

ELBUG

Supplement To Beebug

VOLUME 3 NUMBER 8 JULY 1986

RAIN SHOWER

Typical of a British summer, it has started to rain just after the washing has been put out to dry. Help keep the clothes dry in this entertaining game from Tim Thornham.

It's washday again and the clothes are out on the four washing lines that stretch one from each room in the house. However, it has started to rain and the clothes stand to get soaked.

They are loop washing lines with a pulley at each end. You must pull the lines to keep the clothes keep out of the way of the descending raindrops.

The controls of the game are very simple. Return moves you around the house from room to room in turn. The Z and X keys will then move the washing line from that room left and right.

British summers being what they are, there's bound to be a few wet shirts by the end of the afternoon, so you are allowed three hits by raindrops in each game. You score one for each raindrop that

misses and falls on the ground.

The game is quite short to type in and should provide few problems. However, playing it successfully is more difficult, so it's a good idea to have several DRY runs before challenging a friend to a contest. Otherwise you could find a DAMPER being put on your ideas to become the RAINING champion, and end up in hot WATER!

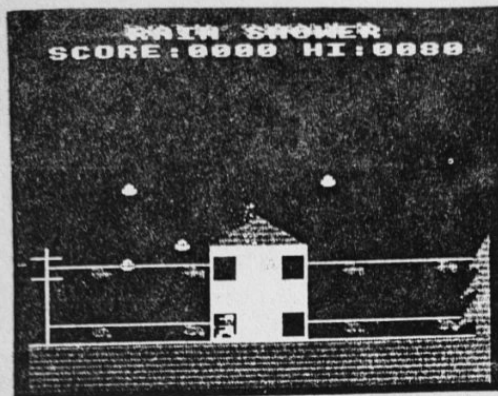
```
10 REM Program Rain Shower
20 REM Version E0.3
30 REM Author Tim Thornham
40 REM ELBUG July 1986
50 REM Program subject to copyright
60 :
100 MODE2:ON ERROR GOTO 2630
110 PROCsetup:PROCset:PROCscreen
120 REPEAT:PROCTable
130 REPEAT:PROCset:PROCscreen
140 REPEAT:*FX15,0
150 PROCkeys:PROCrain:PROCkeys
```

Elbug Bows Out

This is the last edition of the ELBUG supplement. We are sorry that the level of support has not been sufficient to sustain either the original ELBUG magazine, or the later ELBUG supplement. We would like to thank those of you who have stayed with us loyally to the end.

You will already be familiar with BEEBUG magazine and we hope that many of you will wish to take out a subscription to BEEBUG and keep abreast of all new developments in the Acorn world. We shall continue our practice of marking all BEEBUG programs for compatibility with the Electron, and in future we shall similarly be marking all review software and hardware when appropriate. In this way we intend to maintain useful support for Electron owners, and we will be seeking further ways in which we can provide additional, and relevant, information. We would also like to offer you a substantial discount on your first twelve months subscription to BEEBUG.

Now that ELBUG has come to an end we shall shortly be disposing of all our remaining stocks of ELBUG magazines, supplements and magazine cassettes. We are also offering our



```

160 UNTIL flag=1:PROCwet
170 UNTIL L=0:PROCover
180 UNTIL FALSE
190 END
200 :
1000 DEF PROCover
1010 VDU5
1020 FORT=1TO9:AS=MIDS("GAME OVER",T,1)
1030 MOVE240+T*72,700:GCOL0,1:PRINTAS
1040 MOVE256+T*72,692:GCOL0,2:PRINTAS
1050 PROCdelay(300):NEXT:VDU4:PROCdelay
(2000)
1060 ENDPROC
1070 DEF PROCset
1080 X%(1)=64:X%(2)=320
1090 X%(3)=768:X%(4)=1024
1100 X%(5)=64:X%(6)=320
1110 X%(7)=768:X%(8)=1024
1120 FORT=1TO4:Y%(T)=396:Y%(T+4)=246:L%(T)=104:NEXT
1130 FORT=1TO8:G%(T)=0:R%(1,T)=800:NEXT
1140 G%(1)=1:R%(0,1)=250:N=1
1150 flag=0:s=0:VDU26:CLS
1160 ENDPROC
1170 DEF PROCrain
1180 GCOL3,6:VDU5
1190 T=0:IF RND(15)>1:GOTO1230
1200 REPEAT:T=T+1
1210 IF G%(T)=0:G%(T)=1:R%(0,T)=RND(400)+50+(RND(2)-1)*730:MOVER%(0,T),800:VDU2
40:T=8
1220 UNTIL T=8
1230 FORT=1TO8
1240 IF G%(T)=0 GOTO 1310
1250 MOVER%(0,T),R%(1,T):VDU240
1260 R%(1,T)=R%(1,T)-16
1270 PROCcheck
1280 IF flag=1 T=8
1290 IF s=1:s=0:GOTO 1310
1300 MOVER%(0,T),R%(1,T):VDU240
1310 NEXT:VDU4
1320 ENDPROC

```

```

1330 DEF PROCdelay(D%)
1340 FORTT=1TOD%:NEXT
1350 ENDPROC
1360 DEF PROCmove
1370 T=N:N=N+1:IF N=5 N=1
1380 VDU5
1390 MOVEP%(T,1)+64,P%(T,2):PRINTBS
1400 MOVEP%(N,1),P%(N,2):PRINTMANS(N DI
V3):VDU4:ENDPROC
1410 DEF PROCkeys
1420 IF INKEY(-74) PROCmove
1430 IFINKEY(-98)ANDL%(N)>15:PROClin(-1
)
1440 IFINKEY(-67)ANDL%(N)<120:PROClin(1
)
1450 ENDPROC
1460 DEF PROClin(S%)
1470 T=L%(N):L%(N)=L%(N)+24*S%
1480 PROCmoveline:ENDPROC
1490 DEF PROCmoveline
1500 VDU5:GCOL3,1
1510 V=V%(N)
1520 FORTT=V TO V+1
1530 MOVEX%(TT)+T,Y%(TT):VDU241
1540 MOVEX%(TT)+L%(N),Y%(TT):VDU241
1550 NEXT:VDU4:ENDPROC
1560 DEF PROCcheck
1570 IF R%(1,T)<210 PROCsplash:G%(T)=0:
R%(1,T)=800:s=1:ENDPROC
1580 R=R%(1,T)
1590 IF R<433 AND R>385 K=1:PROCcheck2:EN
DPROC
1600 IF R<282 AND R>234 K=5:PROCcheck2
1610 ENDPROC
1620 DEF PROCcheck2
1630 R1=R%(0,T)-40:R2=R%(0,T)+32
1640 FORTT=K TO (K+3):J=X%(TT)+L%(W%(TT
))
1650 IF J>R1 AND J<R2 flag=1:TT=K+3:GCOL
0,11:MOVER%(0,T),R%(1,T):VDU240:GCOL3,6
1660 NEXT
1670 ENDPROC
1680 DEF PROCsplash
1690 SC%=SC%+1:PROCscore
1700 SOUND0,1,100,1
1710 ENDPROC
1720 DEF PROCwet
1730 L=L-1
1740 SOUND1,2,100,60
1750 PROCdelay(3000)
1760 ENDPROC
1770 DEF PROCscore
1780 IF SC% MOD50=0:SC%=SC%+5:SOUND2,-1
5,100,2
1790 IF SC% MOD200=0:L=L+1:SOUND1,-15,1
50,2
1800 VDU4:PRINTTAB(11-LEN(STR$(SC%)),2)
;SC%:VDU5
1810 ENDPROC
1820 DEF PROCsetup

```

```

1830 DIMHI$(8),H$(8),X$(8),Y$(8),P$(4,2
),L$(4),V$(4),G$(8),R$(1,8),W$(8),MAN$(1
)
1840 VDU23,240,16,56,56,124,124,124,56,
0
1850 VDU23,241,120,124,62,127,255,127,5
9,19
1860 VDU23,243,0,0,0,0,10,30,14,4
1870 VDU23,244,0,14,14,62,0,0,0,0
1880 VDU23,245,62,14,14,0,0,32,99,99
1890 VDU23,246,0,0,0,62,62,6,0,0
1900 VDU23,247,192,128,0,0,0,0,0,0
1910 VDU23,248,0,0,0,0,80,120,112,32
1920 VDU23,249,0,112,112,124,0,0,0,0
1930 VDU23,250,124,112,112,0,0,4,198,19
8
1940 VDU23,251,0,0,0,124,124,96,0,0
1950 VDU23,252,3,1,0,0,0,0,0,0
1960 VDU23,1,0;0;0;0;
1970 MAN$(0)=CHR$18+CHR$0+CHR$1+CHR$243
+CHR$8+CHR$10+CHR$247+CHR$18+CHR$0+CHR$6
+CHR$8+CHR$245+CHR$8+CHR$18+CHR$0+CHR$3+
CHR$246+CHR$8+CHR$11+CHR$244
1980 MAN$(1)=CHR$18+CHR$0+CHR$1+CHR$248
+CHR$8+CHR$10+CHR$252+CHR$18+CHR$0+CHR$6
+CHR$8+CHR$250+CHR$8+CHR$18+CHR$0+CHR$3+
CHR$251+CHR$8+CHR$11+CHR$249
1990 B$=CHR$127+CHR$10+CHR$9+CHR$127
2000 ENVELOPE1,1,0,0,0,0,0,0,90,-1,-2,-
3,97,97
2010 ENVELOPE2,6,126,0,0,206,0,0,126,0,
0,-126,126,126
2020 D%=0:HI$(0)=10000
2030 RESTORE2110
2040 FOR=1TO8
2050 HI$(T)=(9-T)*10:H$(T)="Beebug"
2060 READV$(T-1)MOD4+1:READW$(T)
2070 READP$(T-1)MOD4+1,(T DIV5)+1)
2080 NEXT
2090 SC%=0:L=3
2100 ENDPROC
2110 DATA 5,2,512,1,2,512,3,3,704,7,3,7
04
2120 DATA 5,1,272,1,1,420,3,4,420,7,4,27
2
2130 DEF PROCscreen
2140 FOR=1TO15:VDU19,T,0,0,0,0:NEXT
2150 VDU5:MOVE276,1010:GCOL0,1:PRINT"RA
IN SHOWER":MOVE292,1002:GCOL0,3:PRINT"RA
IN SHOWER"
2160 MOVE50,200:DRAW50,450:MOVE10,425:D
RAW90,425:MOVE10,375:DRAW90,375
2170 GCOL0,2:MOVE0,196:MOVE0,80:PLOT85,
1279,196:PLOT85,1279,80
2180 GCOL0,7:MOVE50,401:DRAW515,401:MOV
E760,401:DRAW1230,401
2190 MOVE50,250:DRAW515,250:MOVE760,250
:DRAW1230,250
2200 MOVE0,200:DRAW1280,200
2210 MOVE505,200:MOVE775,200:PLOT85,505

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```

,450:PLOT85,775,450:GCOL0,2:PLOT85,635,5
25
2220 GCOL0,1:MOVE1240,200:MOVE1279,200:
PLOT85,1250,400:PLOT85,1279,400
2230 GCOL0,2:MOVE1279,460:MOVE1220,370:
PLOT85,1279,390
2240 MOVE1268,390:MOVE1205,300:PLOT85,1
260,330
2250 MOVE1258,330:MOVE1190,220:PLOT85,1
250,250
2260 IF L=3:GOTO 2280
2270 FOR=1TO(3-L):MOVE416+T*128,908:GC
OL0,1:VDU241:NEXT
2280 FOR=1TO4:MOVEP$(T,1)+64,P$(T,2):P
RINTB$:NEXT
2290 MOVE512,272:PRINTMAN$(0)
2300 GCOL3,1
2310 FOR=1TO8:MOVEX$(T)+L$((T+1)DIV2),
Y$(T):VDU241:NEXT
2320 MOVE250,800:GCOL3,6:VDU240,4:COLOU
R7
2330 PRINTTAB(12,2);"HI:0000";TAB(19-LE
N(STR$(HI$(1))),2);HI$(1)
2340 PRINTTAB(1,2);"SCORE:0000";TAB(11-
LEN(STR$(SC%)),2);SC%
2350 FOR=1TO15:VDU19,T,T,0,0,0,0:NEXT
2360 ENDPROC
2370 DEF PROCtable
2380 L=3:PP=0:COLOUR7
2390 IF SC%>HI$(8) PROCchange:PP=1
2400 COLOUR3:PRINT'SPC(5)"HIGH SCORES"
2410 FOR=1TO8
2420 PRINTTAB(2,T+5);T;" ";STRINGS(11,"
.");TAB(4,T+5);H$(T);TAB(16,T+5);HI$(T)
2430 NEXT
2440 IF PP=1 PROCin
2450 COLOUR1:PRINTTAB(1,15);" <SPACE>
to play. ";REPEAT UNTIL GET=32
2460 ENDPROC
2470 DEF PROCchange
2480 FOR=7TO0 STEP-1
2490 IF SC%<HI$(T):P=T+1:T=0
2500 NEXT
2510 IF P=8:GOTO 2530
2520 FOR=7 TO P STEP-1:HI$(T+1)=HI$(T)
:H$(T+1)=H$(T):NEXT
2530 HI$(P)=SC%:H$(P)=STRINGS(11,".")
2540 ENDPROC
2550 DEF PROCin
2560 COLOUR11:PRINTTAB(1,15);"Please en
ter name.":COLOUR7
2570 PRINTTAB(4,P+5);
2580 PROCdelay(1000):*FX15,0
2590 X%=0:Y%=0:D=A%=0
2600 !&D00=&200B0A00:??&D04=127:CALL&FFF
1
2610 H$(P)=LEFT$(S&A00,11)
2620 ENDPROC
2630 MODE 6:REPORT:PRINT" at line ";ERL
2640 END

```

Your Guide to BEEBUG

Few alterations are required to the programs appropriate to the Electron from this month's BEEBUG. In general follow the comments in previous issues of ELBUG.

COMPUTER SIMULATION (Part 2)

The second half of this interesting article helps you to use your Electron for more than just playing games. This month the subject under discussion is queueing. The whole article is applicable to the Electron and the programs work without alteration too.

ROM CONTROLLER

This helpful utility will keep your ROM library under control. The program requires you to have a suitable ROM board for your Electron (such as Slogger's ROM box) and also a few modifications, as it runs in mode 7 on the BBC micro.

PAINTING BY NUMBERS

The one feature that Electron graphics really lacks is a colour fill facility. This utility puts an end to that problem with a very impressive fill routine. The whole routine is equally at home on an Electron as it is on a Beeb.

SOFTWARE FOR SIDEWAYS RAM (Part 2)

In the second article in this three part series we look at creating your own * commands to control your micro.

Again, to make use of the program accompanying this article you will need some sideways RAM fitted to your Electron. This can be supplied either by a sideways ROM/RAM board, such as the Slogger ROM box, or by a Plus-1 interface along with a sideways RAM cartridge such as that supplied by Advanced Computer Products.

MEMO PAD

Unfortunately this handy utility to give your computer an 'aide de memoire' does not work on the Electron as it requires a mode 7 display.

TENPIN BOWLING

Capture all the excitement of the bowling alley with this excellent game. It works perfectly on the Electron and will keep you amused for hours.

WORKSHOP

Calling Procedures

We all know that one of the biggest benefits of BBC Basic is its excellent implementation of procedures. However, even these useful structures lack a few refined touches. This month we set out to solve all that.

As the Electron uses the same Basic as the BBC micro, this article and the three programs accompanying it are perfectly compatible with the Electron.

FIRST COURSE

Using the ADVAL function (Part 2)

Most of the ADVAL function's uses are concerned with the Beeb's analogue to digital converter (joystick port), and so would only concern ELBUG members lucky enough to own a Plus-1 interface which provides this extra for the Electron. However, this month's article deals mostly with other aspects of the ADVAL function. If you thought that this keyword had nothing to with the Electron then read on.

MAKING MORE USE OF TELETEXT

As yet there is no Teletext adaptor for the Electron and so this article has little use for ELBUG members. However, Morley Electronics is working on an adaptor just for the Electron that will not only open the door of Teletext but give you a Beeb-like mode 7 display too.

THE MASTER SERIES

Using sideways RAM

Although this article is not directly applicable to Electron owners, as there is no sideways RAM of the kind on the Master for the Electron either as standard or as an add-on, ELBUG members thinking of upgrading will be interested in all aspects of Acorn's top machine.

ADVENTURE GAMES

Robico's latest comes under the scrutiny of the Dungeon Master's evil eye this month. An Electron version is available.

PEARTREE BUSINESS SYSTEM

The 'Main Business System' is not available for the Electron

Editor packages are not available for the Electron.

THE COMMSOFT ROM

This communications utility ROM is not available for the Electron. However, Paces' Electron RS232/modem/Commstar ROM combination forms a powerful alternative for ELBUG members wanting to enter the world of comms.

COLOURING STICK

ATPL's 'Colourstick' light pen plugs into the BBC micro's analogue port and so it is not applicable to Electron owners. Even those with Plus-1 interfaces will find that the Colourstick software is not suitable for the Electron.

COLOURFUL IMAGES

This powerful graphics package is available only for the BBC micro.

HINTS

Of this month's hints and tips, the following are applicable to Electron owners:

VIEWSPELL

Acorn has not, as yet, released a Viewspell to accompany Electron View.

MODES ON BREAK

TROUBLE WITH PRINT

DAYS IN THE MONTH

DEFINITION HIGHLIGHTING

FONTWISE AND FANCY FREE

The Fontwise Plus and Fontwise Font

1 range of Electron software at very low prices. While stocks last, many items are available at prices that are little more than the cost of post and packing. At these levels, we cannot afford to make refunds and will substitute the nearest alternative if any item is sold out. This offer ends on the 10th August 1986.

BEEBUG MEMBERSHIP

ELBUG members may join BEEBUG for the first twelve months at the special rate of £10.90 compared with the normal twelve-monthly rate of £12.90. Just use the enclosed renewal form. Your previous Elbug membership number on the label on this form will ensure that you are accepted at this preferential rate, though your new BEEBUG membership number (to be notified to you) will be different.

Elbug Final Clearance Sale

ELBUG Magazine Vol.1 No.1 to Vol.2 No.3

All back issues are available at just 30p each including post and packing.

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Send 30p with a list of copies required (included free with other orders).

Please note that this does not include the corresponding BEEBUG magazine.

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These are available at £1 each, including postage, any ten for £9.

Cassettes from Vol.3 No.3 onwards are not available.

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These are available at just £1.50 each, again including postage.

BEEBUGSOFT Electron Software

Toolkit ROM £10 (limited stocks - we will refund in full if unavailable).

Cassette Software

Exmon Sprites Starter Pack Paintmaster Superplot

All BEEBUGSOFT cassettes £2 each, including post and packing.

In case an item is sold out, please include 2nd or 3rd choices. We will do our best to meet your requirements. Send your order to:

ELBUG, P.O.Box 109, St Johns Road, Penn, High Wycombe, Bucks HP10 8NP.

BOTTLE NECK

Try and keep the Blugoo production line going by capping and filling the bottles of Blugoo. Fast reflexes and nimble fingers are called for in this colourful game from Geoff Bains.

The Blugoo Bottle Company is the only supplier of that most famous and indispensable substance, Blugoo. On the production line the countless bottles required each day by a world desperate for Blugoo are made and filled by a rather unreliable machine. You are in control of the next machine along the production line. This one tops up any bottles only half-filled by the first machine and caps them, ready for shipping to the Blugoo-starved millions around the world.

The controls of the machine are quite simple. The machine is a combined Blugoo dispenser and capper and its dispenser/capper head is moved along a gantry over the conveyer belt with the 'Z' and 'X' keys for left and right. The '<' and '>' keys control the action of the head. Whenever you press the '<' key a portion of Blugoo is dispensed into the bottle below the nozzle and whenever the '>' key is pressed a cap is placed on the bottle below.

Needless to say you cannot fill a half-filled bottle once its cap is on, and if you add more Blugoo to a full bottle all you get is a wet conveyer belt. So, if you press the buttons with too much abandon, you'll end up with lots of caps and puddles on the belt and these can play havoc with the machinery further down the production line (not to mention waste precious drops of Blugoo). You'll need good concentration and fast reactions to process all the bottles correctly.

To reward all your hard work the Blugoo Bottle Company pays you a flat rate salary for each work shift along with a commission on each bottle of Blugoo correctly filled and capped. That's the easy part. Unfortunately, the Blugoo Bottle Company also inflicts very heavy penalties on employees allowing uncapped or half-filled bottles of Blugoo through the production line. Missing the bottles with either the bottle caps or the Blugoo will also result in penalties as these block up the machinery.

The rates of pay and the penalties are as follows.

Flat rate pay (per shift)	+£ 50
Full, capped bottle of Blugoo	+£ 5
Hall-filled bottle uncapped	-£ 3
Half-filled bottle capped	-£ 2
Full bottle, uncapped	-£ 2
Cap on belt	-£ 1
Blugoo on belt	-£ 1

Each shift on the capper/dispenser machine lasts until 99 bottles - whether filled or half-filled and capped or uncapped - have passed along the belt. Alternatively, if you allow rather too many half-filled or uncapped bottles through, and the penalties reduce your earnings to zero, you will incur the wrath of the Blugoo Bottle Company and your shift will be terminated - rather abruptly.

The program is not very long so there should be few problems entering it correctly into your Electron. However, it is still a good idea to save the program before you run it. So type it in and get onto the Blugoo production line.

```
10 REM PROGRAM BOTTLES
20 REM VERSION E0.1
30 REM AUTHOR GEOFF BAINS
40 REM ELBUG JULY 1986
50 REM PROGRAM SUBJECT TO COPYRIGHT
60 :
70 ON ERROR GOTO 2550
80 :
100 MODE 2
110 PROCinit
120 REPEAT
130 PROCstart
140 REPEAT
150 PROCkeys
160 PROCline
170 PROCkeys
180 PROCrot
190 PROCcount
200 UNTIL fin%
210 PROCfin
```

```

220 UNTIL FALSE
230 END
240 :
1000 DEF PROCscreen
1010 VDU 19,7,0;0;19,0,7;0;
1020 FOR X%=25 TO 1100 STEP 170
1030 VDU 29,X%;100;
1040 X1%=50:Y1%=0
1050 MOVE 50,0
1060 FOR A=0 TO 370 STEP 10
1070 C%=(8+(ABS(A/30))MOD 8)
1080 X2%=50*COS(RAD(A)):Y2%=50*SIN(RAD(
A))
1090 GCOL0,C%:MOVE 0,0:PLOT85,X2%,Y2%
1100 GCOL0,7:DRAW X1%,Y1%:MOVE 0,0:MOVE
X2%,Y2%
1110 X1%=X2%:Y1%=Y2%
1120 NEXT A
1130 NEXT X%
1140 C1%=0:C2%=7
1150 PROCrot
1160 VDU 26:GCOL0,7
1170 FOR Y%=160 TO 176 STEP 4
1180 MOVE 0,Y%:PLOT21,1279,Y%
1190 NEXT Y%
1200 VDU 24,1030;40;1279;350;
1210 GCOL0,129:CLG:VDU 26
1220 GCOL0,7:MOVE 1279,90:DRAW 1080,90:
DRAW 1080,300:DRAW 1279,300
1230 VDU 28,0,9,19,5
1240 COLOUR 134:CLS
1250 GCOL0,135
1260 VDU 24,0;700;1279;710;16,26
1270 VDU 24,0;864;1279;874;16,26
1280 COLOUR 128
1290 GCOL0,7:GCOL0,129
1300 FOR X%=8 TO 1279 STEP 160
1310 FOR Y%=420 TO 550 STEP 130
1320 VDU 24,X%;Y%;X%+148;Y%+84;16
1330 MOVE X%+16,Y%+16:DRAW X%+16,Y%+68:
DRAW X%+132,Y%+68:DRAW X%+132,Y%+16:DRAW
X%+16,Y%+16
1340 NEXT Y%
1350 NEXT X%
1360 COLOUR 4:COLOUR 128
1370 PRINTAB(2,1)"Blugoo Bottle Co."
1380 ENDPROC
1390 :
1400 DEF PROCrot
1410 C%=C1%:C1%=C2%:C2%=C%
1420 FOR C%=8 TO 15 STEP 2
1430 VDU 19,C%,C1%;0;:NEXT
1440 FOR C%=9 TO 15 STEP 2
1450 VDU 19,C%,C2%;0;:NEXT
1460 ENDPROC
1470 :
1480 DEF PROCinit
1490 VDU 23,1,0;0;0;0;
1500 VDU 23,224,255,255,255,255,255,255
,255,126

```



```

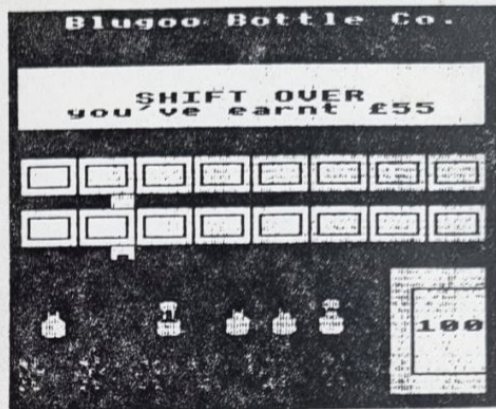
1510 VDU 23,225,36,36,36,36,102,195,
129
1520 VDU 23,226,36,36,60,60,60,126,255,
255
1530 VDU 23,227,0,0,0,60,126,126,126,12
6
1540 VDU 23,228,255,255,255,255,255,195
,195,195
1550 VDU 23,229,0,0,0,0,24,60,126,255
1560 VDU 23,230,255,255,255,255,255,255
,255,255
1570 G1$=CHR$32+CHR$230+CHR$32
1580 G2$=CHR$32+CHR$228+CHR$32
1590 GX%=8
1600 PROCscreen
1610 ENDPROC
1620 :
1630 DEF PROCline
1640 COLOUR 128:COLOUR 4
1650 TC%=ASC(RIGHT$(T$,1)):T$=LEFT$(T$,
15)
1660 MC%=ASC(RIGHT$(M$,1)):M$=LEFT$(M$,
15)
1670 BC%=ASC(RIGHT$(B$,1)):B$=LEFT$(B$,
15)
1680 T$=CHR$32+T$
1690 IF F% F%=FALSE:GOTO 1750
1700 IF RND(1)>0.65 GOTO 1750
1710 IF RND(1)>0.55 M$=CHR$225+M$ ELSE
M$=CHR$226+M$
1720 B$=CHR$224+LEFT$(B$,15)
1730 F%=TRUE
1740 GOTO 1770
1750 M$=CHR$32+M$
1760 B$=CHR$32+B$
1770 PRINT TAB(0,23)T$'M$'B$;
1780 ENDPROC
1790 :
1800 DEF PROCkeys
1810 IF INKEY=103 PROCdispense
1820 IF INKEY=104 PROCcap
1830 IF INKEY=98 PROCleft

```

```

1840 IF INKEY=67 PROCright
1850 PROCgantry
1860 ENDPROC
1870 :
1880 DEF PROCgantry
1890 COLOUR 128:COLOUR 1
1900 PRINT TAB(GX%-1,15)G1$;
1910 PRINT TAB(GX%-1,19)G2$;
1920 T%=TIME+5:REPEAT UNTIL TIME>T%
1930 ENDPROC
1940 :
1950 DEF PROCleft
1960 GX%=GX%-1
1970 IF GX%<1 GX%=1
1980 ENDPROC
1990 :
2000 DEF PROCright
2010 GX%=GX%+1
2020 IF GX%>14 GX%=14
2030 ENDPROC
2040 :
2050 DEF PROCcap
2060 IF MID$(M$,GX%+1,1)=" " B$=LEFT$(B
$,GX%)+CHR$(227+RIGHT$(B$,15-GX%) ELSE T$
=LEFT$(T$,GX%)+CHR$(227+RIGHT$(T$,15-GX%)
2070 ENDPROC
2080 :
2090 DEF PROCdispense
2100 IF MID$(T$,GX%+1,1)=CHR$(227 B$=LEF
T$(B$,GX%-1)+CHR$(229+CHR$(224+CHR$(229+RIG
HT$(B$,14-GX%)):ENDPROC
2110 CH%=ASC(MID$(M$,GX%+1,1))
2120 IF CH%=32 B$=LEFT$(B$,GX%)+CHR$(229
+RIGHT$(B$,15-GX%)
2130 IF CH%=226 B$=LEFT$(B$,GX%-1)+CHR$(
229+CHR$(224+CHR$(229+RIGHT$(B$,14-GX%)
2140 IF CH%=225 M$=LEFT$(M$,GX%)+CHR$(22
6+RIGHT$(M$,15-GX%)
2150 ENDPROC
2160 :
2170 DEFPROCcount
2180 IF BC%=32 ENDPROC
2190 NUM%=NUM%+1
2200 COLOUR 129:COLOUR 0
2210 PRINT TAB(17,25);NUM%
2220 IF BC%=227 SC%=SC%-2:SOUND 0,-15,4
,1
2230 IF BC%=229 SC%=SC%-1:SOUND 0,-15,4
,1
2240 IF MC%=226 AND TC%=227 SC%=SC%+5:S
OUND 1,-15,200,2
2250 IF MC%=225 AND TC%=227 SC%=SC%-2:S
OUND 0,-15,4,1
2260 IF MC%=226 AND TC%=32 SC%=SC%-2:S
OUND 0,-15,4,1
2270 IF MC%=225 AND TC%=32 SC%=SC%-3:S
OUND 0,-15,4,1

```



```

2280 COLOUR 134:COLOUR 7
2290 PRINTTAB(14,7);(SC%*-(SGN(SC%)=1))
;SPC(3)
2300 IF NUM%>99 OR SC%<0 fin%=TRUE
2310 ENDPROC
2320 :
2330 DEF PROCstart
2340 fin%=FALSE:NUM%=0:SC%=50:S$=CHR$(32
2350 COLOUR 129
2360 PRINT TAB(17,25)SPC(3)
2370 M$=STRING$(16,S$):B$=STRING$(16,S$):
T$=STRING$(16,S$)
2380 COLOUR 128:COLOUR 7
2390 PRINT TAB(0,23)T$'M$'B$
2400 T%=TIME+250:REPEAT UNTIL TIME>T%
2410 COLOUR 134:COLOUR 7
2420 PRINT TAB(3,7)"Wages : £";SC%;SP
C(23)
2430 F%=TRUE
2440 ENDPROC
2450 :
2460 DEF PROCfin
2470 FOR P%=50 TO 160 STEP 12
2480 SOUND 1,-15,P%,1
2490 SOUND 1,0,P%,1
2500 NEXT P%
2510 IF SC%<=0 PRINT TAB(3,7)"YOU'RE FI
RED!!";SPC(3) ELSE PRINT TAB(4,7)"SHIFT
OVER";SPC(3)TAB(2,8)"you've earnt £";SC
%
2520 T%=TIME+150:REPEAT UNTIL TIME>T%
2530 ENDPROC
2540 :
2550 ON ERROR OFF
2560 MODE 6
2570 IF ERR<>17 REPORT:PRINT " at line
";ERL
2580 END

```