```
10 ;
20 ;    *** DUNGEONLORDS ***
30 ;         (Revision B)
40 ;
50 ; By Brian Douglas Bradley
60 ;       August 1, 1986
70 ;
80 ;          VARIABLES:
90 ;          ----------
0100 ;
0110 LOA          =128
0120 HIA          =129
0130 LO           =130
0140 HI           =131
0150 LOC          =132
0160 HIC          =133
0170 V1           =134
0180 V2           =135
0190 V3           =136
0200 V4           =137
0210 V5           =138
0220 V6           =139
0230 V7           =140
0240 V8           =141
0250 V9           =142
0260 XCL          =143
0270 YRW          =144
0280 CLX          =145
0290 RWY          =146
0300 XPOS         =147
0310 YPOS         =148
0320 MNX          =149
0330 MNY          =150
0340 MNXA         =151
0350 MNYA         =152
0360 STK          =153
0370 STK1         =154
0380 TRGR         =155
0390 MVE          =156
0400 GX1          =157
0410 GY1          =158
0420 GX2          =159
0430 GY2          =160
0440 BLTX         =161
0450 BLTY         =162
0460 BLTXY        =163
0470 TXY          =164
0480 JUMP         =165
0490 CNTR         =166
0500 XCNT         =167
0510 TIMES        =168
0520 SPEED        =169
0530 PLAY         =170
0540 SNGX         =171
0550 SPOT         =172
0560 SPOT2        =173
0570 OVER         =174
0580 KEY          =175
```

```
0590 SHOMN      =176
0600 LVL        =177
0610 LIVES      =178
0620 NOW        =179
0630 DLO        =182
0640 DHI        =183
0650 BDX        =184
0660 BDY        =216
0670 BDXY       =1536
0680 BDG        =1568
0690 ALV        =1600
0700 DLIST      =12212
0710 SCRS       =14478
0720 SYSVBV     =58463
0730 SEVBV      =58460
0740 ;
0750 ; INITIALIZE PROGRAM
0760 ;
0770  *= 8775
0780  .BYTE 112,112,112,112,112,71
0790  .BYTE 102,34,70,122,34,112
0800  .BYTE 112,71,162,34,70,142
0810  .BYTE 34,112,112,112,70,182
0820  .BYTE 34,70,0,57,65,71,34
0830  .BYTE "     dungeonlords     "
0840  .BYTE "  by brian bradley  "
0850  .BYTE " press start to play"
0860  .BYTE "        game over       "
0870  .BYTE "           score        "
0880  LDA # 0
0890  LDX # 0
0900 RPT
0910  LDY # 0
0920 RPTA
0930  STA $3900,Y
0940  INY
0950  CPY # 0
0960  BNE RPTA
0970  INC RPTA+2
0980  INX
0990  CPX # 16
1000  BNE RPT
1010  LDA # 56
1020  STA 54279
1030  LDA # 126
1040  STA 559
1050  LDA # 3
1060  STA 53277
1070  STA 53775
1080  LDA # 0
1090  STA 712
1100  LDY # 0
1110 STR
1120  STA 128,Y
1130  INY
1140  CPY # 128
1150  BNE STR
1160  LDA # 8
```

```
1170  STA 706
1180  LDA # 119
1190  STA 53248
1200  STA 53249
1210  STA 53250
1220  JSR INT
1230  LDA # 212
1240  STA 704
1250  STA 710
1260 STRT
1270  LDA # 224
1280  STA 756
1290  LDA # 0
1300  STA 708
1310  STA 711
1320  LDA # 71
1330  STA 560
1340  LDA # 70
1350  STA 705
1360  STA 709
1370  LDA # 34
1380  STA 561
1390 SRT
1400  LDA 53279
1410  CMP # 6
1420  BNE SRT
1430  LDA # 250
1440  STA 711
1450  LDA # 48
1460  STA 756
1470  LDA # 180
1480  STA 560
1490  LDA # 47
1500  STA 561
1510  LDA # 1
1520  STA LVL
1530  JSR LP
1540  JMP STRT
1550 ;
1560 ; Display remaining lives
1570 ; and clear away all monsters
1580 ;
1590 ITA
1600  JSR ITF
1610  JMP ITE
1620 ITF
1630  LDX # 1
1640  LDA # 55
1650 ITB
1660  SEC
1670  CPX LIVES
1680  BCC ITC
1690  LDA # 0
1700 ITC
1710  STA SCRS-10,X
1720  INX
1730  CPX # 8
1740  BNE ITB
```

```
1750  RTS
1760 ITE
1770  LDX # 0
1780  LDA # 0
1790  STA OVER
1800 IT
1810  STA BDG,X
1820  LDA ALV,X
1830  CMP # 0
1840  BEQ ITD
1850  LDA BDX,X
1860  STA XCL
1870  LDA BDY,X
1880  STA YRW
1890  JSR CLR
1900  STA ALV,X
1910 ITD
1920  INX
1930  CPX # 32
1940  BNE IT
1950  JSR PCLR
1960  LDA # 8
1970  STA MNX
1980  LDA # 48
1990  STA MNY
2000  RTS
2010 ;
2020 ; Create random maze
2030 ;
2040 W
2050  JSR ITA
2060  LDA LVL
2070  SEC
2080  SBC # 1
2090  LSR A
2100  LSR A
2110  STA SPEED
2120  INC SPEED
2130  ASL A
2140  ASL A
2150  ASL A
2160  ASL A
2170  STA V1
2180  LDA # 6
2190  SEC
2200  SBC V1
2210  STA 709
2220  JSR PCLR
2230  LDA # 0
2240  STA KEY
2250  STA V6
2260  STA V3
2270  LDA 53770
2280  AND # 7
2290  STA V7
2300  LDA 53770
2310  AND # 7
2320  CLC
```

```
2330   ADC # 8
2340   STA V8
2350 W2
2360   LDX # 0
2370 W1
2380   STX XCL
2390   LDA V3
2400   STA YRW
2410   JSR X96
2420   LDA # 0
2430   STA (LOA),Y
2440   INX
2450   CPX # 64
2460   BNE W1
2470   INC V3
2480   LDA # 21
2490   CMP V3
2500   BNE W2
2510   LDX # 0
2520 W3
2530   LDA # 0
2540   STA YRW
2550   STX XCL
2560   JSR PTW
2570   LDA # 20
2580   STA YRW
2590   JSR PTW
2600   INX
2610   INX
2620   CPX # 62
2630   BNE W3
2640   LDX # 2
2650 W4
2660   LDA # 0
2670   STA XCL
2680   STX YRW
2690   JSR PTW
2700   LDA # 60
2710   STA XCL
2720   JSR PTW
2730   INX
2740   INX
2750   CPX # 20
2760   BNE W4
2770   LDA # 56
2780   STA XCL
2790   LDX # 2
2800 W49
2810   STX YRW
2820   JSR PTW
2830   INX
2840   INX
2850   CPX # 18
2860   BNE W49
2870   JSR GR
2880   LDA # 0
2890   STA XCL
2900   LDA # 4
```

```
2910   STA YRW
2920   JSR GR2
2930   LDA # 2
2940   STA XCL
2950   STA YRW
2960   JSR PTW
2970   LDA # 4
2980   STA XCL
2990   JSR PTW
3000   LDA # 0
3010   STA V5
3020   LDA # 4
3030   STA V4
3040 W43
3050   LDX # 4
3060 W45
3070   STX XCL
3080   LDA V4
3090   STA YRW
3100   LDA # 0
3110   STA V5
3120   JSR X96
3130   LDA (LOA),Y
3140   CMP # 0
3150   BEQ W46
3160   JMP W15
3170 W46
3180   JSR PTW
3190   LDA 53770
3200   AND # 3
3210   CMP # 3
3220   BNE W5
3230   DEC YRW
3240   DEC YRW
3250   JMP WUP
3260 W5
3270   CMP # 2
3280   BNE W6
3290   INC YRW
3300   INC YRW
3310   JMP WUP
3320 W6
3330   CMP # 1
3340   BNE W7
3350   DEC XCL
3360   DEC XCL
3370   JMP WLR
3380 W7
3390   INC XCL
3400   INC XCL
3410 WLR
3420   LDA XCL
3430   STA CLX
3440   LDA YRW
3450   STA RWY
3460   SEC
3470   SBC # 4
3480   STA YRW
```

```
3490   JSR X96
3500   LDA (LOA),Y
3510   CMP # 0
3520   BEQ W8
3530   INC V5
3540 W8
3550   LDY # 191
3560   LDA (LOA),Y
3570   CMP # 0
3580   BEQ W9
3590   INC V5
3600 W9
3610   LDY # 194
3620   LDA (LOA),Y
3630   CMP # 0
3640   BEQ W10
3650   INC V5
3660 W10
3670   LDA V5
3680   SEC
3690   CMP # 2
3700   BCC W11
3710   JMP W15
3720 W11
3730   LDA CLX
3740   STA XCL
3750   LDA RWY
3760   STA YRW
3770   JSR X96
3780   LDA (LOA),Y
3790   CMP # 0
3800   BEQ WGO
3810   JMP W15
3820 WGO
3830   LDA V6
3840   INC V6
3850   CMP V7
3860   BNE W30
3870   LDA # 175
3880   JMP W36
3890 W30
3900   CMP V8
3910   BNE W39
3920   LDA # 175
3930   JMP W36
3940 W39
3950   LDA 53770
3960   AND # 63
3970   SEC
3980   CMP LVL
3990   BCC W40
4000   JMP W32
4010 W40
4020   LDA # 167
4030 W36
4040   JSR W91
4050   JMP W15
4060 W91
```

```
4070   STA V5
4080   JSR X96
4090   LDA V5
4100   STA (LOA),Y
4110   LDY # 1
4120   INC V5
4130   LDA V5
4140   STA (LOA),Y
4150   LDY # 96
4160   INC V5
4170   LDA V5
4180   STA (LOA),Y
4190   LDY # 97
4200   INC V5
4210   LDA V5
4220   STA (LOA),Y
4230   RTS
4240 W32
4250   JSR PTW
4260   JMP W15
4270 WUP
4280   LDA XCL
4290   STA CLX
4300   DEC XCL
4310   DEC XCL
4320   LDA YRW
4330   STA RWY
4340   DEC YRW
4350   DEC YRW
4360   JSR X96
4370   LDA (LOA),Y
4380   CMP # 0
4390   BEQ W12
4400   INC V5
4410 W12
4420   LDY # 191
4430   LDA (LOA),Y
4440   CMP # 0
4450   BEQ W13
4460   INC V5
4470 W13
4480   LDY # 128
4490   INC HIA
4500   LDA (LOA),Y
4510   CMP # 0
4520   BEQ W14
4530   INC V5
4540 W14
4550   LDA V5
4560   SEC
4570   CMP # 2
4580   BCC W41
4590   JMP W15
4600 W41
4610   JMP W11
4620 W15
4630   INX
4640   INX
```

```
4650  INX
4660  INX
4670  CPX # 56
4680  BEQ W16
4690  JMP W45
4700 W16
4710  LDA V4
4720  CLC
4730  ADC # 4
4740  STA V4
4750  CMP # 20
4760  BEQ W20
4770  JMP W43
4780 W20
4790  LDA # 58
4800  STA XCL
4810  LDA # 6
4820  STA YRW
4830  LDA # 179
4840  JSR W91
4850  LDA # 8
4860  STA YRW
4870  LDA # 179
4880  JSR W91
4890  LDA # 56
4900  STA XCL
4910  LDA # 0
4920  STA YRW
4930  JSR GR2
4940  LDA # 58
4950  STA XCL
4960  LDA # 2
4970  STA YRW
4980  LDA LVL
4990  AND # 3
5000  CMP # 0
5010  BNE W17
5020  LDA # 232
5030  JMP W18
5040 W17
5050  LDA # 244
5060 W18
5070  JSR W91
5080  LDA LVL
5090  AND # 7
5100  CMP # 0
5110  BNE W19
5120  LDA # 10
5130  STA YRW
5140  LDA # 179
5150  JSR W91
5160  LDA # 54
5170  STA XCL
5180  LDA # 2
5190  STA YRW
5200  LDA # 175
5210  JSR W91
5220 W19
```

```
5230  RTS
5240 PTW
5250  JSR X96
5260  JSR LTW
5270  LDY # 0
5280  STA (LOA),Y
5290  JSR RTW
5300  LDY # 1
5310  STA (LOA),Y
5320  JSR RTW
5330  LDY # 96
5340  STA (LOA),Y
5350  JSR LTW
5360  LDY # 97
5370  STA (LOA),Y
5380  RTS
5390 LTW
5400  LDA 53770
5410  AND # 3
5420  CLC
5430  ADC # 1
5440  RTS
5450 RTW
5460  LDA 53770
5470  AND # 3
5480  CLC
5490  ADC # 5
5500  RTS
5510 X96
5520  LDA # 0
5530  STA V1
5540  STA V2
5550  STA HIA
5560  LDA YRW
5570  STA LOA
5580  LDY # 0
5590 L1
5600  LDA HIA
5610  ASL A
5620  STA HIA
5630  LDA LOA
5640  ASL A
5650  BCC L2
5660  INC HIA
5670  CLC
5680 L2
5690  STA LOA
5700  INY
5710  CPY # 5
5720  BNE L3
5730  LDA LOA
5740  STA V1
5750  LDA HIA
5760  STA V2
5770 L3
5780  CPY # 6
5790  BNE L1
5800  LDA HIA
```

```
5810   CLC
5820   ADC V2
5830   STA HIA
5840   LDA LOA
5850   CLC
5860   ADC V1
5870   BCC L4
5880   INC HIA
5890   CLC
5900 L4
5910   STA LOA
5920   LDA HIA
5930   CLC
5940   ADC # 64
5950   STA HIA
5960   LDA LOA
5970   CLC
5980   ADC XCL
5990   BCC L5
6000   INC HIA
6010 L5
6020   CLC
6030   ADC # 20
6040   BCC L6
6050   INC HIA
6060 L6
6070   STA LOA
6080   LDY # 0
6090   RTS
6100 ;
6110 ; Who can see man?
6120 ;
6130 ST
6140   JSR ST97
6150   LDA # 129
6160   STA V5
6170   DEC XCL
6180 ST2
6190   JSR ST99
6200   DEC XCL
6210   CMP # 0
6220   BEQ ST2
6230   LDA XCL
6240   STA V6
6250   JSR ST97
6260   LDA # 1
6270   STA V5
6280   INC XCL
6290 ST3
6300   JSR ST99
6310   INC XCL
6320   CMP # 0
6330   BEQ ST3
6340   LDA XCL
6350   STA V7
6360   JSR ST97
6370   LDA # 224
6380   STA V5
```

```
6390  DEC YRW
6400 ST4
6410  JSR ST99
6420  DEC YRW
6430  CMP # 0
6440  BEQ ST4
6450  LDA YRW
6460  STA V8
6470  JSR ST97
6480  LDA # 96
6490  STA V5
6500  INC YRW
6510 ST5
6520  JSR ST99
6530  INC YRW
6540  CMP # 0
6550  BEQ ST5
6560  LDA YRW
6570  STA V9
6580  RTS
6590 ST99
6600  LDA V5
6610  AND # 127
6620  STA V1
6630  LDA V5
6640  AND # 128
6650  CMP # 0
6660  BEQ Z1
6670  LDA LOA
6680  SEC
6690  SBC V1
6700  BCS Z2
6710  DEC HIA
6720 Z2
6730  STA LOA
6740  JMP Z4
6750 Z1
6760  LDA LOA
6770  CLC
6780  ADC V1
6790  BCC Z3
6800  INC HIA
6810 Z3
6820  STA LOA
6830 Z4
6840  LDY # 0
6850  LDA (LOA),Y
6860  INX
6870  CMP # 0
6880  BEQ ST98
6890  CMP # 55
6900  BEQ ST98
6910 ST96
6920  LDA # 1
6930  RTS
6940 ST98
6950  LDA # 0
6960  RTS
```

```
6970 ST97
6980  LDX # 0
6990  LDA XPOS
7000  STA XCL
7010  LDA YPOS
7020  STA YRW
7030  JSR X96
7040  RTS
7050 ;
7060 ; Set up Transporters
7070 ;
7080 GR
7090  LDA 53770
7100  AND # 3
7110  CLC
7120  ADC # 3
7130  ASL A
7140  ASL A
7150  STA XCL
7160  CLC
7170  ADC # 2
7180  STA GX1
7190  LDA 53770
7200  AND # 3
7210  ASL A
7220  ASL A
7230  STA YRW
7240  CLC
7250  ADC # 2
7260  STA GY1
7270  JSR GR2
7280  LDA 53770
7290  AND # 3
7300  CLC
7310  ADC # 9
7320  ASL A
7330  ASL A
7340  STA XCL
7350  CLC
7360  ADC # 2
7370  STA GX2
7380  LDA 53770
7390  AND # 3
7400  ASL A
7410  ASL A
7420  STA YRW
7430  CLC
7440  ADC # 2
7450  STA GY2
7460  JSR GR2
7470  RTS
7480 GR2
7490  LDA # 17
7500  JSR W91
7510  INC YRW
7520  INC YRW
7530  LDA # 9
7540  JSR W91
```

```
7550  DEC YRW
7560  DEC YRW
7570  INC XCL
7580  INC XCL
7590  LDA # 21
7600  JSR W91
7610  INC XCL
7620  INC XCL
7630  LDA # 25
7640  JSR W91
7650  INC YRW
7660  INC YRW
7670  LDA # 13
7680  JSR W91
7690  INC YRW
7700  INC YRW
7710  JSR PTW
7720  LDA XCL
7730  SEC
7740  SBC # 4
7750  STA XCL
7760  JSR PTW
7770  RTS
7780 ;
7790 ; VERTICAL BLANK
7800 ; (Used for smooth-scroll)
7810 ;
7820 INT
7830  LDY # VBK&255
7840  LDX # VBK/256
7850  LDA # 6
7860  JSR SEVBV
7870 INT2
7880  LDX # 0
7890  LDA # 157
7900 AGN2
7910  STA SCRS,X
7920  INX
7930  CPX # 7
7940  BNE AGN2
7950  LDA # 51
7960  STA HIC
7970  RTS
7980 VBK
7990  LDA # 64
8000  STA DHI
8010  LDA MNX
8020  LSR A
8030  LSR A
8040  AND # 254
8050  STA DLO
8060  LDY # 4
8070 AGN
8080  LDA DLO
8090  STA DLIST,Y
8100  INY
8110  LDA DHI
8120  STA DLIST,Y
```

```
8130  LDA DLO
8140  CLC
8150  ADC # 96
8160  BCC NXT
8170  INC DHI
8180 NXT
8190  STA DLO
8200  INY
8210  INY
8220  CPY # 70
8230  BNE AGN
8240  LDA MNX
8250  AND # 7
8260  EOR # 7
8270  STA 54276
8280  JMP SYSVBV
8290 FND
8300  JSR FND1A
8310 FND1A
8320  STA V3
8330  AND # 12
8340  CMP # 0
8350  BNE FND1
8360  JMP FND3
8370 FND1
8380  CMP # 8
8390  BNE FND2
8400  INC XCL
8410 FND2
8420  CMP # 4
8430  BNE FND5
8440  DEC XCL
8450  JMP FND5
8460 FND3
8470  LDA V3
8480  AND # 3
8490  CMP # 2
8500  BNE FND4
8510  INC YRW
8520 FND4
8530  CMP # 1
8540  BNE FND5
8550  DEC YRW
8560 FND5
8570  LDA V3
8580  RTS
8590 REVERS
8600  STA V3
8610  AND # 12
8620  CMP # 0
8630  BEQ RVS1
8640  EOR # 12
8650 RVS1
8660  STA V1
8670  LDA V3
8680  AND # 3
8690  CMP # 0
8700  BEQ RVS2
```

```
8710  EOR # 3
8720 RVS2
8730  CLC
8740  ADC V1
8750  RTS
8760 PLY
8770  LDA # 8
8780  STA SNGX
8790  RTS
8800 ;
8810 ; Found Treasure!
8820 ;
8830 FDT
8840  JSR PLY
8850  LDX # 168
8860  STX PLAY
8870  LDX # 192
8880  STX LOC
8890  LDX # 4
8900  JSR SCR
8910  LDA # 171
8920  JSR W91
8930  LDA # 171
8940  RTS
8950 ;
8960 ; Found Key!
8970 ;
8980 FDK
8990  LDA KEY
9000  CMP # 1
9010  BNE FDL
9020  RTS
9030 FDL
9040  JSR PLY
9050  LDX # 168
9060  STX PLAY
9070  LDX # 208
9080  STX LOC
9090  LDA # 1
9100  STA KEY
9110  JSR CLR
9120  LDA # 0
9130  RTS
9140 ;
9150 ; Found Keyhole!
9160 ;
9170 FDH
9180  LDA KEY
9190  CMP # 0
9200  BEQ FDI
9210  JSR PLY
9220  LDX # 168
9230  STX PLAY
9240  LDX # 200
9250  STX LOC
9260  LDA # 0
9270  STA KEY
9280  JSR CLR
```

```
9290  LDA # 0
9300  RTS
9310 FDI
9320  LDA # 171
9330  RTS
9340 ;
9350 ; Release Prisoner
9360 ;
9370 FDP
9380  JSR PLY
9390  LDX # 168
9400  STX PLAY
9410  LDX # 224
9420  STX LOC
9430  JSR CLR
9440  LDX # 3
9450  JSR SCR
9460  LDA # 0
9470  STA XCL
9480  LDA # 2
9490  STA YRW
9500  JSR GR2
9510  LDA # 2
9520  STA XCL
9530  LDA # 4
9540  STA YRW
9550  LDA # 244
9560  JSR W91
9570  LDA # 0
9580  RTS
9590 ;
9600 ; Clear Location
9610 ;
9620 CLR
9630  JSR X96
9640  LDA # 0
9650  STA (LOA),Y
9660  LDY # 1
9670  STA (LOA),Y
9680  LDY # 96
9690  STA (LOA),Y
9700  LDY # 97
9710  STA (LOA),Y
9720  RTS
9730 ;
9740 ; Handle Score
9750 ;
9760 SCR
9770  LDA # 1
9780  STA V1
9790 SCR1
9800  LDA V1
9810  CMP # 1
9820  BNE SCR3
9830  CPX # 2
9840  BNE SCR4
9850  INC LIVES
9860  STX V1
```

```
9870   JSR ITF
9880   JSR PLY
9890   LDA # 224
9900   STA LOC
9910   LDA # 168
9920   STA PLAY
9930   LDX V1
9940 SCR4
9950   LDA # 0
9960   STA V1
9970   LDA SCRS,X
9980   CLC
9990   ADC # 1
010000   CMP # 167
010010   BNE SCR2
010020   LDA # 157
010030   INC V1
010040 SCR2
010050   STA SCRS,X
010060 SCR3
010070   DEX
010080   CPX # 255
010090   BNE SCR1
010100   RTS
010110 ;
010120 ; Move Man Around
010130 ;
010140 MN
010150   LDA # 146
010160   STA V1
010170   LDA NOW
010180   SEC
010190   CMP # 128
010200   BCC ZX
010210   LDA # 68
010220   STA V1
010230 ZX
010240   LDA 20
010250   AND # 7
010260   CLC
010270   ADC V1
010280 ZZ
010290   STA 708
010300   LDA 54016
010310   AND # 12
010320   EOR # 12
010330   CMP # 0
010340   BEQ MN1
010350   STA STK
010360   JMP MN2
010370 MN1
010380   LDA 54016
010390   AND # 3
010400   EOR # 3
010410   STA STK
010420 MN2
010430   LDA MNX
010440   LSR A
```

```
010450   LSR A
010460   AND # 254
010470   STA XPOS
010480   LDA MNX
010490   AND # 7
010500   CMP # 0
010510   BEQ MN3
010520   JMP MN14
010530 MN3
010540   LDA MNY
010550   LSR A
010560   LSR A
010570   LSR A
010580   AND # 254
010590   STA YPOS
010600   LDA MNY
010610   AND # 15
010620   CMP # 0
010630   BEQ MN4
010640   JMP MN14
010650 MN4
010660   LDA TRGR
010670   CMP # 0
010680   BEQ MN7
010690   LDA STK
010700   CMP # 0
010710   BEQ MN7
010720   LDA XPOS
010730   STA XCL
010740   LDA YPOS
010750   STA YRW
010760   LDA STK
010770   JSR FND
010780   JSR X96
010790   LDA (LOA),Y
010800   CMP # 167
010810   BNE MN5
010820   JSR FDT
010830 MN5
010840   CMP # 175
010850   BNE MN6
010860   JSR FDK
010870 MN6
010880   CMP # 0
010890   BEQ MNA
010900   SEC
010910   CMP # 52
010920   BCC MN7
010930   CMP # 171
010940   BEQ MN7
010950 MNA
010960   LDA STK
010970   STA MVE
010980 MN7
010990   LDA XPOS
011000   STA XCL
011010   LDA YPOS
011020   STA YRW
```

```
011030   LDA MVE
011040   JSR FND
011050   JSR X96
011060   LDA (LOA),Y
011070   CMP # 167
011080   BNE MN8
011090   JSR FDT
011100 MN8
011110   CMP # 175
011120   BNE MN9
011130   JSR FDK
011140 MN9
011150   CMP # 179
011160   BNE MN10
011170   JSR FDH
011180 MN10
011190   CMP # 244
011200   BNE MN11
011210   INC OVER
011220 MN11
011230   CMP # 232
011240   BNE MN11A
011250   JSR FDP
011260 MN11A
011270   CMP # 0
011280   BEQ MN13
011290   SEC
011300   CMP # 52
011310   BCC MN12
011320   CMP # 171
011330   BEQ MN12
011340   JMP MN13
011350 MN12
011360   LDA # 0
011370   STA MVE
011380 MN13
011390   LDA MNX
011400   STA XCL
011410   LDA MNY
011420   STA YRW
011430   LDA MVE
011440   JSR FND1A
011450   LDA XCL
011460   STA MNX
011470   LDA YRW
011480   STA MNY
011490   JMP SW
011500 MN14
011510   LDA TRGR
011520   CMP # 0
011530   BEQ MN13
011540   LDA STK
011550   CMP # 0
011560   BNE MN15
011570   JMP MN13
011580 MN15
011590   LDA MVE
011600   JSR REVERS
```

```
011610   CMP STK
011620   BNE MN16
011630   LDA STK
011640   STA MVE
011650 MN16
011660   JMP MN13
011670 ;
011680 ; Display Man on screen
011690 ;
011700 SW
011710   LDA MVE
011720   CMP # 0
011730   BEQ SW4
011740   LDA SHOMN
011750   AND # 128
011760   CMP # 0
011770   BEQ SW2
011780   LDA SHOMN
011790   CLC
011800   ADC # 18
011810   CMP # 218
011820   BNE SW1
011830   LDA # 72
011840 SW1
011850   STA SHOMN
011860   JMP SW4
011870 SW2
011880   LDA SHOMN
011890   SEC
011900   SBC # 18
011910   CMP # 238
011920   BNE SW3
011930   LDA # 128
011940 SW3
011950   STA SHOMN
011960 SW4
011970   LDA # 32
011980   STA LOA
011990   LDA # 60
012000   STA HIA
012010   LDA MVE
012020   CMP # 8
012030   BNE SW5
012040   LDA # 96
012050   STA LO
012060   LDA # 55
012070   STA HI
012080 SW5
012090   CMP # 4
012100   BNE SW6
012110   LDA # 0
012120   STA LO
012130   LDA # 52
012140   STA HI
012150 SW6
012160   CMP # 2
012170   BNE SW7
012180 SW6A
```

```
012190   LDA # 32
012200   STA LO
012210   LDA # 53
012220   STA HI
012230 SW7
012240   CMP # 1
012250   BNE SW8
012260   LDA # 64
012270   STA LO
012280   LDA # 54
012290   STA HI
012300 SW8
012310   CMP # 0
012320   BNE SW9
012330   JMP SW6A
012340 SW9
012350   LDA SHOMN
012360   AND # 127
012370   CLC
012380   ADC LO
012390   BCC SW10
012400   INC HI
012410 SW10
012420   STA LO
012430   LDA LOA
012440   CLC
012450   ADC MNY
012460   BCC SW11
012470   INC HIA
012480 SW11
012490   STA LOA
012500   LDX # 0
012510 SW12
012520   LDY # 0
012530 SW13
012540   LDA (LO),Y
012550   STA (LOA),Y
012560   INY
012570   CPY # 18
012580   BNE SW13
012590   LDA LO
012600   CLC
012610   ADC # 90
012620   BCC SW14
012630   INC HI
012640 SW14
012650   STA LO
012660   INC HIA
012670   INX
012680   CPX # 3
012690   BNE SW12
012700   RTS
012710 PCLR
012720   LDA # 32
012730   STA LOA
012740   LDA # 60
012750   STA HIA
012760   LDX # 0
```

```
012770  STX 53278
012780 PC1
012790  LDY # 0
012800  LDA # 0
012810 PC2
012820  STA (LOA),Y
012830  INY
012840  CPY # 170
012850  BNE PC2
012860  INC HIA
012870  INX
012880  CPX # 3
012890  BNE PC1
012900  RTS
012910 ;
012920 ; Move Monsters Around
012930 ;
012940 H
012950  LDA # 0
012960  STA V4
012970  LDA BDX,X
012980  SEC
012990  CMP MNXA
013000  BCC H1
013010  SEC
013020  SBC MNXA
013030  STA V1
013040  LDA # 4
013050  STA TXY
013060  JMP H2
013070 H1
013080  LDA MNXA
013090  SEC
013100  SBC BDX,X
013110  STA V1
013120  LDA # 8
013130  STA TXY
013140 H2
013150  LDA BDY,X
013160  SEC
013170  CMP MNYA
013180  BCC H3
013190  SEC
013200  SBC MNYA
013210  STA V2
013220  LDA TXY
013230  CLC
013240  ADC # 1
013250  STA TXY
013260  JMP H4
013270 H3
013280  LDA MNYA
013290  SEC
013300  SBC BDY,X
013310  STA V2
013320  LDA TXY
013330  CLC
013340  ADC # 2
```

```
013350  STA TXY
013360 H4
013370  LDA V2
013380  SEC
013390  CMP V1
013400  BCS H8
013410 H5
013420  LDA # 12
013430  STA V5
013440  JSR CK
013450  CMP # 1
013460  BNE H6
013470  JMP H11
013480 H6
013490  LDA # 3
013500  STA V5
013510  JSR CK
013520  CMP # 1
013530  BNE H7
013540  JMP H11
013550 H7
013560  LDA TXY
013570  JSR REVERS
013580  STA TXY
013590 H8
013600  LDA # 3
013610  STA V5
013620  JSR CK
013630  CMP # 1
013640  BNE H9
013650  JMP H11
013660 H9
013670  LDA # 12
013680  STA V5
013690  JSR CK
013700  CMP # 1
013710  BNE H10
013720  JMP H11
013730 H10
013740  LDA TXY
013750  JSR REVERS
013760  STA TXY
013770  JMP H5
013780 H11
013790  LDA BDX,X
013800  STA XCL
013810  LDA BDY,X
013820  STA YRW
013830  LDA BDXY,X
013840  JSR FND1A
013850  LDA XCL
013860  STA BDX,X
013870  LDA YRW
013880  STA BDY,X
013890  RTS
013900 RANDOM
013910  LDA # 0
013920  STA V4
```

```
013930   LDA 53770
013940   AND # 3
013950   CMP # 0
013960   BNE RM1
013970   LDY # 5
013980 RM1
013990   CMP # 1
014000   BNE RM2
014010   LDY # 9
014020 RM2
014030   CMP # 2
014040   BNE RM3
014050   LDY # 6
014060 RM3
014070   CMP # 3
014080   BNE RM4
014090   LDY # 10
014100 RM4
014110   STY TXY
014120   LDA 53770
014130   AND # 1
014140   CMP # 0
014150   BEQ RM5
014160   JMP H5
014170 RM5
014180   JMP H8
014190 CK
014200   LDA # 0
014210   STA JUMP
014220   INC V4
014230   LDA # 4
014240   SEC
014250   CMP V4
014260   BCC CK1
014270   LDA BDXY,X
014280   JSR REVERS
014290   STA V3
014300   LDA TXY
014310   AND V5
014320   CMP V3
014330   BEQ CK2
014340 CK1
014350   LDA BDX,X
014360   STA XCL
014370   LDA BDY,X
014380   STA YRW
014390   LDA TXY
014400   AND V5
014410   JSR FND
014420   JSR X96
014430   LDA (LOA),Y
014440   CMP # 0
014450   BEQ C3
014460   SEC
014470   CMP # 166
014480   BCC CA
014490   SEC
014500   CMP # 193
```

```
014510  BCC CK2
014520 CA
014530  SEC
014540  CMP # 55
014550  BCC CK2
014560  SEC
014570  CMP # 231
014580  BCS CK2
014590 C3
014600  LDA # 1
014610  STA JUMP
014620  LDA TXY
014630  AND V5
014640  STA BDXY,X
014650 CK2
014660  LDA JUMP
014670  RTS
014680 BT
014690  LDA # 0
014700  STA CNTR
014710  LDX XCNT
014720 B1
014730  LDA ALV,X
014740  CMP # 0
014750  BNE BT1
014760  LDA 53770
014770  SEC
014780  CMP LVL
014790  BCC B1A
014800  JMP B12
014810 B1A
014820  LDA NOW
014830  SEC
014840  CMP # 128
014850  BCS B1T
014860  JMP B12
014870 B1T
014880  LDA 53770
014890  AND # 1
014900  CMP # 1
014910  BEQ BT0
014920  LDA GX1
014930  STA BDX,X
014940  LDA GY1
014950  STA BDY,X
014960 BTA
014970  LDA LVL
014980  AND 53770
014990  AND # 3
015000  CLC
015010  ADC # 1
015020  STA ALV,X
015030  JMP BT1
015040 BT0
015050  LDA GX2
015060  STA BDX,X
015070  LDA GY2
015080  STA BDY,X
```

```
015090  JMP BTA
015100 BT1
015110  LDA BDY,X
015120  STA YRW
015130  LDA BDX,X
015140  STA XCL
015150  JSR CLR
015160  LDA BDX,X
015170  AND # 1
015180  CMP # 0
015190  BEQ BT2
015200  JMP B14
015210 BT2
015220  LDA BDY,X
015230  AND # 1
015240  CMP # 0
015250  BEQ BT3
015260  JMP B14
015270 ;
015280 ; If Monster can see Man,
015290 ; have all Monsters find
015300 ; their way to where Man
015310 ; was seen last.
015320 ;
015330 BT3
015340  LDA BDX,X
015350  CMP XPOS
015360  BNE BT5
015370  LDA BDY,X
015380  SEC
015390  CMP V8
015400  BCC BT5
015410  SEC
015420  CMP V9
015430  BCS BT5
015440  LDA YPOS
015450  SEC
015460  CMP BDY,X
015470  BCC BT6
015480  LDA BDXY,X
015490  CMP # 1
015500  BEQ BT5
015510  JMP B7
015520 BT6
015530  LDA BDXY,X
015540  CMP # 2
015550  BEQ BT5
015560 B7
015570  LDA # 1
015580  STA SPOT
015590  STA SPOT2
015600  LDY # 0
015610  LDA # 1
015620 BT4
015630  STA BDG,Y
015640  INY
015650  CPY # 32
015660  BNE BT4
```

```
015670  JMP B9
015680 BT5
015690  LDA BDY,X
015700  CMP YPOS
015710  BNE B9
015720  LDA BDX,X
015730  SEC
015740  CMP V6
015750  BCC B9
015760  SEC
015770  CMP V7
015780  BCS B9
015790  LDA XPOS
015800  SEC
015810  CMP BDX,X
015820  BCC B8
015830  LDA BDXY,X
015840  CMP # 4
015850  BEQ B9
015860  JMP B7
015870 B8
015880  LDA BDXY,X
015890  CMP # 8
015900  BEQ B9
015910  JMP B7
015920 B9
015930  LDA BDX,X
015940  CMP MNXA
015950  BNE B10
015960  LDA BDY,X
015970  CMP MNYA
015980  BNE B10
015990  LDA # 0
016000  STA BDG,X
016010 B10
016020  LDA SPOT
016030  CMP # 0
016040  BEQ B10A
016050  LDA SPOT2
016060  STA SPOT
016070  LDA XPOS
016080  STA MNXA
016090  LDA YPOS
016100  STA MNYA
016110 B10A
016120  LDA BDG,X
016130  CMP # 1
016140  BNE B11
016150  JSR H
016160  JMP B12
016170 B11
016180  JSR RANDOM
016190 B12
016200  LDA # 0
016210  STA V2
016220 B12A
016230  LDA ALV,X
016240  CMP # 0
```

```
016250   BEQ B15
016260   CMP # 1
016270   BNE B16
016280   LDA # 56
016290   JMP B20
016300 B16
016310   CMP # 2
016320   BNE B17
016330   LDA # 200
016340   JMP B20
016350 B17
016360   LDA # 216
016370 B20
016380   STA V1
016390   LDA BDXY,X
016400   AND # 8
016410   CMP # 8
016420   BNE B21
016430   LDA V1
016440   CLC
016450   ADC # 4
016460   STA V1
016470 B21
016480   LDA BDX,X
016490   STA XCL
016500   LDA BDY,X
016510   STA YRW
016520   LDA V1
016530   CLC
016540   ADC V2
016550   JSR W91
016560 B15
016570   INX
016580   CPX # 32
016590   BNE BAZ
016600   LDX # 0
016610   STX SPOT2
016620 BAZ
016630   INC CNTR
016640   LDA # 8
016650   CMP CNTR
016660   BEQ B13
016670   JMP B1
016680 B13
016690   STX XCNT
016700   RTS
016710 B14
016720   JSR H11
016730   LDA # 8
016740   STA V2
016750   JMP B12A
016760 ;
016770 ; SHOOT
016780 ;
016790 SHT
016800   LDA 54016
016810   LSR A
016820   LSR A
```

```
016830   LSR A
016840   LSR A
016850   STA V1
016860   AND # 12
016870   EOR # 12
016880   CMP # 0
016890   BEQ SHTB
016900   STA STK1
016910   JMP S1
016920 SHTB
016930   LDA V1
016940   AND # 3
016950   EOR # 3
016960   CMP # 0
016970   BEQ SHTA
016980   STA STK1
016990   JMP S1
017000 SHTA
017010   LDA STK
017020   STA STK1
017030   LDA 53264
017040   STA TRGR
017050   CMP # 0
017060   BEQ S1
017070   LDA BLTXY
017080   CMP # 0
017090   BNE S3
017100   RTS
017110 S1
017120   LDA BLTXY
017130   CMP # 0
017140   BEQ S2
017150   JMP S3
017160 S2
017170   LDA STK1
017180   CMP # 0
017190   BNE S2A
017200   RTS
017210 S2A
017220   LDA XPOS
017230   STA BLTX
017240   LDA YPOS
017250   STA BLTY
017260   LDA STK1
017270   STA BLTXY
017280   JSR PLY
017290   LDA # 192
017300   STA LOC
017310   LDA # 136
017320   STA PLAY
017330 S3
017340   LDA BLTX
017350   STA XCL
017360   LDA BLTY
017370   STA YRW
017380   JSR X96
017390   LDA # 0
017400   STA (LOA),Y
```

```
017410   LDA BLTXY
017420   JSR FND1A
017430   JSR X96
017440   LDA (LOA),Y
017450   CMP # 0
017460   BEQ S4
017470   LDA # 0
017480   STA BLTXY
017490   JMP S45
017500 S4
017510   LDA # 55
017520   STA (LOA),Y
017530   LDA XCL
017540   STA BLTX
017550   LDA YRW
017560   STA BLTY
017570 S45
017580   LDY # 0
017590   LDA XCL
017600   STA CLX
017610   LDA YRW
017620   STA RWY
017630 S5
017640   LDA CLX
017650   STA XCL
017660   LDA RWY
017670   STA YRW
017680   LDA BDX,Y
017690   STA V1
017700   LDA XCL
017710   CMP V1
017720   BEQ S5A
017730   SEC
017740   SBC # 1
017750   CMP V1
017760   BNE S6
017770 S5A
017780   LDA BDY,Y
017790   STA V1
017800   LDA YRW
017810   CMP V1
017820   BEQ S5B
017830   SEC
017840   SBC # 1
017850   CMP V1
017860   BNE S6
017870 S5B
017880   LDA ALV,Y
017890   CMP # 0
017900   BEQ S6
017910   LDA # 0
017920   STA ALV,Y
017930   JSR PLY
017940   LDA # 136
017950   STA PLAY
017960   LDA # 216
017970   STA LOC
017980   LDX # 6
```

```
017990   JSR SCR
018000   LDA BDX,Y
018010   STA XCL
018020   LDA BDY,Y
018030   STA YRW
018040   STY V5
018050   JSR CLR
018060   LDY V5
018070 S6
018080   INY
018090   CPY # 32
018100   BNE S5
018110   RTS
018120 ;
018130 ; Check speed to determine
018140 ; when to move the Monsters
018150 ;
018160 Q
018170   LDA TIMES
018180   CLC
018190   ADC SPEED
018200   STA TIMES
018210   SEC
018220   CMP # 11
018230   BCS Q1
018240   RTS
018250 Q1
018260   SEC
018270   SBC # 12
018280   STA TIMES
018290   JSR ST
018300   JSR BT
018310   RTS
018320 LP
018330   JSR INT2
018340   JSR W
018350   LDA # 157
018360   STA SCRS+10
018370   STA SCRS+11
018380   LDA # 3
018390   STA LIVES
018400   LDX # 11
018410   JSR SCR
018420   JSR ITA
018430   LDA # 0
018440   STA 53278
018450 ;
018460 ; MAIN CONTROL LOOP OF PROGRAM
018470 ;
018480 LP2
018490   LDA 53253
018500   AND # 6
018510   CMP # 0
018520   BEQ LP5
018530   DEC LIVES
018540   LDA # 138
018550   STA 53761
018560   STA 20
```

```
018570 LPT
018580  LDA 20
018590  STA 53760
018600  CMP # 255
018610  BNE LPT
018620  LDA # 0
018630  STA 53761
018640  CMP LIVES
018650  BNE LP6
018660  LDX # 0
018670 LPQ
018680  LDA SCRS,X
018690  SEC
018700  SBC # 13
018710  STA 14599,X
018720  INX
018730  CPX # 7
018740  BNE LPQ
018750  JSR PCLR
018760  LDA # 224
018770  STA 756
018780  LDA # 71
018790  STA 560
018800  LDA # 34
018810  STA 561
018820  LDA # 0
018830  STA 708
018840  STA 19
018850  STA 709
018860 LPR
018870  LDA 19
018880  CMP # 3
018890  BNE LPR
018900  RTS
018910 LP6
018920  JSR ITA
018930 LP5
018940  JSR MN
018950  INC NOW
018960  LDA # 0
018970  STA 77
018980  STA 53278
018990  LDA 20
019000  SEC
019010  CMP # 8
019020  BCC Q9
019030  LDA # 0
019040  STA 20
019050  LDY SNGX
019060  CPY # 0
019070  BEQ Q9
019080  DEY
019090  STY SNGX
019100  LDA (LOC),Y
019110  STA 53760
019120  LDX PLAY
019130  DEX
019140  STX PLAY
```

```
019150  STX 53761
019160 Q9
019170  JSR SHT
019180  JSR Q
019190  JSR Q
019200  LDX # 32
019210 LP4
019220  LDY # 32
019230 LP3
019240  DEY
019250  CPY SPEED
019260  BNE LP3
019270  DEX
019280  CPX SPEED
019290  BNE LP4
019300  LDA OVER
019310  CMP # 0
019320  BEQ LP1
019330  INC LVL
019340  LDX # 11
019350  JSR SCR
019360  LDA # 0
019370  STA 559
019380  JSR W
019390  LDA LVL
019400  AND # 3
019410  CMP # 1
019420  BNE LPJ
019430  LDA # 170
019440  STA 53761
019450  LDA # 232
019460  STA LOC
019470  LDY # 0
019480  STY SNGX
019490 LPH
019500  LDA # 0
019510  STA 20
019520  LDA (LOC),Y
019530  STA 53760
019540 LPI
019550  LDA 20
019560  CMP # 10
019570  BNE LPI
019580  INY
019590  CPY # 21
019600  BNE LPH
019610 LPJ
019620  LDA # 126
019630  STA 559
019640  LDX # 3
019650  JSR SCR
019660 LP1
019670  JMP LP2
019680 ;
019690 ; The Display List
019700 ; starts at: $2FB4.
019710 ;
019720 ; A redefined Character
```

```
019730 ; Set starts at: $3000.
019740 ;
019750 ; Miscellaneous data fills
019760 ; locations $33C0 through
019770 ; $3881.
019780 ;
019790 ; PMBASE is located at $3800.
019800 ;
019810 ; The Action Screen is
019820 ; located at $4000.
019830 ;
019840  .END
```