

# Almazar I

by Winston Llamas

**A**s you visit the 72 rooms of Almazar I, you'll find treasures and run into danger, and if you're lucky, you'll reach the next dimension.

Almazar Part I is the first part of a multi-part adventure known simply as Alamazar. In Part I, the adventurer's goal is to be transported into the next dimension. The game might lack the refinement of programs such as Zork, but it is more advanced than typical adventure games written in Basic. Almazar starts similarly to the original Adventure program, and it provides ample puzzles for the adventurer to solve.

The game has seventy-two rooms; some rooms are filled with treasures, while others are replete with danger. A familiarity with various books and movies will be helpful in achieving success, yet there are numerous occasions in which common sense alone can lead the adventurer out of trouble.

Almazar is divided into seven separate programs. One is the Almazar main program, which is loaded when the user wishes to play the game. The other programs create the data base necessary for the program to run. This version of Almazar was designed for a one-drive 32K Model III. The modifications needed to make the program run on a one-

drive Model I are outlined below.

## Modifications

One-drive Model I owners must use two disks to hold the program (unless

the drives are either 80 tracks or the system is running double density, or both, allowing everything to fit in one disk). You must also add the line:

```
60 INPUT "REPLACE DISK AND
HIT ENTER WHEN READY";G$
```

The first disk should contain the Almazar main program as well as the SFZVOC, SFAMOVE, SFAOBDES data bases while the second disk should contain SFALDES, SFASDES, and

MO	possible moves
VC\$	command file verbs
TC\$	command file objects
VC	command verb identifier
TC	command object identifier
OP	designates location of object
LO\$	long object descriptions
SO\$	short object descriptions
LC	length of command line
V1	length of first word
C1	location of space in command
OW	indicates one word command
IV	index to verb
IO	index to object
S2	initial positions of objects
PR	points subtracted for hints
LI	turns remaining before lamp goes out
TU	number of turns remaining in the game
FT	indicates if room has been visited
SR	indicates special rooms
KG	indicates if gnome is dead
SC	flag gnome chase
W1	flag dimming lamp
W2	flag limited turns
EN	indicates if there is something to enter
LE	indicates possibility of leaving
DI	indicates how many times player has died
IN	number of items carried
PT	points adventurer scored
NF\$	name of file for long or short room descriptions
SP	special situations array

Table 1. Variable Listings and Explanations

### The Key Box

Model I or III  
32K RAM  
Disk Basic  
1 Disk Drive

*"The game has 72 rooms; some rooms are filled with treasures, while others are replete with danger"*

*Program Listing 1. The Search for Almazar, Part 1—The Proving Ground*

```
10 CLS:PRINTTAB(18)"The Search for Almazar: Part 1":PRINTTAB(24)
  "The Proving Ground":PRINT
20 PRINT" This program is the first of a projected series of p
  rograms
  whose central theme is the continuing search for the super being
  Almazar. This game, however, will play to a satisfactory ending
  if the player does not wish to continue";
30 PRINT" the series.":PRINT:PRINT" The game begins at one end
  of a road, by an old abandoned shack. (Just like the origin
```

*Listing 1 continues*

**Command**

N  
Light Lamp  
Off Lamp  
Enter  
Inventory  
Hint or Help  
Look  
Throw Knife  
Take object  
Drop object

**Action**

adventurer moves northward  
lamp is lit  
lamp is turned off  
adventurer enters something  
prints objects adventurer is carrying  
asks for hints  
ask for new room description  
throws knife  
adventurer takes object  
adventurer drops object

*Table 2*

SFARESP. The Model III uses the up-  
percase @ as a closing single quote, and  
this must be modified for Model I use.

Almazar's design lets you change it  
easily. If you want to expand the vocabu-  
lary, the changes in SFAVOC and in  
the main program are simple. Likewise,  
all the other data bases can be altered by  
changing the data-base-generating pro-  
grams. A word of caution: Since the  
data bases SFALDES, SFASDES, and  
SFARESP are random-access files, you  
must be careful to limit the text to 256  
characters.

**Running Almazar**

The game isn't easy, since you must  
gather various treasures before you  
move to the next dimension. In addi-  
tion, numerous traps and puzzles catch  
the unwary. ■

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a1 ADVENTURE program.) The player will then explore the many di
fferent scenarios in the game. Butbe careful. There are many";
40 PRINT" traps to catch the careless and unthinking adventu
rer."
45 IS=INKEY$:IFI$<>"THEN$0ELSE$45
50 CLS:PRINT"The program accepts one or two word commands. Some
examples:
To take an object, type TAKE OBJECT or T OBJECT for short.
To go north, type NORTH or N for short.
To see what you're carrying, type INVE(NTORV).
60 PRINT" Type SCORE and the program will give you your curren
t score. Type SAVE and the program will save the game for lat
er play.
Type QUIT and the game will be terminated.
To light or turn off a lamp, type LIGHT LAMP or OFF LAMP."
70 PRINT" To get a description of the room, type LOOK."PRINT:
PRINT"Other commands include SMASH, TOSS, SHOW, CROSS, etc."PRI
NT" In addition, one may type ENTER to enter a shack or type LEAV
E
to leave a shack. Of course, if there is no";
80 PRINT" way out you cannot leave. A hint - caves are dark and
often dangerous."
85 IS=INKEY$:IFI$<>"THEN$0ELSE$85
90 CLS:PRINT" You have a limited number of turns in which to a
ccomplish your task. If you don't finish on time, you will..
From time to time you may need a hint, so just type HINT or H
ELP. But remember, nothing is free in ";
100 PRINT"the world today."PRINT:PRINT" Good luck and may Alm
azar guide you to a safe journey."
105 IS=INKEY$:IFI$<>"THEN$0ELSE$CLS:RUN"SPAMAIN:0"

```

### Program Listing 2. Main Program

```

10 CLS:PRINT@320,CHR$(23);" The Search for Almazar".PRINTTAB
(13)"Part 1":PRINT:PRINT" Written by Winston M. Llamas":PRINT:P
RINT"c. Aug 1981 All Rights Reserved"
20 CLEAR2000:DIMFT(72),MO(72,5),VC$(53),VC$(42),TC(42),OP
(29),LOS(29),SOS(29),SP(14)
30 OPEN"1","$FAVOC:0":FORX=0TO53:INPUT#1,VC$(X),VC(X):NEXTX:FO
O(X,2),MO(X,3),MO(X,4),MO(X,5):NEXT:CLOSE1
40 OPEN"1","$FAVOC:0":FORX=0TO53:INPUT#1,VC$(X),VC(X):NEXTX:FO
RY=0TO42:INPUT#1,TC$(Y),TC(Y):NEXTY:CLOSE1
50 OPEN"1","$FAOBDES:0":FORX=0TO29:INPUT#1,DU,LOS(X):NEXTX:FOR
Y=0TO19:INPUT#1,DU,SOS(Y):NEXTY:FORZ=0TO29:INPUT#1,OP(Z):NEXTZ:C
LOSE1
70 CLS:N=1:GOSUB7000
100 IFRN>10ANDRN<30GOSUB7400
114 TU=TO+1:IFTU>400THENRE=74:PRINT:GOSUB7100:DI=3:GOTO7300
115 IFSP(8)=1THENSP(14)=SP(14)+1:ELSEIFSP(8)=0THENSP(14)=0
116 IFSP(2)=1THENSP(1)=SP(1)-1:IFSP(1)<1THENSP(2)=0
117 IFSP(1)<20ANDSP(2)=LANDOP(8)=LANDW1<>1THENRE=17:PRINT:GOSUB
7100:W1=1
118 IFSP(13)>0THENSP(13)=SP(13)+1:IFSP(13)>5THENRE=70:PRINT:GOSU
B7100:GOSUB7200:GOTO100
119 IFTU>360ANDW2<>1THENRE=16:PRINT:GOSUB7100:W2=1

```

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121 IFRN=15THENSC=1:ELSEIFOP(23)=RNTHENSP(6)=SP(6)+1:IFSP(6)>5TH
ENIO=22:PRINT:GOSUB1000
122 IFSP(14)>7THENRE=65:PRINT:GOSUB7100:SP(14)=0:SP(8)=0:GOSUB72
00:GOTO100
123 CL=0:OW=0:PRINT:INPUTCOS:PRINT:LC=LEN(COS):FORX=1TOLC:IFMID$(
COS,X,1)="THENCL=X:GOTO125:ELSENEXT
124 IFCOS$="THENRE=2:GOSUB7100:GOTO100
125 V1=CL-1:IFCL=0ORV1>4THENV1=4:ELSEOW=1
130 CL$=LEFT$(COS,V1):FORX=0TO53:IFCL$=VC$(X)THENIV=VC(X):GOTO14
0:ELSENEXT:RE=2:GOSUB7100:GOTO100
140 IFIV>16THEN$70:ELSEIFIV>6THEN190
144 IFIV=LANDSP(7)<>2ANDRN=62THENRE=91:GOSUB7100:GOTO100
145 IFIV=LANDSP(7)<>5THENRE=1:GOSUB7100:GOTO100
150 N=MO(RN,(IV-1)):IFN=0THENRE=1:GOSUB7100:GOTO100:ELSEGOSUB700
0:GOTO100
190 ONIV-6GOSUB200,300,400,500,600,700,800,900,3300,3400:GOTO100
200 N=RN:FT(N)=0:GOSUB7000:RETURN
300 IFRN=47ORRN=43ORRN=52ORRN=63ORRN=54ORRN=61ORRN=70ORRN=69THEN
305:ELSERE=102:GOTO390
305 INPUT"THE HINT WILL COST YOU 3 POINTS. DO YOU STILL WANT IT"
;HQ$:IFLEFT$(HQ$,1)="N"THENRETURNELSEPRINT
310 IFRN=47THENRE=94
315 IFRN=63THENRE=95
320 IFRN=54THENRE=96
325 IFRN=61THENRE=97
330 IFRN=70THENRE=98
335 IFRN=69THENRE=99
340 IFRN=52THENRE=100
345 IFRN=43THENRE=101
385 PR=PR+3
390 GOSUB7100:RETURN
400 CA=0:PRINT"YOU ARE CARRYING:"FORX=0TO29:IFOP(X)=1THENPRINT
SOS(X):CA=1
410 NEXTX:IFCA=0THENPRINT"NOTHING"
420 RETURN
500 RE=6:IFRN=27ORRN=28THENRE=43
505 IFRN=41THENRE=48
510 IFRN=43ORRN=44ORRN=49THENRE=30
520 GOSUB7100:IFRE=30THENRE=31:GOSUB7100
530 IFRE<56THEN7200ELSERETURN
600 PT=0:FORX=0TO7:IFOP(X)=-1THENPT=PT+7
610 IFOP(X)=72THENPT=PT+10
620 NEXTX:PT=PT-(DI*10)-PR:IFRE=8THENPT=PT+10
630 PRINT"YOU HAVE SCORED ";PT:POINTS="RETURN
700 INPUT"ARE YOU SURE YOU WANT TO QUIT";QU$:IFLEFT$(QU$,1)<>"N"
THEN7300ELSERETURN
800 OPEN"O",1,"$FA/SAV:0":FORX=0TO29:PRINT#1,OP(X),"";NEXTX:FOR
Y=1TO72:PRINT#1,FT(Y),"";NEXTY:FORZ=0TO14:PRINT#1,SP(Z),"";NEX
TZ:PRINT#1,RN,"TU","SC","IN","PR:CLOSE1
810 PRINT"THE GAME IS NOW SAVED FOR LATER USE. TO CONTINUE THE S
AME GAME,
TYPE 'RESTORE' ON YOUR FIRST TURN AFTER YOU RESUME PLAY."PRINT:
GOSUB600:PRINT:END
900 IFTU>1THENPRINT"IT'S TOO LATE TO RESTORE AN OLD GAME."REUR
N
910 OPEN"1","1","$FA/SAV:0":FORX=0TO29:INPUT#1,OP(X):NEXTX:FORX=1T
O72:INPUT#1,FT(Y):NEXTY:FORZ=0TO14:INPUT#1,SP(Z):NEXTZ:INPUT#1,R
O72:INPUT#1,FT(Y):NEXTY:FORZ=0TO14:INPUT#1,SP(Z):NEXTZ:INPUT#1,R

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N,TU,SC,IN,PR,CLOSE1:N=RN:GOSUB7000:RETURN
970 S2=C1+1:C2=S-MIO$(C0$,S2,4)
980 FORX=0TO42:IFC2$=TC$(X) THENIO=TC(X):GOTO990:ELSENEXTX:RE=2:G
OSUB7100:GOTO1000
990 ONIV-16GOSUB1000,1100,1200,1300,1400,1500,1600,1700,1800,190
0,2000,2100,2200,2300,2400,2500,2600,2700,2800,2900,3000,3100,32
00:GOTO100
1000 IFIO>18 THENRE=2:GOTO1030
1005 IFIN+1>7 THENRE=83:GOTO1099
1010 IFIO=18 THENIFOP(5)=RN THENRE=3:OP(5)=-1:GOTO1098:ELSEIFOP(19
)=RN THENRE=3:OP(19)=-1:GOTO1098
1015 IFIO>5 ANDIO<16 THENIO=18:ELSEIFIO=5 THENIFOP(5)=-1 THENRE=7:G
OTO1099:ELSEIFOP(19)=RN THENRE=62:GOTO1099
1016 IFIO=5 THENIFOP(22)=RN THENIFOP(18)=-1 THENRE=3:OP(22)=0:OP(18
)=0:OP(5)=-1:GOTO1099:ELSERE=60:GOTO1099
1017 IFIO=16 THENIFOP(16)=RN THENIFSP(3)=1 THENRE=3:OP(16)=-1:GOTO1
098:ELSERE=18:GOTO1099
1018 IFIO=1 ANDOP(20)=RN THENRE=23:GOSUB7100:GOTO7200
1020 IFOP(10)=RN THENRE=3:OP(10)=-1:ELSEIFOP(10)=-1 THENRE=7:ELSERE
=4
1030 IFIO=28 THENIFOP(8)<>-1 THENRE=63:ELSEIFRN<>8 THENRE=71:ELSERE
=3:SP(1)=100
1040 IFIO=29 THENIFOP(5)=-1 OROP(19)=-1 THENRE=62:ELSEIFOP(18)<>-1 T
HENRE=60:ELSEIFRN<>4 ANDRN<>4 ANDRN<>49 THENRE=4:ELSERE=3:OP(18)=
0:OP(19)=-1
1045 IFIV=22 THENIFRE=60 THENRE=77:ELSEIFRE=4 THENRE=78
1046 IFIV=22 ANDRE=71 THENRE=78
1050 IFIO=7 ANDOP(26)=RN THENOP(7)=-1:OP(26)=0:RE=3
1060 IFIO=27 THENIFRN=32 THENRE=9:ELSERE=4
1070 IFIO=25 THENIFRN=65 THENRE=9:ELSERE=4
1080 IFIO=2 ANDOP(23)=RN THENRE=93
1085 IFIO=31 THENIFRN=69 THENRE=9:ELSERE=4
1086 IFIO=19 THENIFRN=52 THENRE=9:ELSERE=4
1090 IFIO=3 ANDOP(24)=RN THENRE=61
1098 IFRE=3 ANDIO<19 THENIN=IN+1
1099 GOSUB7100:RETURN
1100 IFIO<19 ORIO=29 THENIO=105:ELSERE=2:GOTO1199
1105 IFOP(10)=-1 ANDIO<7 THENOP(10)=RN:RE=3:ELSERE=5
1106 IFIO=16 ANDRE=3 THENRE=66:SP(3)=0
1110 IFIO=18 ANDOP(5)=-1 THENOP(5)=RN:RE=3:GOTO1140
1120 IF(10=18 ORIO=29) ANDOP(19)=-1 THENOP(19)=RN:RE=3
1130 IFIO=7 ANDOP(10)=-1 THENIFOP(14)=RN THENRE=3:OP(7)=RN:ELSERE=7
5:OP(7)=0:IN=IN-1
1140 IFRE=3 THENIN=IN-1
1199 GOSUB7100:RETURN
1200 IFIO>18 THENRE=2:GOTO1299
1210 IFOP(10)=-1 THENRE=6:ELSERE=5:GOTO1299
1220 IFIV=19 AND(1RN=43 ORRN=44) ANDIO=12 THENSP(8)=ABS(SP(8)-1):IFSP
(8)=1 THENRE=28:ELSERE=29
1230 IFIV=19 AND(1RN=27 ORRN=28) ANDIO=11 THENSP(9)=ABS(SP(9)-1):IFSP
(9)=1 THENRE=35:ELSERE=36
1240 IFIV=20 ANDIO=18 THENGOSUB1300
1299 GOSUB7100:RETURN
1300 IFRN=61 ANDSP(5)=4 THENSP(5)=1:RE=22:GOSUB7100:RE=25:PRINT:OP
(2)=RN:OP(23)=0:RETURN
1400 RE=4:IFRN=25 ANDIO=26 THENRE=34
1410 IFRN=32 ANDIO=26 THENRE=37
1420 IFRN=43 ANDIO=35 THENRE=32
1430 IFRN=44 ANDIO=26 THENRE=67

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1440 IFRN=65 ANDIO=25 THENIFSP(10)=-1 THENRE=38:ELSERE=44
1450 IFRN=70 ANDIO=26 THENRE=33
1454 IFIO<26 ANDIO<>25 ANDIO<>35 THENRE=2
1455 IFRN<70 ORIO<>26 THENIO=1460
1456 FORX=0TO7:IFOP(X)<72 THENIO=1460
1457 NEXTX:IFOP(10)=-1 THENRE=8:GOSUB7100:GOTO7300
1460 GOSUB7100:IFRE=44 THENIO=200
1470 RETURN
1500 IFIO=8 THENIO=28:GOTO1000
1510 IFIO=18 THENIO=29:GOTO1000
1520 RE=2:GOSUB7100:RETURN
1600 RE=2:IFIO<8 ANDIO<>13 THENIO=1690
1605 IFSP(2)=1 ANDIO=8 THENRE=82:GOTO1690
1610 IFOP(10)<>-1 THENRE=5:GOTO1690
1620 IFIO=8 ANDSP(1)<1 THENRE=13:GOTO1690
1630 IFOP(17)<>-1 THENRE=12:GOTO1690
1640 IFIO=8 THENRE=3:SP(2)=1:SP(13)=0:ELSEOP(13)=0:IN=IN-1:IFRN=5
2 THENOP(20)=0:OP(1)=RN:RE=24:ELSERE=3
1690 GOSUB7100:RETURN
1700 RE=6:IFIO=20 ORIO=22 ORIO=36 ORIO=27 THENIO=705:ELSERE=2:GOTO1690
1705 IFIO=36 THENIFOP(21)<>RN THENRE=4
1706 IFIO=20 ANDOP(24)<>RN THENRE=4
1707 IFIO=22 ANDOP(23)<>RN THENRE=4
1708 IFRE=4 THENIO=1690
1710 INPUT"WITH WHAT, YOUR BARE HANDS";QUS$:IFLEFT$(QUS$,1)="" THEN
N1750
1720 IFIO=20 THENRE=21
1730 IFIO=22 THENRE=45
1740 IFIO=36 THENRE=81
1745 IFIO=27 THENRE=11
1750 PRINT:GOSUB7100:IFRE<21 ANDRE<>45 THENRETURNELSE7200
1800 RE=2:IFIO=27 THENIFOP(25)=RN THENRE=10:ELSERE=4
1810 IFIO=22 ANDOP(23)=RN THENSP(6)=0:RE=45:GOSUB7100:GOTO7200
1811 IFIO>19 THENIO=1820
1815 IFOP(10)<>-1 THENRE=5:ELSEIFOP(10)<>RN THENRE=4
1816 IFOP(10)=-1 THENOP(10)=RN:RE=3:IN=IN-1
1820 GOSUB7100:RETURN
1900 RE=6:IFIO>18 ANDIO<>27 THENRE=2:GOTO1960
1910 IFIO=27 THENIFOP(25)=RN THENIO=170:ELSERE=4:GOTO1960
1920 IFIO=7 ANDOP(7)=-1 THENRE=75:OP(7)=0
1930 IF(10=18 ORIO=5) ANDOP(5)=-1 THENRE=84:GOSUB7100:PRINT:RE=73:O
P(5)=0:IN=IN-1:GOTO1960
1940 IFIO=18 ANDOP(19)=-1 THENOP(19)=0:IN=IN-1:RE=84
1950 IFOP(10)<>-1 THENRE=5
1955 IFIO=18 ANDOP(18)=-1 THENIN=IN-1:OP(18)=0:RE=84
1960 GOSUB7100:RETURN
2000 RE=2:IFIO>18 THENIO=2099
2010 IFIO=18 ORIO=5 THENIO=1900
2020 IFOP(10)<>-1 THENRE=5:GOTO2099:ELSERE=3:IN=IN-1:OP(10)=RN:IF
(10=6 ANDOP(21)=RN) THENIO=2030:ELSE2099
2030 KG=RN/0)-(IN*.01):IFKG>.4 THENPRINT"YOU KILLED A NASTY, KNI
FE THROWING GNOME!":OP(21)=0:ELSEPRINT"YOU MISSED! YOU OUGHT TO
GET YOUR EYES EXAMINED."
2040 RETURN
2099 GOSUB7100:RETURN
2100 RE=19:IFIO<5 THENIO=2110:ELSEIFOP(5)=-1 OROP(5)=RN THENRE=40:OP(
5)=0:OP(18)=-1:GOTO2199
2101 IFOP(5)=RN THENRE=40:OP(5)=0:OP(18)=RN
2105 IFOP(22)=RN THENOP(22)=0:RE=40:GOTO2199

```

## Listing 2 continues

```

(27)=0:OP(28)=RN
2950 GOTO2899
3000 IFIO<>8THENRE=2:GOTO2899
3080 IFOP(10)<>-1THENRE=5ELSEIFSP(2)<>0THENSP(2)=0:RE=3:ELSERE=9
2
3020 GOTO2899
3030 RE=6:IFIO>18ANOIO<>34THENRE=2:GOTO3199
3110 IFIO<>34THEN3199
3120 IFRN<>60THENRE=4:GOTO3199:ELSERE=79:N=61
3200 GOSUB7100:IFRE<>79THENRETURN:ELSEPRINT:GOTO7000
3220 IFIO<>18THENRE=2:GOTO2899
3205 RE=5:IFOP(18)=-1THENRE=90
3210 IFOP(5)=-1THENOP(5)=0:OP(18)=-1:RE=73
3220 IFOP(19)=-1THENRE=3:OP(19)=0:OP(18)=-1
3230 GOTO2899
3300 EN=0:IFRN=10RRN=100RRN=55THENN=RN+1:EN=1
3305 IFRN=62THENIFSP(7)=2THENN=72:EN=1:ELSERE=91:GOTO2199
3310 IFRN=31THENN=33:EN=1
3320 IFRN=51THENN=70:EN=1
3330 IFRN=0THENRE=58:GOSUB7100:ELSEGOSUB7000
3340 RETURN
3400 LE=0:IFRN=20RRN=110RRN=56THENN=RN-1:LE=1
3410 IFRN=33THENN=31:LE=1
3420 IFRN=70THENN=51:LE=1
3425 IFRN=72THENN=62:LE=1
3430 IFLE=0THENRE=59:GOSUB7100:ELSEGOSUB7000
3440 RETURN
7000 IF((RN=43ANDN=44)OR((RN=44ANDN=43))ANDSP(8)=0THENRE=27:GOSUB
7100:N=RN:RETURN
7100 IF((RN=27ANDN=28)OR((RN=28ANDN=27))ANDSP(9)=0THENRE=42:GOSUB
7100:N=RN:RETURN
7002 IFRN=61ANDN<>61ANDIV=1ANDSP(5)=0THENRE=64:GOSUB7100:N=RN:RE=RE
7003 IFRN=67ANDN=71ANDSP(5)=0THENRE=1:GOSUB7100:N=RN:RETURN
7004 SR=0:IF(N>11ANDN<>15ANDN<30)OR(N>32ANDN<39))THENSER=1
7005 IFSR=0THEN7009
7006 IFS(2)=1AND(OP(8)=-1OROP(8)=N)THEN7009:ELSERE=15:GOSUB7100
:IFS(13)=0THENSP(13)=1
7007 RN=N:EN=0:RETURN
7009 IFPT(N)=0THENNFS="SFALDES:0"ELSENF="SFASDES:0"
7010 OPEN"R",1,NFS:FIELD1,25$ASOES:GET1,N:CLOSEL:SP(13)=0
7015 FORL=1TO255:IFMID$(DES,X,L,0)="
"THEN7040
7030 PRINTMID$(DES,X,L):NEXTX
7040 PRINT:RN=N:FT(N)=1:N=0:IFRN=41ANDVO=0THENRE=55:PRINT:GOSUB7
100:VO=1
7050 FORX=0TO29:IFOP(X)=RNANDX<>21THENPRINT:PRINTLO$(X)
7060 NEXTX:RETURN
7100 OPEN"R",1,"SFARESP:0":FIELD1,25$ASOES:GET1,N:CLOSEL:FORX=1
TO255:IFMID$(RE$,X,L,2)="
X,L):NEXTX
7110 PRINT:RETURN
7200 DI=DI+1:IFDI=3THENRE=49:PRINT:GOSUB7100:GOTO7300
7205 PRINT:INPUT"DO YOU WANT ANOTHER CHANCE":QU$=IFLEFT$(QU$,1)<
">"Y"THEN7300
7210 IN=0:PRINT:RE=DI+45:GOSUB7100:FORX=0TO18:IFOP(X)=-1THENOP(X)
)=INT(RND(15))
7220 NEXTX:OP(8)=4:OP(17)=6:OP(12)=42:N=1:SP(2)=0:SP(8)=0:SP(14)
=0:SC=0:PRINT:GOSUB7000:RETURN
7300 PRINT:GOSUB600:RE=50:IFPT>7THENRE=51

```

```

7320 IFPT>35THENRE=52
7330 IFPT>79THENRE=53
7340 IFPT>90THENRE=54
7350 PRINT:GOSUB100:PRINT:END
7400 IFSC=0THENRETURN
7410 IFOP(21)=0THENOP(21)=INT(RNO(35))
7420 IFOP(21)>RNTHENOP(21)=OP(21)-1
7430 IFOP(21)<RNTHENOP(21)=OP(21)+1
7440 IFOP(21)<RNTHENRETURN
7440 PRINT:PRINTLOS(21):RA=RND(0)+(IN*.01):IFRA>7THENPRINT:PRIN
T:"THE THROWS A SMALL KNIFE AT YOU!":PRINT:IFRA>.9THENPRINT:"IT GET
S YOU!":GOTO7200:ELSEPRINT:"IT MISSES YOU!"
7450 RETURN

```

```

10 OPEN "O",1,"SFMOVE:0"
20 FOR I=1 TO 72: READ N1,N2,N3,N4,N5,N6
30 PRINT I,X,"N1","N2","N3","N4","N5","N6:NEXT X:CLOSE1
40 DATA 2,0,3,0,0,0,0,1,0,0,6,1,0,4,0,5,3,0,0,0,0,6,4,0,0,0
50 DATA 0,0,0,3,5,0,0,9,8,1,0,0,0,3,0,0,7,0,0,30,0,7,10,0,0,9,0,11,0
60 DATA 0,0,0,10,12,29,0,0,11,0,13,0,0,0
70 DATA 2,0,0,14,0,0,13,0,15,0,0,14,16,17,0,0,15,0,0,28,0,0
80 DATA 0,15,0,18,0,0,18,18,19,23,18,18,18,19,19,20,19,17,21,19,20,22,20
90 DATA 0,0,20,0,0,20,0,0,23,20,22,22,22,23,18,22,23,24,23,0,25,23,0,0
100 DATA 0,26,0,24,0,0,27,29,0,25,0,28,0,26,0,0,0,0,0,27,0,0,16,0
110 DATA 0,11,0,26,0,29,31,9,0,0,0,33,32,30,0,31,0,8,0,0,38,36,34
120 DATA 31,33,33,33,35,34,34,34,34,36,35,35,34,35,35,37,36,35,33,36,36
130 DATA 0,0,0,0,0,0,37,36,38,37,37,38,37,38,38,38,40,0,30,0,0,43,41,3
140 DATA 9,0,0,0,0,42,0,40,0,0,0,44,0,41,0,40,40,0,45,0,43,0,0,5
150 DATA 0,46,44,48,0,0,47,0,45,0,0,54,0,46,0,51,45,49,0,0,0
160 DATA 48,0,0,0,0,55,53,45,51,0,70,50,48,52,0,0,51,0,0,0,0
170 DATA 0,54,0,50,0,0,0,47,53,0,0,56,0,50,0,63,59,55,57,0,58,56
180 DATA 0,0,0,0,0,51,0,0,0,59,0,56,0,0,0,59,0,0,0
190 DATA 62,0,0,0,0,72,71,61,0,0,0,56,0,64,0,65,0,66,68,63
200 DATA 0,0,64,0,0,64,67,0,0,66,0,70,0,71,0,69,0,64,0,68,0,0
210 DATA 0,0,51,0,0,0,62,67,0,0,62,0,62,0,0,0

```

0 OPEN"R",1,"SFALDES:0"  
120 FORX=1:TO72:READOES:FIELD1,255ASD\$:L\$ETO\$:DE\$:PUT1:NEXTX  
30 CLOSE1  
000 DATAYOU ARE STANDING AT AN ENTRANCE TO AN OLD ABANDONED SHAC  
X. TO THE WEST IS A ROCKY PATH, A ROAD GOES NORTH.  
110 DATAYOU ARE INSIDE AN OLD SHACK. THERE IS A DOOR TO THE WEST  
120 DATAYOU ARE STANDING AT THE EDGE OF A ROCK STREWN PATH. THE  
PATH CONTINUES EAST. SMALL WALKS LEAD TO THE NORTH AND WEST.

*Listing 4 continues*

460 DATAYOU ARE INSIDE A MINE. PATHS LEAD TO ALL DIRECTIONS.  
 470 DATAYOU ARE INSIDE A MINE. PASSAGES LEAD TO ALL DIRECTIONS.  
 480 DATAYOU'RE IN A ROAD. A COLD WIND BLOWS INTO YOUR FACE. IT SEEMS TO SAY 'LUCK DOESN'T RUN FOREVER.' THE ROAD CONTINUES TO THE NORTH AND TO THE SOUTH.  
 490 DATATHE ROAD GROWS SMALLER. TO THE EAST IS A SELDOM USED GRAVEL PATH. THE ROAD CONTINUES NORTHWARD AND SOUTHWARD.  
 500 DATAYOU HAVE CLIMBED UP A HILL. THE VIEW IS SPECTACULAR (AS ONE WOULD EXPECT). SHARP ROCKS PROTRUDE FROM THE BASE OF THE HILL. BEYOND A RIVER A STRANGE HOUSE CAN BE SEEN. THE SILENCE HERE IS UNCANNY. PATHS LEAD EAST AND WEST.  
 510 DATATHE GRAVEL PATH ENDS. A LARGE ROCK MARKS THIS SPOT.  
 520 DATAYOU ARE AT THE RIVERS' SOUTHERN EDGE. THERE IS A SMALL SIGN ON THE SHORE. A ROAD GOES SOUTH.  
 530 DATAYOU ARE AT THE RIVERS' NORTHERN EDGE. A LARGE SIGN SAYS 'WELCOMETO YOUR DEATH.' BELOW THE SIGN (SCRIBBLED IN RED) IS A MESSAGE. A ROAD GOES NORTH.  
 540 DATAYOU ARE AT A CROSSROADS. A ROAD GOES NORTH AND SOUTH. EXITS LEADEAST AND WEST.  
 550 DATATHE GROUND HERE IS LITTERED BY LARGE HOLES. THERE ARE PATHS LEADING EAST AND WEST.  
 560 DATAYOU ARE STANDING NEAR AN OLD STABLE. A SIGN READS 'OLD DOORS NEVER DIE...THEY JUST ACCUMULATE.' PATHS LEAD NORTH AND WEST.  
 570 DATATHE ROAD ENDS HERE. SMALL PATHS LEAD NORTH AND SOUTH. A ROAD GOES TO THE EAST.  
 580 DATAYOU ARE AT THE RIVERFRONT. UPON THE SHORE YOU SEE THE BONES OF UNSUCCESSFUL RIVER CROSSERS. A PATH LEADS NORTH.  
 590 DATAYOU ARE STANDING BY A LARGE GARGOYLE STATUE. IT SEEMS TO BE STARING AT YOU. INSCRIBED AT ITS BASE IS THE NUMBER 13.  
 600 DATAYOU ARE OUTSIDE AN outhouse. A PATH LEADS SOUTH. OTHER PATHS LEAD EAST AND WEST.  
 610 DATAA LARGE STONE IDOL STANDS IN FRONT OF YOU. THERE IS A SMALL CHARRED PIT IN FRONT OF THE IDOL. A PATH LEADS EAST.  
 620 DATAYOU ARE IN A GARDEN. HALF A DOZEN FRESHLY PICKED CARROTS ARE LYING ON THE GROUND. AN ORCHARD IS EAST. A PATH LEADS WEST.  
 630 DATAYOU ARE IN AN ORCHARD. SURROUNDED BY A FLOOD OF ORANGES IS ONE SOLITARY APPLE TREE. A PATH LEADS WEST. ANOTHER PATH GOES SOUTH.  
 640 DATAYOU ARE AT AN ENTRANCE TO AN ODD LOOKING HOUSE. IN THE MAILBOX IS A LETTER MARKED 'C/O WIZARD OF OZ.' A WALK LEADS SOUTH.  
 650 DATAYOU ARE INSIDE THE HOUSE. A LARGE DOOR IS TO THE SOUTH. A LARGE HALLWAY CONTINUES NORTH. THERE IS AN ARCHED DOOR TO THE EAST. A SMALL DOORWAY IS WEST.  
 660 DATAThis IS THE DINING ROOM. IT LOOKS LIKE SOMEBODY IS EXPECTING GUESTS. THERE ARE SEVEN PLATES ON THE TABLE. A DOOR IS NORTH. A DOORWAY IS EAST.  
 670 DATAThis IS THE KITCHEN. A BIG POT OF BOILING WATER IS OVER A WOOD STOVE. A DOOR IS SOUTH.  
 680 DATAYOU ARE IN THE LIVING ROOM. A SMALL STATUE WITH A ROUND HEAD IS SITTING ON A TABLE. A LARGE DOORWAY IS WEST.  
 690 DATAYOU ARE IN A SMALL HIDDEN ROOM. A ROPE HANGS FROM THE CEILING. THERE IS AN OPEN PANEL TO THE SOUTH.  
 700 DATAYOU ARE IN THE BASEMENT. A CORRIDOR LEADS NORTH.  
 710 DATAA LARGE COMBINATION VAULT IS STANDING IN FRONT OF YOU. A SIGN ON TOP OF THE VAULT SAYS 'DEPOSIT TREASURES INSIDE THE VAULT FOR FULL CREDIT.' A CORRIDOR LEADS SOUTH. A DOOR IS EAST.

720 DATAYOU ARE IN THE RECEPTION HALL. A LARGE TABLE IS ON ONE SIDE OF THE ROOM. AS YOU GAZE UPON THE TABLE YOU SEE SOMEONE STARE BACK AT YOU. A CAN OF PLEDGE SITS IN THE FAR SIDE OF THE ROOM. STAIRS LEAD UP. THE HALL EXTENDS SOUTH.  
 730 DATAYOU ARE IN THE MIDDLE FLOOR. STAIRS LEAD UP AND DOWN. DOORWAYS ARE TO THE EAST AND WEST.  
 740 DATAYOU ARE IN THE LIBRARY. A LARGE HEAVY BOOK LIES OPEN ON TOP OF A DESK BY A WINDOW. A DOOR IS WEST.  
 750 DATAYOU ARE IN THE BEDROOM. A LARGE WALK IN CLOSET IS SOUTH. THERE IS A LARGE DRESSER WITH A CENTRAL DRAWER NEAR THE BED. A DOOR IS TO THE EAST.  
 760 DATAYOU ARE IN A LARGE WALK IN CLOSET WITH A DOOR TO THE NORTH.  
 770 DATAYOU ARE ON THE UPPER FLOOR. A DOOR IS WEST. STAIRS LEAD DOWN.  
 780 DATAYOU ARE IN A MUSTY ATTIC. AN OLD CHEST IS SITTING IN ONE CORNER OF THE ROOM. A DOOR IS EAST.  
 790 DATAYOU ARE INSIDE THE outhouse. A STRANGE MESSAGE IS PASTED ON THE WALL. A DOORWAY IS SOUTH.  
 800 DATAYOU ARE INSIDE A SMALL CUBICLE. INSCRIBED ON TOP OF THE DOOR ARE THE LETTERS I F AND T. ONE OTHER LETTER APPEARS TO BE MISSING. THE DOOR IS WEST.  
 810 DATAYOU ARE INSIDE A VAULT.

## Program Listing 5

10 OPEN"R",1,"SPASDES:0":FIELD1,255ASDES  
 20 FOR=1TO72:READ\$;LSETDES=D\$:PUT1:NEXT:CLOSE1  
 25 DATAYOU ARE OUTSIDE AN OLD SHACK.,YOU ARE INSIDE A SHACK.,YOU ARE ON THE EDGE OF A LARGE PATH.  
 30 DATAYOU ARE IN A FOREST.,YOU ARE IN A FOREST.,YOU ARE IN A FOREST.,YOU'RE IN THE MIDDLE OF A ROAD.,YOU ARE BY A MURKY POOL.,YOU'RE IN A THREE WAY JUNCTION.,YOU'RE AT THE ENTRANCE TO A CAVE.  
 40 DATAYOU'RE INSIDE PLACE WHERE LIGHT FILTERS FROM THE EAST.,YOU ARE IN A PASSAGE OF BROKEN ROCKS.,YOU'RE INSIDE A SMALL CAVERN.,YOU ARE IN A LONG HALL.,THIS IS A ROOM LIGHTED BY A SIGN.,YOU'RE IN THE TOOL ROOM.,YOU ARE IN A LONG CORRIDOR.  
 50 DATAYOU ARE IN A TWISTY LITTLE MAZE OF PASSAGES.,YOU ARE IN A MAZE OF TWISTY LITTLE PASSAGES.,YOU ARE IN A MAZE OF TWISTY LITTLE PASSAGES.,YOU ARE AT A DEAD END.,YOU ARE IN A MAZE OF TWISTY LITTLE PASSAGES.  
 60 DATAYOU ARE IN A LITTLE MAZE OF TWISTY PASSAGES.,YOU'RE IN THE TALL WALL CANYON.,YOU'RE IN A LONG HALL.,YOU ARE IN A PLACE WHERE THREE PATHS MEET.,YOU'RE AT THE CHASM.,YOU ARE IN A NARROW L EDGE.,YOU'RE IN NARROW PART OF CAVE.  
 70 DATAYOU ARE IN THE 'T.',YOU ARE AT THE MINE ENTRANCE.,YOU ARE NEAR AN OAK TREE.,YOU ARE INSIDE THE MINE. PASSAGES LEAD TO ALL DIRECTIONS.,YOU ARE INSIDE A MINE. PATHS LEAD TO ALL DIRECTIONS.  
 80 DATAYOU ARE INSIDE A MINE. PATHS LEAD TO ALL DIRECTIONS.,YOU ARE INSIDE A MINE. PATHS LEAD TO ALL DIRECTIONS.,YOU ARE INSIDE A MINE. THE RE ARE PASSAGES IN ALL DIRECTIONS.  
 90 DATAYOU ARE IN A PLACE WHERE COLD WINDS BLOW.,THE ROAD NARROWS HERE.,YOU'RE ON TOP OF A HILL.,YOU ARE BY A LARGE ROCK.,YOU ARE

Listing 5 continues



# RUN BASIC PROGRAMS AT SUPER SPEED WITH ZBASIC 2.2. THE WORLDS FASTEST TRS-80 BASIC COMPILER from SIMUTEK

## BELIEVE IT OR NOT WE'VE ADDED MORE NEW FEATURES to the ONLY INTERACTIVE BASIC COMPILER for the TRS-80!

1. Speed increases of 10-100 times are typical after compilation.
2. Compiled code can be RELOCATED to run anywhere in memory. Code is even ROMable!
3. ZBASIC 2.2 NOW SUPPORTS BOTH RANDOM and SEQUENTIAL DISK I/O.
4. ZBASIC 2.2 is now a super tool for business programmers: RANDOM ACCESS FILES, and PRINT USING statements are supported as well as a HIGH PRECISION MATH package (with no rounding problems).
5. Special BUILT-IN MACHINE LANGUAGE COMMANDS to increase program operation by as much as 1000 times! Special commands are implemented for fast memory searching (CPDR, CPJR), block memory moves (LDIR, LDDR), inputting and printing HEX numbers, inserting MACHINE LANGUAGE into COMPILED CODE, disabling and enabling interrupts, inverting memory, 16 bit PEEKs and POKES, and stack control, debug and much more.
6. ZBASIC 2.2 compiles the ENTIRE PROGRAM into to Z-80 machine language. (Not 8080 code or a combination of BASIC and machine language like some other compilers.) Clumsy LINKING LOADERS, and RUNTIME MODULES are not needed; ZBASIC 2.2 creates a ready to run MACHINE LANGUAGE program.
7. NO ROYALTIES imposed on registered ZBASIC owners.
8. Typical COMPILATION TIME is TWO SECONDS for a 4K program.
9. Use TRS-80 Basic to write ZBASIC programs!
10. Compile many existing programs with only minor changes. (Some BASIC programming experience is required.)
11. Fully compatible with both the Model I and the Model III. Mod I compiled programs work on a MODEL III, and visa-versa. ZBASIC works with NEWDOS-80, NEWDOS+, DOSPLUS, LDOS, MULTIDOS, ULTRADOS, TRSDOS etc.
12. BUILT-IN and much improved MUSIC and SOUND EFFECTS commands.
13. Improved CHAINING for disk users.
14. TIMES now available on DISK version.
15. ZBASIC 2.2 now has an INPUT @ command (similar to PRINT @).
16. The TAB function will now tab 255 columns on a printer. (BASIC cannot tab past column 64.)
17. NEWDOS 80 2.0 USERS can use the CMD "dos command" function!
18. NEW and EASIER to use USR COMMANDS.
19. New math functions to calculate XOR and INTEGER REMAINDERS
20. Logical STRING COMPARISONS are now supported.
21. The disk commands INSTR, MID\$ ASSIGNMENT are now supported on both DISK AND TAPE ZBASIC.
22. DEFSTR is now supported.
23. Eight disk files may be opened simultaneously; random, sequential or mixed.
24. LINE INPUT #. is now supported
25. Invoke the compiler by simply hitting these two keys: "-"
26. NEW 100+ PAGE MANUAL WITH DESCRIPTIONS AND EXAMPLE.
27. ZBASIC 2.2 Comes with CMDFILE/CMD program from MISOSYS, to allow appending or merging compiled programs and machine language programs from tape or disk.

## ZBASIC 2.2 DOES NOT SUPPORT THESE BASIC COMMANDS:

1. ATN, EXP, COS, SIN, LOG, TAN, and exponentiation. (However, subroutines are included in the manual for these functions.)
2. ERROR, ON ERROR GOTO, ERL, ERR RESUME.
3. No direct commands like AUTO, EDIT, LIST, LLIST ETC, although these commands may be used when writing programs.
4. Others NOT supported: CDBL, CINT, CSNG, DEFFN, FIX, FRE.
5. Normal CASSETTE I/O. (ZBASIC supports it's own SPECIAL CASSETTE I/O statements.)
6. SOME BASIC COMMANDS MAY DIFFER IN ZBASIC. For instance, END jumps to DOS READY, STOP jumps to BASIC READY etc.
7. MEMORY REQUIREMENTS: to approximate the largest BASIC program that can be compiled in your machine (at one time), enter BASIC and type: PRINT (MEM-6500)/2. Remember, you can merge compiled programs together to fill memory.

## ZBASIC 2.2 SPEED COMPARISON DEMO

To help give you an idea how fast compiled programs are, we have included this demo program:

## ZBASIC 2.2 DEMO PROGRAM

Time to compile and run complete program	: 0 MIN. 2 SEC.
BASIC Execution speed MOD I, LEVEL II	: 7 MIN. 34 SEC.
ZBASIC Execution speed MOD I, LEVEL II	: 0 MIN. 18 SEC.
BASIC Program size (WITHOUT VARIABLES)	: 895 BYTES
ZBASIC Program size (WITHOUT VARIABLES)	: 2733 BYTES

(Remember that the ZBASIC program includes an 1879 byte sub-routine package.) Program shown exactly as compiled and run in BASIC and ZBASIC.

```
10 '===== ZBASIC 2.2 EXAMPLE PROGRAM AND TIME TEST=====
20 CLS:DEFINT A-X:DEFSTR Z:DIM AA(64,24),Z(50):RANDOM
30 AA=100:BB=-1000:CC=3:DD=-3:EE=-9999:ST$="START TIME "+TIME$
40 FOR I=1 TO 127 STEP 2 :FOR J=47 TO 101 STEP -3:XX=POINT(I,J):SET(I,J)
50 XX=(I-J)/CC*(7+I+J) :XX=ABS(INT(RND(I*J)-AA)+7) :RESET(I,J)
60 XX=PEEK(I+J) :POKE15360+I+J,J :OUT255,J AND (3*J):XX=INP(1)
70 AB$=STR$(I+J) :BA$=LEFT$(AB$,2) :AA(I/2,J/2)=VAL(BA$)+AA*3
80 BA$=BA$+RIGHT$(BA$,RND(3)) :XX=INSTR(1,BA$,"9") :XX=SQR(I*J)
90 BA$=MID$(BA$,2,2) :MID$(BA$,1,1)=Z :IF XX THEN 100 ELSE CLS
100 IF LEN(BA$)3 OR SGN(XX)=1 AND ASC(BA$)=32 THEN PRINT "+++"
110 IF POS(0)62 THEN TRON:TROFF:PRINT ELSE XX=NOT(RND(99))+100
120 A$=INKEY$:IF A$="Y" OR A$="y" AND J120 THEN PRINT "TRUE."
130 RESTORE :READA,C,Z(I),D:GOSUB170:GOSUB170:GOSUB170:GOTO210
140 NEXT :PRINT "*" :NEXT I:CLS:PRINT$12,ST$,"STOP TIME "+TIME$
150 STOP'===== END OF MAIN TEST LOOP =====
160 DATA 12345,-1,"TEST",-9999
170 ON RND(6) GOTO 180,190,200,180,190,200
180 RETURN
190 RETURN
200 RETURN
210 ON RND(9) GOSUB 180,190,200,180,190,200,180,190,200
220 GOTO140
```

NOTICE ZBASIC 2.0 OWNERS: you can upgrade your ZBASIC 2.0 for no charge. Just send us your original diskette/cassette and a S.A.S.E with your registered serial number and copy of your invoice. We will send you ZBASIC 2.2 and updates to your manual.

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E AT THE RIVER'S SOUTHERN EDGE., YOU ARE AT THE RIVER'S NORTHERN  
EDGE., YOU'RE AT A CROSSROADS.  
100 OATAYOU ARE IN 'HOLEY' GROUND., YOU'RE NEAR THE STABLE., THE R  
OAD ENDS HERE., YOU ARE AT THE RIVERFRONT., YOU ARE BY A GARGOYLE  
STATUE., YOU'RE OUTSIDE AN outhouse., A LARGE STONE IDOL STANDS IN  
FRONT OF YOU., YOU'RE IN A GARDEN.  
110 OATAYOU'RE IN AN ORCHARD., YOU ARE STANDING AT AN ENTRANCE TO  
A HOUSE., YOU'RE NEAR THREE DOORWAYS., THIS IS THE DINING ROOM., Y  
OU'RE IN THE KITCHEN., YOU ARE IN A LIVING ROOM., YOU ARE INSIDE A  
SMALL ROOM., YOU ARE IN THE BASEMENT.  
120 OATAYOU'RE OUTSIDE A VAULT., THIS IS THE RECEPTION HALL., YOU  
ARE IN THE MIDDLE FLOOR., YOU ARE IN THE LIBRARY., YOU ARE IN THE  
BEDROOM., YOU ARE INSIDE A WALK-IN CLOSET., THIS IS THE TOP FLOOR  
.  
130 OATAYOU ARE IN THE ATTIC., YOU'RE INSIDE AN outhouse., YOU ARE  
INSIDE A SMALL CUBICLE., YOU ARE INSIDE A VAULT.

## Program Listing 6

```
10 OPEN"O",1,"SFAVOC:0"
20 FORX=0TO96:READVS:V:PRINT#1,V$,"V:NEXT:CLOSEL:ENO
100 OATANORT,1,N,1,EAST,2,E,2,SOUT,3,S,3,WEST,4,W,4,UP,5,U,5,DOWN
N,6,D,6,LOOK,7,HINT,8,HELP,8,INVE,9,JUMP,10,SCORE,11,QUIT,12,SAVE
,13,REST,14,ENITE,15,LEAV,16,TAKE,17,GET,17,T,17,OBTA,17,OROP,18,
DR,18,WAVE,19,SHOW,20,READ,21,FILL,22
110 DATALIGH,23,BURN,23,KILL,24,ATTA,24,KICK,25,SMAS,26,BREA,26,
THRO,27,TOSS,27,EAT,28,ORIN,29,FEED,30,TURN,31,UNIO,32,CROS,33,S
WIM,34,OPEN,35,CLOS,36,OFF,37,PULL,38,ENT,39
120 DATADIAM,0,EMER,1,CHAI,2,PLAT,2,APPL,3,GOLO,3,PEAR,4,SPIC,5,
OAGG,6,KNIF,6,FIGU,7,LAMP,8,KEY,9,RING,10,ROO,11,STAF,12,INCE,13
,HAY,14,STRA,14,CHEE,15,MOUS,16,MATC,17,BOTT,18,IOOL,19,SNAK,20,
ABYS,21,CHAS,21,WIZA,22,RIVE,23,HEAD,24,BOOK,25
130 DATANESS,26,BALL,27,CRYS,27,OIL,28,WATE,29,VAUL,30,CHES,31,O
RAW,32,WIND,33,ROPE,34,SIGN,35,GNOM,36
```

## Program Listing 7

```
5 OPEN"O",1,"SFAOBOES:0"
10 FORX=0TO29:READOB$:PRINT#1,X$,"OB$:NEXT
30 FORX=0TO19:READOB$:PRINT#1,X$,"OB$:NEXT
40 FORX=0TO28:READOB$:PRINT#1,OP$,"NEXTX:PRINT#1,0:CLOSEL:ENO
100 OATAA LARGE DIAMONO IS LYING HERE., THERE'S AN EMERALD EYE HE  
RE., A PLATINUM CHAIN IS LYING HERE., THERE IS A GOLDEN APPLE HERE  
., A STRING OF PEARLS IS LYING HERE., THERE IS A BOTTLE OF RARE SP  
ICES LYING HERE.  
110 OATATHERE IS A JEWEL ENCRUSTED DAGGER IN HERE., A PRICELESS F  
IGURINE IS SITTING ON SOME HAY., THERE IS AN OLD OIL LAMP HERE., A  
N OLD BRASS KEY IS SITTING HERE., THERE IS A WORTHLESS LOOKING RI  
NG HERE., AN OLD BLACK ROD IS SITTING HERE.  
120 OATATHERE'S AN ANCIENT LOOKING STAFF LYING HERE., THERE'S A P
```

Listing 7 continues

ACKAGE OF INCENSE LYING HERE., THERE'S A BALE OF HAY HERE., A PACK  
AGE OF KRAFT CHEESE IS LYING HERE., THERE IS A NOISY LITTLE MOUSE  
HERE., THERE'S A BOX OF MATCHES LYING HERE.  
130 OATATHERE'S AN EMPTY BOTTLE HERE., THERE'S A BROWNISH BOTTLE  
OF WATER HERE., AN EMERALD EYE SITS ON TOP OF THE IDOL., THERE IS  
A KNIFE WIELDING GNOME IN THE ROOM WITH YOU., THERE ARE RARE SPIC  
ES SITTING ON THE GROUND.  
140 OATAAN ANGRY WIZARD WITH A PLATINUM CHAIN IS IN THE ROOM WITH  
B YOU., A GIANT SNAKE IS JEALOUSLY GUARDING A GOLDEN APPLE., THERE  
IS A LARGE CRYSTAL BALL ON THE GROUND., A PRICELESS FIGURINE STA  
NDS ON TOP OF THE TABLE.  
145 OATATHE WINDOW IS OPEN., THE WINDOW IS CLOSED., THERE IS AN OP  
EN PANEL NORTH.  
150 OATALARGE DIAMONO, EMERALD EYE, PLATINUM CHAIN, GOLDEN APPLE, ST  
RING OF PEARLS, BOTTLE OF SPICES, JEWELLED DAGGER, PRICELESS FIGURIN  
E, OIL LAMP, BRASS KEY, RING, BLACK ROD, WOODEN STAFF, INCENSE, HAY, KRA  
FT CHEESE, NOISY MOUSE  
160 DATAMATCHES, EMPTY BOTTLE, BOTTLE OF WATER  
170 DATA38,0,0,0,0,15,0,2,2,49,21,42,58,47,57,69,6,24,0,52,0,2  
8,61,54,32,63,65,0

## Program Listing 8

```
5 OPEN"R",1,"SFARESP:0"
10 FIEL01,255ASR$
15 FORX=1TO102:READRS:LSR$=RES:PUT1,NEXT:CLOSEL
100 OATATHERE IS NO WAY TO GO IN THAT DIRECTION., I DON'T UNDERST  
AND., OK., I DON'T SEE IT HERE., YOU'RE NOT CARRYING IT., NOTHING HA  
PPENS., YOU'RE ALREADY CARRYING IT!, IN A BLAZE OF GLORY YOU FINO  
YOURSELF IN A LAND FAR AWAY., IT'S TOO HEAVY FOR YOU TO TAKE.  
110 OATAOUCH! EVERY BONE IN YOUR FOOT JUST BROKE., EEC! YOUR HAN  
DS JUST TURNED INTO A BLOODY MESS., YOU DON'T HAVE ANY MATCHES., Y  
OU CANNOT LIGHT AN EMPTY OIL LAMP., YOU HAVE NO KEYS.  
120 OATATHERE IS NOT ENOUGH LIGHT TO SEE AROUND YOU., YOU HAD BET  
TER HURRY. TIME IS RUNNING OUT., YOU'RE LAMP IS GETTING OIM., THE  
MOUSE IS FRIGHTENED BY YOU., THE ONLY THING EDIBLE HERE IS YOU!, T  
HE MOUSE WAS USED FOR CARCINOGENIC TESTING. THE SNAKE IS DEAD.  
130 OATATHE SNAKE SEVERS YOUR HANO., YOU HAVE BEEN POISONED., THE  
RING GLOWS BRIGHTLY. A LIGHTNING BOLT STRIKES THE WIZARD., THE GO  
LL DEAD TO THE GROUND., AN EMERALD EYE FALLS TO THE GROUND.  
140 OATAA PLATINUM CHAIN LIES BEFORE YOU., A GOLDEN APPLE HANGS B  
Y AN APPLE TREE., YOU CAN'T CROSS THE RIVER., HOLY MOSES! THE RIVE  
R JUST SPLIT IN TWO! A DRY PATH LEADS TO THE OTHER SIDE., A LO  
UD NOISE SORROUNDS YOU AS THE RIVER CLOSES.  
150 OATAYOU DID NOT JUMP LONG ENOUGH. YOU FELL INTO THE RIVER., A  
SCHOOL OF PYRANIAS DEVOURS YOU., FISH FROM THE AMAZON., FRODO LI  
VES., MERLIN WAS HERE., A CRYSTAL BRIDGE NOW SPANS THE CHASM!, THE  
BRIDGE HAS JUST AS SUDDENLY DISAPPEARED!  
160 OATATHE GREAT ALMAZAR BID'S YOU WELL., THOUGH YOU WILL ENCOUN  
TER MANY TRIALS HE SHALL PROVIDE FOR YOU. HE THAT IS BOTH WATERS A  
NO FLAMES SHALL SEND YOU A GIFT TO AID YOU IN YOUR QUEST. THUS SAY  
ETH ALMAZAR 'LIVE AND YOU SHALL LIVE.'  
170 DATA AND SO IT CAME TO PASS THAT IN THE THIRD DAY OF THE SEV  
ENTH MONTH OF THE TWENTY-FIRST YEAR A GREAT EVENT HAPPENED., T
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Listing 8 continues

HE EARTHOPENED AND TOOK WITHIN IT THE FRUITS OF THE PEOPLES' LAB  
OR AND GAVE UPON THEM A GREATER GLORY.  
180 DATATHE CHEST IS EMPTY,,WHEW! THAT'S STRONG STUFF!,YUCK! THE  
MOUSE WAS USED FOR CARCINOGENIC TESTING. YOU'RE DEAD,,THE ABYSS  
IS TOO MADE TO CROSS,,YOU FELL INTO THE CHASM. YOU ARE DEAD,,A  
SMALL AXE FLIES THROUGH THE WINDOW AND STRIKES YOU DEAD.  
190 DATATHE WIZARD RAISES HIS HAND AND IN AN INSTANT YOU FIND YO  
URSELF UNCOMFORTABLY HOT. AS YOU LOOK UP INTO THE SKY YOU SEE A  
LARGE STONE IDOL. YOU ARE BEING OFFERED AS A SACRIFICE.  
200 DATAEVERYTHING SPINS AROUND YOU AS A WALL OF FIRE ENCIRCLES  
YOU. WHEN YOU WAKE UP YOU FIND THAT...A SMALL WALL OF FIRE B  
ARELY SURROUNDS YOU. YOU REGAIN CONSCIOUSNESS AND FIND  
THAT...

210 DATA THAT JUMP WOULD HAVE WON A GOLD MEDAL. UNFORTUNATELY YOU  
LANDED HEAD FIRST INTO A PILE OF ROCKS., YOU HAVE DIED THREE TIMES.  
ES. THE GAME IS THEREFORE SUSPENDED.

220 DATA YOU OBVIOUSLY HAVE NO IDEA OF WHAT'S HAPPENING IN THIS GAME, YOU ARE OBVIOUSLY A RANK NOVICE IN THIS GAME, YOU MAY NOW AN-  
230 CONSIDER YOURSELF AN INTERMEDIATE IN THIS GAME, YOU ARE NOW AN AD-  
240 VANCED ADVENTURER.

230 DATAALL HONOR THEE - GRANDMASTER ADVENTURER!, A LOUD VOICE EM  
ANATES FROM BEYOND SAYING 'TIME GROWS SHORT - MORTAL - BEF  
ORE WE FEAST AGAIN.', EECH! WHAT LOUSY TASTING WATER, THERE'S NO  
WATER WITHIN REACH.

240 DATAYOU CAN'T ENTER ANYTHING FROM HERE.,YOU CANNOT LEAVE FROM  
HERE.,YOU HAVE NO CONTAINER TO PUT IT IN.,THE SNAKE BLOCKS YOUR  
WAY.,YOUR CONTAINER IS FULL.,YOU DON'T HAVE A LAMP.,THE WIZARD  
BLOCKS YOUR WAY.

2500 DATAYOU INCOMPETENT FOOL! YOU FORGOT TO CLOSE THE RIVER AND  
AS A RESULT A FLOOD HAS OVERRUN THE COUNTRYSIDE.,THE MOUSE RU  
NS AWAY..DISGRESSION WILL PREVENT TRANSGRESSION.

260 DATAIT'S ALREADY OPEN, IT'S ALREADY CLOSED. A GIANT OGRE GRA  
BS YOU AND THROWS YOU INTO A PIT, THERE IS NO SIGN OF ANY OIL HE  
RE. A PANEL SLIDES OPEN REVEALING A PASSAGE TO THE NORTH.

270 DATAA SUDDEN WIND BLOWS FROM BEHIND AND SCATTERS THE SPICES  
TO THE FOUR CORNERS OF THE EARTH.

280 DATA THE HEAVENS PART AT THEIR SEAMS AS THE GODS PREPARE THE  
 281 R R NEXT MEAL. ALMAZAR CAN NO LONGER PROTECT YOU, FOR EVEN THE MI  
 282 GHTTEST OF BEINGS CANNOT ALTER THAT WHICH IS PREORDAINED. YOUR L  
 283 IFE IS NOW OVER. MAY YOU REST IN PEACE.

290 DATATHE DELICATE FIGURINE BREAKS UPON HITTING THE GROUND., A  
STRING OF PEARLS IS LYING ON THE DRAWER, YOU'RE NOT CARRYING A B  
OTTLE., THERE IS NOTHING TO FILL IT WITH.

300 DATAA TRAP DOOR OPENS BENEATH YOU. THE FALL KNOCKS YOU UNCON  
SCIOUS. WHEN YOU AWAKEN YOU FIND THAT...THE CHEESE WAS STALE BU  
T YOU MANAGED TO CONSUME THE ENTIRE BOX.

310 DATATHE GNOME IS TOO FAST FOR YOU.,THE LAMP IS ALREADY LIT.,  
311 YOU'VE GOT TOO MUCH TO CARRY.,THE BOTTLE BREAKS ON IMPACT.,THE P  
ANEL CLOSES AND SEALS THE PASSAGE.

320 DATA1 IS LOCKED, YOU HAVE MANAGED TO UNLOCK THE VAULT. THE V  
AULT IS LOCKED, THAT COMBINATION IS INCORRECT, YOUR BOTTLE DOES  
NOT CONTAIN ANYTHING, YOU HAVE TO OPEN THE VAULT TO GET INSIDE I  
T. YOUR LAMP IS ALREADY OFF. THE WIZARD WON'T LET YOU

1.7.300 KATE IS ALREADY OFF, THE WIZARD WON'T LET YOU.  
330 TODAY IS SOFT., THE FIGURINE IS EXTREMELY DELICATE., SNAKES  
LOVE RODENTS. ONLY A POWER STRONGER THAN THE WIZARDS' OWN CAN DE  
FEAT HIM., COMPLETS YOUR TASK AND RETURN HERE AND... THE HUNGRY I  
S ALWAYS RESTLESS.

340 DATAGODS ARE UNHAPPY CREATURES WITH MANY NEEDS.,THE RIVER FLOWS TOWARDS THE RED SEA.,THERE IS NO HELP TO BE OBTAINED.

[illegible]

# LE Compiler

The "LC" Compiler provides a substantial subset of the C programming language with:

- o Integer subset of C; has access to floating point ROM routines via functions
  - o All statements supported except: SWITCH-CASE, GOTO, TYPEDEF, STRUCT, UNION.
  - o All operators except ">", ":", sizeof, (typename).
  - o Standard I/O redirection with device independence.
  - o Input using FGETS or GETS functions support JCL.
  - o Dynamic memory management.
  - o Sequential files open for: READ, WRITE, and APPEND.
  - o LC Generates Z-80 EDAS-IV source code as output.
  - o Z-80 "source" libraries in ISAM-accessed PDS files.
  - o Compact, one-line compiler invocation for easy use.
  - o Compiled programs run on both Model I and Model III
  - o IN/LIB accesses graphics and LDOS entry points.
  - o LC/LIB includes: FPRINTF, PRINTF, ALLOC, FREE, SBRK, and String functions.
  - o LC: The Mod I/III version includes: LC/CMO, LC/LIB, FP/LIB, IM/LIB, EOAS-IV, XREF, and more than 200 pages of documentation. Requires 2-drive 48K LDOS.
- Mod 143 for LDOS: \$150+\$45/h



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## LOGS 5.1

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005-10

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  - o One-level MACROs support parameter substitution by position and by keyword.
  - o Local labels in both MACRO expansions & PDS searches
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  - o Constants can be declared as base 2, 8, 10, & 16 or string, with more than one value on a single line.
  - o 15-char labels including special chars: @, ?, \$, \_
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