3:PRINT"GEO-TEST"
35 BOX(75,7)-(210,40),5
40 ATTRB0,0:LOCATE0,8:PRINT"La carte de
France va apparaître.":LOCATE0,10:PRINT"
Vous allez pouvoir tester vos ":LOCATE0,
12:PRINT"connaissances:"
45 LOCATE0,14:PRINT"-SOIT SUR LES VILLES
(CHEFS-LIEUX)":LOCATE0,18:PRINT"-SOIT S
UR LES AFFLUENTS(PLUS DE 100 km)"
50 LOCATE 5,21:PRINT"TAPEZ UNE TOUCHE"
55 T$=INPUT$(1):CLS
60 LOCATE0,6:PRINT"Pour les villes,un po
int va clignoter et":LOCATE0,8:PRINT"deu
x noms de villes vont apparaître en":LDC
ATE0,10:PRINT"haut a droite de l'écran.U
ne de ces deux"
65 LOCATE0,12:PRINT"villes correspond au
point donne sur":LOCATE0,14:PRINT"la ca
rte.Repondez par l'initiale de"
70 LOCATE0,16:PRINT"celle-ci et l'ordina
teur testera":LOCATE0,18:PRINT"votre rep
onse.Pour les affluents,c'est":LOCATE0,2
0:PRINT"la même chose mais c'est un affl
uent qui":LOCATE0,22:PRINT"clignote.TAPE
Z UNE TOUCHE.":T$=INPUT$(1)
75 CLEAR,1:DIM T(7):SC=0
80 CLS:PRINT"(V)VILLES DU (A)FFLUENTS ?"
81 R$=INKEY$:X=RND:IFR$=""THENB1
85 IF R$="V" THEN N=1 ELSE IF R$="A" TH
EN N=2 ELSE B0
95 REM *****
100 REM **** POURTOUR DE LA FRANCE ****
110 REM *****
120 CONSOLE0,24:CLS:SCREEN1,0,0:LOCATE0,
0,0
130 FOR Y=0 TO 197
140 READ S$
150 IF S$="A" THEN 180
160 PSET (VAL(S$),Y),1
170 GOTO 140
180 NEXT Y
190 REM *****
200 REM **** FLEUVES ****
210 REM *****
220 FOR Y=37 TO 190

```

```

230 READ S$
240 IF S$="A" THEN 270
250 PSET (VAL(S$),Y),4
260 GOTO 230
270 NEXT Y
300 ATTRB0,1:LOCATE2,1:COLOR5,0:PRINT"GE
O-TEST":ATTRB0,0:LOCATE1,2:PRINT"La FRAN
CE"
400 REM *****
410 REM **** INITIALISATION ****
420 REM *****
460 DIM V1$(B6),AF$(2B),F$(2B),F1$(2B),F
2$(2B),F3$(2B)
470 IF N=2 THEN GOSUB 20000
510 RESTORE 10600
520 FOR F=0 TO B6
530 READ V$
540 V1$(F)=V$
550 NEXT F
570 FOR F=0 TO 2B
580 READ V$
590 AF$(F)=V$
600 NEXT F
990 REM *****
1000 REM **** PARTIE PRINCIPALE ****
1010 REM *****
1015 REM *****
1020 FOR I=1 TO 20
1030 DN N GOSUB 2000,3000
1032 FOR Z=0 TO 750:NEXTZ
1035 LOCATE 30,13:COLOR0,0:PRINT"
"
1040 NEXT I
1100 SCREEN0,2,0:CLS:ATTRB0,1:LOCATE14,1
1:PRINT"NOTE:":SC:"/20"
1110 ATTRB0,0
1120 IF SC>=17 THEN LOCATE 9,15:PRINT"BR
AVO!! TRES BON SCORE."
1130 IF SC>=14 AND SC<17 THEN LOCATE0,15
:PRINT"BON SCORE MAIS VOUS POUVEZ FAIRE
MIEUX!!"
1140 IF SC>=9 AND SC<14 THEN LOCATE8,15:
PRINT"SCORE MOYEN.REVISEZ..."
1150 IF SC<9 THEN LOCATE0,15:PRINT"VOTRE
GEOGRAPHIE EST A REVOIR,CONTINUEZ!"
1170 LOCATE5,23,0:PRINT"VOULEZ-VOUS RECO
MMENCER (O/N)":R$=INPUT$(1)
1180 IF R$="O" OR R$="0" THEN 75 ELSE IF

```

Savez-vous où se trouvent La Roche-sur-Yon, Guéret ou Epinal ? Dans quel fleuve se jettent le Beuvron ou la Risle ? Si la question vous était posée au « Jeu des mille francs », pas mal d'entre vous resteraient cois et pe-nauds. Tous à vos claviers pour combler vos lacunes, et dans peu de temps vous provoquerez l'envie de vos amis ou l'admiration de vos profes-seurs.

Stéphane BARRAU

```

R$="N"THEN END ELSE 1170
1190 END
1990 REM *****
2000 REM ***** VILLES *****
2010 REM *****
2020 ATTRB0,0:COLOR0,5:LOCATE 26,0:PRINT
"VILLES"
2030 A=INT(RND*87)
2040 B=INT(RND*87)
2050 H=INT(RND*2)
2060 U$=MID$(V1$(A),7,1):V$=MID$(V1$(B),
7,1)
2070 IF A=B OR U$=V$ THEN2040
2080 LOCATE 20,2:COLOR0,1
2090 IF H=1 THEN 2130
2100 PRINT MID$(V1$(A),7);:COLOR,0:IF PO
S=0 THEN 2110 ELSE PRINTSPC(40-POS)
2110 COLOR0,1:LOCATE 22,4:PRINT MID$(V1$
(B),7);:COLOR,0:IF POS=0 THEN 2120 ELSE
PRINTSPC(40-POS)
2120 GOTO2150
2130 PRINT MID$(V1$(B),7);:COLOR,0:IF PO
S=0 THEN 2140 ELSE PRINTSPC(40-POS)
2140 COLOR0,1:LOCATE 22,4:PRINT MID$(V1$
(A),7);:COLOR,0:IF POS=0 THEN 2150 ELSE
PRINTSPC(40-POS)
2150 X=VAL (MID$(V1$(A),1,3)):Y=VAL (MID
$(V1$(A),4,6))
2160 U=-1:S=7:E=(INT(X/B))*B+7:D=(INT(Y/
B))*B
2170 FOR Z=Y-1 TO Y+1
2180 IF POINT (X+U,Z)>0 THEN D=1:GOTO223
0
2190 U=U+1:IF U=2 THEN U=-1:GOTO2210
2200 GOTO2180
2210 NEXTZ
2220 GOTO 2300
2230 FORR=0 TO 7
2240 T(R)=0
2250 IF POINT(E-S,D+R)>0 THEN T(R)=T(R)+
2*S:C=POINT(E-S,D+R)
2260 S=S-1:IF S=-1 THEN S=7:GOTO2280
2270 GOTO2250
2280 NEXTR
2290 DEFGR$(0)=T(0),T(1),T(2),T(3),T(4),
T(5),T(6),T(7)
2300 FOR F=1 TO 1E30
2310 BOXF (X-1,Y-1)-(X+1,Y+1),2:FORG=0 T

```

```

0 10:NEXTG
2320 BOXF (X-1,Y-1)-(X+1,Y+1),0:FORG=0 T
D 10:NEXTG
2330 B%=INKEY$:IF B%=U$ OR B%=V$ THEN235
0
2340 NEXT F
2350 IF 0=1 THEN COLORC,0:LOCATE (E-7)/
B,D/8:PRINTER$(0):0=0
2360 LOCATE30,13:COLOR0,3
2365 PLAY"OSL5"
2370 IF B%=MID$(VI$(A),7,1) THEN PRINT"
EXACT":SC=SC+1:PLAY"DOREMIFASOLASI" ELSE
PRINT"FAUX":;COLOR0,0:PRINT " ":PLAY"SIL
ASOFAMIREDD":FOR Z=0 TO 200:NEXTZ
2380 COLOR0,2:LOCATE26,18:PRINT"SCORE: ";
MID$(STR$(SC),2);"/";MID$(STR$(I),2)
2390 RETURN
2990 REM *****
3000 REM ***** AFFLUENTS *****
3005 REM *****
3007 ATTRBO,0:COLOR0,5:LOCATE25,0:PRINT"
AFFLUENTS"
3010 A=INT(RND*29)
3020 B=INT(RND*29)
3030 H=INT(RND*2)
3040 U%=MID$(AF$(A),1,1):V%=MID$(AF$(B),
1,1)
3050 IF U%=V$ THEN 3020
3100 LOCATE 20,2:COLOR0,1
3110 IF H=1 THEN 3150
3120 PRINT AF$(A);;COLOR,0:PRINTSPC(40-P
OS)
3130 COLOR0,1:LOCATE 22,4:PRINT AF$(B);;
COLOR,0:PRINTSPC(40-POS)
3140 GOTO 3170
3150 PRINT AF$(B);;COLOR,0:PRINTSPC(40-P
OS)
3160 COLOR0,1:LOCATE 22,4:PRINT AF$(A);;
COLOR,0:PRINTSPC(40-POS)
3170 C=4
3180 FOR H=1 TO LEN(F$(A)) STEP 6
3200 PSET (VAL(MID$(F$(A),H,3)),VAL(MID$
(F$(A),H+3,3))),C
3210 IF C=1 THEN 3230
3220 IF B%=U$ OR B%=V$ THEN 3440 ELSE B$
=INKEY$
3230 NEXTH
3240 IF LEN(F1$(A))=0 THEN 3410
3250 FOR H=1 TO LEN (F1$(A)) STEP 6
3260 PSET (VAL(MID$(F1$(A),H,3)),VAL(MID
$(F1$(A),H+3,3))),C
3270 IF C=1 THEN 3290
3280 IF B%=U$ OR B%=V$ THEN 3440 ELSE B$
=INKEY$
3290 NEXTH
3300 IF LEN(F2$(A))=0 THEN 3410
3310 FOR H=1 TO LEN (F2$(A)) STEP 6
3320 PSET (VAL(MID$(F2$(A),H,3)),VAL(MID
$(F2$(A),H+3,3))),C
3330 IF C=1 THEN 3350
3340 IF B%=U$ OR B%=V$ THEN 3440 ELSE B$
=INKEY$
3350 NEXTH

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3360 IF LEN(F3$(A))=0 THEN 3410
3370 FOR H=1 TO LEN (F3$(A)) STEP 6
3380 PSET (VAL(MID$(F3$(A),H,3)),VAL(MID
$(F3$(A),H+3,3))),C
3385 IF C=1 THEN 3400
3390 IF B%=U$ OR B%=V$ THEN 3440 ELSE B$
=INKEY$
3400 NEXTH
3410 IF C=1 THEN C1=0:RETURN
3420 B$=""
3430 IF C=4 THEN C=0:GOTO3180 ELSE 3170
3440 LOCATE30,13:COLOR0,3
3445 PLAY"OSL5"
3450 IF B%=MID$(AF$(A),1,1) THEN PRINT"
EXACT":SC=SC+1:PLAY"DOREMIFASOLASI" ELSE
PRINT"FAUX":;COLOR0,0:PLAY"SILASOFAMIRE
DO":PRINT " "
3460 COLOR,2:LOCATE26,18:PRINT"SCORE: ";M
ID$(STR$(SC),2);"/";MID$(STR$(I),2)
3470 B$="" :C=0:C1=1:GOTO 3180
10000 DATA 113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,342,343,344,345,346,347,348,349,350,351,352,353,354,355,356,357,358,359,360,361,362,363,364,365,366,367,368,369,370,371,372,373,374,375,376,377,378,379,380,381,382,383,384,385,386,387,388,389,390,391,392,393,394,395,396,397,398,399,400,401,402,403,404,405,406,407,408,409,410,411,412,413,414,415,416,417,418,419,420,421,422,423,424,425,426,427,428,429,430,431,432,433,434,435,436,437,438,439,440,441,442,443,444,445,446,447,448,449,450,451,452,453,454,455,456,457,458,459,460,461,462,463,464,465,466,467,468,469,470,471,472,473,474,475,476,477,478,479,480,481,482,483,484,485,486,487,488,489,490,491,492,493,494,495,496,497,498,499,500,501,502,503,504,505,506,507,508,509,510,511,512,513,514,515,516,517,518,519,520,521,522,523,524,525,526,527,528,529,530,531,532,533,534,535,536,537,538,539,540,541,542,543,544,545,546,547,548,549,550,551,552,553,554,555,556,557,558,559,560,561,562,563,564,565,566,567,568,569,570,571,572,573,574,575,576,577,578,579,580,581,582,583,584,585,586,587,588,589,590,591,592,593,594,595,596,597,598,599,600,601,602,603,604,605,606,607,608,609,610,611,612,613,614,615,616,617,618,619,620,621,622,623,624,625,626,627,628,629,630,631,632,633,634,635,636,637,638,639,640,641,642,643,644,645,646,647,648,649,650,651,652,653,654,655,656,657,658,659,660,661,662,663,664,665,666,667,668,669,670,671,672,673,674,675,676,677,678,679,680,681,682,683,684,685,686,687,688,689,690,691,692,693,694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,786,787,788,789,790,791,792,793,794,795,796,797,798,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,823,824,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,887,888,889,890,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,908,909,910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,957,958,959,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,981,982,983,984,985,986,987,988,989,990,991,992,993,994,995,996,997,998,999,1000

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,34,A,198,34,A,198,34,A,197,192,191,190,
35,A
10100 DATA 196,195,194,193,190,38,37,36,
35,A,190,39,190,39,190,39,190,39,189,39,
A,189,38,A,188,38,A,188,39,A,187,39,A,18
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10110 DATA 182,40,A,182,41,A,181,41,180,
41,179,42,A,179,43,A,178,45,44,A,177,47,
46,A,177,47,46,A,176,49,48,A,176,50,A,17
6,51,A,175,51,A,174,180,181,182,183,52,A
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176,177,185,53,A,174,175,185,54,A,173,17
4,186,54,A,173,186,54,A,186,53,A,187,53,
A,187,53,A,187,52,A
10130 DATA 188,52,A,188,52,A,188,52,A,18
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,A,187,51,55,A,188,51,52,56,A,189,50,53,
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10140 DATA 192,50,57,58,A,192,50,57,58,A
,192,49,57,58,A,192,49,58,59,A,191,49,58
,59,A,190,49,58,60,A,190,189,49,59,60,A,
188,187,49,59,60,A,186,185,48,A,184,48,A
10150 DATA 185,48,A,186,48,A,187,48,A,18
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10160 DATA 189,45,A,189,45,A,189,45,A,19
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226,224,A,196,197,198,199,200,43,227,223
,A,200,43,227,223,A,200,43,227,223,A
10170 DATA 201,42,227,223,A,201,42,227,2
23,A,201,42,227,222,A,201,41,226,221,A,2
01,41,226,220,219,218,A,201,41,226,217,2
16,215,214,200,40,226,213,A,200,40,226,2
12,A
10180 DATA 199,40,226,212,A,199,39,226,2
12,A,198,39,226,212,A,197,196,157,39,226
,211,A,195,194,193,158,156,148,147,146,1
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10190 DATA 192,191,159,155,148,145,141,1
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144,143,142,137,136,42,226,211,A,188,157
,153,152,148,135,41,226,211,A
10200 DATA 187,157,151,150,147,134,133,4
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131,42,41,226,212,A,186,162,160,159,158,
157,130,129,128,43,226,211,A
10210 DATA 186,164,163,127,126,46,45,44,
226,211,A,186,165,125,124,123,48,47,226,
212,A,186,182,167,166,122,121,50,49,226,
211,A
10220 DATA 185,184,183,181,173,172,171,1
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79,178,177,176,175,174,120,53,225,213,A,
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10230 DATA 120,56,55,225,211,A,119,84,83
,61,60,59,58,57,225,211,A,119,86,85,82,6
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64,225,213,A
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,215,216,A,120,95,94,93,224,217,A,121,97
,96,223,217,A

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10250 DATA 121, 112, 111, 99, 98, 222, 217, A, 1  
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06, 105, 104, 103, 102, 101, 100, 222, 218, 219, 2  
20, 221, A  
10300 DATA 84, A, 84, A, 85, 87, A, 86, 88, 90, A,  
89, 91, A, 91, 92, A, 93, A, 94, A, 95, A, 95, A, 96, 9  
8, A, 97, 99, A, 100, A, 101, A, 102, 103, 104, 105,  
A, 106, 107, A, 107, A, 108, A, 109, A  
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, A, 113, 129, 130, A, 114, 125, 126, 127, 128, 131  
, A, 115, 121, 122, 123, 124, 132, A, 116, 117, 118  
, 119, 120, 133, A, 134, 135, A, 136, A, 137, A, 138  
, A  
10320 DATA 138, A, 139, A, 139, A, 140, A, 141, A,  
, 142, A, 143, A, 100, 101, 102, 103, 104, 143, A, 9  
9, 105, 106, 107, 108, 143, A, 97, 98, 109, 110, 14  
4, A, 96, 111, 144, A, 96, 112, 144, A  
10330 DATA 95, 94, 113, 145, A, 94, 114, 146, A,  
93, 92, 115, A, 48, 49, 50, 51, 52, 53, 54, 55, 56, 5  
7, 88, 89, 90, 91, 115, A, 42, 43, 44, 45, 46, 47, 58  
, 59, 60, 61, 62, 82, 83, 84, 85, 86, 87, 116, A  
10340 DATA 41, 63, 64, 65, 77, 78, 79, 80, 81, 11  
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, A, 117, A, 117, A, 118, A, 118, A, 118, A, 119, A, 1  
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10350 DATA 127, 128, A, 128, A, 129, A, 129, A, 1  
29, A, 130, A, 130, A, 131, 132, 133, A, 134, A, 135  
, A, 135, A, 135, A, 173, 135, A, 174, 135, A, 173, 1  
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10360 DATA 168, 136, A, 167, 136, A, 167, 137, A  
, 167, 137, A, 167, 136, A, 166, 135, A, 160, 166, 1  
36, A, 160, 161, 166, 137, A, 152, 153, 154, 159, 1  
62, 165, 137, A  
10370 DATA 149, 150, 151, 155, 157, 158, 162, 1  
64, 137, A, 149, 156, 163, 164, 138, A, 148, 163, 1  
38, A, 148, 138, A, 148, 138, A, 149, 139, A, 148, 1  
39, A, 148, 139, A, 148, 139, A, 148, 139, A, 148, 5  
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10380 DATA 59, 148, 138, A, 148, 59, 137, A, 149  
, 59, 136, 135, 134, A, 149, 59, 134, A, 150, 60, 13  
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134, A, 149, 65, 134, A, 149, 65, 135, A  
10390 DATA 149, 65, 136, A, 148, 65, 66, 67, 137  
, A, 147, 67, 138, A, 147, 67, A, 147, 68, A, 147, 69  
, A, 147, 70, 74, A, 147, 71, 72, 73, 75, A, 147, 74,  
A, 147, 75, A  
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, A, 150, 85, A, 150, 86, A, 149, 87, A, 148, 87, A, 1  
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10410 DATA 144, 88, A, 144, 89, A, 145, 144, 89, A,  
89, A, 88, A, 87, A, 86, A, 86, A, 86, A, 85, A, 84,  
83, A, 82, 81, A, 80, 79, A, 78, 77, 76, A, 77, A, 77,  
A, 78, A, 78, A, 78, A, 78, A  
10600 REM \*\*\*\*\* VILLES \*\*\*\*\*  
10605 DATA 103167A1bi, 211188Ajjaccio, 0770  
59Alencon, 111029Amiens, 060080Angers, 0721  
26Angoulême, 174120Annecy, 120020Arras, 078  
169Auch, 110146Aurillac  
10610 DATA 128084Auxerre, 149165Avignon, 1  
66053Bar-le-Duc, 225165Bastia, 108035Beauvais,  
186078Belfort, 174090Besançon, 093078B  
lois, 059140Bordeaux, 152112Bourg-en-Bresse

10620 DATA 112094Bourges, 070045Caen, 0941  
55Cahors, 111186Carcassonne, 142053Chalons-  
s/-Marne, 169129Chambery, 149031Charlevil.  
-Meziers, 098061Chartres, 095098Chateaurou  
x, 154070Chaumont  
10630 DATA 117125Clermont-Ferrand, 180164  
Digne, 154087Dijon, 184067Epinal, 091049Evr  
eux, 093189Foix, 171154Gap, 098111Gueret, 16  
3137Grenoble, 133035Laon  
10640 DATA 053108La Rochelle, 049100La Ro  
che-sur-Yon, 059068Laval, 074069Le Mans, 13  
3142Le Puy, 089121Limoges, 159102Lons-le-S  
aunier, 149125Lyon, 147107Macon  
10650 DATA 158179Marseille, 113060Melun, 1  
23155Mende, 177049Metz, 090166Montauban, 06  
0169Mont-de-Marsan, 134174Montpellier, 124  
109Moulins, 177059Nancy, 044082Nantes  
10660 DATA 121094Nevers, 197171Nice, 14216  
9Nîmes, 062105Niort, 102073Orléans, 105051P  
aris, 060178Pau, 084135Perigueux, 116193Per  
pignan, 074097Poitiers  
10670 DATA 142152Privas, 011064Quimper, 04  
6064Rennes, 108158Rodez, 094035Rouen, 14013  
4St-Etienne, 031054St-Brieuc, 060045St-Lô,  
204059Strasbourg, 067180Tarbes  
10680 DATA 174186Toulon, 088173Toulouse, 0  
82082Tours, 140070Troyes, 096135Tulle, 1491  
45Valence, 028069Vannes, 178077Vesoul  
10700 REM \*\*\*\*\* AFFLUENTS \*\*\*\*\*  
10710 REM \*\* RHONE \*\*  
10720 DATA Durance, Gard, Ardeche, Isere, Ar  
ve, Ain, Saone  
10730 REM \*\* GARONNE \*\*  
10740 DATA Dordogne, Lot, Tarn, Ariège, Bais  
e, Gers  
10750 REM \*\* LOIRE \*\*  
10760 DATA Maine, Arroux, Sevre-Nantaise, V  
ienne, Indre, Cher, Beuvron, Allier  
10770 REM \*\* SEINE \*\*  
10780 DATA Epte, Oise, Marne, Aube, Yonne, Lo  
ing, Eure, Risle  
20000 REM \*\*\* COORDONNEES AFFLUENTS \*\*\*  
20005 F\*(0)="152165153166154167155168156  
1681571691571691581701591701601701611701  
6217016317016416916516916616816716716816  
7169166169166170165170164170163170162"  
20010 F\*(0)="17016117016016915916915816  
9157170156171155172155173154174153175152  
1761521771511781511791501801501811491811  
48181147181146181145182144182143"  
20020 F\*(1)="143168142167141167140167139  
1661381651371641361631361621351611341601  
33160132159"  
20030 F\*(2)="143156142155141154142153143  
152142151141151140151139151"  
20040 F\*(3)="152141153140154139154138155  
1371551371561361561351571341571331581321  
5913216013316113416213416313516413516513  
4166134167133168133169132170132171132"  
20050 F\*(3)="17113117113017212917312817  
4128175128176127177126178127179128180129  
181129182128183127184127185128186129"  
20060 F\*(4)="176112177113177114178115178

116178117179118180119181119182118183118"  
20070 F\*(5)="154123154122154121154120155  
1191551181551171561161561151561141571131  
5711215711115811015911016011016110916210  
9163108163107163106163105163104163103164  
102164101165100166100167100168101169101"  
20080 F\*(6)="148124148123148122148121148  
1201481191481181491171491161491151491141  
4911314911214911115011015010915010815010  
7151106151105151104151103150102151101152  
1001520991530981530971540961540951550951  
56094"  
20090 F\*(6)="15709415709315809215809115  
9090159089160088160087161086161085161084  
1620831630821640811650801660791660781650  
77165076164075163074164073165072"  
20100 F\*(7)="062134063134064135065136066  
1360671370681380691390701400711410721420  
7314207414207514207614207714207814207914  
2080142081143082143083143084144085145086  
144087145088145089144090144091145092145"  
20110 F\*(7)="09314509414509514509614509  
7144097143097142098141099140100139101138  
1021371031371041371051371061361071351081  
3410813310813210813110913011012911112911  
2129113129114129115130"  
20120 F\*(8)="075151076150077151078151079  
1510801520811530821530831530841530851530  
8615408715408815408915409015409115409215  
4093155094155095155096154097153098153099  
153100152101152102151103151104151105151"  
20130 F\*(8)="10615110715010814910814910  
915011015111151112152113152114153115153  
1161541171541181541191531201541211541221  
54123154124154125154126155"  
20140 F\*(9)="088164089165090166091166092  
1660931660941660951670961670971670981670  
9916610016510116510216510316610416610516  
6106166107166108166109166110166111165"  
20150 F\*(9)="11216411316411416411516311  
6163117163118162119162120161121160122159  
1231581241581251581261581271581281571291  
58"  
20160 F\*(10)="08917609017609017709017809  
1179091180091181092182092183092184093185  
0931860931870931880941890951900961910971  
92096193096194"  
20170 F\*(11)="07015407015507015607015707  
0158070159070160071161071162071163071164  
0711650701660701670701680701690711700711  
7107117207117307117407117507117607017707  
0178070179070180070181070182069183"  
20180 F\*(12)="07915807915907916007916107  
9162078163078164078165078166078167078168  
0781690781700781710781720781730761740761  
7507617607617707617807617907618007518107  
4182074182"  
20190 F\*(13)="06008206008106008006007905  
9078058077058076058075058074058073058072  
0580710580700580690580680580670600660600  
6506006406106306106206106106206006205906  
1058062080061079062078063077063076063075  
"

20200 F1\$(13)="0630740640730650730660730  
6707306807306907407007307107307207407307  
3073072073071073070073069073068073067072  
0660720650720640710630700620700610710600  
7205907305907305907405907505907605907705  
8"  
20210 F2\$(13)="0780570790560800550640780  
6507806607706707706807706907707007707107  
7072078073078074078075078076078077077078  
0770790770800760810750820750830750840750  
85075086075087074088074089074090073"  
20220 F3\$(13)="0910720920710920700920690  
9207009206909306809306709306609206509106  
4090063090062"  
20230 F4\$(14)="13610713710613710513810413  
9104140103141102142101143100144099145098  
145097146096147095"  
20240 F5\$(15)="04308604408604508604508704  
6087047088048089049090050091051091052092  
0530920540930550940560950560960570970580  
98059099060100060101"  
20250 F6\$(16)="07108707108807108907209007  
3091074092075092076092077092078093079094  
0790950790960790970790980800990801000801  
0108010208010308010408110508110608110708  
1108081109081110081111081112081113081114  
081115"  
20260 F1\$(16)="0811140811150811160811170  
8211808211908312008412008512008612008712  
1088122089121090120091120092120093121094  
1220951230951240961240971240981240991241  
00124101125102126"  
20270 F\$(17)="07708707808807908808008908  
1089082089083089084090085091086092087093  
0880940890950900960910970920970930970940

9809509809609909709909810009910110010210  
1103102104103105"  
20280 F\$(18)="08008608108608208608308608  
4086085086086086087087088087089087090087  
0910880920880930880940880950880960880970  
88098088099088100088101089102090103090"  
20290 F1\$(18)="1040911050911060921070931  
0809410809510909610909710909810909911010  
011110111102111103111104111105112106112  
1071121081121091121101121111121121121131  
11114112115"  
20300 F\$(19)="0970800980809908110008110  
1081102082103082104082105082106082107082  
108081"  
20310 F\$(20)="11909511909611909711909811  
9099118100118101119102120103121104122105  
1231061231071241081241091251101251111261  
1212611312611412611512611612611712611812  
511912512012412123122123123123124122125  
"  
20320 F1\$(20)="1221261221271221281221291  
2213012313112313212313312313412313512313  
6124137125138125139125140126141126142126  
1431261441271451271461271471281481291491  
30150131151132152131153"  
20330 F\$(21)="09904609904510004410004310  
0042100041099040099039099038099037099036  
098035098034"  
20340 F\$(22)="10505010604910704810804810  
9047110046111045112044113043114043115043  
1160421170411180401190401200391210381220  
3812303712403612503612603612703512803412  
9033130032131031132031133031134031135031  
"  
20350 F\$(23)="11305511405411505311605311  
7053118052119052120052121051122052123052

1240521250531260521270511280511290501300  
5013105013205013305013404913504913604913  
7049138050139051140051141051137050138051  
"  
20360 F1\$(23)="1390511400511410511420521  
4305314305414405514405614505714505814605  
8147058148058149058150058151058152059153  
0601540611540621540631540641540651540661  
5406715406815406915407015507115607215707  
3157074"  
20370 F\$(24)="13005913105813205813305813  
4058135059136060136061137061138061139061  
1400611410621420621430621440631450641460  
6514706614806714906814906914907014907115  
0072150073150074151075152076153077154078  
154079"  
20380 F\$(25)="12006412106512206612306712  
3068123069124070125071125072125073126074  
1270751280751290761290771290781290791300  
8013108113008212908312808412808512808612  
9087130088130089130090130091131092132093  
133094133095"  
20390 F\$(26)="11706411606511506611506711  
5068115069115070115071114072115073116074  
116075117076118077"  
20400 F\$(27)="09404709404809404909405009  
4051095052096053096054096055097056098057  
0980580980590980600980610970620960630950  
6209406109306009206009106009006008906008  
8060087060086059"  
20410 F\$(28)="08404008304108404208404308  
4044085045085046085047085048085049086050  
0860510860520850530840530830540820540810  
54"  
20500 RETURN



# LE TEMPLE D'AMON

Langage : Basic

```
10 CALL SCREEN(14)
20 CALL CLEAR
30 PRINT "LUDDOVIC MABILLOT PRESENTE ":
:
:
:
40 FOR IUI=1 TO 400
50 NEXT IUI
60 CALL SCREEN(B)
70 CALL CHAR(33,"7EB1A5B15A24243C")
80 CALL CHAR(3B,"0000000003F794B")
90 CALL CHAR(42,"000000000FC12B9")
100 CALL CHAR(36,"FFB485B4B4B4B4FF")
110 CALL CHAR(37,"FFB9DD89010101FF")
```

```
120 PRINT "          &#34;
          $%          "::::
130 PRINT "##### @
          @ @ LE TEMPL
E D'AMON @
140 PRINT "@ ----- @ @
          @#####
150 PRINT ::
160 CALL CHAR(35,"10101B3C7EFE463B")
170 PRINT "          !          !
```

**P**our ceux qui aiment le grand frisson pharaonique, le mystère de la grande Pyramide, la vengeance de Toutankhamon et toutes ces sortes de choses. Le temple d'Amon est un endroit réservé à ceux qui ont un tempérament d'aventurier et qui sont tentés par l'appât du gain. Il faut un courage à toute épreuve (et pas mal de chance) pour y pénétrer, s'emparer du trésor et, surtout, en ressortir vivant. Un zombi, un golem et un vampire vous pourchassent. Des mygales, des fantômes et des serpents se multiplient sous vos pas. Les murs sont piégés, les pièces peuvent s'assombrir, vous risquez de tomber dans une oubliette... En un mot, c'est l'enfer ! N.B. Les déplacements se font avec les touches : E - S - D - X.

Ludovic MABILLOT

```

180 DATA 494,440,196,440,494,494,247
190 DATA 440,440,196
200 DATA 494,587,147
210 FOR FD=1 TO 13
220 READ A
230 CALL SOUND(300,A,1)
240 NEXT FD
250 CALL KEY(0,K,S)
260 IF S=0 THEN 250
270 CALL CLEAR
280 INPUT "AVENTURIER QUEL EST TON NOM:
";NOM$
290 PRINT "::
300 PRINT "deplacement avec les fleches"
::
310 PRINT " une touche pour commencer "
320 CALL KEY(0,K,S)
330 IF S=0 THEN 320
340 CALL CLEAR
350 TRE=0
360 CALL CHAR(126,"FF9191FF858585FF")
370 CALL CHAR(158,"18183C5A8C3C242")
380 CALL CHAR(157,"000000002004")
390 CALL CHAR(124,"")
400 CALL CHAR(123,"")
410 CALL CHAR(35,"")
420 CALL CHAR(36,"")
430 CALL CHAR(37,"")
440 CALL CHAR(93,"")
450 CALL CHAR(95,"")
460 CALL CHAR(96,"")
470 CALL CHAR(125,"")
480 CALL CHAR(92,"")
490 CALL CHAR(62,"")
500 REM PIECE 1
510 CALL CLEAR
520 X=16
530 Y=12
540 CALL SCREEN(4)
550 PRINT "~~~~~!!!~~~~~
" du "
560 PRINT "" " passage>
{ mystere"
{ "
570 PRINT "" { "
" "
580 PRINT "~~~~~!!!!~~~~~ "
::
590 CALL CHAR(159,"18183C5A993C2404")
600 FOR I=1 TO 300
610 NEXT I
620 CALL SOUND(250,999,4)
630 CALL CHAR(62,"FF9191FF858585FF")
640 CALL SOUND(300,-7,0)
650 GOTO 3260
660 REM PIECE 2
670 CALL SCREEN(4)
680 CALL CLEAR
690 CALL CHAR(125,"")
700 CALL CHAR(94,"")

```

```

710 PRINT " ~~~~~
" " chambre "
" au "
720 PRINT " " { " zombie
" { "
730 PRINT " " "
" " "
740 PRINT " } " ^
} " ^
750 PRINT " ~~~~~
760 BN=15
770 A=10
780 V=2
790 U=5
800 CALL CHAR(130,"18183C5A18244281")
810 CALL HCHAR(10,10,130)
820 S=INT(RND*BN)+1
830 Y=10
840 X=20
850 S=S-1
860 B=10
870 CALL HCHAR(X,Y,159,1)
880 CALL SOUND(100,-8,2)
890 CALL KEY(5,K,E)
900 IF E=0 THEN 890
910 CALL HCHAR(X,Y,157)
920 X=X+(K=69)-(K=88)
930 Y=Y+(K=83)-(K=68)
940 CALL HCHAR(X,Y,C)
950 IF C=126 THEN 3470
960 GOTO 1040
970 IF S THEN 850
980 CALL HCHAR(A,B,130)
990 A=A-SGN(A-X)
1000 B=B-SGN(B-Y)
1010 IF (A-X<0)+(B-Y<0) THEN 1020 ELSE
3470
1020 IF (A=U)*(B=17) THEN 660
1030 IF (X-U<0)+(Y-17<0) THEN 870
1040 IF C=123 THEN 1450
1050 IF C=125 THEN 500
1060 IF C=94 THEN 1080
1070 GOTO 970
1080 REM PIECE 3
1090 CALL CLEAR
1100 CALL SCREEN(4)
1110 PRINT " ~~~~~!!!~~~~~
" " palais "
" des "
1120 PRINT " " " nigales
" " "
1130 PRINT " { " {
" " {
1140 PRINT " " "
" " "
1150 PRINT " " "
" " "
~~~~~
~~~~~ "

```

```

1160 CALL CHAR(130,"3C7E9924")
1170 Q=20
1180 W=17
1190 ALE=INT(RND*17)+6
1200 MIG=INT(RND*10)+10
1210 CALL HCHAR(Q,W,159,1)
1220 CALL SOUND(100,-8,2)
1230 CALL HCHAR(MIG,ALE,130,1)
1240 CALL HCHAR(Q,W,157,1)
1250 CALL KEY(5,K,E)
1260 Q=Q+(K=69)-(K=88)
1270 W=W+(K=83)-(K=68)
1280 CALL HCHAR(Q,W,C)
1290 IF C=124 THEN 1450
1300 IF C=123 THEN 660
1310 IF C=126 THEN 3470
1320 IF C=130 THEN 3470
1330 GOTO 1190
1340 REM PIECE 4
1350 CALL SCREEN(4)
1360 CALL CLEAR
1370 PRINT " ~~~~~###~~~~~$$$~~~~~
" " piece du "
" bon "
1380 PRINT " " " repos
" " "
1390 PRINT " " "
" " "
1400 PRINT " " "
~~~~~?x?~~~~~ "
1410 X=17
1420 Y=11
1430 CALL HCHAR(X,Y,158,1)
1440 GOTO 3260
1450 REM PIECE 5
1460 CALL CLEAR
1470 PRINT " ~~~~~!!!!~~~~~
" " salon "
" fantome "
1480 PRINT " " "
" " "
1490 PRINT " " "
" " "
1500 PRINT " " "
~~~~~
~~~~~ "
1510 X=17
1520 Y=11
1530 CALL SCREEN(4)
1540 FAN=(RND*10)+10
1550 TOME=(RND*11)+6
1560 CALL HCHAR(FAN,TOME,91,1)
1570 CALL CHAR(91,"387C547C7C54")
1580 CALL HCHAR(X,Y,159,1)
1590 CALL SOUND(100,-8,2)
1600 CALL CHAR(91,"")
1610 CALL KEY(5,K,E)
1620 CALL HCHAR(X,Y,157,1)
1630 X=X+(K=69)-(K=88)

```

```

1640 Y=Y+(K=83)-(K=68)
1650 CALL GCHAR(X,Y,C)
1660 IF C=126 THEN 3470
1670 IF C=93 THEN 1080
1680 IF C=96 THEN 660
1690 IF C=91 THEN 3470
1700 GOTO 1540
1710 REM PIECE 6
1720 CALL SCREEN(4)
1730 CALL CLEAR
1740 CALL CHAR(132,"387CEFC7")
1750 X=15
1760 Y=9
1770 PRINT " *****
      "
      " ~ la cage "
1780 PRINT " ~ aux
      "
      " \ serpent "
1790 PRINT " \
      "
      " "
1800 PRINT " "
      " "
1810 PRINT " "
      " *****XX
*****
1820 SER=INT(RND*10)+10
1830 PENT=INT(RND*10)+6
1840 CALL HCHAR(SER,PENT,132,4)
1850 CALL HCHAR(X,Y,159,1)
1860 CALL SOUND(100,-8,2)
1870 CALL KEY(5,K,E)
1880 CALL HCHAR(X,Y,157,1)
1890 X=X+(K=69)-(K=88)
1900 Y=Y+(K=83)-(K=68)
1910 CALL GCHAR(X,Y,C)
1920 IF C=126 THEN 3470
1930 IF C=132 THEN 3470
1940 IF C=92 THEN 1970
1950 IF C=37 THEN 1340
1960 GOTO 1820
1970 REM PIECE 7
1980 CALL CLEAR
1990 PRINT " *****
      "
      " ~ site "
2000 PRINT " ~ du
      "
      " # _ golem #
      "
      " _ fou "
2010 PRINT " #
      "
      " "
2020 PRINT " "
      " *****
*****
2030 CALL SCREEN(4)
2040 CALL CHAR(130,"18187E182424")
2050 CALL CHAR(131,"FF9191FF858585FF")
2060 RANDOMIZE
2070 L=3
2080 FOR I=L TO 21

```

```

2090 IF RND>.5 THEN 2100
2100 S=14
2110 Z((I-1)/2)=S
2120 NEXT I
2130 K=16
2140 L=2
2150 FOR I=1 TO 4
2160 CALL HCHAR(3+Z(I),Z(I+4),131)
2170 Z(I)=Z(I)-SGN(Z(I)+3-S)
2180 Z(I+4)=Z(I+4)-SGN(Z(I+4)-K)
2190 CALL HCHAR(3+Z(I),Z(I+4),130)
2200 NEXT I
2210 CALL HCHAR(S,K,159)
2220 CALL SOUND(100,-8,2)
2230 FOR PAUSE=1 TO 250
2240 NEXT PAUSE
2250 CALL HCHAR(S,K,32)
2260 CALL KEY(5,IK,E)
2270 K=K+(IK=83)-(IK=68)
2280 S=S+(IK=69)-(IK=88)
2290 CALL GCHAR(S,K,C)
2300 IF C=36 THEN 2370
2310 IF C=130 THEN 3470
2320 IF C=35 THEN 1710
2330 IF C=95 THEN 2510
2340 IF C=126 THEN 3470
2350 IF C=131 THEN 3470
2360 GOTO 2150
2370 REM PIECE 8
2380 CALL CLEAR
2390 CALL CHAR(43,"")
2400 CALL CHAR(42,"")
2410 PRINT " *****
      "
      " ~ +++ ++ ~ chambre ~ +++
      "
      " +++ ~ noire "
2420 PRINT " "
2430 PRINT " "
      " ~ +++ +++ "
      " ~ "
2440 PRINT " "
      " ~ +++ +++ "
      " ~ +++ "
2450 PRINT " ~ +++ +++ "
      " *****
      "
2460 X=16
2470 Y=7
2480 GOTO 3260
2490 CALL SCREEN(2)
2500 GOTO 3260
2510 REM PIECE 9
2520 CALL CLEAR
2530 CALL CHAR(59,"")
2540 PRINT " *****
      "
      " ~ refectoire "
      " ~ de "
2550 PRINT " # ; dracula
      "
      " # ; #
      "
      " ; "
2560 CALL CHAR(33,"")
2570 PRINT " "
      " "
      " ! "
      " ! "
2580 PRINT " " !

```

```

*****
-:
2590 BN2=12
2600 A2=12
2610 V=2
2620 U=5
2630 CALL CHAR(130,"18183C5A18244281")
2640 CALL HCHAR(12,10,130)
2650 S2=INT(RND*BN2)+1
2660 Y2=10
2670 X2=20
2680 S2=S2-1
2690 B2=10
2700 CALL HCHAR(X2,Y2,159,1)
2710 CALL SOUND(100,-8,2)
2720 CALL KEY(5,K,E)
2730 IF E=0 THEN 2720
2740 CALL HCHAR(X2,Y2,157)
2750 X2=X2+(K=69)-(K=88)
2760 Y2=Y2+(K=83)-(K=68)
2770 CALL GCHAR(X2,Y2,C2)
2780 IF C2=33 THEN 3040
2790 IF C2=95 THEN 1450
2800 IF C2=35 THEN 1970
2810 GOTO 2900
2820 IF S2 THEN 2680
2830 CALL HCHAR(A2,B2,130)
2840 A2=A2-SGN(A2-X2)
2850 B2=B2-SGN(B2-Y2)
2860 IF (A2-X2<0)+(B2-Y2<0) THEN 2870 ELSE 3470
2870 IF (A2=U)+(B2=17) THEN 2510
2880 IF (X2-U<0)+(Y2-17<0) THEN 2700
2890 GOTO 2700
2900 IF C2=126 THEN 3470
2910 IF C2=59 THEN 2930
2920 GOTO 2820
2930 REM PIECE 10
2940 CALL CLEAR
2950 CALL SCREEN(4)
2960 CALL CHAR(63,"1F132569D2E4A8F0")
2970 PRINT " *****
      "
      " "
      " "
2980 PRINT " "
      " "
      " "
      " ? < "
2990 PRINT " "
      " *****
3000 CALL CHAR(60,"7EA1BFA1A1FF")
3010 X=18
3020 Y=6
3030 GOTO 3260
3040 REM DUBLIETTE
3050 CALL CLEAR
3060 CALL CHAR(34,"00003C7EFF7E3C")
3070 QW=15
3080 BA=4
3090 CALL HCHAR(16,14,34,1)
3100 PRINT " cubliette "
3110 CALL HCHAR(QW,BA,159)
3120 FOR I=1 TO 100
3130 NEXT I

```



3140 CALL HCHAR(GW,GA,157)  
 3150 GA=GA+1  
 3160 CALL SOUND(100,-8,2)  
 3170 CALL GCHAR(GW,GA,C1)  
 3180 IF C1=34 THEN 3200  
 3190 GOTO 3110  
 3200 WE=110  
 3210 FOR EW=1 TO 20  
 3220 CALL SOUND(100,WE,1)  
 3230 WE=WE+110  
 3240 NEXT EW  
 3250 GOTO 3470  
 3260 CALL HCHAR(X,Y,158,1)  
 3270 CALL HCHAR(X,Y,159,1)  
 3280 CALL SOUND(100,-8,2)  
 3290 CALL KEY(S,K,E)  
 3300 CALL HCHAR(X,Y,157,1)  
 3310 X=X+(K=69)-(K=88)  
 3320 Y=Y+(K=83)-(K=68)  
 3330 CALL GCHAR(X,Y,C)  
 3340 IF C=123 THEN 660  
 3350 IF C=124 THEN 1340  
 3360 IF C=126 THEN 3470  
 3370 IF C=125 THEN 660  
 3380 IF C=35 THEN 1710  
 3390 IF C=36 THEN 2370  
 3400 IF C=37 THEN 500  
 3410 IF C=42 THEN 1970  
 3420 IF C=43 THEN 2490  
 3430 IF C=60 THEN 4100  
 3440 IF C=95 THEN 2510  
 3450 IF C=62 THEN 4130  
 3460 GOTO 3260  
 3470 REM MORT  
 3480 CALL CLEAR  
 3490 CALL SCREEN(8)  
 3500 CALL CHAR(129,"0000000303033F3F")  
 3510 CALL CHAR(158,"08143677F6F4")  
 3520 CALL CHAR(130,"000000C0C0C0FCFC")  
 3530 CALL CHAR(131,"3F03030303020107")  
 3540 CALL CHAR(132,"FCC0C0C0C04080E0")

3550 CALL CHAR(133,"000001020204040B")  
 3560 CALL CHAR(134,"1961810101010101")  
 3570 CALL CHAR(135,"98B68180B0B0B0B0")  
 3580 CALL CHAR(136,"0000B04040202010")  
 3590 CALL CHAR(137,"0810102021465860")  
 3600 CALL CHAR(138,"01061860B0")  
 3610 CALL CHAR(139,"8060180601")  
 3620 CALL CHAR(140,"100B0B04B4621A06")  
 3630 CALL CHAR(141,"80B0B0B0B0B0B0FF")  
 3640 CALL CHAR(142,"00000000000000FF")  
 3650 CALL CHAR(143,"01010101010101FF")  
 3660 CALL CHAR(147,"0000030C102040B0")  
 3670 CALL CHAR(148,"0000C0300B040201")  
 3680 GOTO 3790  
 3690 DATA 262,294,330,262  
 3700 DATA 262,294,330,262  
 3710 DATA 330,349,392,392  
 3720 DATA 330,349,392,392  
 3730 DATA 392,440,392,349,330  
 3740 FOR BV=1 TO 17  
 3750 READ P  
 3760 CALL SOUND(500,P,1)  
 3770 NEXT BV  
 3780 GOTO 4060  
 3790 CALL HCHAR(6,19,158,2)  
 3800 CALL HCHAR(7,20,158,1)  
 3810 CALL HCHAR(7,15,129,1)  
 3820 CALL HCHAR(7,16,130,1)  
 3830 CALL HCHAR(4,23,147,1)  
 3840 CALL HCHAR(4,24,148,1)  
 3850 CALL HCHAR(8,15,131,1)  
 3860 CALL HCHAR(8,16,132,1)  
 3870 CALL HCHAR(9,14,133,1)  
 3880 CALL HCHAR(9,15,134,1)  
 3890 CALL HCHAR(9,16,135,1)  
 3900 CALL HCHAR(9,17,136,1)  
 3910 CALL HCHAR(10,14,137,1)  
 3920 CALL HCHAR(10,15,138,1)  
 3930 CALL HCHAR(10,16,139,1)  
 3940 CALL CHAR(146,"080849494D6DFFFF")  
 3950 CALL HCHAR(10,17,140,1)

3960 CALL CHAR(145,"080808282CAEBFFF")  
 3970 CALL HCHAR(11,14,141,1)  
 3980 CALL HCHAR(4,6,146,1)  
 3990 CALL HCHAR(11,15,142,2)  
 4000 CALL CHAR(144,"FF")  
 4010 CALL HCHAR(11,17,143,1)  
 4020 CALL HCHAR(5,1,144,32)  
 4030 PRINT "ICI REPOSE ";NDM\$  
 4040 CALL HCHAR(3,7,145,1)  
 4050 GOTO 3690  
 4060 CALL KEY(0,K,S)  
 4070 IF S=0 THEN 4060  
 4080 CALL CLEAR  
 4090 GOTO 4330  
 4100 REM TRESOR  
 4110 TRE=1  
 4120 GOTO 3260  
 4130 REM SORTIE  
 4140 IF TRE=1 THEN 4150 ELSE 3470  
 4150 REM GAGNE  
 4160 CALL CLEAR  
 4170 CALL CHAR(33,"001F204042454A25")  
 4180 CALL CHAR(35,"00FF0102A4D4AA55")  
 4190 CALL CHAR(36,"3F2425242424243F")  
 4200 CALL CHAR(37,"FFB9DDB9010101FF")  
 4210 PRINT " VOUS AVEZ REUSSIS A SORTIR  
 DU TEMPLE D  
 'AMDN AVEC SON "  
 4220 PRINT "  
 FABULEUX TRESOR, BRAVD....  
 ";  
 4230 PRINT "  
 !# %  
 "  
 4240 READ A  
 4250 CALL SOUND(500,A,1)  
 4260 FOR I=1 TO 1500  
 4270 NEXT I  
 4280 CALL CLEAR

## LES CHAMPIONS DU MOIS

**Thomson** : Jean-Emmanuel Denave (71 Mâcon) - Abdelah Lahouaoui (67 Wittisheim) - Guy Cousson (05 Briançon) - M. Segui (06 Nice) - Eric Libert (02 Nesles la Montagne) - Paul Emery (47 Monflanquin) - Pierre André Kohn (57 Thionville) - Françoise Poincard (94 Villiers-sur-Marne) - Jean Lepine (49 la Tourlandry) - **MSX** : Pascal Rabourel (72 Connerré) - Pierre Seon (38 Bourgoin) - V. Sarubbo (30 Beaucaire) **Atari** : Hanine Abdelkrim (80 Amiens) **TI 99** : Dominique Enet (44 Sautron) - Lionel Hesry (28 Chateaudun)

**Oric** : Frédéric Roche (71 Hurigny) - Christophe Bonn (06 Antibes) - Olivier Corredo (27 Perros Guirec) - David Arsac (26 Bourg-les-Valence) - Pascal Clochard (79 Magné) - Hervé Dauphy (61 Flers) - Philippe Navez (59 Marq en Baroeuil) **Sinclair** : MM. Auer et Courtois (93 Les Lilas) - Laurent Bouchaud (92 Sèvres) **Apple** : Dominique Pinon (45 Jargeau) - Patrick Courtinade (32 Isle-Jourdain) - Pierre Pezziardi (34 Montpellier) **Laser** : Fabien Chenillot (69 Lyon) **Commodore** : Mathieu Huber (67 Haegen) - Eric Müller

(91 Villebon-sur-Yvette) - Franck Gauthier (41 Blois) - Eric Guyader (94 Villeneuve-St-Georges) - Bruno Internicola (57 Florance) - Olivier Prouvost (31 Muret) - Nicolas Tavemier (57 Metz Grigy) - Laurent Glesner (07 Le Teil) - Patrick Alain (90 Rougemont le Château) **Dragon** : Raymond Gayte (69 Decines) - Eric Vandepoelle (14 Wauthier-Braine, Belgique) - Patrice Charrier (63 Aigueperse) **Hector** : M. Bazin (79 Thouars) - M. Kamienski (69 Saint Priest) **Canon** : Christophe Duvillers (59 Forest/Marque)

**Amstrad** : M. Lemaire (83 Le Cannet des Maures) - Lionel Roux (13 Belcodène) - Georges Depooter (59 Aniche) - Xavier Bonnavel (75 Paris) - Stephane Salmons (11 Narbonne) - E. Pesin (41 Blois) - J.F. Durant (54 Vandoeuvre) **Casio** : Laurent Dupont (74 Villa Lagrand) **Yeno** : Christian Robelin (37 Tours) **Gouplil** : sans machine précise Sebastien Cherief (93 Villepinte) Emmanuel Boucherat (10 Saint-André-Les-Vergers) - Claude Godier (13 Marseille) **Philips, VG 5000** : Eric Lambert (22 Belle Isle-en-Terre) - André La Tournerie (75 Paris)



# TAROTS

Langage : Basic

```

80 TEXT : HOME
90 GOSUB 1070
100 VTAB 20
110 PRINT "NOMBRE DE JOUEURS (3
  A 5) "; GET R$: PRINT ;R$
120 IF R$ < "3" OR R$ > "5" THEN
  PRINT CHR$(7);: GOTO 100
130 NJ = VAL (R$)
140 REM -NOMS DES JOUEURS --
150 HOME : PRINT "TAROT A "NJ" J
  OUEURS"
160 FOR J = 1 TO NJ
170 VTAB J * 2 + 4
180 PRINT " NOM DU JOUEUR NO "J TAB(
  25);".....";: CALL - 868
190 HTAB 25: INPUT " ";JO$(J)
200 L = LEN (JO$(J)): IF L < 2 OR
  L > 5 THEN PRINT CHR$(7);
  : GOTO 170
210 NEXT
220 IF NJ = 3 THEN K = 2: GOTO 2
  50
230 IF NJ = 4 THEN K = 3: GOTO 2
  50
240 K1 = 3 / 2:K2 = 3 / 2:K = 4
250 D = 0: GOSUB 1440
260 REM -UN TOUR-----
270 D = D + 1: IF D > NJ THEN D =
  1
280 POKE 34,0: POKE 35,11: HOME
  : POKE 35,24: POKE 34,11
290 T = T + 1: HTAB 1: VTAB 1: PRINT
  "TOUR : ";T;: VTAB 24: HTAB
  38: PRINT RIGHT$ (" " + STR$(
  T),2);
300 REM -LIGNE DISTRIBUE----
310 FOR J = 1 TO NJ: VTAB 11: HTAB
  (J - 1) * 6 + 1: IF J = D THEN
  INVERSE
320 PRINT JO$(J);: NORMAL : NEXT
330 FOR I = 1 TO NJ:TI(I) = 0: NEXT
340 REM -ENCHERE-----
350 INVERSE :A = 0

```

**E**nfin un programme adapté à l'ambiance crépusculaire et torride entourant les acharnés du tarot.

Vous pouvez au début modifier la valeur des enchères ou accepter la valeur indiquée en tapant « Return ». Viennent ensuite le nombre de joueurs, puis leurs noms.

Le principe de fonctionnement est alors toujours le même pour les enchères, le preneur, les annonces, le partenaire (jeu à 5), le nombre de bouts et le total des points marqués par le preneur : barre espace pour avancer, « Return » pour sélectionner, et une autre touche pour reculer.

Les annonces faites, la question : OK ?? vous est posée. La touche « Return » indique que vous êtes

```

360 VTAB 1: HTAB 20: PRINT A$(A)
  ; TAB( 35)A(A) TAB( 39)
370 GET R$: IF R$ = CHR$(13) THEN
  410
380 IF R$ < > " " THEN A = A -
  1: IF A < 0 THEN A = 7
390 IF R$ = " " THEN A = A + 1: IF
  A > 7 THEN A = 0
400 GOTO 360
410 NORMAL
420 IF A = 0 THEN FOR W = 1 TO
  NJ:TG(T,W) = TG(T - 1,W): NEXT
  : GOTO 950
430 REM -PRENEUR-----
440 VTAB 3: HTAB 1: PRINT "PRENE
  UR : ";P = 1
450 HTAB 12: PRINT JO$(P);: CALL
  - 868
460 GET R$: IF R$ = CHR$(13) THEN
  500
470 IF R$ < > " " THEN P = P -
  1: IF P < 1 THEN P = NJ
480 IF R$ = " " THEN P = P + 1: IF
  P > NJ THEN P = 1
490 GOTO 450
500 HTAB 32: VTAB 24: PRINT P;:M
  T$(T) = STR$(P) + " "
510 GOSUB 1230
520 IF NJ < 5 THEN MT$(T) = MT$(
  T) + " ": GOTO 610
530 REM - PARTENAIRE-----
540 VTAB 3: HTAB 20: PRINT "PART
  ENAIRE : ";:P1 = 1
550 HTAB 33: PRINT JO$(P1);: CALL
  - 868
560 GET R$: IF R$ = CHR$(13) THEN
  600
570 IF R$ < > " " THEN P1 = P1 -
  1: IF P1 < 1 THEN P1 = NJ
580 IF R$ = " " THEN P1 = P1 + 1
  : IF P1 > NJ THEN P1 = 1
590 GOTO 550

```

d'accord, une autre touche que vous voulez reprendre au début des annonces.

A la fin de chaque tour, les points marqués sont affichés en mode inverse et le total de la partie en mode normal. A droite de l'écran, sont affichés le numéro du preneur, éventuellement celui de son partenaire, les lettres P ou C pour Passé ou Chuté, et le nombre de donnes.

Il suffit ensuite de taper N pour arrêter la partie, « Esc » pour avoir le listing des tours antérieurs ou une autre touche pour continuer. Le nom du donneur est alors affiché en mode inverse. Que le meilleur gagne ! ■

J.P. ARNAUDET

```

600 HTAB 34: VTAB 24: PRINT P1;:
  MT$(T) = MT$(T) + STR$(P1)
  + " "
610 REM - NOMBRE DE BOUTS----
620 HTAB 1: VTAB 5: PRINT "NB. B
  OUTS:";: CALL - 868:BT = 0
630 HTAB 12: VTAB 5: PRINT BT" =
  > "BT(BT)" PTS";: GET R$: IF
  R$ = CHR$(13) THEN 680
640 IF R$ < > " " THEN BT = BT -
  1: IF BT < 0 THEN BT = 3
650 IF R$ = " " THEN BT = BT + 1
  : IF BT > 3 THEN BT = 0
660 GOTO 630
670 REM -TOTAL DE POINTS-----
680 HTAB 1: VTAB 7: PRINT "TOTAL
  PRENEUR:";:G = BT(BT)
690 HTAB 15: VTAB 7: PRINT RIGHT$(
  (" " + STR$(G),3);: GET R
  $: IF R$ = CHR$(13) THEN 7
  30
700 IF R$ = " " THEN G = G + 1: IF
  G > 78 THEN PRINT CHR$(7)
  ;:G = 78
710 IF R$ < > " " THEN G = G -
  1: IF G < 0 THEN PRINT CHR$(
  7);:G = 0
720 GOTO 690
730 DF = G - BT(BT): HTAB 36: VTAB
  24: IF DF < 0 THEN S = - 1:
  PRINT "C";:MT$(T) = MT$(T) +
  "C": HTAB 20: VTAB 7: PRINT
  "CHUTE DE: ";: GOTO 750
740 S = 1: PRINT "P";:MT$(T) = MT
  $(T) + "P": HTAB 20: VTAB 7:
  PRINT "PASSE DE: ";
750 DF = ABS (DF): PRINT DF;
760 REM -PETIT AU BOUT-----
770 PB = 0: HTAB 1: VTAB 9: PRINT
  "PETIT AU BOUT:";
780 HTAB 16: PRINT PB$(PB);: GET
  R$: IF R$ = CHR$(13) THEN

```

```

800
790 PB = NOT (PB): GOTO 780
800 REM - CALCUL -----
810 G = DF + A(A) + PO + PB * 10:
      G = INT ((G + 5) / 10) * 10
      :G = G * 5
820 FOR J = 1 TO NJ
830 IF NJ < > 5 THEN 900
840 IF P1 = P THEN 890
850 IF P = J THEN TI(J) = TI(J) +
      (G * K1): GOTO 920
860 IF P1 = J THEN TI(J) = TI(J)
      + (G * K2): GOTO 920
870 TI(J) = TI(J) - G
880 GOTO 920
890 K = 4
900 IF P = J THEN TI(J) = TI(J) +
      (K * G): GOTO 920
910 TI(J) = TI(J) - G
920 TG(T,J) = TG(T - 1,J) + TI(J)
      : NEXT J
930 REM
940 PRINT
950 REM - AFFICHE TOTAL -----
960 VTAB 24: HTAB 1: FOR J = 1 TO
      NJ: PRINT RIGHT$ ("
      + STR$(TG(T,J),5);"!";: NEXT
      : PRINT
970 INVERSE : VTAB 24: HTAB 1: FOR
      J = 1 TO NJ: PRINT RIGHT$ (
      "
      + STR$(TI(J),5)
      ;"!";: NEXT : NORMAL
980 HTAB 32: PRINT "----->"; CHR$(
      7); GET R$: HTAB 1: CALL -
      B6B
990 IF R$ = CHR$(27) THEN GOSUB
      1030: GOTO 980
1000 IF R$ < > "N" THEN 270
1010 TEXT : HOME
1020 END
1030 REM -LISTE-----
1040 GOSUB 1440: FOR W = 1 TO T:
      VTAB 24: HTAB 1: FOR J = 1 TO
      NJ
1050 PRINT RIGHT$ ("
      +
      STR$(TG(W,J),5);"!";: NEXT
      : PRINT TAB(32)MT$(W) TAB(
      38) RIGHT$ ("
      + STR$(W),
      2);: GET R$: PRINT : NEXT
1060 RETURN
1070 REM -----INITIALISATION
1080 DIM A$(7),BT(3),AN$(6),PB$(
      1),TG(99,5),TI(5),MT$(99)
1090 HOME :A = 10: READ A$(0)
1100 PRINT "VALEURS DES ANNONCES
      "
1110 FOR I = 1 TO 7
1120 READ A$(I)

```

```

1130 VTAB I * 2 + 4: PRINT A$(I)
      TAB(15)A; TAB(25);
1140 INPUT R$: IF R$ = "" THEN A
      (I) = A: GOTO 1170
1150 R = VAL (R$): IF STR$(R) <
      > R$ THEN PRINT CHR$(7);
      : GOTO 1130
1160 A(I) = R
1170 VTAB I * 2 + 4: HTAB 15: PRINT
      A(I) TAB(38)"":A = A * 2
1180 NEXT
1190 FOR I = 0 TO 3: READ BT(I):
      NEXT
1200 FOR I = 0 TO 6: READ AN$(I)
      : NEXT
1210 PB$(0) = "NON":PB$(1) = "OUI
      "
1220 RETURN
1230 REM -ANNONCES -----
1240 Q = 0:PO = 0
1250 R = 0: INVERSE
1260 VTAB 10: HTAB Q * 6 + 1: PRINT
      "
      LEFT$(AN$(R),3)"
      ";: VTAB
      5: HTAB 1: CALL - B6B: HTAB
      20 - (LEN (AN$(R)) - 3) / 2
      : PRINT MID$(AN$(R),4,21);
1270 GET R$: IF R$ = CHR$(13) THEN
      1310
1280 IF R$ = "
      " THEN R = R + 1:
      IF R > 6 THEN R = 0
1290 IF R$ < > "
      " THEN R = R -
      1: IF R < 0 THEN R = 6
1300 GOTO 1260
1310 NORMAL : VTAB 10: HTAB Q *
      6 + 1: PRINT "
      LEFT$(AN$(
      R),3)"
      ";: VTAB 5: HTAB 1: CALL
      - B6B
1320 IF R = 1 OR R = 5 THEN PO =

```

```

PO + 10
1330 IF R = 3 OR R = 6 THEN PO =
      PO + 20
1340 IF R < 4 AND R < > 2 THEN
      1410
1350 IF R = 4 THEN MI = 20: GOTO
      1370
1360 MI = 10
1370 VTAB 24: HTAB 1: FOR J = 1 TO
      NJ
1380 IF (Q + 1) = J THEN TI(J) =
      TI(J) + (MI * (NJ - 1)): GOTO
      1400
1390 TI(J) = TI(J) - MI
1400 PRINT RIGHT$ ("
      "
      +
      STR$(TI(J),5);"!";: NEXT
1410 Q = Q + 1: IF Q < NJ THEN 12
      50
1420 VTAB 10: HTAB 32: PRINT "OK
      ???";: GET R$: VTAB 10: HTAB
      32: CALL - B6B: IF R$ < >
      CHR$(13) THEN 1240
1430 RETURN
1440 REM -COLONNES-----
1450 HOME : FOR L = 12 TO 23: FOR
      C = 6 TO 6 * NJ STEP 6: HTAB
      C: VTAB L: PRINT "!";: NEXT
      : NEXT
1460 RETURN
1470 REM - DATA-----
1480 DATA PASSE,PETITE,POUSSE,GA
      RDE,GARDE SANS,GARDE CONTRE,
      PETIT CHELEM,GRAND CHELEM
1490 DATA 56,51,41,36
1500 DATA ...RIEN,P..POIGNEE,M..
      MISERE,DP.DOUBLE POIGNEE,DM.
      DOUBLE MISERE,MP.MISERE/POIG
      NEE,MDPMISERE/DOUBLE POIGNEE

```





# Macintosh

## COTATIONS

Langage : Basic Microsoft

Le programme initiation avec le charme du Mac en plus. Le mode d'emploi est simple. Cliquez le pays de départ et le pays d'arrivée puis tapez vos chiffres. La touche Return ou le bouton calcul lancent le calcul et affichent le résultat. ■

François DUPIN

```

----Conversions monnaies----
---Initialisation-----
WINDOW 2,"",(260,25)-
(500,320),4:TEXTFONT 4
WINDOW 1,"",(5,25)-
(255,320),3:TEXTFONT 4
N1=17:DH=15:NF=N1*2+1
DIM P$(N1),U$(N1),R1(N1),R2(N1)
D=1:A=2:IM$="*****,..***"
FOR J=1 TO N1
READ P$(J),U$(J),R1(J),R2(J)
IF J=D THEN BE=2 ELSE BE=1
BUTTON J,BE,P$(j),(5,J*DH)-
(95,J*DH+DH-2),3
IF J=A THEN BE=2 ELSE BE=1
BUTTON J+N1,BE,U$(j),(100,J*DH)-
(150,J*DH+DH-2),3
NEXT J
LINE (2,10)-(152,280),,B
BUTTON NF,1,"CALCUL",(170,150)-
(240,170)
BUTTON NF+1,1,"FIN",(180,250)-
(240,270)
EDIT FIELD 1,S$(160,110)-
(240,125)
ON DIALOG GOSUB dia: DIALOG ON
---PROGRAMME-----
FP=0:WHILE NOT(fp):WEND
---FIN PROGRAMME-----
WINDOW CLOSE 1:WINDOW CLOSE
2:LIST
END
CONVERSION:
S$=EDIT$(1):S=VAL(S$)
IF S>=1000000* OR S<=0 THEN
BEEP:RETURN
WINDOW OUTPUT 2
PRINT USING IM$:S::PRINT USING "\
\ - ":U$(D):
R=S*(R2(D)/R1(D))/(R2(A)/R1(A))
PRINT USING
IM$:INT(R*1000+.5)/1000::PRINT
USING "\ \ ":U$(A)
WINDOW OUTPUT 1:EDIT FIELD
1,S$(160,110)-(240,125)

```

```

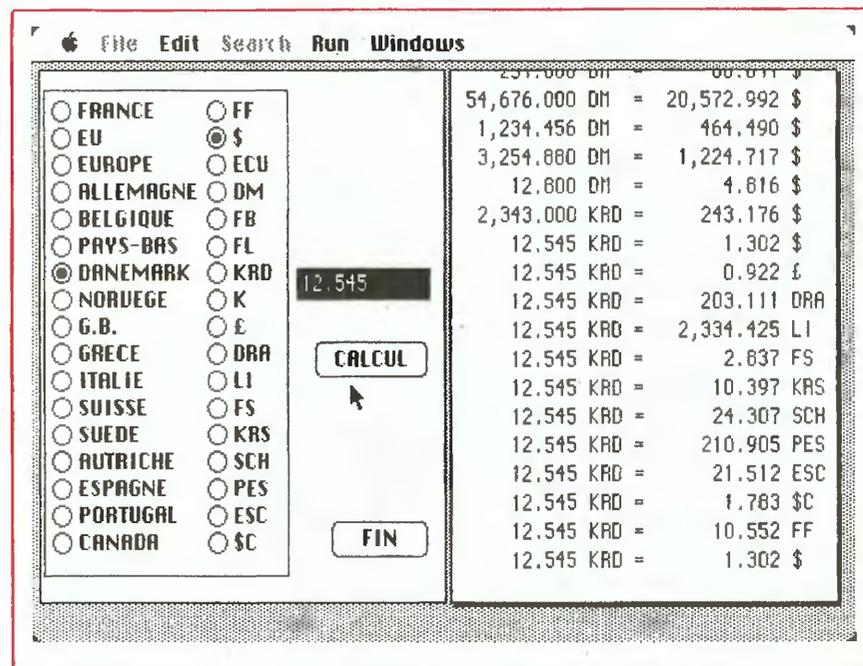
RETURN
DIA:
DIALOG STOP
DIALOG DIALOG(0)
DIA0=DIALOG(0)
IF DIA>5 THEN GOSUB
CONVERSION: GOTO FINDIA
IF DIA<=1 THEN FINDIA
DIA1=DIALOG(1):IF DIA1-NF+1
THEN FP=-1:GOTO FINDIA
IF DIA1-NF THEN GOSUB
CONVERSION: GOTO FINDIA
IF DIA1<=n1 THEN BUTTON
D,1:D=DIA 1:ELSE BUTTON
A+N1,1:A=DIA 1-N1
BUTTON DIA 1,2
FINDIA:
DIALOG ON
RETURN

```

```

DATA FRANCE,FF,1,1000
DATA EU,$,1,8104
DATA EUROPE,ECU,1,6737
DATA ALLEMAGNE,DM,100,304930
DATA BELGIQUE,FB,100,15043
DATA PAYS-BAS,FL,100,270480
DATA DANEMARK,KRD,100,84110
DATA NORVEGE,K,100,102450
DATA G.B.,£,1,11447
DATA GRECE,DRA,100,5195
DATA ITALIE,LI,1000,4520
DATA SUISSE,FS,100,371900
DATA SUEDE,KRS,100,101490
DATA AUTRICHE,SCH,100,43410
DATA ESPAGNE,PES,100,5003
DATA PORTUGAL,ESC,100,49050
DATA CANADA,$C,1,5919
DATA JAPON,YEN,100,3763

```



The screenshot shows the Macintosh program interface with a menu bar (File, Edit, Search, Run, Windows) and a window titled "COTATIONS". The window contains a list of currencies with radio buttons for selection. The "DANEMARK" option is selected. Below the list are "CALCUL" and "FIN" buttons. To the right, a table displays conversion rates for various currencies.

Currency	Rate	Target Currency	Target Rate
FRANCE	54,676.000 DM	FF	20,572.992 \$
EU	1,234.456 DM	\$	464.490 \$
EUROPE	3,254.880 DM	ECU	1,224.717 \$
ALLEMAGNE	12.800 DM	DM	4.616 \$
BELGIQUE	2,343.000 KRD	FB	243.176 \$
PAYS-BAS	12.545 KRD	FL	1.302 \$
DANEMARK	12.545 KRD	KRD	0.922 £
NORVEGE	12.545 KRD	K	203.111 DRA
G.B.	12.545 KRD	£	2,334.425 LI
GRECE	12.545 KRD	DRA	2.637 FS
ITALIE	12.545 KRD	LI	10.397 KRS
SUISSE	12.545 KRD	FS	24.307 SCH
SUEDE	12.545 KRD	KRS	210.905 PES
AUTRICHE	12.545 KRD	SCH	21.512 ESC
ESPAGNE	12.545 KRD	PES	1.783 \$C
PORTUGAL	12.545 KRD	ESC	10.552 FF
CANADA	12.545 KRD	\$C	1.302 \$

# ORIC Atmos

# METEOR

Langage : Basic

Un petit jeu d'action sans prétention pour votre petit frère (ou votre petite sœur). Vous êtes dans un tunnel parsemé de dollars que vous devez ramasser en vous déplaçant avec les touches fléchées. Chaque dollar ramassé fait apparaître une clé et un fantôme. Les clés sont bonnes à ramasser, mais les fantômes sont à éviter à tout prix. Méfiez-vous aussi des météorites !

Benoît DELOL

FICHE PROGRAMME



```

120 GOTO 740
130 REPEAT:K%=KEY$:PLOT X,Y,"#"
140 X=X+(K%=CHR$(8))-(K%=CHR$(9))
150 Y=Y+(K%=CHR$(11))-(K%=CHR$(10))
160 IF Y=1 OR Y=25 THEN 630
170 A=SCRN(X,Y):IF A=36 THEN 540
180 IF A=40 THEN 590
190 IF A<>35 THEN 630 ELSE PLOT X,Y,"X"
200 IF YY>24 THEN XX=X:YY=1:E=35
210 IF XX<15 THEN XX=15
220 IF XX>27 THEN XX=27
230 PLOT XX,YY,CHR$(E):YY=YY+1
240 E=SCRN(XX,YY):PLOT XX,YY,"%"
250 IF Y1<25 THEN 280
260 X1=INT(RND(1)*13+15):Y1=1:E1=35
270 IF X1=XX THEN 260
280 PLOT X1,Y1,CHR$(E1):Y1=Y1+1
290 E1=SCRN(X1,Y1):PLOT X1,Y1,"%"
300 IF Y2<25 THEN 330
310 X2=INT(RND(1)*13+15):Y2=1:E2=35
320 IF X2=XX OR X2=X1 THEN 310
330 PLOT X2,Y2,CHR$(E2):Y2=Y2+1
340 E2=SCRN(X2,Y2):PLOT X2,Y2,"%"
350 IF E=37 OR E1=37 OR E2=37 THEN 630
360 UNTIL SS=(T*2)*10:T=T+5
370 FOR F=1 TO 5:ZAP:NEXT F:WAIT 20
380 FOR Y=2 TO 24:X=RND(1)*3+13
390 PLOT 13,Y,""
400 PLOT X,Y,"#####"
410 NEXT Y:PLOT 21,22,"%"
420 FOR F=1 TO T
430 X=RND(1)*15+15:Y=RND(1)*23+2
440 IF SCRN(X,Y)<>35 THEN 430
450 PLOT X,Y,"%":NEXT F
460 PLOT 2,25,0:PLOT 2,1,0:PLOT 2,0,20
470 PLOT 2,26,20:PLOT 3,26,7:PLOT 3,0,7
480 PLOT 6,0,"SCORE :"+STR$(S)
490 PLOT 23,0,"HI-SCORE :"+STR$(H)
500 PLOT 18,26,"VIE :"+STR$(V)
510 PRINT

```

```

520 YY=26:Y1=26:Y2=26:X=21:Y=22
530 SS=0:E=35:E1=35:E2=35:GOTO 130
540 MUSIC 1,6,6,0:PLAY 1,0,1,1000
550 FOR F=39 TO 40
560 X3=RND(1)*15+15:Y3=RND(1)*23+2
570 IF SCRN(X3,Y3)<>35 THEN 560
580 PLOT X3,Y3,F:NEXT F:GOTO 600
590 MUSIC 3,2,6,0:PLAY 4,0,1,1000
600 S=S+10:SS=SS+10:IF S>H THEN H=S
610 PLOT 13,0,STR$(S):PLOT 33,0,STR$(H)
620 GOTO 200
630 EXPLODE:V=V-1:PLOT 23,26,STR$(V)
640 WAIT 200:IF V>0 THEN 380
650 PLOT 15,11,10:PLOT 16,11,"SCORE :"+STR$(S)
660 PLOT 15,12,10:PLOT 16,12,"SCORE :"+STR$(S)
670 IF S<H THEN 700
680 PLOT 13,15,14:PLOT 14,15,"Nouve au Hi-Score"
690 PLOT 13,16,14:PLOT 14,16,"Nouve au Hi-Score"
700 PLOT 13,20,"Une autre partie ?"
710 GET A$:IF A$="o" THEN 850
720 IF A$<>"n" THEN 710
730 POKE #24E,30:POKE #24F,4:CALL 583
740 CLS:PAPER 0:INK 7
750 PRINT CHR$(20);CHR$(17);CHR$(6)
760 FOR F=46360 TO 46407
770 READ D:POKE F,D:NEXT F

```

```

780 POKE #24E,1:POKE #24F,1
790 DATA 63,63,63,63,63,63,63,63
800 DATA 63,55,33,23,35,53,3,55
810 DATA 33,33,51,0,18,51,45,12
820 DATA 63,63,51,33,33,51,63,63
830 DATA 55,35,1,21,1,1,1,21
840 DATA 51,45,45,51,59,51,59,35
850 CLS:INK 7:S=0:V=3:T=5
860 PLOT 1,1,14:PLOT 2,1,20:PLOT 15,1,"M E T E O R"
870 PLOT 1,2,14:PLOT 2,2,20:PLOT 15,2,"M E T E O R"
880 PLOT 2,6,1:PLOT 2,23,1
890 PLOT 6,6,"Jeu d Arcades par Benoit Delol"
900 FOR F=1 TO 10:PRINT:NEXT F
910 PRINT" Perdu dans un tunnel ,vous devez"
920 PRINT:PRINT" ramasser tous les dollars et les"
930 PRINT:PRINT" cles que vous trouverez.Méfiez vous"
940 PRINT:PRINT" des fantomes et des meteorites qui"
950 PRINT:PRINT" sont aussi dangereux les uns que"
960 PRINT:PRINT" les autres !"
970 PLOT 6,23,"Déplacements : Touches Fléchées"
980 PLOT 2,26,20:PLOT 9,26,"Appuyez sur J pour Jouer"
990 GET A$:IF A$="j" THEN CLS:INK 3:GOTO 380 ELSE 990

```

# INITIATION ON A LA COTE

Machines : presque toutes.

## PROGRAMME DE CONVERSION D'UNE MONNAIE DANS UNE AUTRE

N1 indique le nombre de pays que l'on désire traiter.

### Charge les DATAs dans les tableaux

Les tableaux sont dimensionnés à N1. Une case de tableau par pays. P\$( ) est le nom du pays, U\$( ), l'unité monétaire, R1( ) le nombre d'unités choisies pour la cotation et R2( ) la valeur correspondante en francs.

On va exécuter le sous-programme qui efface l'écran et afficher les pays disponibles. Une fois ce sous-programme exécuté, le programme revient à la ligne suivante.

On demande la monnaie d'origine. Il faut répondre par le numéro indiqué avant le pays.

On demande la monnaie dans laquelle on désire convertir. Répondez en donnant le numéro du pays.

On demande la somme que l'on désire convertir.

### CONVERSION

Affiche la somme à convertir et l'unité monétaire dans laquelle cette somme est exprimée.

Convertit cette somme en francs.

Convertit le résultat dans la monnaie du pays choisi.

Affiche le résultat en le tronquant à trois chiffres après la virgule.

### COMMANDES SUITE

On demande si l'on continue

Si la réponse est « F » le programme va à la fin.

Si la réponse est « RETURN » ou « S », on va recommencer là où l'on demande la somme (mêmes monnaies).

Sinon, on désire changer de monnaie.

On réaffiche les monnaies, au cas où elles auraient disparu de l'écran.

**A**près votre tour du monde, il vous reste un peu de monnaie de tous les pays.

Malheureusement, la règle de trois n'est pas votre fort. « On a la cote » vient à votre secours. Ce programme donne l'équivalence d'une certaine somme, exprimée dans la monnaie d'un pays, dans la monnaie d'un autre pays.

Les DATAs, pour chaque pays, reprennent la notation habituelle, c'est-à-dire : le nom du pays, le symbole de l'unité monétaire du pays, le nombre d'unités prises en considération pour la cotation et la cotation elle-même exprimée en francs. Ces valeurs sont chargées chacune dans un tableau. Les quatre tableaux sont alors gérés en parallèle.

François DUPIN

```
10 REM-CONVERSIONS MONNAIES---
```

```
20 N1=9
```

```
30 DIM P$(N1),U$(N1),R1(N1),R2(N1)
```

```
40 FOR J=0 TO N1
```

```
50 READ P$(J),U$(J),R1(J),R2(J)
```

```
60 NEXT J
```

```
70 GOSUB 400
```

```
80 INPUT "MONNAIE DE DEPART",D
```

```
90 IF D<0 OR D>N1 THEN 80
```

```
100 INPUT "MONNAIE D'ARRIVEE ",A
```

```
110 IF A<0 OR A>N1 THEN 100
```

```
120 PRINT
```

```
130 INPUT "SOMME A CONVERTIR ",S
```

```
140 PRINT S;U$(D);" = ";
```

```
150 R=S*(R2(D)/R1(D))
```

```
160 R=R/(R2(A)/R1(A))
```

```
170 PRINT INT(R*1000+.5)/1000;U$(A)
```

```
180 PRINT
```

```
190 PRINT "SUITE (D, A, S, F) ";
```

```
200 INPUT R$
```

```
300 IF R$="F" THEN 350
```

```
310 IF R$="" OR R$="S" THEN 120
```

```
320 GOSUB 400
```

Si la réponse est « D » on recommence tout.  
Si la réponse est « A » on change juste la monnaie d'arrivée.

Fin du programme

### Affiche les Pays

Fait 25 sauts de lignes, afin d'effacer l'écran. Vous pouvez remplacer par l'instruction qui efface l'écran sur votre machine (CLS, HOME...)

Affiche les numéros d'ordre des pays et leurs monnaies. Il y a en, réalité, N1 + 1 pays, car la France est considérée comme le pays de numéro d'ordre 0. C'est le point de référence, il est donc obligatoire.

RETURN annonce que le sous-programme est terminé. Le programme revient à l'instruction qui suit le GOSUB qui nous a envoyé là.

### Les DATAs

Les DATAs sont lues dans l'ordre des READ (voir initiation précédente).

On doit donc trouver pour chaque pays : le symbole de la monnaie ;

le nombre d'unités utilisées pour la cotation (numérique) ;

la valeur correspondant en francs (numérique).

Faute de quoi ! Crac, boum...

```
330 IF R$="D" THEN 80
340 IF R$="A" THEN 100
```

```
350 REM-FIN PROGRAMME--
360 END
```

```
400 REM- AFFICHE LES MONNAIES----
410 FOR J=0 TO 24
420 PRINT
430 NEXT J
440 FOR j=0 TO N1
450 PRINT J;"- ";P$(J);TAB(15);U$(J)
460 NEXT J
470 PRINT
480 RETURN
500 REM-DATAS-----
```

```
510 DATA FRANCE,FF,1,1000
520 DATA E-U,$,1,8104
530 DATA EUROPE,ECU,1,6737
540 DATA ALLEMAGNE,DM,100,304930
550 DATA BELGIQUE,FB,100,15043
560 DATA PAYS-BAS,FL,100,270480
570 DATA DANEMARK,KRD,100,84110
580 DATA NORVEGE,K,100,102450
590 DATA G.B.,L,1,11447
600 DATA ITALIE,LI,1000,4520
```

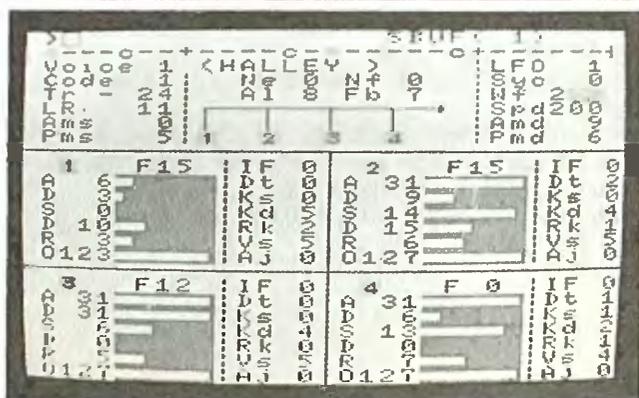
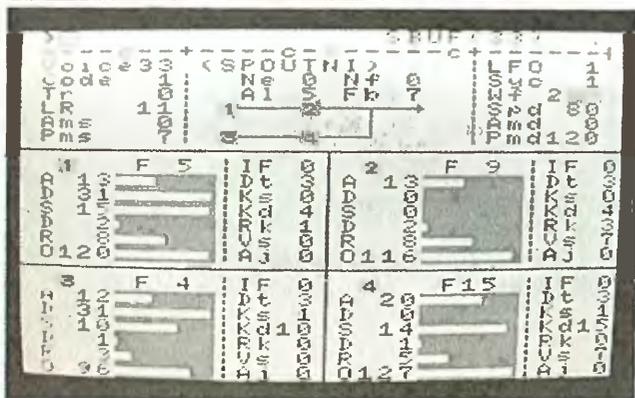
**YAMAHA**

# FM VOICING 3

Langage : FM voicing program  
Machine : Yamaha CX5M ou YIS503F  
+ SFK-01

**A** lors, bande de rats ! On ne nous envoie pas de sons. On attend que les petits copains fassent tout le boulot. Secouez- vous un peu les puces et les micros. Balancez nous vos sons, même si vous ne les trouvez pas sensass. En attendant, pour la peine, voici encore des sons « Césars », qui ne vous saluent pas. ■

Colette et Berthe MAVALET



# CAHIER DES AS

## CHENILLE

L'As du mois  
gagne un  
**COMMODORE  
SX 64**

**G**ourmande, cette chenille ! Elle adore les pommes. Dirigez-la avec dextérité, faites-lui consommer le plus grand nombre possible de fruits, et elle vous récompensera en vous offrant un score à la mesure de vos efforts. Mais attention ! D'un tableau à l'autre, l'affaire se complique : des murs se dressent, contraignant l'animal à des contorsions péril-

leuses et, le temps passant, les pommes se multiplient, menaçant d'indigestion la malheureuse chenille.

Il faut, bien sûr, éviter qu'elle ne se morde la queue. Raffinement suprême, tout se passe dans l'ambiance joyeuse d'une musique populaire que vous reconnaîtrez certainement... ■

A. PIERARD

```
0 GOTO20: REM GESTION MANETTE
1 ONNOTPEEK(PJ)ANDONGOTO3,5,2,7,2,2,2,9
2 RETURN
3 IF DP<>1THENDI=0:IV=-40:RETURN
4 RETURN
5 IF DP<>0THENDI=1:IV=40:RETURN
6 RETURN
7 IF DP<>3THENDI=2:IV=-1:RETURN
8 RETURN
9 IF DP<>2THENDI=3:IV=1:RETURN
10 RETURN
11 REM LOGIQUE PRINCIPALE
12 REM -----
20 GOSUB 1510: GOSUB 1010
40 GOSUB 1675: REM NOUVELLE PARTIE
50 GOSUB 2010: REM NOUVEL ESSAI
60 GOSUB 510: REM JEU
70 IF NP THEN 110
80 NVIES=NVIES+1: TB=TB+1: IF TB>NT THEN
TB=0
90 SC=SC+10*DF:GOSUB2910:GOSUB810:GOTO50
110 NVIES=NVIES-1: IF NV>10 THEN NV=10
115 IF NVIES>=0 THEN 50
120 GOSUB 2560: GOSUB 810: GOTO 40
500 REM BOUCLE DE JEU
510 DI=1:IV=40:GOSUB810
```

```
520 FORC=0TOCM
530 DP=DI:FORI=1TOFR:GOSUB 1:NEXT
540 IFC>0THENPOKEAV(IQ),BL:IQ=IQ+1ANDLM
550 A=AV(IT):POKEA,SR(DP,DI):A=A+IV
560 IFPEEK(A)<>BLTHENGOSUB610:C=-5:IFITH
ENRETURN
570 IT=IT+1ANDLM:AV(IT)=A:POKEA,TE
580 NEXT:GOSUB2610:GOTO520
600 REM TEST TYPE D'IMPACT
601 REM -----
610 IFPEEK(A)<>POTHEN 710
620 POKES3+5,70:POKES3+6,17
630 POKES3+1,14:POKES3+4,33
640 GOSUB2710:SC=SC+DF:GOSUB2910
660 POKES3+4,32
670 I=NP=0:RETURN
700 REM COLLISION, EXPLOSION
701 REM -----
710 POKES3+5,0:POKES3+6,138
720 POKES3+1,17:POKES3+4,129
730 POKEAV(IQ),BL:IQ=IQ+1ANDLM
740 POKES3+4,128
750 FORJ=1TO8:NEXT
760 IFIQ<>I1THEN730
770 I=1:RETURN
810 IFPEEK(PJ)AND16THEN810
820 RETURN
```



```

5080 DATA 646,1,28,646,-40,4,673,-40,4
5090 DATA 0,0,0
5100 DATA 207,40,13,212,40,13,217,40,13
5110 DATA 222,40,13,227,40,13,232,40,13
5120 DATA 447,1,26,0,0,0
5200 REM ACCOMPAGNEMENT MUSICAL
5201 REM -----
5210 FOR A=49152 TO 49278
5220 READ I: POKE A,I: NEXT
5230 DATA32,100,192,8,120,169,17,141
5231 DATA20,3,169,192,141,21,3,40
5232 DATA96,198,253,165,253,197,254,208
5233 DATA7,165,2,41,254,141,4,212
5234 DATA165,253,208,28,32,109,192,133
5235 DATA253,240,24,32,109,192,141,0
5236 DATA212,32,109,192,141,1,212,240
5237 DATA7,165,2,9,1,141,4,212
5238 DATA76,49,234,32,109,192,240,22
5239 DATA133,2,32,109,192,141,5,212
5240 DATA32,109,192,141,6,212,32,109
5241 DATA192,133,254,76,32,192,32,100
5242 DATA192,76,32,192,169,147,133,251
5243 DATA169,192,133,252,96,230,251,208
5244 DATA2,230,252,160,0,177,251,96
5245 DATA255,0,255,0,255,77,77
5340 DIMK(17,1): K=21(1/12)
5350 FORA=1 TO 17: I=4537*K↑A
5360 J=INT(I/256): K(A,0)=INT(I-J*256)
5370 K(A,1)=J: NEXT
5400 FOR A=49300 TO 53000
5410 READ I: IF I<0 THEN 5450
5420 POKE A,L: A=A+1
5430 POKE A,K(I,0): A=A+1

```

```

5440 POKE A,K(I,1): NEXT
5450 IF I<-.5 THEN L=-I: GOTO 5410
5460 POKE A,0: A=A+1: READ I: POKE A,I
5470 IF I=0 THEN A=53000: GOTO 5490
5480 A=A+1: READ I: POKE A,I
5481 A=A+1: READ I: POKE A,I
5482 A=A+1: READ I: POKE A,I
5490 NEXT: POKE 253,1: SYS49152: RETURN
5510 DATA -.1,16,17,241,2
5520 DATA -10,8,8,10,10,5,5,8,0
5521 DATA -10,8,8,10,10,5,5,8,0
5522 DATA -20,8,10,13,-10,12,0
5523 DATA -20,12,10,8,6
5524 DATA -10,6,6,8,8,3,3,6,0
5525 DATA -10,6,6,8,8,3,3,6,0
5526 DATA -20,6,8,12,-10,10,0
5527 DATA -20,10,8,6,5
5528 DATA -10,8,8,10,10,5,5,8,0
5529 DATA -10,8,8,10,10,5,5,8,0
5530 DATA -20,8,10,13,-10,12,0
5531 DATA -20,12,10,8,6
5532 DATA -10,6,6,8,8,3,3,6,0
5533 DATA -10,6,6,8,8,3,3,6,0
5534 DATA -20,8,10,12,13,10,8,5,1
5540 DATA -20,8,7,6,-60,5,-20,8
5541 DATA -60,17,-20,15,-40,15,-60,13
5542 DATA -20,0,-60,5,-20,8,-60,15
5543 DATA -20,13,-60,12,-20,0
5544 DATA -20,8,8,6,-60,5,-20,8,-60,15
5545 DATA -20,13,-40,13,-40,12,-20,0
5546 DATA -20,15,15,13,-40,13,12,-20,0
5547 DATA -20,12,13,15,-60,13,-40,0
5599 DATA -.1,0

```

## SUPER-CONCOURS

### AVIS AUX AMATEURS !

Dès le mois prochain, Micro V.O. proposera aux « aficionados » du cahier des logiciels, un super-concours doté de superbes lots.

But du jeu : programmer !

Des ordinateurs, des imprimantes, des bons d'achat de matériel et... un voyage de rêve récompenseront pendant trois mois les meilleurs logiciels et les plus originaux.

Vous voilà prévenus. À bon entendeur, salut et rendez-vous pour les détails dans Micro VO N°4.