

60p

YOUR COMPUTER

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Free ZX-81,
Spectrum
and Vic
flexidisc
games



Inside:
top-flight
Atari, Atom,
BBC, Dragon,
MZ-80K, Vic,
Spectrum and
ZX-81 games

Win an Atari

YOUR COMPUTER

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EDITORIAL

THE FAIRY LIGHTS are going out all over Europe this Christmas as computing's over-zealous yuletide recruits find that such seasonal fripperies as Christmas trees take up too much valuable socket space. This year home computers will shatter the traditional Noel idyll. Families will no longer cluster around roaring hearths opening presents and arguing about which of the four channels to watch — from now on it will be channel 36 or thereabouts. For the first time, this Christmas, people have a real choice of machines for less than £200 and an even wider selection if they can afford to go as high as £350.

But those who have decided to treat themselves or a member of their family to a micro will know that choosing a computer involves a selection process which makes the rest of the Christmas shopping almost look like fun. Few of those who emerge from this ordeal clutching a gift-wrapped micro will have given any real thought to what they want it for — most will be only too pleased to have found one at all in time for Christmas. The first discovery the would-be buyer makes is that only half of the dozen or so most attractive machines advertised are readily available. Having swallowed this unpalatable fact the next question must be: "Do I really need a micro for Christmas? Would a machine like the Lynx or the Oric — both unlikely to be seen in volume this side of the Feast of Stephen — better suit my needs and my budget?"

Waiting a few months for a machine which has already been launched can be a wise decision — but only if you are sure that it really fits your bill. What you should never do is put off buying a micro because you are convinced a wonder-machine is just round the corner. At the rate that microcomputer technology is accelerating, you will just defer your entry into computing indefinitely. Talk to someone who already has a machine and decide which features you most want to have on your micro. When you have shortlisted some candidates with the power, flexibility and software you require and which are available when you want them, your next major consideration must be price. Minimum outlay can mean minimal computing but on the other hand there is no point spending hundreds if you are not sure how long your interest in micros will last.

The final word must, regrettably, be a word of warning. If you want a micro by Christmas Day, make sure that the machine can be supplied on time and get it in writing. After all, children believe in Santa Claus; adults believe in delivery dates. ■

GAMES SPECIAL

```

9 DIMGX(6),GY(6),DG(6),SC(20,32):HSC=0:H#="NOBODY"
10 ENVELOPE1,1,1,1,-1,5,5,25,127,-4,0,-2,127,60:ENVELOPE2,1,10,20,-30,10,5,1
5,127,-2,0,-1,127,100:MODE 7:PROCMAN:MODE 2:VDU 23:B202:0:0:0:SC1%=0:L%=1:SC
%=0:MAN%=0:SHEET%=1
11 LIFE%=3:NG%=1:DGX%=0:DBGY%=0:PROCMAZE:PROCSETUP
12 PROCMEN
13 COLOUR2:PRINTTAB(0,0):"SHEET ";SHEET%:COLOUR7:PRINTTAB(0,1):"SCORE ";SC%;
14 *FX 11 8
15 *FX 12 1
16 FORV%=0TONG%:FORN%=1TO12-SHEET%:PROCMAZ:IFMAN%=1PROCSPUT
17 NEXT:PROCGHOST:NEXT:IFLIFE%=0GOTO82
18 GOTO16
19 DEFPROCSETUP
20 FLAZ=0:GH%=254:DX%=0:DY%=0:FOR V%=0 TO NG%:GX(V%)=12-V%:GY(V%)=12:OG(V
%)=247:NEXT:GX(NG%+1)=12:GY(NG%+1)=12
21 VDU 23,254,60,126,15,7,15,126,60,23,253,60,126,240,224,224,240,126,60,2
3,252,0,66,195,195,231,255,126,60,23,251,60,126,255,231,195,195,66,0,23,245,56,
124,254,146,218,254,254,146
22 X%=2:Y%=3
23 ENDPROC
24 DEFPROCMAZ:IFLIFE%=0ENDPROC
25 SC$(X%,Y%)=" ":A$=INKEY$(0)
26 *FX 15 0
27 IFA$="N"DX%=-1:GH%=254
28 IFA$="M"DX%=1:GH%=253
29 IFA$="A"DY%=-1:GH%=252
30 IFA$="Z"DY%=1:GH%=251
31 IFDX%+X%<0THEN39
32 TT%=ASC(SC$(X%+DX%),(Y%+DY%))
33 IFTT%=246THEN45
34 IFTT%=245THENPROCEND:ENDPROC
35 IFTT%=247SOUND1,1,ASC(A$),1
36 IFTT%=ASC("M")MAN%=1:SOUND3,2,10,100:VDU19,4,7,0,0,0:FORDEL%=1TO100:NEXT:
VDU19,4,COLOR%,0,0,0:IFSHEET%DIV5=SHEET%/5FLAZ=1:TIME=0:VDU19,4,4,0,0,0
37 IFFLAZ=1ANDTIME>500FLAZ=0:VDU19,4,0,0,0,0
38 IFTT%=247ORTT%=ASC("M")ND%=ND%-1:IFND%=0THENPROCSHEET:ENDPROC
39 IFDX%<>0ORDY%<>0PRINTTAB(X%,Y%):" "
40 X%=X%+DX%:Y%=Y%+DY%
41 IFY%<2Y%=29
42 IFY%>29Y%=2
43 IFX%<0X%=19
44 IFX%>19X%=0
45 DX%=0:DY%=0:COLOUR3
46 PRINTTAB(X%,Y%):CHR$(GH%):S%=(10*(TT%=247))-(100*(TT%=ASC("M"))):SC%=SC%
+S%:SC1%=SC1%+S%:COLOURRND(7):PRINTTAB(6,1):SC%;
47 ENDPROC
48 DEFPROCGHOST
49 IFLIFE%=0ENDPROC
50 SOUND2,1,10,1
51 IFV%>NG%ENDPROC
52 SC$(GX(V%),GY(V%))=CHR$(OG(V%)):PROCMOVE:COLOUR1:IFOG(V%)=246COLOUR4
53 PRINTTAB(GX(V%),GY(V%)):CHR$(OG(V%)):IFGX(V%)+DGX%=X%ANDGY(V%)+DGY%=
Y%THENPROCEND:ENDPROC
54 GX(V%)=GX(V%)+DGX%:GY(V%)=GY(V%)+DGY%:OG(V%)=ASC(SC$(GX(V%),GY(V%
)):COLOURV%+9:PRINTTAB(GX(V%),GY(V%)):CHR$(245):SC$(GX(V%),GY(V%))=CHR$(245
):ENDPROC
55 DEFPROCMAZE
56 VDU23,247,0,0,0,24,24,0,0,0,23,246,255,255,255,255,255,255,255,255:COLOUR
2:FORYY%=2TO29:FORXX%=0TO19:SC$(XX%,YY%)=CHR$(247):NEXT:PRINTTAB(0,YY%):STRING#
(20,CHR$(247)):NEXT:COLOR%=4:IFSHEET%DIV5=SHEET%/5COLOR%=0
57 VDU19,4,COLOR%,0,0,0:COLOUR4:RESTORE:FORZ=1TO66:READX%,Y%:GOSUB63:Y%=31-Y
%:GOSUB63:NEXT
58 DATA0,2,1,2,2,2,3,2,4,2,5,2,6,2,7,2,8,2,0,3,0,4,0,5,0,6,0,7,0,8,0,9,0,10,
0,11,0,12,0,13,0,14,2,4,3,4,4,4,6,4,8,3,8,4,8,5,2,5,3,5,4,5,6,5,1,14,2,14,2,7,3
,7,4,7,2,9,2,10,2,11,2,12,6,7,7,7,8,7,9,7,9,8,9,9,4,8,4,9,4,10,4,12,4,13,4,14
59 DATA4,15,5,10,7,9,7,15,9,13,7,11,6,12,8,14,8,15,9,14,9,15,7,14,8,11
60 ND%=291:COLOUR14:FORAB=1TO4:READX%,Y%:PRINTTAB(X%,Y%):"M":TAB(0,0):SC$(X%,Y%)="
M":NEXT
61 DATA1,4,18,4,1,27,18,27
62 ENDPROC
63 GOSUB64:X%=19-Y%
64 PRINTTAB(X%,Y%):CHR$(246):SC$(X%,Y%)=CHR$(246):RETURN
65 DEFPROCX:DGX%=(X%<GX(V%))-(X%>GX(V%)):ENDPROC
66 DEFPROCY:DGY%=(Y%<GY(V%))-(Y%>GY(V%)):ENDPROC
67 DEFPROCLOOK:TT%=ASC(SC$(GX(V%)+DGX%,GY(V%)+DGY%)):ENDPROC
68 DEFPROCMOVE:DGX%=0:DGY%=0
69 PROCX:PROCLOOK:IFTT%=245DGX%=0
70 PROCY:PROCLOOK:IFTT%=245DGY%=0
71 ENDPROC
72 DEFPROCEND:SOUND 0,-15,4,10:PROCCOL:CLS:IF SC1%>10000 LIFE%=LIFE%+1:SC1%=
SC1%-10000
73 V%=0:LIFE%=LIFE%-1:IFLIFE%=0ENDPROC
74 SHEET%=SHEET%+1:PROCMAZE:PROCSETUP:PROCMAZ:PROCMAZ:COLOUR2:PRINTTAB(0,0):
"SHEET ";SHEET%:COLOUR7:PRINTTAB(0,1):"SCORE ";SC%;:ENDPROC
75 DEFPROCSHEET:IFSC1%>10000LIFE%=LIFE%+1:SC1%=SC1%-10000
76 V%=0:CLS:SHEET%=SHEET%+1:SC%=SC%+(1000*(SHEET%-1)):SC1%=SC1%+(1000*(SHEET
%-1)):COLOUR8:PRINTTAB(7,10):"BONUS":COLOUR15:PRINTTAB(6,12):SHEET%-1:" X 1000"
:FORA=1TO10000:NEXT
77 PROCMAZE:PROCSETUP:PROCMAZ:PROCMAZ:COLOUR2:PRINTTAB(0,0):"SHEET ";SHEET%:
COLOUR7:PRINTTAB(0,1):"SCORE ";SC%;:ENDPROC
78 DEFPROCMAZ:IFLIFE%=1ENDPROC
79 COLOUR3:FORAX=2TOLIFE%:PRINTTAB(AX,30):CHR$(254):TAB(0,0):NEXT:ENDPROC
80 DEFPROCCOL:FORC=0TO15:FORN=1TO100:NEXT:VDU 19,4,C,0,0,0:NEXT:VDU 19,4,4,0

```



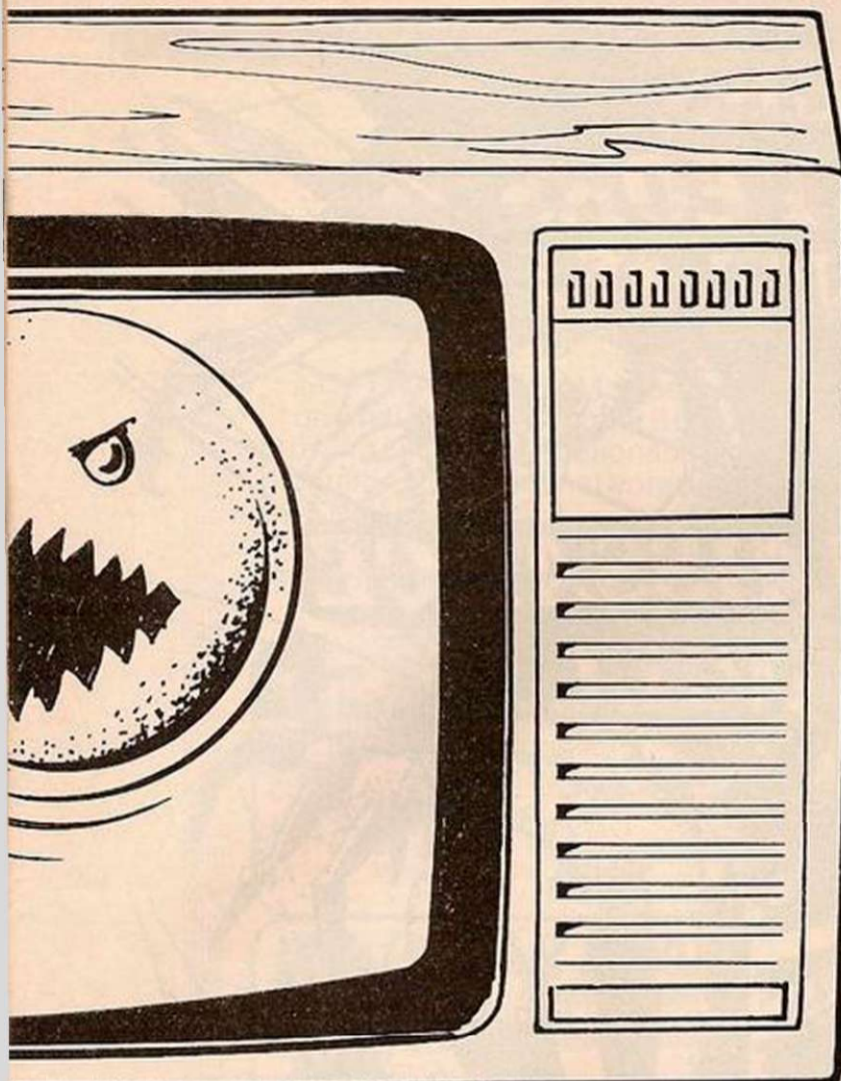
THE GAME in this article is a very enjoyable, and addictive, game for the 32K BBC Model B. It is slightly different from the arcade implementation in that there are only two ghosts who can go through walls and the function of the power pills is to stop the ghosts chasing the Muncher for a few seconds, giving him a chance to eat more dots and so get to the higher sheets. The player gets bonuses by totally clearing a sheet.

Every fifth maze is an invisible one, but the player must remember the pathways, in order to follow them. When playing such a sheet, the maze is made visible for about 10 seconds, when a power pill, or thunderbuster, is eaten. The following keys are used to move: A to go up, Z to go down, N to go left and M to go right. 10 points are given for the dots that it eats all the time and 100 points are given for *, which are thunderbusters.

A bonus of the value 1,000 multiplied by the number of sheets is given every time a sheet is totally eaten, thus 1,000 points are awarded for clearing the first maze and 13,000 points for clearing maze number 13.

An extra Muncher is given every time you score 10,000 points: you have three lives to begin with.

To begin with, you may think that the game is very easy, as the ghosts move very slowly, but they get faster every sheet, until they become half your speed on sheet 11, from then on their speed remains constant. Here are a



HERE COMES THE MAZE MUNCH

A deceptively easy game to start with, this BBC version of a well known arcade game written by David Griffin is definitely worth getting your teeth into.

few hints. It is a good idea to clear as much of the maze as you can without using the thunderbusters. On the lower sheets move straight to the middle of the maze, and clear that area first, as it is the most difficult.

When the ghosts are moving the fastest, clear the outer regions of the maze first, reserving the thunderbusters to help in clearing the centre. Try not to leave individual dots, but clear large areas of the maze at once. Don't hesitate or panic, it is quite easy to get out of most situations.

If you want to change the number of ghosts, change the value of NG% in line 11. I would advise against conversion to other computers because this program uses many special functions of the BBC. But in case anyone wants to try here is a list of some of the BBC peculiarities used in this implementation.

Envelope defines the envelope used in the Sound command — this can be ignored. Mode changes the display mode, Mode 7 is a teletext display 40x25, Mode 2 is a high-resolution display, with characters on a 20x32 grid.

VDU 23 defines characters on an eight-by-eight grid. The first parameter is the character number, the following eight define the shape row by row, with the decimal equivalent of the binary number representing the character row. The VDU in line 10 stops the cursor flashing.

Proc calls a procedure defined by DefProc; this should be replaced by a Gosub command on other computers.

Colour sets the current text colour. Print Tab (X,Y) positions the cursor at position X,Y on the screen. All the *FX commands can be ignored.

VDU 19 X1, C2, 0, 0, 0 sets colour C1 to colour C2; this is used in making the maze invisible.

RND gives a random integer between 1 and the number inside the brackets. Sound A, B, C, D plays a note on channel A, of volume B, of pitch C, for duration D. Div signifies integer division.

The command Get\$ waits for a key to be

pressed and puts the string value of that key in the suitable variable.

Inkey\$(n) waits for n cycles of the clock or until a key has been pressed, and puts the string value of that key in the suitable variable. The program puts the whole screen into array SC\$ and can use this array to see if the man is trying to go into a wall, or has eaten something.

The highest score so far attained is 10,154,250 — achieved after playing continuously for several hours, and reaching sheet 999.

```

,0,0:ENDPROC
81 DEFPROCSPURT:FORSP%=1TO(RND(100)+20):PROCMAN:NEXT:MAN%=0:ENDPROC
82 MODE7
83 *FX 15 0
84 *FX 11 0
85 PRINTTAB(10,5):CHR$(141):CHR$(136):"YOU'RE DEAD!!":TAB(10,6):CHR$(141):CHR$(136):"YOU'RE DEAD!!"
86 PRINTTAB(8,10):"YOU SCORED ":SC%
87 IFSC%>HSC%PRINTTAB(8,12):"THE HIGHEST SO FAR"ELSEPRINTTAB(4,12):"THE BEST WAS ":HSC%:" BY ":H%
88 IFSC%>HSC%INPUT"" YOUR NAME "H%:HSC%=SC%
89 PRINTTAB(5,22):CHR$(129):CHR$(141):"ANOTHER GAME ?":TAB(5,23):CHR$(129):CHR$(141):"ANOTHER GAME ?"
90 REPEAT$=GET$:UNTIL$="Y"ORA$="N"
91 IFA$="Y"THEN10
92 END
93 DEFPROCINSTR
94 PRINTTAB(2,0):"MUNCHER(C) David Griffin 26:6:82"
95 PRINT" In this game you must move a man around a maze, eating dots as you do so.He is being pursued by two evil ghosts who can only be stopped by eating a flashing thunderbuster, and even then for a short while only!"
96 PRINT" After clearing the maze of dots and thunderbusters, a new one is given. Every fifth maze is invisible, just to add extra interest and difficulty."
97 PRINT" An extra man is given every 10,000 points.","" To move use the following keys: "-", "" 'A' to go UP", "" 'Z' (to go DOWN)", "" 'N' to go LEFT", "" 'M' to go RIGHT"
98 PRINT"" PRESS ANY KEY TO PLAY... ":REPEAT$=GET$:UNTIL$<
99 ENDPROC

```