

Adventure and Simulation

The Bannochburn Legacy

Down in the depths of darkness you go. Armed with only your computer and your keen mind, you have decided to take on the forces of evil. You may be on a desert island, inside a haunted house or castle (as in this program) or trapped in a cave system on a planet 'somewhere in a galaxy far away'. Adventure games take place in all of these scenarios and a thousand more besides. Come with us now as we discover the excitement of the world of Adventure, with The Bannochburn Legacy.

The word 'adventure' is used to describe the class of computer games in which the player moves through an alternative reality. In this 'other world' there are monsters to be fought, treasures to be discovered, maps to be made and puzzles to be solved.

Many people feel that Adventure games are the most exciting games which can be played with the BBC Micro, so we knew we'd have to include one for you in this collection. And what a big program it is, occupying over 16K (17062 bytes, to be exact).

One feature of true Adventure games is that the reality they model is consistent. That is, the world created within the program is solid and the parts of the world do not shift in a random fashion. In a properly constructed Adventure, the rivers stay in place, the dungeon walls do not mysteriously move and shift every time you turn your back, and objects you put down in one cave within an underground labyrinth do not suddenly reappear of their own volition one hundred caves away.

And so it is with this program. Map-making is one of the true Adventure-player's skills and delights. Working your way through an imaginary (but self-consistent) environment, tackling monsters and collecting treasures as you go, is only fascinating if the world you are exploring is mappable. The world of The Bannochburn Legacy is mappable.

In this program, all the activities (except for the very beginning) take place within the castle. This strange monolith contains a number of monsters, including ' anangry warlock' and ' afire-breathing Fearbringer' ,who wander through the castle while you are playing the game, waiting for a chance to leap upon you and tear you limb from limb. The castle also contains bottles of magic potion, chests which contain good and bad surprises, sheets of papyrus with magic spells written on them, and more besides. To tell you of everything you will meet would diminish the game somewhat.

The aim of the game is to find the Black Lagoon which lies beneath the castle, but is entered from an ordinary-looking door. The location of the Black Lagoon can change from game to game, although it will not move once a game is underway. This ensures that your interest is maintained in the game even after you first manage to map it.

You are endowed with three ' attributes'when you play: magic, strength and wisdom. You play the whole game in terms of attributes, choosing to battle within the attribute in which you feel strongest, and in which you feel the particular monster is weakest. Your attributes change and develop as the game progresses, gaining value when you win a battle, and diminishing when you lose one.

When you first run the program, you' ll see the following:

```
Please enter your first name ?Ian the  
Brave
```

```
Hi there, Ian the Brave
```

```
Please stand by ...
```

```
Ian the Brave, your attributes are :
```

```
    Magic : 2
```

```
Strength : 4
```

```
    Wisdom: 4
```

```
You are at the entrance to an  
ancient, forbidding-looking  
castle. You are standing on  
the North side of the castle,  
and as you look South, towards  
the tumbling structure, you  
notice the entrance portal  
is open and unguarded.
```

```
What do you want to do now ? Go South
```

The final question (' Whatdo you want to do now ?' comes after most room-descriptions in the game, and you need to give one of the following answers:

N go north

S go south

E go east

W go west

F fight (this is one of the two possible answers you can give when confronted by a monster)

R run (this is the other answer and it is not always

- accepted. ' No,you must stand and fight,' you may be told)
- Q quit (this is used if you wish to terminate the game before the end)
- L look (redisplays description of current location)

The only other answers you'll need are ' N'and ' Y'to answer questions like, ' Do you want to open the chest?' All commands require you simply to touch the relevant key. RETURN is not required. The computer responds by filling in the rest of the command, as you can see in the sample above, where it has printed ' GoSouth' although Ian the Brave only touched the ' S' key.

The Bannochburn Legacy is largely self-running, and takes care of many of the tasks which a ' Dungeon-master takes care of in a role-playing game with other people. One of these tasks is the running of battles, or melees, which occur during the game. All fights are resolved according to the relative strengths of the protagonists in the battle, and on the result of a throw of a die which is weighted in favour of the stronger of the two squaring up to fight. You should always select the attribute in which you most outrank the monster to increase your chances of winning any fight.

The point of the game is to get out of the Black Lagoon alive. In the final fight, against the Guardian of the Black Lagoon, you must have three fights, one with each attribute, and you must finish this three-part fight with a total of at least ten attribute points. The money you collect within the castle can be used, just before the final fights, to buy additional attribute points.

To tell you much more would detract from the process of discovery when you play the game. All we need to do is assure you that the castle layout is mappable and coherent, and it is worth the trouble of trying to work out, and map, the layout of the castle.

Here are some more sample ' snapshots' of one run of the

program in action.

 Magic : 2
Strength : 9
 Widsom: 4
 Wealth: £301

This is the most magnificent room in the castle, the Great Hall, with massive hammerbeam roof. You can leave it by the double doors to the North or by those to the East behind which you can hear music playing. Through the windows in the West wall, you can see the Contoured Garden, and beyond that, through windows of a room hung with many, many fine paintings.

You see a small bottle engraved with curious, twisted letters ...

Will you drink the potion which you can see inside the bottle ? Yes
It contained a potion which weakens you further ...

The room contains a fire-breathing Fearbringer. His Wisdom is 6 while he has a strength rating of 5 and his Magic skill is 5

What do you want to do now ? Fight
The Fearbringer's Magic is 5
Strength is 5 and Wisdom is 6

Which characteristic will you fight

with (M/S/W) ? Strength
The fight table for this melee reads -1
The melee carries a cost/reward of 5
The monster attacks and the
fight is underway

The story of Bannochburn Castle is simple, but tragic. In the famed War of the Clans which ravaged northern Scotland in the closing years of the fifteenth century, the Laird of Bannochburn engaged the services of Wee Sporrán McMerlin, a sorcerer originally in the employ of King James in the Edinburgh Court. When the bloodthirsty McKinna clan joined forces with the equally intemperate McClaren hordes, and together attacked Bannochburn, the Laird employed McMerlin to invoke a spell to protect the castle forever.

Unfortunately, Wee Sporrán's intelligence was not as good as his magic, and instead of conjuring up some spells to look after the inhabitants, he simply conjured up a storm to protect the castle. The Laird and his retainers were slaughtered, but the castle remained intact. It survived right up to this day, and your task now is to explore it and try to seek out its secrets and gold and slay the Guardian of the Black Lagoon so that the current Bannochburn Clan (now living above a dry cleaner's in Glasgow) can regain their rightful inheritance. You feel that they'll be pretty grateful to you if you manage to slay the Guardian and thus rid the castle of the spooky inhabitants Wee Sporrán placed within the walls so many years ago to protect it.

Note that once you enter the castle, there is no way out but through. You cannot leave again by the front entrance, so there is no room for second thoughts.

Good luck, and may the Guardian fall to your mighty powers.

10 REM The Bannochburn Legacy
20
30 *TV 255


```

40  MODE 7
50  PROC_INIT
60  REPEAT
70    CLS
80    IF M(7)=0 AND S(7)=0 AND W(7)=0
THEN PRINT "This adventure has ended." "' You
ou have exhausted all your powers." "' You
u fought bravely and well, "' but could n
ot endure." "' "Farewell my friend ... " '
'':PROC_QUIT
90    VDU 26,12
100   PRINT N$;"", your attributes are
:  ""
110   IF M(7)>0 THEN PRINT "[spc3]Magic
:  ";M(7)
120   IF S(7)>0 THEN PRINT "Strength :
";S(7)
130   IF W(7)>0 THEN PRINT "  Widsom :
";W(7)
140   IF MONEY>0 THEN PRINT "  Weath :
£";MONEY
150   VDU 28,0,24,39,VPOS+1,14
160   PROC_PAUSE
170   Z$=""
180   PROC_ROOM
190   M=0:IF Z>1 THEN IF RND(1)>.5 THE
N PROC_CONTENTS
200   PROC_PAUSE
210   PROC_ACTION
220   PROC_PAUSE
230   UNTIL FALSE
240
250  DEF PROC_MELEE
260  ROLL=RND(6)
270  VICTORY=0
280  IF (DIFF<0 AND ROLL>ABS(DIFF)) OR
(DIFF>0 AND ROLL<=DIFF) OR (DIFF=0 AND R
OLL<4) THEN VICTORY=1
290  PROC_PAUSE

```

```

300 ENDPROC
310
320 DEF PROC_MONSTER
330 IF Q=0 THEN ENDPROC
340 PRINT
350 ON Q GOSUB 380,390,400,410,420
360 PROC_PAUSE
370 ENDPROC
380 PRINT"There is an angry Warlock in
""the room. He has a Magic""rating of
";M(1)""His Strength is ";S(1);" and""h
is Wisdom is ";W(1):RETURN
390 PRINT"The room contains a fire-""
breathing Fearbringer. His""Wisdom is "
";W(2);" while he""has a strength rating
of ";S(2)""and his Magic skill is ";M(2
):RETURN
400 PRINT"Horrors! You've stumbled in
on""the hiding place of an awful""Soul
threat. You can see at a""glance his St
rength is ";S(3)""his Magic ability rate
s ";M(3)""and his Wisdom is ";W(3):RETUR
N
410 PRINT"You've tripped in the dark."
:PROC_PAUSE:PRINT"Something awakes. Oh,
you're face""to face with Gravelpit, th
e""Kneecrusher, who has Magic of ";M(4)
""Strength of ";S(4);" and Wisdom""of "
";W(4):RETURN
420 PRINT"This room holds the dreaded"
""enemy of all who enter the""Castle, W
olving of Wolf Glass""with Strength of
";S(5);" plus""Wisdom of ";W(5);" and""
"Magic of ";M(5):RETURN
430
440 VDU 26,12,15
450 PRINT'"You have stumbled on to the
"
460 PRINT"marshy mud surrounding the"

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```

470 PRINT"Black Lagoon underneath the"
480 PRINT"castle. To escape from the"
490 PRINT"castle you must fight The"
500 PRINT"Guardian of the Black Lagoon
."
510 PRINT
520 PRINT"The fight must involve all"
530 PRINT"attributes...and you'll need
"
540 PRINT"a total of 10 to escape ..."

550 PRINT'"Press SPACE BAR to continu
e":REPEAT UNTIL GET=32:PRINT'
560 IF MONEY>0 THEN PRINT"You have £"
;MONEY;" worth of gold"
570 PROC_PAUSE
580 PRINT'"The Guardians attributes :"'
590 PRINT"[spc3]Magic : ";M(6)
600 PRINT"Strength : ";S(6)
610 PRINT"  Wisdom : ";W(6)
620 PRINT'"Your attributes are :"'
630 PRINT"[spc3]Magic : ";M(7)
640 PRINT"Strength : ";S(7)
650 PRINT"  Wisdom : ";W(7)
660 PRINT'"Press SPACE BAR to continu
e":REPEAT UNTIL GET=32:PRINT'
670 IF MONEY<100 THEN 930
680 PRINT'"You can buy attribute point
s"
690 PRINT"for `100 each ..."
700 PRINT"If you want to buy any, ente
r"
710 PRINT"the initial of the attribute
"
720 PRINT"followed by the number of"
730 PRINT"that attribute you want."
740 PRINT"Enter 'N' when you've got"
750 PRINT"all the attributes you want"
760 PRINT'"Attribute (M/S/W or N) ? ";

```

```

770 REPEAT E$=GET$
780 IF E$>"Z" THEN E$=CHR$(ASC(E$)-3
2)
790 UNTIL INSTR("NSWN",E$)>0
800 IF E$="N" THEN PRINT"None"
810 IF E$="W" THEN PRINT"Wisdom"
820 IF E$="S" THEN PRINT"Strength"
830 IF E$="M" THEN PRINT"Magic"
840 IF E$="N" THEN 930
850 INPUT"Amount ",AM
860 IF MONEY-AM<1 OR AM<100 THEN 850
870 MONEY=MONEY-AM
880 IF E$="M" THEN M(7)=M(7)+AM DIV100
890 IF E$="S" THEN S(7)=S(7)+AM DIV100
900 IF E$="W" THEN W(7)=W(7)+AM DIV100
910 PRINT'"[spc3]Magic : ";M(7)'"Stren
gth : ";S(7)'" Wisdom : ";W(7)
920 IF MONEY>99 THEN 760
930 CLS
940 PRINT'"Now for the Ultimate Test .
.."
950 PROC_PAUSE
960 PRINT'"Press RETURN when you're"
970 PRINT"brave enough to fight ";
980 REPEAT UNTIL GET=32:PROC_PAUSE:CLS
990 PRINT'"Fist, Magic ... "
1000 PRINT'"You : ";M(7);TAB(20);"Guard
ian : ";M(6)
1010 DIFF=ABS(M(7)-M(6))
1020 PRINT'"The difference is ";DIFF
1030 IF M(7)>M(6) THEN PRINT"in your fa
vour." ELSE PRINT"and the Guardian has t
he edge"
1040 PROC_PAUSE
1050 K=M(6)+M(7)
1060 Cost=RND(K)
1070 PRINT'"This round carries a penalt
y"
1080 PRINT"of ";Cost;" attribute points

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```

":PROC_PAUSE
1090 PROC_EFFECTS
1100 DIFF=M(7)-M(6)
1110 IF DIFF>5 THEN DIFF=DIFF-6:GOTO 11
10
1120 IF DIFF<-5 THEN DIFF=DIFF+6:GOTO 1
120
1130 PROC_MELEE
1140 IF VICTORY=1 THEN M(7)=M(7)+Cost:P
RINT"And you've won...and so"
1150 IF VICTORY=0 THEN M(7)=M(7)+Cost:P
RINT"And you've lost...and so"
1160 IF M(7)<1 THEN M(7)=0
1170 PRINT"now have ";M(7);" Magic poin
ts..."
1180 PROC_PAUSE
1190 PRINT'"Press RETURN when you're r
eady"
1200 PRINT"to continue this epic strugg
le";
1210 REPEAT UNTIL GET=13:CLS
1220 PRINT'"Now it's time for a match o
f"
1230 PRINT"Strength, where your rating"
1240 PRINT"is ";S(7);" and the Guardian
's"
1250 PRINT"Strength rating is ";S(6)
1260 DIFF=ABS(S(7)-S(6))
1270 PRINT'"The difference is ";DIFF
1280 IF S(6)>S(7) THEN PRINT"in the Gua
rdian's favour" ELSE PRINT"in the your f
avour"
1290 PROC_PAUSE
1300 K=S(6)+S(7)
1310 Cost=RND(K)
1320 PRINT'"The round carries a penalty
"
1330 PRINT"of ";Cost;" attribute points
.":PROC_PAUSE

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```

1340 DIFF=S(7)-S(6)
1350 PROC_EFFECTS
1360 IF DIFF>5 THEN DIFF=DIFF-6:GOTO136
0
1370 IF DIFF<-5 THEN DIFF=DIFF+6:GOTO 1
370
1380 PROC_MELEE
1390 IF VICTORY=1 THEN S(7)=S(7)+Cost:PRINT"You're the Victor, and so"
1400 IF VICTORY=0 THEN S(7)=S(7)+Cost:PRINT"You're the Loser, and so"
1410 IF S(7)<1 THEN S(7)=0
1420 PRINT"you now have ";S(7);" strength points"
1430 PROC_PAUSE
1440 PRINT'"Press the RETURN key when"
1450 PRINT"you have stopped trembling"
1460 PRINT"enough to face the third,"
1470 PRINT"and final challenge ...";
1480 REPEAT UNTIL GET=13
1490 PROC_PAUSE:CLS
1500 PRINT'"Now it's time for a match of"
1510 PRINT"wisdom, where your rating"
1520 PRINT"is ";W(7);" and the Guardian's"
1530 PRINT"wisdom rating is ";W(6)
1540 DIFF=ABS(W(7)-W(6))
1550 PRINT'"The difference is ";DIFF
1560 IF W(6)>W(7) THEN PRINT"in the Guardian's favour" ELSE PRINT"in your favour"
1570 PROC_PAUSE
1580 K=W(6)+W(7)
1590 Cost=RND(K)
1600 PRINT'"Now, this final challenge"
1610 PRINT"carries a huge penalty"
1620 PRINT"of ";Cost;" attribute points"
":PROC_PAUSE

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1630 DIFF=W(7)-W(6)
1640 IF DIFF>5 THEN DIFF=DIFF-6:GOTO 16
40
1650 IF DIFF<-5 THEN DIFF=DIFF+6:GOTO 1
650
1660 PROC_MELEE
1670 PROC_EFFECTS
1680 IF VICTORY=1 THEN W(7)=W(7)+Cost:P
RINT"And you defeated the Guardian!"
1690 IF VICTORY=0 THEN W(7)=W(7)-Cost:P
RINT"And the Guardian got the better""o
f you ";N$;"!!"
1700 IF W(7)<1 THEN W(7)=0
1710 PROC_PAUSE
1720 CLS
1730 PRINT'"And now, at the end of the
"
1740 PRINT"final battle, your position"
1750 PRINT"is :[spc3]Magic ... ";M(7)
1760 PRINT"[spc6]Wisdom ... ";W(7)
1770 PRINT"[spc4]Strength ... ";S(7)
1780 SUM=M(7)+S(7)+W(7)
1790 PRINT'"Well, ";N$;"", your"
1800 PRINT"attribute total is ";SUM
1810 PROC_PAUSE
1820 IF SUM<10 THEN 1920
1830 PRINT'"You needed at least 10 poin
ts"
1840 PRINT"to win the game, and you've"
1850 PRINT"done it, ";N$;"!":PROC_PAUSE
1860 PRINT'"'"'"You've succeeded, O her
o of"
1870 PRINT"these dark and dangerous"
1880 PRINT"times. I hereby dub thee"
1890 PRINT"SIR ";N$;" ... Arise..."
1900 PROC_QUIT
1910
1920 PRINT"Unfortunately, you did not"
1930 PRINT"end up with the 10 points"

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1940 PRINT"you needed, so it is all ove
r"
1950 PRINT'"You fail to escape the clut
ches"
1960 PRINT"of the Guardian .... ":PROC_
PAUSE
1970 PRINT"You fought valiantly, but wi
ll"
1980 PRINT"now be consumed ...."
1990 PROC_PAUSE:PROC_PAUSE:PROC_EFFECTS
:PRINT"[fs1]UHHHhhheer rr[fs7]":PROC_PAU
SE:PROC_EFFECTS:PROC_PAUSE:PROC_QUIT
2000
2010 DEF PROC_ACTION
2020 PRINT
2030 Q%=Q
2040 D=4:IF MID$(B$(Z),9,1)="0" OR MID$
(B$(Z),9,1)=" " THEN D=1:IF RND(1)>.8 AN
D Z>1 THEN PROC_CONTENTS:GOTO 2040
2050 ACCEPT$="QNSEWFRL"
2060 PRINT'"What do you want to do now
? ";
2070 Z$=FN_COMMAND(ACCEPT$):IF Z$="Q" T
HEN PROC_QUIT
2080 IF Z$="L" THEN PROC_ROOM:GOTO 2060

2090 ACCEPT$="QNSEWFRL"
2100 VDU 15
2110 IF Q%>0 AND INSTR("NSEW",Z$)>0 THE
N PRINT'"Te ";M$(Q);" blocks your way ou
t.":GOTO 2060
2120 IF D=4 AND LEFT$(Z$,1)<>"F" THEN D
=0:GOTO 2260
2130 IF LEFT$(Z$,1)="F" THEN 2230
2140 IF Z$="N" AND LEFT$(B$(Z),2)="00"
THEN PRINT"No exit.":GOTO 2060
2150 IF Z$="S" AND MID$(B$(Z),3,2)="00"
THEN PRINT"There is no door that way":G
OTO 2060

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2160 IF Z$="E" AND MID$(B$(Z),5,2)="00"
THEN PRINT"That is not possible":GOTO 2
060
2170 IF Z$="W" AND MID$(B$(Z),7,2)="00"
THEN PRINT"You can't walk through walls
!":GOTO 2060
2180 IF Z$="N" THEN Z=VAL(LEFT$(B$(Z),2
)):ENDPROC
2190 IF Z$="S" THEN Z=VAL(MID$(B$(Z),3,
2)):ENDPROC
2200 IF Z$="E" THEN Z=VAL(MID$(B$(Z),5,
2)):ENDPROC
2210 IF Z$="W" THEN Z=VAL(MID$(B$(Z),7,
2)):ENDPROC
2220 IF LEFT$(Z$,1)<>"F" THEN ENDPROC
2230 IF RIGHT$(B$(Z),1)="0" THEN PRINT"
There is nothing to fight against!":GOTO
2060
2240 IF Z$="FL" THEN D=RND(2)
2250 IF D=1 THEN PRINT"Which direction
? ";:ACCEPT$="NSEWQ":Q%=0:GOTO 2070
2260 IF D=2 THEN PRINT"No!! You must st
and and fight":PROC_PAUSE
2270 PRINT'"The ";M$(Q);"'s Magic is ";
M(D)'"Strength is ";S(Q);" and Wisdom is
";W(Q)
2280 PRINT'"Which characteristic will y
ou fight"'with (M/S/W) ? ";
2290 REPEAT Z$=GET$
2300 IF Z$>"Z" THEN Z$=CHR$(ASC(Z$)-3
2)
2310 UNTIL Z$="M" OR Z$="S" OR Z$="W"
2320 IF Z$="M" THEN HUM=M(7):MON=M(Q):P
RINT"Magic"
2330 IF Z$="S" THEN HUM=S(7):MON=S(Q):P
RINT"Strength"
2340 IF Z$="W" THEN HUM=W(7):MON=W(Q):P
RINT"Wisdom"
2350 DIFF=HUM-MON

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2360 IF DIFF>5 THEN DIFF=DIFF-6:GOTO 23
60
2370 IF DIFF<-5 THEN DIFF=DIFF+6:GOTO 2
370
2380 PRINT"The fight table for this mel
ee reads ";DIFF
2390 Cost=ABS(DIFF)+RND(6)
2400 PROC_PAUSE
2410 PRINT"The melee carries a cost/rew
ard of ";Cost
2420 FI=RND(2)-1:PROC_PAUSE:VDU 26,12
2430 IF FI=0 THEN PRINT"The monster att
acks and the""fight is underway."
2440 IF FI=1 THEN PRINT"You attack firs
t, an the""battle is joined ..."
2450 PROC_EFFECTS
2460 ROLL=RND(6)
2470 VICTORY=0
2480 IF (DIFF<0 AND ROLL>ABS(DIFF)) OR
(DIFF>0 AND ROLL<=DIFF) OR (DIFF=0 AND R
OLL<4) THEN VICTORY=1
2490 IF VICTORY=1 THEN PROC_HUM_VICT
2500 IF VICTORY=0 THEN PROC_MON_VICT
2510 PROC_PAUSE
2520 PRINT'"After that fight, your"
2530 PRINT"attributes are :"'
2540 PRINT"[spc3]Magic : ";M(7)
2550 PRINT"Strength : ";S(7)
2560 PRINT"& Wisdom : ";W(7)
2570 PROC_PAUSE:PRINT
2580 PRINT"And those of the ";M$(Q);" a
re:"
2590 PRINT"[spc3]Magic : ";M(Q)
2600 PRINT"Strength : ";M(Q)
2610 PRINT"& Wisdom : ";W(Q)
2620 B$(Z)=LEFT$(B$(Z),8)+"0"+MID$(B$(Z
),10)
2630 PRINT'"Press SPACE BAR to continu
e";REPEAT UNTIL GET=32:CLS

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2640 PROC_CONTENTS:ENDPROC
2650 DEF PROC_HUM_VICT
2660 IF Q=0 THEN D=1
2670 PRINT'"You defeated the ";M$(Q)
2680 IF Z$="M" THEN M(7)=M(7)+Cost:M(Q)
=M(Q)-Cost:IF M(Q)<1 THEN M(Q)=0
2690 IF Z$="M" THEN W(7)=W(7)+Cost:W(Q)
=W(Q)-Cost:IF W(Q)<1 THEN W(Q)=0
2700 IF Z$="S" THEN S(7)=S(7)+Cost:S(Q)
=S(Q)-Cost:IF S(Q)<1 THEN S(Q)=0
2710 ENDPROC
2720 DEF PROC_MON_VICT
2730 PRINT'"The ";M$(Q);" defeated you.
"
2740 IF Z$="M" THEN M(Q)=M(Q)+Cost:M(7)
=M(7)-Cost:IF M(7)<1 THEN M(7)=0
2750 IF Z$="W" THEN W(Q)=W(Q)+Cost:W(7)
=W(7)-Cost:IF W(7)<1 THEN W(7)=0
2760 IF Z$="S" THEN S(Q)=S(Q)+Cost:S(7)
=S(7)-Cost:IF S(7)<1 THEN S(7)=0
2770 ENDPROC
2780
2790 DEF PROC_EFFECTS
2800 FOR J=1 TO RND(10)+1
2810     CLS
2820     ON RND(6) GOSUB 2870,2880,2890,2
920,2930,2940
2830     FOR P=1 TO 500+RND(500):NEXT
2840     PRINT'
2850     NEXT J
2860 CLS:ENDPROC
2870 PRINT TAB(RND(30),RND(24));"Bash !
!!!":FOR P=1 TO 400:NEXT:RETURN
2880 PRINT TAB(RND(25),RND(24));"Aaaaaa
rghhhh !":FOR P=1 TO 80:NEXT:RETURN
2890 PRINT TAB(RND(35),RND(24));"Rip";:
FOR P=1 TO 400:NEXT:PRINT TAB(RND(34),RND
(24));"Tear!":FOR P=1 TO 400:NEXT:RETUR
N

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2900 FOR E=1 TO 20:PRINT TAB(RND(36));"
!!!":FOR P=1 TO 60:NEXT:NEXT:CLS:RETURN
2910 RETURN
2920 FOR E=1 TO 20:PRINT TAB(RND(30),RND(23));CHR$(128+RND(7));"!*&*&@!!";:FOR
P=1 TO 80:NEXT:NEXT E:RETURN
2930
2940 DEF PROC_CONTENTS
2950 REPEAT K=1+RND(8)
2960 UNTIL K<>Z
2970 IF RIGHT$(B$(Z),1)<>"0" THEN ENDPROC
OC
2980 B$(K)=LEFT$(B$(K),8)+MID$(B$(Z),9,
1)+MID$(B$(K),10)
2990 B$(Z)=LEFT$(B$(Z),8)+"0"+MID$(B$(Z),10)
3000 IF RND(2)>1 THEN ENDPROC
3010 PRINT
3020 REPEAT CT=RND(5)
3030 UNTIL ((CT<>2) OR (POTION<>1)) AND ((CT<>3) OR (SCROLL<>1)) AND ((CT<>4) OR (SAFE<>1))
3040 ON CT GOSUB 3080,3200,3320,3420,3080
3050 PROC_PAUSE
3060 ENDPROC
3070
3080 CHEST=CHEST+1:IF CHEST=5 THEN RETURN
RN
3090 PRINT"In front of you is a chest"
3100 PRINT"labelled with a large #";CHEST
ST
3110 PRINT'"Will you open it ? ";
3120 Z$=FN_YN
3130 IF Z$="N" THEN RETURN
3140 J=RND(3)-1:PROC_PAUSE
3150 IF J=0 THEN CASH=100+RND(300):PRINT"It holds dragon's gold worth`";CASH:MO

```

```

NEY=MONEY+CASH:PROC_PAUSE:RETURN
  3160 IF J=1 THEN PRINT"A goblin leaps o
ut, stabbing you!":LOSS=RND(6):MONEY=MON
EY-RND(200):IF MONEY<1 THEN MONEY=0
  3170 IF J=2 THEN PRINT"A strange smoke
comes out""making you sleepy and""sapp
ing your magic power.":LOSS=RND(6):M(7)=
M(7)-LOSS:IF M(7)<1 THEN M(7)=0
  3180 PROC_PAUSE:ENDPROC
  3190
  3200 POTION=1
  3210 PRINT"You see a small bottle engra
ved"
  3220 PRINT"with curious, twisted letter
s ..."
  3230 PRINT'"Will you drink the potion w
hich"
  3240 PRINT"you can see inside the bottl
e ?";
  3250 Z$=FN_YN
  3260 IF Z$="N" THEN RETURN
  3270 PROC_PAUSE
  3280 IF RND(1)>.6 THEN PRINT"It contain
ed a potion to""enhance your wisdom.":W
(7)=W(7)+RND(6):PROC_PAUSE:RETURN
  3290 PRINT"It contained a potion which"
'"weakens you further ...":PROC_PAUSE:S(
7)=S(7)-RND(6):IF S(7)<1 THEN S(7)=0
  3300 RETURN
  3310
  3320 SCROLL=1
  3330 PRINT"You see a papyrus scroll."
  3340 PRINT'"Do you wish to read it ? ";

  3350 Z$=FN_YN:IF Z$="N" THEN RETURN
  3360 IF RND(2)>1 THEN PRINT"You cannot
understand""then language , , ,":PROC_PAU
SE:RETURN
  3370 PRINT"It contains a Magic spell. D

```

```

o""you wish to read it ? ";
3380 Z$=FN_YN:IF Z$="N" THEN RETURN
3390 IF RND(2)>1 THEN PRINT"It was a be
neficient spell":PROC_PAUSE:M(7)=M(7)+RND
(6):RETURN
3400 PRINT"It was an evil spell":PROC_P
AUSE:M(7)=0:S(7)=S(7) DIV 2:RETURN
3410
3420 SAFE=1
3430 PRINT"On the wall is a small, guil
ded""safe, and infront of""it is a key
...":PROC_PAUSE
3440 PRINT"Do you wish to open the safe
? ";
3450 Z$=FN_YN
3460 IF Z$="N" THEN RETURN
3470 IF RND(1)>.3 THEN 3530
3480 PROC_PAUSE:PRINT"A shrieking harpy
flies out""and sinks its teeth into""
your throat!"
3490 PROC_PAUSE
3500 PRINT"You grapple with it, and ...
":PROC_PAUSE:PRINT"... finally wring its
neck."
3510 S(7)=S(7)-RND(6):IF S(7)<1 THEN S(
7)=0
3520 PROC_PAUSE:RETURN
3530 PRINT"A choir of angelic voices is
""heard ...":PROC_PAUSE
3540 PRINT'"You are healed and refreshe
d ..."
3550 M(7)=M(7)+2:S(7)=S(7)+2:W(7)=W(7)+
2
3560 PROC_PAUSE
3570 RETURN
3580
3590 DEF FN_YN
3600 LOCAL Z$
3610 REPEAT Z$=GET$

```

```

3620     IF Z$>"Z" THEN Z$=CHR$(ASC(Z$)-3
2)
3630     UNTIL Z$="Y" OR Z$="N"
3640 IF Z$="Y" THEN PRINT"Yes" ELSE PRI
NT"No"
3650 =Z$
3660 DEF PROC_ROOM
3670 CLS
3680 ON Z GOSUB 3740,3830,3890,3940,403
0,4110,4210,4340,4470,4530,4610,4700
3690 IF Z$="L" THEN 3720
3700 Q=0:IF RND(1)>.81 AND Z>1 THEN Q=R
ND(6)-1:B$(Z)=LEFT$(B$(Z),8)+STR$(Q)+MID
$(B$(Z),10):PROC_MONSTER:ENDPROC
3710 E$=MID$(B$(Z),9,1):IF E$>"0" AND E
$<"6" THEN Q=VAL(E$)
3720 IF Q>0 THEN PROC_MONSTER
3730 ENDPROC
3740 PRINT"You are at the entrance to a
n"
3750 PRINT"ancient, forbidding-looking"
3760 PRINT"castle. You are standing on"

3770 PRINT"the North side of the castle
,"
3780 PRINT"and as you look South, towar
ds"
3790 PRINT"the tumbling structure, you"
3800 PRINT"notice the entrance portal"
3810 PRINT"is open and unguarded"
3820 RETURN
3830 PRINT"You are in the entrance hall
,"
3840 PRINT"which is hung with rich"
3850 PRINT"fabrics. Doors lead to the"
3860 PRINT"East and the South, and ther
e"
3870 PRINT"is an open portal to the wes
t."

```

```

3880 RETURN
3890 PRINT"There is only a store room."
3900 PRINT"There is a single exit, back
"
3910 PRINT"the way you came in,"
3920 PRINT"to the West."
3930 RETURN
3940 PRINT"This small room, which"
3950 PRINT"features an ornate sculpture
"
3960 PRINT"of the moon goddess on a"
3970 PRINT"pedestal in the North-east"
3980 PRINT"corner, is the Royal"
3990 PRINT"Presence Chamber. Doors lead
"
4000 PRINT"to the South, the West and"
4010 PRINT"to the East ..."
4020 RETURN
4030 PRINT"The Hall of Plots, a"
4040 PRINT"wooden-panelled room"
4050 PRINT"redolent with whispers and"
4060 PRINT"rumours, with exits to the E
ast"
4070 PRINT"and to the South from which"
4080 PRINT"comes the smell of sulphur a
nd"
4090 PRINT"a weird chanting ..."
4100 RETURN
4110 PRINT"You have entered to Wizard's
"
4120 PRINT"Den, with a cauldron bubblin
g"
4130 PRINT"over a fire with green flame
s"
4140 PRINT"in the South-west corner."
4150 PRINT"This room reeks of burning"
4160 PRINT"sulphur, and the echo of"
4170 PRINT"ancient spells. You can leav
e"

```



```

4180 PRINT"to the North, the South, or
to"
4190 PRINT"to the East."
4200 RETURN
4210 PRINT"You find yourself in a place
"
4220 PRINT"which seems quiet and peacef
ul."
4230 PRINT"This is the castle's Picture
"
4240 PRINT"Gallery, with a large painti
ng"
4250 PRINT"of the Legendary Guardian of
"
4260 PRINT"the Black Lagoon to the left
of"
4270 PRINT"the window in the East wall.
Through"
4280 PRINT"the window you can see the m
ullioned"
4290 PRINT"windows of the Great Hall ac
ross the"
4300 PRINT"Contoured Garden. Exits from
the"
4310 PRINT"Gallery are to the North and
"
4320 PRINT"to the East ..."
4330 RETURN
4340 PRINT"This is the most magnificent
"
4350 PRINT"room in the castle, the Grea
t"
4360 PRINT"Hall, with massive hammerbea
m"
4370 PRINT"roof. You can leave it by th
e"
4380 PRINT"double doors to the North or
by"
4390 PRINT"those to the East behind whi

```

```

ch"
4400 PRINT"you can hear music playing."

4410 PRINT"Through the windows in the W
est"
4420 PRINT"wall, you can see the Contou
red"
4430 PRINT"Garden, and beyond that, thr
ough"
4440 PRINT"windows of a room hung with"
4450 PRINT"many, many fine paintings."
4460 RETURN
4470 PRINT"Sounds of a string quartet"
4480 PRINT"fill this room, the Musician
s'"
4490 PRINT"Chamber. You can leave by"
4500 PRINT"doors to the West or by one"
4510 PRINT"to the South ..."
4520 RETURN
4530 PRINT"You are now in the Sanctuary
"
4540 PRINT"of Silence, a room whose"
4550 PRINT"calmness may be a deception.
"
4560 PRINT"The room is damp and cold. A
n"
4570 PRINT"exit leaves the room to the"
4580 PRINT"North ";
4590 IF MID$(B$(10),3,2)="12" THEN PRIN
T"and one leaves to the South"
4600 PRINT:RETURN
4610 PRINT"This must be the Vestibule"
4620 PRINT"of Sighs, a dank and clammy"
4630 PRINT"room where legend says the"
4640 PRINT"Guardian of the Black Lagoon
"
4650 PRINT"can sometimes be heard at"
4660 PRINT"night. There is a door to th
e"

```

```

4670 PRINT "North ";
4680 IF MID$(B$(11), 3, 2) = "12" THEN PRINT "and one leaves to the South."
4690 PRINT: RETURN
4700 GOTO 440
4710 IF MID$(B$(Z), 9, 1) <> "0" THEN Q = VAL (MID$(B$(Z), 9, 1): PROC_MONSTER
4720 RETURN
4730
4740 DEF PROC_INIT
4750 AUTHOR$ = "Ian the Brave"
4760 Z% = RND(-TIME)
4770 Z = 1
4780 MONEY = 0
4790 CHEST = 0
4800 POTION = 0
4810 SCROLL = 0
4820 SAFE = 0
4830 DIM B$(12), M$(6), S(7), M(7), W(7)
4840 INPUT "Please enter your first name ", N$
4850 IF N$ = "" THEN N$ = AUTHOR$
4860 CLS: PRINT "Hi there, "; N$
4870 PRINT "Please stand by ... ";
4880
4890 FOR T% = 1 TO 12
4900     READ B$(T%)
4910     L = RND(1)
4920     Q$ = STR$(RND(5))
4930     IF T% > 1 AND T% < 11 AND L < .63 THEN B$(T%) = B$(T%) + RIGHT$(Q$, 1)
4940     IF T% > 10 OR L > .63 THEN B$(T%) = B$(T%) + "0"
4950     NEXT
4960 L = RND(1)
4970 IF L < .5 THEN B$(11) = "0912000000"
4980 IF L > .5 THEN B$(11) = "0612000000"
4990
5000 FOR T% = 1 TO 6

```

```

5010     READ  M$(T%)
5020     S(T%)=RND(6)
5030     M(T%)=RND(6)
5040     S(T%)=RND(6)
5050     NEXT
5060
5070  S(7)=RND(6)
5080  M(7)=RND(6)
5090  W(7)=RND(6)
5100  PROC_PAUSE
5110  ENDPROC
5120  DATA  "000200000"
5130  DATA  "00080304"
5140  DATA  "00000002"
5150  DATA  "00070205"
5160  DATA  "00060400"
5170  DATA  "05100700"
5180  DATA  "04000600"
5190  DATA  "02000900"
5200  DATA  "00110008"
5210  DATA  "06000000"
5220  DATA  "09000000"
5230  DATA  "00000000"
5240
5250  DATA  "Warlock","Fearbringer","Soul
threat","kneecrusher","Wolving","Guardia
n"
5260
5270  DEF PROC_PAUSE
5280  LOCAL  T%
5290  T%=TIME+100
5300  REPEAT UNTIL  TIME>T%
5310  ENDPROC
5320
5330  DEF FN_COMMAND(ACC$)
5340  LOCAL  COM$,X%,Y%
5350  REPEAT
5360      COM$=FN_UCASE(GET$)
5370      UNTIL  INSTR(ACC$,COM$)>0

```

```

5380 IF COM$="Q" THEN PRINT"Quit"
5390 IF COM$="N" THEN PRINT"Go North"
5400 IF COM$="S" THEN PRINT"Go South"
5410 IF COM$="E" THEN PRINT"Go East"
5420 IF COM$="W" THEN PRINT"Go West"
5430 IF COM$="F" THEN PRINT"Fight"
5440 IF COM$="R" THEN PRINT"Run away":C
OM$="FL"
5450 IF COM$="L" THEN PRINT"Look"
5460 =COM$
5470
5480 DEF FN_UCASE(CHARS$)
5490 LOCAL OUT$,PSN%,CHAR
5500 OUT$=""
5510 FOR PSN%=1 TO LEN(CHARS$)
5520 CHAR=ASC(MID$(CHARS$,PSN%,1))
5530 IF CHAR>ASC"Z" THEN CHAR=CHAR-32

5540 OUT$=OUT$+CHR$(CHAR)
5550 NEXT
5560 =OUT$
5570 DEF PROC_QUIT
5580 PRINT'"Press SPACE BAR to contin
ue";:REPEAT UNTIL GET=32
5590 VDU 26,12,15
5600 PRINT'"Your Adventures are at an
end."
5610 PRINT'"Waking from your bed and lo
oking"
5620 PRINT"at your clock you have to de
cide"
5630 PRINT"on your most important decis
ion"
5640 PRINT"of the night."
5650 PRINT'"Do you wake up or go back t
o sleep"
5660 PRINT"and do further battles with
the"
5670 PRINT"depths of your imagination"

```

```
5680 PRINT'"The choice is yours O dream
y one.'"
5690 PRINT"What is your desire ..."'"Aw
ake or sleep (A / S) ? ";
5700 REPEAT K$=GET$
5710     IF K$>"Z" THEN K$=CHR$(ASC(K$)-3
5720     UNTIL K$="A" OR K$="S"
5730 IF K$="S" THEN RUN
```

3-D Maze/Lodestar

You have to find your way around a maze, searching for the precious Lodestar. Throughout the game you see the view ahead. You are told which doors are open ahead, to the left and to the right. As well, you are able to read the output of the 'Lodestaindicator' which gives you a clue as to how close you are to the goal.

If you find you are lost in the maze, you can use the 'H' (for 'help' option. When you press the 'H' key, you'll see a view showing where you are in the maze and indicating with square 'dots' the path you have travelled so far.

The Lodestar can be in one of a number of positions, and the maze changes to some extent from game to game, so you will take a long time to master the program. Start off slowly with this game, until you're familiar with the representation of the 'view' and you'll be pleased to discover how good you'll get at making your way around the maze. You move through the maze using the cursor keys.

```
10 REM 3-D MAZE
20
30 ON ERROR GOTO 2140
40 MODE 5
50 PROC_INIT
60 REPEAT
70     PROC_NEWGAME
80     PROC_HELP
90     PROC_PLAY
100 UNTIL NOT FN_ANOTHER
110 END
120
```

```

130 DEF PROC_PLAY
140 REPEAT move=move+1
150     N=0
160     COLOUR 2:PRINT TAB(0,8);"Move ";
move;". "
170     IF A$<>"h" THEN COLOUR 1:PRINT"Y
ou are facing ";A$;". "
180     COLOUR 3:PRINT TAB(0,13);"North:
";
190     IF A%(D%+1,E%)=blank THEN PROC_O
PEN:IF A$<>"s" THEN N=N+1
200     IF A%(D%+1,E%)=wall THEN PROC_WA
LL
210     PRINT'"South: ";
220     IF A%(D%-1,E%)=blank THEN PROC_O
PEN:IF A$<>"n" THEN N=N+10
230     IF A%(D%-1,E%)=wall THEN PROC_WA
LL
240     PRINT'"East : ";
250     IF A%(D%,E%+1)=blank THEN PROC_O
PEN:IF A$<>"w" THEN N=N+100
260     IF A%(D%,E%+1)=wall THEN PROC_WA
LL
270     PRINT'"West : ";
280     IF A%(D%,E%-1)=blank THEN PROC_O
PEN:IF A$<>"e" THEN N=N+1000
290     IF A%(D%,E%-1)=wall THEN PROC_WA
LL
300     COLOUR 1:PRINT'"Lodestar indica
tor"'reads ";100*(loadx-D%)+(loady-E%);
" "
310     PROC_DISPLAY
320     W$=FN_GET_COMMAND
330     IF W$="h" THEN PROC_HELP:GOTO 43
0
340     T$=A$:PROC_CONVERT
350     IF A$="n" AND A%(D%+1,E%)=wall T
HEN 320
360     IF A$="s" AND A%(D%-1,E%)=wall T

```



```

HEN 320
  370 IF A$="e" AND A%(D%,E%+1)=wall T
HEN 320
  380 IF A$="w" AND A%(D%,E%-1)=wall T
HEN 320
  390 IF A$="n" THEN D%=D%+1
  400 IF A$="s" THEN D%=D%-1
  410 IF A$="e" THEN E%=E%+1
  420 IF A$="w" THEN E%=E%-1
  430 B%(D%,E%)=46:IF loadx=D% AND loady=E% THEN FOUND=TRUE:GOTO 450
  440 IF ABS(loadx-D%)<3 THEN IF ABS(loady-E%)<3 THEN PRINT TAB(0,30);"You are
very close."
  450 UNTIL FOUND
  460 ENDPROC
  470
  480 DEF PROC_OPEN
  490 COLOUR 2:PRINT"Open":COLOUR 3
  500 ENDPROC
  510
  520 DEF PROC_WALL
  530 COLOUR 1:PRINT"Wall":COLOUR 3
  540 ENDPROC
  550
  560 DEF PROC_HELP
  570 A%(D%,E%)=42
  580 CLS
  590 COLOUR 1:PRINT TAB(7);"NORTH"
  600 COLOUR 2
  610 FOR B%=15 TO 1 STEP -1
  620 FOR N%=0 TO 1
  630 PRINT " ";
  640 FOR C%=1 TO 15
  650 IF A%(B%,C%)=42 THEN VDU 17,
1,138+N% ELSE IF B%(B%,C%)=46 AND N%=0 T
HEN VDU 32 ELSE IF B%(B%,C%)=46 AND N%=1
THEN VDU 17,3,129 ELSE VDU 17,2,A%(B%,C
%)

```

```

660         NEXT C%
670         PRINT
680         NEXT N%
690     NEXT B%
700 COLOUR 1:PRINT TAB(7);"SOUTH";
710 move=move+5
720 PROC_wait(600)
730 CLS
740 A%(D%,E%)=wall
750 ENDPROC
760
770 DEF PROC_NEWGAME
780 RESTORE:CLS
790 COLOUR 1
800 PRINT TAB(6,10);"3-D MAZE"
810 wall=ASC"[fs0]"
820 blank=32
830 FOR B%=1 TO 15
840     FOR C%=1 TO 15
850         A%(B%,C%)=wall:B%(B%,C%)=wall
860         IF C%>1 THEN IF B%>1 THEN IF C
%<15 THEN IF B%<15 THEN IF RND(1)>.9 THE
N A%(B%,C%)=blank
870         NEXT C%
880     NEXT B%
890 D%=2
900 E%=2
910 FOR F=1 TO 69
920     READ B,C
930     A%(B,C)=blank
940     NEXT F
950 rand=RND(3)
960 loadx=13:loady=14
970 IF rand=1 THEN loadx=2
980 IF rand=2 THEN loady=2
990 A%(loadx,loady)=blank
1000 move=-5:A$="e":T$="e":FOUND=FALSE
1010 ENDPROC
1020

```

```

1030 DATA 2,2,2,3,2,4,2,5,2,6,2,7
1040 DATA 3,7,4,7,5,7,5,6,5,5,5,4,5,3,6
,3
1050 DATA 7,3,7,4,7,5,7,6,7,7,7,8,7,9,9
,8
1060 DATA 9,9,10,9,10,8,10,7,10,6,10,5,
10,4
1070 DATA 10,3,11,3,12,3,13,3,14,3,14,2
,7,10
1080 DATA 6,10,5,10,4,10,3,10,2,10,2,11
,2,12
1090 DATA 2,13,2,14,6,11,6,12,6,13,6,14
,7,12
1100 DATA 14,12,8,12,8,14,9,12,9,13,9,1
4,10,12
1110 DATA 11,9,11,10,11,11,11,12,12,9,1
3,9,13,10
1120 DATA 13,11,13,12,13,13,13,4,14,14
1130
1140 DEF PROC_DISPLAY
1150 IF N=0 THEN P=8
1160 IF A$="h" THEN A$=T$
1170 IF A$="n" AND N=1 OR A$="s" AND N=
10 OR A$="e" AND N=100 OR A$="w" AND N=1
000 THEN P=5
1180 IF A$="n" AND N=101 OR A$="e" AND
N=110 OR A$="w" AND N=100 THEN P=1
1190 IF A$="n" AND N=100 OR A$="s" AND
N=1000 OR A$="e" AND N=10 OR A$="w" AND
N=1 THEN P=2
1200 IF A$="n" AND N=1000 OR A$="s" AND
N=100 OR A$="e" AND N=1 OR A$="w" AND N
=10 THEN P=3
1210 IF (A$="n" OR A$="s") AND N=1100 O
R (A$="e" OR A$="w") AND N=11 THEN P=4
1220 IF A$="n" AND N=1101 OR A$="s" AND
N=1110 OR A$="e" AND N=111 OR A$="w" AN
D N=1011 THEN P=6
1230 IF A$="n" AND N=1001 OR A$="s" AND

```

```

N=110 OR A$="e" AND N=101 OR A$="w" AND
N=1010 THEN P=7
1240 PRINT TAB(0,0);
1250 IF P=1 THEN PRINT"[fs0][fs4] [fs7
] '"[fs0][fs4] [fs7] '"[fs0][fs4] [f
s7] '"[fs0][fc4][fs8][fs8][fc1] '"[fs2
][spc4][fc3]"
1260 IF P=2 THEN PRINT"[fs0][fs0][fs0][
fs0][fs4] '"[fs0][fs0][fs0][fs0][fs4] "
'"[fs0][fs0][fs0][fs0][fs4] '"[fs0][fc6
][fs9][fs9][fc9] '"[fs2][spc4][fc3]"
1270 IF P=3 THEN PRINT" [fs5][fs0][fs0]
[fs0][fs0]'" [fs5][fs0][fs0][fs0][fs0]"
'" [fs5][fs0][fs0][fs0][fs0]"'" [fc8][fs
9][fs9][fc7][fs0]"'"[fc2][spc4][fs3]"
1280 IF P=4 THEN PRINT" [fs5][fs0][fs0]
[fs4] '" [fs5][fs0][fs0][fs4] '" [fs5]
[fs0][fs0][fs4] '" [fc8][fs9][fs9][fc9]
'"[fc2][spc4][fc3]"
1290 IF P=5 THEN PRINT"[fs0][fs4] [fs5
][fs0]"'"[fs0][fs4] [fs5][fs0]"'"[fs0][
fs4] [fs5][fs0]"'"[fs0][fc4][fs8][fs8][
fc5][fs0]"'"[fs2][spc4][fs3]"
1300 IF P=6 THEN PRINT" [fs6] [fs7] '"
" [fs6] [fs7] '" [fs6] [fs7] '" [fc0
][fs8][fs8][fc1] '"[fc2][spc4][fc3]"
1310 IF P=7 THEN PRINT" [fs6] [fs5][fs
0]'" [fs6] [fs5][fs0]"'" [fs6] [fs5][
fs0]"'" [fc0][fs8][fs8][fc5][fs0]"'"[fc2
][spc4][fs3]"
1320 IF P=8 THEN PRINT"[fs0][fs0][fs0][
fs0][fs0][fs0]"'"[fs0][fs0][fs0][fs0][fs
0][fs0]"'"[fs0][fs0][fs0][fs0][fs0][fs0]
'"[fs0][fc6][fs9][fs9][fc7][fs0]"'"[fs2
][spc4][fs3]"
1330 ENDPROC
1340
1350 DEF PROC_CONVERT
1360 IF W$="7" OR A$="h" THEN A$=T$

```

```

1370 IF W$="6" AND T$="n" OR W$="8" AND
T$="e" OR W$="5" AND T$="w" THEN A$="s"
1380 IF W$="6" AND T$="s" OR W$="8" AND
T$="w" OR W$="5" AND T$="e" THEN A$="n"
1390 IF W$="8" AND T$="n" OR W$="5" AND
T$="s" OR W$="6" AND T$="w" THEN A$="e"
1400 IF W$="5" AND T$="n" OR W$="8" AND
T$="s" OR W$="6" AND T$="e" THEN A$="w"
1410 ENDPROC
1420
1430 DEF PROC_wait(T)
1440 LOCAL DUMMY
1450 *FX 15
1460 DUMMY=INKEY(T)
1470 *FX 15
1480
1490 ENDPROC
1500 DEF FN_GET_COMMAND
1510 KEY$=GET$
1520 IF KEY$="H" THEN KEY$="h"
1530 IF KEY$="h" OR KEY$="5" OR KEY$="6
" OR KEY$="7" OR KEY$="8" THEN =KEY$ ELS
E 1510
1540
1550 DEF PROC_INIT
1560 DIM A%(15,15),B%(15,15)
1570 *FX 4 2
1580 *KEY 11 "H"
1590 *KEY 12 "5"
1600 *KEY 13 "8"
1610 *KEY 14 "6"
1620 *KEY 15 "7"
1630 VDU 23,0,10,32,0;0;0;
1640 VDU 23,128,&FF,&FF,&FF,&FF,&FF,&FF
,&FF,&FF
1650 VDU 23,129,&18,&18,&00,&00,&00,&00
,&00,&00
1660 VDU 23,130,&FF,&FE,&FC,&F8,&F0,&E0
,&C0,&80

```

```

1670 VDU 23,131,&FF,&7F,&3F,&1F,&0F,&07
,&03,&01
1680 VDU 23,132,&F0,&F0,&F0,&F0,&F0,&F0
,&F0,&F0
1690 VDU 23,133,&0F,&0F,&0F,&0F,&0F,&0F
,&0F,&0F
1700 VDU 23,134,&10,&10,&10,&10,&10,&10
,&10,&10
1710 VDU 23,135,&08,&08,&08,&08,&08,&08
,&08,&08
1720 VDU 23,136,&00,&00,&00,&00,&FF,&00
,&00,&00
1730 VDU 23,137,&FF,&FF,&FF,&FF,&FF,&00
,&00,&00
1740 VDU 23,138,&00,&18,&3C,&3C,&3C,&18
,&FF,&FF
1750 VDU 23,139,&BD,&BD,&BD,&3C,&24,&24
,&24,&66
1760 VDU 23,144,&10,&10,&10,&10,&1F,&20
,&40,&80
1770 VDU 23,145,&08,&08,&08,&08,&F8,&04
,&02,&01
1780 VDU 23,146,&01,&02,&04,&08,&10,&20
,&40,&80
1790 VDU 23,147,&80,&40,&20,&10,&08,&04
,&02,&01
1800 VDU 23,148,&F0,&F0,&F0,&F0,&FF,&E0
,&C0,&80
1810 VDU 23,149,&0F,&0F,&0F,&0F,&FF,&07
,&3,&01
1820 VDU 23,150,&FF,&FF,&FF,&FF,&FF,&E0
,&C0,&80
1830 VDU 23,151,&FF,&FF,&FF,&FF,&FF,&07
,&03,&01
1840 VDU 23,152,&0F,&0F,&0F,&0F,&1F,&20
,&40,&80
1850 VDU 23,153,&F0,&F0,&F0,&F0,&F8,&04
,&02,&01
1860 ENDPROC

```

```

1870
1880 DEF FN_ANOTHER
1890 CLS
1900 COLOUR 1
1910 PRINT TAB(2,3);"CONGRATULATIONS"
1920 COLOUR 2
1930 PRINT'" You have found the"
1940 PRINT"precious loadstar in";
1950 PRINT;move;" moves."
1960 PRINT'" You are rewarded by";
1970 PRINT" being given another";
1980 PRINT" mission :- Again to";
1990 PRINT" search for another"
2000 PRINT" precious loadstar!"
2010 PRINT'" Do you wish to take";
2020 PRINT"up this generous !!!";
2030 PRINT"offer ? ";
2040 *FX 15 1
2050 REPEAT KEY$=GET$
2060 UNTIL KEY$="Y" OR KEY$="y" OR KE
Y$="N" OR KEY$="n"
2070 IF KEY$="Y" OR KEY$="y" THEN =TRUE
2080 COLOUR 1
2090 PRINT"No thanks!"
2100 PRINT'"Be like that then!'"
2110 *FX 4
2120 =FALSE
2130
2140 *FX 4
2150 MODE 7
2160 REPORT:PRINT" at line ";ERL

```


Orpheus in the Underground

In this game, you are in a system of twenty caves which are joined together by a complex maze of tunnels. The caves are populated by a most unusual crowd of people, who make very specific demands upon you. These demands must be satisfied before you will be allowed to proceed.

You are trying to get to cave number 20. As the game proceeds, you're given the chance to pick up objects (such as a wand or gold) which will come in useful later on to bribe the occupants of the caves. You can only carry four things at a time. Therefore, if you are carrying four objects, you must put one down before you can pick up another.

We suggest you should make a map of the cave interconnections as you proceed. In contrast to some so-called 'Adventure' programs, you'll find that in this game the cave system behaves like a 'coherent reality' by remaining stable during the game. As well, if you put something down in a cave, you'll find it is still there if you later return to the same cave. Although the cave interconnections change from run to run of the game, they do not change during the course of a game. Note that not all the systems generated by this program can be solved.

You will have to try and find your way round occupants which demand objects you do not have. A cave containing 'magic' will move you to a random position within the system. There is a time limit of fifty moves. Your score at the end is related to how few moves it took you to find cave number 20. It can take quite a while for the cave system to be built, so a little patience is required when you first run the game.

As a hint to help you play this, you'll find that generally - but not always - tunnels proceed from lower numbers to higher ones, so that higher numbered tunnels are more likely to be close to 20 than are ones with lower numbers.

```

10 REM ORPHEUS IN THE UNDERGROUND
20
30 ON ERROR GOTO 2160
40 MODE 7
50 PROC_INITIALISE
60
70 REPEAT
80     PROC_NEWGAME
90     PROC_NOW_GET_OUT_OF_THIS
100    UNTIL NOT FN_ANOTHER
110 END
120
130 DEF PROC_NOW_GET_OUT_OF_THIS
140 X=0:Y=1
150 CLS
160 IF FOODLEFT<1 THEN 900:ENDPROC
170 PROC_LOOK
180 IF LEFT$(F$(Y),1)=" " THEN 460
190 PRINT:PROCdelay(10)
200 PRINT"[fs4]Cave contents :- ";F$(Y
)
210 PRINT"[fs8][fs2]Do you want it (Y/
N) ?[fs9]";
220 *FX 15 1
230 REPEAT KEY$=GET$
240     UNTIL KEY$="Y" OR KEY$="y" OR KE
Y$="N" OR KEY$="n"
250 PRINT KEY$
260 IF KEY$="N" OR KEY$="n" THEN 460
270 IF LEFT$(R$(1),1)=" " OR LEFT$(R$(
2),1)=" " OR LEFT$(R$(3),1)=" " OR LEFT$
(R$(4),1)=" " THEN 400
280 PROCdelay(10)
290 PRINT"[fs3]You are carrying too mu
ch[fs7]"
300 PRINT"[fs6]Which item do you wish
to drop (1-4) ?";

```

```

310 *FX 15 0
320 REPEAT KEY$=GET$
330     UNTIL KEY$>="1" AND KEY$<="4"
340 S=VAL(KEY$)
350 PRINT KEY$
360 T$=R$(S)
370 R$(S)=F$(Y)
380 F$(Y)=" "
390 GOTO 450
400 FLAG=TRUE
410 FOR G=1 TO 4
420     IF LEFT$(R$(G),1)=" " THEN R$(G)
=F$(Y):F$(Y)=" ":FLAG=G:G=4
430     NEXT G
440 IF FLAG>0 THEN G=FLAG
450 PROC_LOOK
460 IF ASC(D$(Y))=32 THEN 650
470 IF D$(Y)="[fs1]***[fs8]MAGIC[fs9]*
**[fs7]" THEN PROC_MAGIC:GOTO 160
480 PROCdelay(10)
490 PRINT'"[fs6]There is a";FNvowel(D$
(Y));" here who wants [fs7]"
500 PRINT"[fs6]";E$(Y);" to let you pr
ecede"
510 FOR G=1 TO 4
520     FLAG=0
530     IF R$(G)=E$(Y) AND LEFT$(E$(Y),1
)<>" " THEN FLAG=G:G=4
540     NEXT G
550 IF FLAG>0 THEN G=FLAG
560 IF FLAG>0 THEN 610
570 PRINT"[fs1]You must return to ";X
580 PROCdelay(200)
590 P=X:X=Y:Y=P
600 GOTO 160
610 PRINT"[fs6]and luckily you can obl
ige.[fs7]"
620 F$(Y)=R$(G)
630 R$(G)=" "

```

```

640 PROCdelay(10)
650 PRINT"[fs1]Tunnels to ";A(Y,1);",
";A(Y,2);", ";A(Y,3);" and ";A(Y,4)
660 REPEAT FLAG=FALSE
670     *FX 15 0
680     INPUT"[fs4]Where do you want to
go ",M$
690     IF LEFT$(M$,1)="Q" OR LEFT$(M$,1
)="q" THEN PROCQUIT
700     M=VAL(M$)
710     FOR G=1 TO 4
720         IF A(Y,G)=M THEN FLAG=TRUE
730     NEXT G
740     IF M=Y THEN PRINT"[fs3]You are a
lready there![fs7]"
750     UNTIL FLAG
760 X=Y
770 Y=M
780 IF Y=20 THEN 800
790 GOTO 160
800 CLS
810 PRINT"'CHR$(141);"[fs1]You have fo
und the exit."
820 PRINTCHR$(141);"[fs1]You have foun
d the exit."
830 PRINT'"[fs6]Your score is ";100*(1
00-FOODLFT)+2*FOODLEFT
840 FLAG=FALSE
850 FOR Z=1 TO 4
860     IF R$(Z)<>" "THEN FLAG=TRUE
870     NEXT
880 IF FLAG THEN PRINT'"[fs4]You are a
ble to keep your treasure. "; ELSE PRINT
"[fs4]Unfortunately you have no treasure
!"
890 ENDPROC
900 PRINT"'STRING$(40,"*")
910 PRINT'"[fs1]YOU HAVE RUN OUT OF FO
OD![fs7]"

```

```

    920 PRINT"[fs6]Your last place of res
t is in cave ";Y
    930 FLAG=FALSE
    940 FOR Z=1 TO 4
    950     IF R$(Z)<>" " THEN FLAG=TRUE
    960     NEXT
    970 IF FLAG THEN PRINT"[fs4]Your treas
ure is not much good now!"
    980 ENDPROC
    990
    1000 DEF PROC_LOOK
    1010 FOR NL=1 TO 5:PRINT:PROCdelay(10):
NEXT
    1020 PRINT STRING$(40,"*")
    1030 FOODLEFT=FOODLEFT-1
    1040 PROCdelay(10)
    1050 PRINT "[fs2]You have enough food
to last another[fs7]"'[fs2]";:IF FOODLE
FT>1 THEN PRINT;FOODLEFT;" goes.[fs7]" E
LSE PRINT"go only.[fs7]"
    1060 PROCdelay(10)
    1070 PRINT"[fs1]You are in cave[fs8]";
Y
    1080 PROCdelay(10)
    1090 IF X>0 THEN PRINT"[fs1]You have ju
st come from cave ";X ELSE PRINT"[fs1]Yo
u are about to start on your travels."
    1100 IF LEFT$(R$(1),1)>" " OR LEFT$(R$(
2),1)>" " OR LEFT$(R$(3),1)>" " OR LEFT$(
R$(4),1)>" " THEN PRINT"[fs3]You are c
arrying:-"
    1110 FOR Z=1 TO 4
    1120     IF LEFT$(R$(Z),1)>" " THEN PRINT
"[fs1]";Z;" -[fs4]";R$(Z):PROCDELAY(10)
    1130     NEXT
    1140 ENDPROC
    1150
    1160 DEF PROCdelay(cc)
    1170 FINISH=TIME+cc

```

```

1180 REPEAT UNTIL TIME>=FINISH
1190 ENDPROC
1200
1210 DEF PROC_MAGIC
1220 PROCdelay(10)
1230 PRINT '
1240 FOR G1=1 TO 2
1250     FOR G=53 TO 101 STEP 6
1260         SOUND 1,-3*(G-53),G,1
1270     NEXT
1280     PRINT CHR$(141); "[fs6]***[fs1][f
s8]M[fs2]A[fs3]G[fs4]I[fs5]C[fs9][fs6]**
*[fs7]"
1290     FOR G=101 TO 53 STEP -6
1300         SOUND 1,-3*(G-53),G,1
1310     NEXT
1320 NEXT
1330 X=Y
1340 Y=RND(9)+7
1350 PROCdelay(100)
1360 ENDPROC
1370
1380 DEF FNvowel(W$)
1390 LOCAL C$,L%
1400 L%=0
1410 REPEAT L%=L%+1
1420     C$=MID$(W$,L%,1)
1430     UNTIL C$<>" "
1440 IF C$="A" OR C$="E" OR C$="I" OR C
$="O" OR C$="U" THEN ="n "+W$ ELSE =" "+
W$
1450
1460 DEF PROC_ALLOT
1470 FOR E=1 TO 16
1480     F=RND(18)+1
1490     D$(F)=B$(RND(20))
1500     E$(F)=C$(RND(20))
1510     E=RND(19)+1
1520     F$(F)=C$(RND(20))

```

```

1530     IF RND(1)>0.8 THEN D$(F)="[fs1]*
**[fs8]MAGIC[fs8]**[fs7]"
1540     NEXT E
1550 ENDPROC
1560
1570 DEF PROC_FILL
1580 PRINT TAB(0,6);"[fs1][fs8]D[fs2]A[
fs3]N[fs4]G[fs5]E[fs6]R[fs9][fs1]- FALL
ING ROCKS[fs7]"
1590 PRINT TAB(17);"[fs1]CAVE FILLING![[
fs7]"
1600 FOR D=1 TO 20
1610     READ B$(D)
1620     NEXT D
1630 FOR D=1 TO 20
1640     READ C$(D)
1650     NEXT
1660 ENDPROC
1670 DATA UHLAN,AARDVARK,ODILO,AEROLITE
,ALHAMBRA,AMYGDALUS,EGRET,EEL,ELEUSIAN,E
NZYME,IBEX,ICENI,IGUANA,ILMENITE,INCA,IN
FULA,OCTOPUS,OKAPI,ORIOLE,OTTER
1680 DATA "a SWORD","a MAGIC WAND","a S
ILVER KEY","a HAMMER","some GOLD","a DEE
P BLUE SAPPHIRE","some DIAMONDS","a SWOR
D","a MAGIC WAND","a DEEP BLUE SAPPHIRE"

1690 DATA "a SILVER KEY","a HAMMER","so
me GOLD","some DIAMONDS","a SWORD","some
GOLD","some GOLD","a HAMMER","a SWORD",
"a MAGIC WAND"
1700
1710 DEF PROC_BUILD
1720 IF GOES<>1 THEN CLS
1730 PRINT TAB(0,6);"[fs1][fs8]D[fs2]A[
fs3]N[fs4]G[fs5]E[fs6]R[fs9][fs1]-
EXPLOSIVES[fs7]"
1740 PRINT TAB(17);"[fs1]CAVE BUILDING!
[fs7]"

```

```

1750 FOR B=1 TO 20
1760     REPEAT
1770         FOR C=1 TO 4
1780             REPEAT
1790                 A(B,C)=B+INT(RND(7)-RND(6))
1800             UNTIL NOT (A(B,C)=B OR A(B
,C)<1 OR A(B,C)>20)
1810         NEXT C
1820     UNTIL NOT (A(B,1)=A(B,2) OR A(B
,1)=A(B,3) OR A(B,2)=A(B,4) OR A(B,3)=A(
B,4))
1830 NEXT B
1840 ENDPROC
1850
1860 DEF PROC_NEWGAME
1870 GOES=GOES+1
1880 FOR C=0 TO 20
1890     B$(C)=" ":C$(C)=" ":D$(C)=" ":E$
(C)=" ":F$(C)=" "
1900     IF C<5 THEN R$(C)=" "
1910 NEXT C
1920 RESTORE
1930 PROC_BUILD
1940 PROC_FILL
1950 PROC_ALLOT
1960 FOODLEFT=50
1970 VDU 23,0,10,64,0;0;0;
1980 ENDPROC
1990
2000 DEF PROC_INITIALISE
2010 VDU 23,0,10,32,0;0;0;
2020 PRINT TAB(4,2);CHR$(141);"[fs1]ORP
HEUS IN THE UNDERGROUND[fs7]"
2030 PRINT TAB(4,3);CHR$(141);"[fs1]ORP
HEUS IN THE UNDERGROUND[fs7]"
2040 GOES=0
2050 DIM A(20,4),B$(20),C$(20),D$(20),E
$(20),F$(20),R$(4)

```



```

2060 ENDPROC
2070
2080 DEF FN_ANOTHER
2090 PRINT 'CHR$(141); "[fs1]Do you wish
to play again (Y/N) ?"
2100 PRINT CHR$(141); "[fs4]Do you wish
to play again (Y/N) ?";
2110 *FX 15
2120 REPEAT KEY$=GET$
2130     UNTIL KEY$="Y" OR KEY$="y" OR KE
Y$="N" OR KEY$="n"
2140 IF KEY$="Y" OR KEY$="y" THEN PRINT
' "Yes please":=TRUE ELSE PRINT' "No thank
s":=FALSE
2150
2160 MODE 7:PRINT
2170 IF ERR=17 THEN PRINT "[fs3]I QUIT! [
fs7]":END ELSE REPORT:PRINT " at line ";E
RL:END
2180
2190 DEF PROCQUIT
2200 PRINT '"[fs3]Do you really want to
quit (Y/N) ?";
2210 *FX 15
2220 REPEAT KEY$=GET$
2230     UNTIL KEY$="Y" OR KEY$="y" OR KE
Y$="N" OR KEY$="n"
2240 IF KEY$="Y" OR KEY$="y" THEN PRINT
'"[fs1]CHICKEN! [fs7]":END ELSE PRINT "[fs
1]NO[fs7]":ENDPROC
2250
2260 REM the end

```

Nuclear Fallout

The scenario for this game, written by Tim Rogers, is not particularly pleasant. Your city is the target for a number of nuclear bombs, and your job is to protect as many people as you can from the nuclear blast. If you have strong objections to the basic idea behind this game, you could still use the new framework to produce a game of your choice, protecting a toy factory from an invasion of wicked gnome-missiles or whatever you like.

The game fits into the general 'Kingdoms' category, that class of computer games which attempts to model reality in some way. These programs expect you to make decisions about the expenditure of limited resources in order to acquire items which are needed for the continued existence of your city, country or planet.

In this case, your resource is money, and you need to buy as much shelter as you can, in order to save the maximum number of people. This analysis of the game suggests that any scenario requiring you to buy a single resource to achieve a specific aim could be slotted into the framework of this program. Essentially, all you would need to change would be the print statements.

The idea, then, is to protect as many people as you can from a nuclear blast. You start off with an amount of money which steadily increases as the game progresses. You must decide whether to buy shelter and use up most of your money, or to save it in order to buy the largest possible area of shelter later on. The only problem with this latter idea is that a nuclear attack could be launched when you have no shelter at all. And if you have no shelter, there will be no survivors.

In most Kingdom-type games, the ruler is assassinated, impeached, lynched or otherwise disposed of, if a certain proportion of the people in his or her care die, whether the deaths occur from famine, plagues of rats, attacks by muscle-

bound Norsemen in long boats, or - as in this case - from a nuclear blast. If more than half your city is wiped out, the hitherto complacent masses (or, at least, those who have survived) will rise up in one coordinated movement and wipe you and your family out.

You must balance your delay in spending money for shelter against the fact that, in this game, the longer you delay, the more likely a nuclear attack becomes. This chance increases and, at the end of the game, it is close to one in one.

Full instructions are included within the game.

```
10 REM Nuclear Fallout
20
30 MODE 7
40 PROC_Instructions
50 REPEAT
60   PROC_Initialise
70   REPEAT
80     PROC_Show_details
90     PROC_Calculate
100    PROC_Outcome
110    UNTIL year=20 OR revolt
120    UNTIL NOT FN_another
130 END
140
150 DEF PROC_Instructions
160 VDU 23,0,10,32,0;0;0;
170 DIM width(24)
180 FOR altitude=0 TO 24
190   READ width(altitude)
200   NEXT
210 PRINT TAB(10,1);CHR$(141);" [fs1]Nu
clear Fallout[fs7]"
220 PRINT TAB(10,2);CHR$(141);" [fs1]Nu
clear Fallout[fs7]"
230 PRINT TAB(10,3);" [fs3]=====
```

```

===== [fs7] "
  240 FOR L%=0 TO 24
  250   VDU 31,0,L%,131
  260   NEXT
  270 VDU 28,1,24,39,0
  280 PRINT TAB(3,10);CHR$(141);"[fs1]Do
you require instructions ?"
  290 PRINT TAB(3,11);CHR$(141);"[fs1]Do
you require instructions ?"
  300 REPEAT KEY$=GET$
  310   UNTIL KEY$="Y" OR KEY$="N"
  320 PRINT'''
  330 IF KEY$="N" THEN ENDPROC
  340 CLS
  350 PRINT TAB(0,1);"[fs6]Instructions:
[fs7]"
  360 PRINT'" You are in charge of civil
defence for";
  370 PRINT"a local authority in Britain
during a"
  380 PRINT"period when Nuclear War with
another"
  390 PRINT"nation is likely. It is your
job to"
  400 PRINT"decide each year how much yo
u are going";
  410 PRINT"to spend on nuclear fallout
shelters.'"
  420 PRINT" You start off ith a populat
ion of"
  430 PRINT"10,000 ,£10,000 in cash but
no shelters";
  440 PRINT"(measured in cubic metres) i
n which to"
  450 PRINT"protect your population.'"
  460 PRINT" Each cubic metre of shelter
costs £1."
  470 PRINT"The money you do not spend o
n shelters"

```

```

480 PRINT"has 10% interest added on.You
u have to"
490 PRINT"decide whether you will save
up your"
500 PRINT"money to protect the populat
ion later"
510 PRINT"or protect as many people as
you can"
520 PRINT"from the start.The chances o
f nuclear"
530 PRINT"attack increase every year."
540 ENDPROC
550
560 DEF PROC_Initialise
570 money=10000:population=10000
580 shelters=0:dead=0:attacks=0
590 year=0:revolt=FALSE
600 PRINT'"[fs1]GOOD LUCK[fs6]Press an
y key ti play";
610 *FX 15 1
620 dummy=GET
630 CLS
640 ENDPROC
650
660 DEF PROC_Show_details
670 year=year+1
680 PRINT TAB(12,1);CHR$(141);"[fs2]YE
AR ";year
690 PRINT TAB(12,2);CHR$(141);"[fs2]YE
AR ";year
700 PRINT'"[fc1]pppppppppppppppppppppppppp
pppp[fs7]"
710 PRINT"[fc1]5[fs7]";TAB(25);"[fc1]j
[fs7]"
720 PRINT"[fc1]5[fs3]Chances of attack
";22-year;":1";TAB(25);"[fc1]j[fs7]"
730 PRINT"[fc1]5[fs7]";TAB(25);"[fc1]j
[fs7]"
740 PRINT"[fc1][ch163][ch163][ch163][c

```

```

h163][ch163][ch163][ch163][ch163][ch163]
[ch163][ch163][ch163][ch163][ch163][ch16
3][ch163][ch163][ch163][ch163][ch163][ch
163][ch163][ch163][ch163][ch163][ch163][
fs7]"
750 PRINT "Population :";population
760 PRINT'"Shelter[spc4]:";shelters
770 PRINT'"Money[spc6]£";money
780 PRINT'"Dead[spc7]:";dead
790 PRINT'"Nuclear"
800 PRINT "Attacks[spc4]:";attacks
810 ENDPROC
820
830 DEF PROC_Calculate
840 REPEAT
850 PRINT TAB(0,22);SPC(45);
860 VDU 7
870 INPUT TAB(0,22);"[fs6]How much t
o spend on shelters `"spend
880 UNTIL NOT((money-spend<0) OR (sh
elters+spend<0))
890 money=money-spend
900 shelters=shelters+spend
910 money=money+INT(money/10+0.5)
920 ENDPROC
930
940 DEF PROC_Outcome
950 CLS
960 IF RND(22-year)=1 THEN PROC_attack
ELSE PRINT'"[fs1]No attack."
970 ENDPROC
980
990 DEF FN_another
1000 CLS
1010 IF revolt THEN PROC_revolt ELSE PR
OC_win
1020 PRINT'"'"[fs8][fs7]Another Game (Y
/N) ?";
1030 REPEAT KEY$=GET$

```

```

1040 UNTIL KEY$="Y" OR KEY$="N"
1050 CLS
1060 =(KEY$="Y")
1070
1080 DEF PROC_attack
1090 VDU 26
1100 attacks=attacks+1
1110 SOUND &10,-10,7,255
1120 FOR altitude=0 TO 24
1130 SOUND &11,0,width(altitude)*8,0
1140 PRINT TAB(0,24-altitude);"[fc1]"
;CHR$(154);
1150 PRINT TAB(19-width(altitude),24-
altitude);STRING$(2*width(altitude),CHR$(
(255)));
1160 PROC_delay(altitude)
1170 NEXT
1180 SOUND &10,-10,6,20
1190 PROC_delay(200)
1200 FOR altitude=0 TO 24
1210 SOUND &11,0,width(altitude)*8,0
1220 PRINT TAB(0,24-altitude);"[fs3]"
;SPC(38);
1230 PROC_delay(altitude)
1240 NEXT
1250 VDU 28,1,24,39,0
1260 protected=INT(shelters/10+0.5)
1270 PRINT'"'[fs1]Population protected
: ";protected
1280 killed=population-protected
1290 PRINT'"Number killed : ";killed
1300 dead=dead+killed
1310 shelters=shelters-INT(shelters/10+
0.5)
1320 PRINT'"Shelters left : ";shelters
1330 PRINT'"'[fs1][fs8]Press Any Key to
Continue";
1340 *FX 15 1
1350 dummy=GET

```

```

1360 IF killed/population>0.9 THEN revo
lt=TRUE
1370 population=population-killed
1380 CLS
1390 ENDPROC
1400
1410 DEF PROC_revolt
1420 PRINT'"'[fs6]More than half the p
opulation died in"
1430 PRINT"[fs6]the blast and the masse
s have revolted";
1440 PRINT"[fs6]against you."
1450 ENDPROC
1460
1470 DEF PROC_win
1480 PRINT'"'[fs6]Well done ..."
1490 PRINT'"[fs6]You have managed to ge
t through these"
1500 PRINT"[fs6]troubled times with ...
"
1510 PRINT'"[fs2]£";money
1520 PRINT'"[fs2] ";shelters;" cubic me
tres of shelter"
1530 PRINT'"'[spc5]AND"
1540 PRINT'"'[fs2] ";population;" have
survived."
1550 ENDPROC
1560
1570 DEF PROC_delay(time)
1580 TIME=0
1590 REPEAT UNTIL TIME>=time
1600 ENDPROC
1610
1620 DATA 14,10,7,5,4,3,2,2,1,1,2,2,4,8
,10,14,16,17,17,17,14,12,8,4,2

```