

```

*****
; ** SPECTRUM CABAL SOURCE **
*****

```

```

OCMD "#SP 6500"
OCMD "K0"

```

```

*****
; ** MISC EQUATES **
*****

```

```

STARTLIVES EQU 4
CONTLIVES EQU 2

STARTENEMY EQU $00

DEMOOFF EQU 0
DEMOON EQU 1
DEMOVAL EQU DEMOOF

CHEAT EQU 0

STARTLEVEL EQU 1
STARTSECTION EQU 1-1

```

```

*****
; ** SPRITE INFORMATION EQUATES **
*****

```

```

NOBUL EQU 12
XPOS EQU 0
YPOS EQU 1
HEIGHT EQU 2
XDIR EQU 3
XDEL EQU 4
XRES EQU 5
YTYPE EQU 6
YCOUNT EQU 7
BULLEN EQU 8

```

```

NOBADS EQU 25
;XPOS EQU 0
;YPOS EQU 1
PHASE EQU 2
ACTION EQU 3
COUNT EQU 4
TYPE EQU 5
OFSET EQU 6
BADLEN EQU 7

```

```

BOMBNUM EQU 3
BOMBLEN EQU 14
OFF EQU 255

```

```

*****
; ** MEMORY MAP **
*****

```

```

BULPAGE EQU $5B00
BULSP EQU $5B00
BULDAT EQU BULSP+BOMBNUM*BOMBLEN

```

```

MAP1 EQU $5B90 ; 5B90
MAP2 EQU MAP1+$21C ;
MAP3 EQU MAP2+$21C ;
MAP4 EQU MAP3+$21C ;
NEXT_ EQU MAP4+$21C ; - 6400

```

```

BINGS EQU NEXT_ ; 6400 - 6470 ; BLOW AREAS
BSINGS EQU BINGS+$70 ; 6470 - 64C0 ; HIDE AREAS

```

```

THESTACK EQU $6500 ; 64C0 - 6500

```

```

CHRS1 EQU $6500 ; 6500 -
ATRS1 EQU CHRS1+$800 ; 6D00 -
CHRS2 EQU ATRS1+$100 ; 6E00 -
ATRS2 EQU CHRS2+$800 ; 7600 -
NEXT__ EQU ATRS2+$100 ; - 7700

```

```

CODE EQU $7700 ; 7700 - A970

```

```

HELI EQU $B4F0 ; B4F0 -

```

Sim.B67

26TH June 2011

```

TRUCK      EQU  HELI+$00F0      ; B5E0 -
TANK       EQU  TRUCK+$1E0      ; B7C0 -
TANKEND    EQU  TANK+$3C0      ;      - BB80

BADSPR2X2  EQU  $BB80          ; BB80 -
BADSPR3X3  EQU  BADSPR2X2+$0540 ; C0C0 -
BADEND     EQU  BADSPR3X3+$0A80 ;      - CB40

HEROSPR    EQU  $CB40          ; CB40 -
HEROEND    EQU  HEROSPR+$1900   ;      - DE00

BAKSC      EQU  $DE00          ; DE00 -
BAKSCS     EQU  BAKSC+$0700     ;
RESTSCR    EQU  BAKSCS+$0800    ;
BIGBADDY   EQU  RESTSCR+$0600   ;
BACKSCR    EQU  BIGBADDY+$0300  ;
BACKEND    EQU  BACKSCR+$0800   ;      - FE00

INTPAGE    EQU  $FE00          ; FE00 - FF00
PAGE0      EQU  $FF01          ; FF01 - FFF0
INTJP      EQU  $FFF4          ; FFF4 - FFFF

```

```

,*****
;
; ** FILE LENGTHS **
;
,*****

```

```

CHRSLEN    EQU  $0800+$0100
MAPLEN     EQU  $021C+$021C

FILELEN    EQU  CHRSLEN+MAPLEN

```

```

,*****
;
; ** BANK 1 MEMORY MAP **
;
,*****

```

```

SET1PAGE   EQU  1
SET1AD     EQU  $C000
SET2PAGE   EQU  1
SET2AD     EQU  $E000

```

```

,*****
;
; ** BANK 3 MEMORY MAP **
;
,*****

```

```

SET3PAGE   EQU  3
SET3AD     EQU  $C000
SET4PAGE   EQU  3
SET4AD     EQU  $E000

```

```

,*****
;
; ** BANK 4 MEMORY MAP **
;
,*****

```

```

SETSPAGE   EQU  4
SET5AD     EQU  $C000

```

```

HIDEPAGE   EQU  4
HIDEADDR   EQU  $E000
HIDECOLADDR EQU  HIDEADDR+$230+$190
L1_1       EQU  HIDECOLADDR+$64
BACKYBITS  EQU  L1_1
BACKY1     EQU  BACKYBITS
BACKY2     EQU  BACKY1+$300
BACKY3     EQU  BACKY2+$300
BACKY4     EQU  BACKY3+$300
BACKY5     EQU  BACKY4+$300
NEXTBACKY  EQU  BACKY5+$300

```

```

,*****
;
; ** BANK 6 MEMORY MAP **
;
,*****

```

```

PICCYPAGE  EQU  6
MUSICPAGE  EQU  6

```

```

,*****
;
; ** BANK 7 MEMORY MAP **
;
,*****

```

```

PICTUREPAGE EQU  7

PICAD      EQU  $C000

```

BIGBADDIES EQU \$E000
BIGROUTAROONYS EQU \$F000

,*****
;
,** EQUATES **
,*****

PRDLLL EQU 7
PRLEFT EQU 8
PRRIGHT EQU 9
PRUP EQU 10
PRDOWN EQU 11
PRCLS EQU 12
PRENT EQU 13
PRFONT EQU 14
PRMULTY EQU 15
PRINK EQU 16
PRSIZE EQU 17
PRAT EQU 22
PREOF EQU 255

KEYB EQU 0
KEMP EQU 1
FACE EQU 2
CURS EQU 3
CONT EQU FACE

,***** GRAB BADDY SPRITES AS FOLLOWS *****
;
;
; 4 WALK LEFT
; 4 WALK RIGHT
; 1 FACE
; 3 THROW
; 2 PAIN
;
;
,***** AND IT SHOULD WORK *****

,*****
;
,** PAGE BOUNDARY DATA **
,*****

SIGHTOX EQU PAGE0
SIGHTOY EQU SIGHTOX+1
SIGHTX EQU SIGHTOY+1
SIGHTY EQU SIGHTX+1

HEROOX EQU SIGHTY+1
HEROOY EQU HEROOX+1
HEROX EQU HEROOY+1
HEROY EQU HEROX+1
HEROP EQU HEROY+1

FUDLR EQU HEROP+1

WALKT EQU FUDLR+1
HEROT EQU WALKT+1
WALKP EQU HEROT+1
TURNP EQU WALKP+1

EXP1X EQU TURNP+1
EXP1Y EQU EXP1X+1
EXP1P EQU EXP1Y+1
EXP10X EQU EXP1P+1
EXP10Y EQU EXP10X+1

EXP2X EQU EXP10Y+1
EXP2Y EQU EXP2X+1
EXP2P EQU EXP2Y+1
EXP20X EQU EXP2P+1
EXP20Y EQU EXP20X+1

EXP3X EQU EXP20Y+1
EXP3Y EQU EXP3X+1
EXP3P EQU EXP3Y+1
EXP30X EQU EXP3P+1
EXP30Y EQU EXP30X+1

BONX EQU EXP30Y+1
BONY EQU BONX+1
BONOX EQU BONY+1
BON0Y EQU BONOX+1

```

BONT      EQU  BONOY+1
BONYDIR   EQU  BONT+1

LIVES     EQU  BONYDIR+1
LIVES1    EQU  LIVES+1
LIVES2    EQU  LIVES1+1
ENEMY     EQU  LIVES2+1
LEVEL     EQU  ENEMY+1
SECTION   EQU  LEVEL+1
MAPAD     EQU  SECTION+1

FLASHHIM  EQU  MAPAD+2

INITBYTE  EQU  FLASHHIM+1

POS       EQU  INITBYTE+1

TANKX     EQU  POS+1
TANKY     EQU  TANKX+1
TANKH     EQU  TANKY+1

TRUCKX    EQU  TANKH+1
TRUCKY    EQU  TRUCKX+1
TRUCKH    EQU  TRUCKY+1

HELIX     EQU  TRUCKH+1
HELIY     EQU  HELIX+1
HELIH     EQU  HELIY+1
HELIOX    EQU  HELIH+1
HELIOY    EQU  HELIOX+1
DAMAGE    EQU  HELIOY+1

BUILDS    EQU  DAMAGE+1

NOBAD     EQU  BUILDS+5
BADDAT    EQU  NOBAD+1

P0        EQU  BADDAT+NOBADS*BADLEN

```

```

,*****
;
; ** MAIN CODE **
,*****

```

ORG CODE

```

,*****
;
; ** START ROUTINE **
,*****

```

```

START      ENTR
DI         :LD  A,$3F:LD  I,A:XOR  A:LD  R,A:OUT  (254),A
LD  A,PICTUREPAGE:CALL  SELECTPAGE
LD  HL,$4000:LD  DE,$F000:LD  BC,$0F00:LDIR
CALL  SELECTPAGE0
LD  HL,MUSICSTART:LD  DE,$4000:LD  BC,MUSICEND-MUSICSTART
LDIR
LD  A,MUSICPAGE:CALL  SELECTPAGE
LD  HL,$4000:LD  DE,MUSICSTART:LD  BC,MUSICEND-MUSICSTART
LDIR
CALL  SELECTPAGE0

STOP       JR  STOP

REENTRY    LD  SP,THESTACK:DI  :XOR  A:LD  R,A
LD  A,$3F:LD  I,A:XOR  A:LD  R,A:OUT  (254),A

LD  A,PICTUREPAGE:CALL  SELECTPAGE
LD  HL,PICAD:LD  DE,$4000:LD  BC,$1B00:LDIR
CALL  SELECTPAGE0

LD  SP,THESTACK:CALL  INTER

CALL  PLAYMUSIC
EI

XOR  A:LD  (NIT+1),A

CALL  PISSTAKE

LD  A,R:LD  (RND1),A:DBH  10FE
LD  A,R:LD  (RND2),A:DBH  10FE
LD  A,R:LD  (RND3),A

```



```

INTROLOOP      LD  SP,THESTACK
                CALL CONTINUE
                CALL DEMO
                JR   INTROLOOP

,*****

CONTINUE      CALL SHOWTITLEPAGE
                CALL SPRINT
                DB   PRSIZE,0
                DB   PRAT,06,21,"CODE BY JAMES BAGLEY"
                DB   PRAT,04,22,"GRAFIX BY CHARLES DAVIES"
                DB   PRAT,06,23,"TUNE BY KEITH TINMAN"
                DB   PRSIZE,1
                DB   PRAT,11,17,"0 KILL 'EM"
                DB   PRAT,11,15,"5 DEMO "
                DB   PRAT,11,13,"4 HI TABLE"
                DB   PRAT,11,11,"3 REDEFINE"
                DB   PRAT,11,09,"2 "
                DB   PRAT,11,07,"1 ",PRAT,14,07,"-PLAYER"
                DB   PREOF

OPTDELBOY     LD  A,(READKEYS+1):ADD A,A:ADD A,A:ADD A,A
                LD  E,A:LD  D,0:LD  HL,KEYTYPES:ADD HL,DE
                LD  DE,KEYINSERT+3:LD  BC,8:LDIR

                CALL SPRINT:DB   PRINK,255
PLAYINSERT    DB   PRAT,13,07,"1"
PLAYER        EQU  PLAYINSERT+3
KEYINSERT     DB   PRAT,13,09,"J.BAGLEY",PRINK,7+64,PREOF

                CALL NIT

OPTDELAY      EI   :HALT
                LD  IX,COLS:LD  HL,$5800:LD  BC,$0105:CALL CLPER
;              LD  IX,COLS:LD  HL,$58E0:LD  BC,$010C:CALL CLPER
                LD  IX,COLS:LD  HL,$5AA0:LD  BC,$0103:CALL CLPER
                CALL SCRCOL

                CALL NPL

                LD  A,$F7:IN  A,(254):LD  C,A
                RR  C:CALL OPT1
                RR  C:CALL OPT2
                RR  C:JP  NC,OPT3
                RR  C:JP  NC,OPT4
                LD  A,1:LD  (MODE),A
                RR  C:JP  NC,OPT5
                XOR  A:LD  (MODE),A

                LD  A,$EF:IN  A,(254)
                RRA :JP  C,OPTDELAY

OPT5           LD  E,$3F:LD  C,7:CALL SEND1
                XOR  A:LD  (NIT+1),A
                JP  SLOWCLS

OPT1           RET  C:LD  A,(OPT1):XOR  8:LD  (OPT1),A:AND  8:RET  NZ
                LD  A,(PLAYER):XOR  3:LD  (PLAYER),A
                POP  HL:JP  OPTDELBOY

OPT2           RET  C:LD  A,(OPT2):XOR  8:LD  (OPT2),A:AND  8:RET  NZ
                LD  A,(READKEYS+1):INC  A:AND  3:LD  (READKEYS+1),A
                POP  HL:JP  OPTDELBOY

OPT3           EI   :HALT :DI
                CALL NPL
                LD  HL,$5800:LD  DE,$5801:LD  BC,$02FF:LD  (HL),0:LDIR
                CALL REDEFINE:XOR  A:LD  (READKEYS+1),A
                JP  CONTINUE

OPT4           LD  E,$3F:LD  C,7:CALL SEND1
                CALL SLOWCLS
                CALL HIGHSCORES
                XOR  A:LD  (NIT+1),A
                JP  CONTINUE

NIT            LD  A,0:OR  A:RET  NZ:LD  A,1:LD  (NIT+1),A
                DI   :LD  A,I:PUSH AF:LD  A,$3F:LD  I,A:PUSH IX
                LD  A,MUSICPAGE:CALL SELECTPAGE:XOR  A:CALL INITTUNE

```

```

CALL SELECTPAGE0
POP IX:POP AF:LD I,A:RET

NPL      DI :LD A,I:PUSH AF:LD A,$3F:LD I,A:PUSH IX
LD A,MUSICPAGE:CALL SELECTPAGE:CALL DOMUSIC:CALL SELECTPAGE0
POP IX:POP AF:LD I,A:EI :RET

REDEFINE LD IX,KEYBOARD
CALL SPRINT
DB PRINK,2+64
DB PRAT,07,07,"PRESS KEY FOR :-"
DB PRINK,5+64,PRAT,10,11,"QUIT.....",PREOF
CALL GETDEF
CALL SPRINT:DB PRAT,10,11,"HOLD.....",PREOF
CALL GETDEF
CALL SPRINT:DB PRAT,10,11,"GRENADE",PREOF
CALL GETDEF
CALL SPRINT:DB PRAT,10,11,"FIRE... ",PREOF
CALL GETDEF
CALL SPRINT:DB PRAT,10,11,"UP.. ",PREOF
CALL GETDEF
CALL SPRINT
DB PRAT,10,11,"DOWN",PREOF
CALL GETDEF
CALL SPRINT
DB PRAT,10,11,"LEFT",PREOF
CALL GETDEF
CALL SPRINT
DB PRAT,10,11,"RIGHT",PRINK,7+64,PREOF

GETDEF   CALL WAITNOSKEY
CALL WAITSKEY
LD C,%01111111
GDCLP    LD B,%00001
GDBLP    LD A,C:IN A,(254):AND B:JR Z,GOT
RLC      B:BIT 5,B:JR Z,GDBLP:RRC C:JR C,GDCLP:JR GETDEF
GOT      LD (IX+00),C:INC IX:LD (IX+00),B:INC IX:JP WAITNOSKEY

KEYTYPES DB "KEYBOARD"
DB "KEMPSTON"
DB "SINCLAIR"
DB " CURSOR "

,*****

SELECTPAGE0 XOR A
SELECTPAGE OR 16:LD (PAGE),A:LD BC,$7FFD:OUT (C),A:RET

PAGE       DB 0

,*****

LIVESXY    DB 1,0,2,0,3,0
DB 1,1,2,1,3,1
DB 1,2,2,2,3,2
DB 1,3,2,3,3,3

LEVADS     DB SET1PAGE,SET1AD/256 ; 1 C0
DB SET2PAGE,SET2AD/256 ; 1 E0
DB SET3PAGE,SET3AD/256 ; 3 C0
DB SET4PAGE,SET4AD/256 ; 3 E0
DB SET5PAGE,SET5AD/256 ; 4 C0

BUILDINGCOLS DS 20

ANDTANK    EQU %00000001
ANDTRUCK   EQU %00000010
ANDHELI    EQU %00000100
ANDFROG    EQU %00001000
ANDBAD1LT  EQU %00010000
ANDBAD1RT  EQU %00100000
ANDBAD2LT  EQU %01000000
ANDBAD2RT  EQU %10000000

; TANK      >>>>>>>> 0 0 0 0
; TRUCK     >>>>>>>> 1! 1! 1! 1!
; HELI      >>>>>>>> 2!! 2!! 2!! 2!!
; BAD 3 OR FROG >>>>>> 3!!! 3!!! 3!!! 3!!!
; BAD1LT    >>>>>> 4!!!! 4!!!! 4!!!! 4!!!!
; BAD1RT    >>>>> 5!!!!!! 5!!!!!! 5!!!!!! 5!!!!!!
; BAD2LT    >>>> 6!!!!!!! 6!!!!!!! 6!!!!!!! 6!!!!!!!
; BAD2RT    >>> 7!!!!!!! 7!!!!!!! 7!!!!!!! 7!!!!!!!

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```

;          !!!!!!! !!!!!!! !!!!!!! !!!!!!!
INITBYTES  DB  %00000110,%00000110,%00000100,%00000000; LEVEL 1
            DB  %00001011,%00010110,%00000101,%11001101; LEVEL 2
            DB  %10100011,%00100011,%00100010,%00000100; LEVEL 3
            DB  %00000101,%00000001,%00000111,%00000000; LEVEL 4
            DB  %00000010,%00000000,%00000000,%00000010; LEVEL 5

MAXDIFS    DB  10,15,20,25      ; LEVEL 1 - MAX NO OF BADS
            DB  10,15,20,25      ; LEVEL 2 - MAX NO OF BADS
            DB  10,15,20,25      ; LEVEL 3 - MAX NO OF BADS
            DB  10,15,20,25      ; LEVEL 4 - MAX NO OF BADS
            DB  10,15,20,25      ; LEVEL 5 - MAX NO OF BADS

BUILDUS    DS  7,0
BUILDINGS  DS  20,0              ; BLOW AREAS
BDING      DS  8,0
BUILDSING  DS  20,0              ; HIDE AREAS

;*****

DEMO
LD  E,0:LD  C,8:CALL SEND1
LD  HL,0:LD  C,9:CALL SEND2

MAIN
XOR  A:LD  (CONTPLAYS+0),A:LD  (NIT+1),A
INC  A:LD  (CONTPLAYS+1),A

LD  A,STARTSECTION:LD  (SECTION),A
LD  A,STARTLEVEL:LD  (LEVEL),A
LD  A,STARTLIVES:LD  (LIVES1),A

LD  A,(PLAYER):CPL  :AND  1:JR  Z,OKSRS
XOR  A:LD  (CONTPLAYS+1),A
LD  A,STARTLIVES
OKSRS LD  (LIVES2),A
      LD  HL,"01":LD  (GREN1),HL
      LD  HL,"01":LD  (GREN2),HL
      LD  HL,"00"
      LD  (SCORE1+0),HL:LD  (SCORE1+2),HL
      LD  (SCORE1+4),HL:LD  (SCORE1+6),HL
      LD  (SCORE2+0),HL:LD  (SCORE2+2),HL
      LD  (SCORE2+4),HL:LD  (SCORE2+6),HL

LD  A,"1":LD  (PLAYERUP),A
XOR  A:LD  (GUNTYP+1),A
XOR  A:LD  (FLASHHIM),A

MAINLOOP
CALL RESETBAD

LD  A,(LEVEL):DEC  A:ADD  A,A:ADD  A,A:LD  E,A
LD  A,(SECTION):ADD  A,E:LD  E,A:LD  D,0
LD  HL,MAXDIFS:ADD  HL,DE:LD  A,(HL):LD  (NOBAD),A

CALL LOADLEVEL

MAINLEVEL
LD  DE,$6078:LD  (SIGHTX),DE:LD  (SIGHTOX),DE
LD  DE,$8070:LD  (HEROX),DE:LD  (HEROOX),DE

XOR  A:LD  (WALKT),A:LD  (HEROT),A
LD  A,2:LD  (TURNP),A:LD  A,10:LD  (WALKP),A

LD  A,(SECTION):AND  3:LD  HL,0:LD  DE,28:CALL MULT
LD  DE,BINGS:ADD  HL,DE
LD  DE,BUILDINGS:LD  BC,28:LDIR
LD  A,(SECTION):AND  3:LD  HL,0:LD  DE,20:CALL MULT
LD  DE,BSINGS:ADD  HL,DE
LD  DE,BUILDSING:LD  BC,20:LDIR

LD  A,(LEVEL):ADD  A,A:ADD  A,A:LD  E,A
LD  A,(SECTION):ADD  A,E:LD  E,A:LD  D,0
LD  HL,INITBYTES-4:ADD  HL,DE:LD  A,(HL):LD  (INITBYTE),A

LD  IX,BUILDINGS
LD  HL,BUILDS:LD  B,5
EO  PUSH  HL:LD  HL,0:LD  D,0:LD  E,(IX+02):LD  A,(IX+03)
CALL MULT:LD  DE,4:ADD  IX,DE
LD  A,L:ADD  A,A:ADD  A,L:ADD  A,32:POP  HL
LD  (HL),A:INC  HL:DJNZ  EO

```

```

LD HL,BUILDUS:LD DE,BUILDUS+1:LD BC,7-1:LD (HL),1:LDIR
LD A,(LEVEL):CP 5:JR NZ,DZ
LD A,(SECTION):CP 4-1:JR NZ,DZ
LD HL,0:LD (BUILDUS),HL

```

DZ

```

,*****
;

```

```

CALL GETDATA
CALL PLAYLEVEL
CALL SHOWLEVNUM

```

```

,*****
;

```

```

LD B,10:CALL BEEPERDELAY

LD HL,$5900:LD DE,BAKSCS:LD BC,$0100:LDIR

CALL SPRINT
DB PRSIZE,0
DB PRINK,&107
DB PRAT,10,08,PRMULTY,12," "
DB PRAT,10,09,PRMULTY,04," "
DBH 20942097959E9F20
DB PRAT,10,10,PRMULTY,04," "
DBH 99942097989DA020
DB PRAT,10,11,PRMULTY,04," "
DBH 2094209794202020
DB PRAT,10,12,PRMULTY,04," "
DBH 20989DA094202020
DB PRAT,10,13,PRMULTY,12," "
DB PREOF

LD A,(PLAYERUP):SUB "1"
ADD A,A:ADD A,A:ADD A,A:ADD A,A
LD E,A:LD D,0:LD HL,NUMTXT:ADD HL,DE
LD DE,$090B:CALL PRINT

CALL PRTLIFES

LD HL,PLAYUPCOL:LD (FIRECALL+1),HL
CALL FIREDELAY
LD HL,RETURN:LD (FIRECALL+1),HL

LD HL,BAKSCS:LD DE,$5900:LD BC,$0100:LDIR

```

```

,*****
;

```

CONTLEVEL

```

LD DE,(HEROOX):CALL PRTBACK
CALL COPYBACK

XOR A:LD (NOMOREBAD+1),A

CALL GETDATA
CALL THEGAME
CALL STOREDATA

LD A,10:LD (NOMOREBAD+1),A

LD DE,(SIGHTOX):CALL PRTBACK2X2:CALL OLDCLS
LD DE,(BONOX):CALL BONBACK
CALL HELIBACK

LD A,(GAMEOVER+1):OR A:JP Z,NLOSTLIFE

XOR A:LD (GUNTYPE+1),A

LD A,(LIVES):DEC A:LD (LIVES),A:CALL STOREDATA

LD A,(LIVES):OR A:JP Z,GAMEEND

JP CONTLEVEL

```

```

,*****
;

```

```

GETDATA LD A,(PLAYERUP):SUB "1":LD E,A:LD D,0
LD HL,LIVES1:ADD HL,DE:LD A,(HL):LD (LIVES),A

LD HL,GREN1:ADD HL,DE:ADD HL,DE
LD A,(HL):LD (NOOFGREN),A:INC HL
LD A,(HL):LD (NOOFGREN+1),A

```

```

LD A,E:ADD A,A:ADD A,A:ADD A,A:LD E,A
LD HL,SCORE1:ADD HL,DE
LD DE,SCORE:LD BC,8:LDIR
RET

,*****
STOREDATA LD A,(PLAYERUP):SUB "1":LD E,A:LD D,0
LD HL,LIVES1:ADD HL,DE:LD A,(LIVES):LD (HL),A

LD HL,GREN1:ADD HL,DE:ADD HL,DE
LD A,(NOOFGREN):LD (HL),A:INC HL
LD A,(NOOFGREN+1):LD (HL),A

LD A,E:ADD A,A:ADD A,A:ADD A,A:LD E,A
LD HL,SCORE1:ADD HL,DE
LD DE,SCORE:EX DE,HL:LD BC,8:LDIR
RET

,*****
TESTOTHER LD A,(PLAYERUP):XOR 3:LD (PLAYERUP),A
LD A,(LIVES):OR A:JP Z,GAMEEND
JP GOES

,*****
NOLOSTLIFE CALL PAUSE
LD DE,(HEROOX):CALL PRTBACK
CALL BLOWALL
LD A,(SECTION):CP 3:JR NZ,NOBIGO
CONTBIG CALL GETDATA
LD A,(COUNTER+1):SRL A:SRL A:LD (COUNTER+1),A
LD B,100:CALL DELAYBC
CALL BIGROUTINES
CALL STOREDATA

LD A,(GAMERET+1):OR A:JR NZ,NOBIGO
JP GAMEENDER

NOBIGO CALL WALKOFF

LD DE,$6078:LD (SIGHTX),DE:LD (SIGHTOX),DE
LD DE,$8070:LD (HEROX),DE:LD (HEROOX),DE

GOSWAP XOR A:LD (GUNTYPE+1),A
XOR A:LD (FLASHHIM),A
LD A,(PLAYERUP):XOR 3:LD (PLAYERUP),A
SUB "1":LD HL,LIVES1:ADD A,L:LD L,A
LD A,(HL):OR A:JP Z,TESTOTHER

CALL RESETBAD
LD A,(PLAYERUP):CP "2":JP Z,MAINLEVEL

GOES CALL RESETBAD
LD A,(SECTION):INC A:AND 3:LD (SECTION),A
JP NZ,MAINLEVEL

LD A,(LEVEL):INC A:LD (LEVEL),A
CP 6:JP C,MAINLOOP

CALL CONGRATS
LD A,(PLAYERUP):SUB "1":LD HL,LIVES1
CALL ADDHLA:LD (HL),0
LD A,(PLAYERUP):SUB "1":LD HL,CONTPLAYS
CALL ADDHLA:LD (HL),1
JP GAMEEND

,*****
GAMEENDER LD A,1:JR CONTLEV
GAMEEND LD A,0
CONTLEV LD (CORGI),A

CALL PRTLIFES

LD A,(PLAYERUP):SUB "1":LD HL,CONTPLAYS
CALL ADDHLA

```

```

LD A,(HL):OR A:JP NZ,NOCVNT
LD (HL),1

LD HL,$5900:LD DE,BAKSCS:LD BC,$100:LDIR
CALL SPRINT
DB PRSIZE,1,PRINK,7+64
DB PRAT,08,10,PRMULTY,14," "
DB PRAT,08,12,PRMULTY,14," "
DB PRAT,08,11," CONTINUE Y/N "
DB PREOF

WAITYESNO DB 62
MODE DB 0
OR A:JR NZ,NOCONT
LD A,%11011111:IN A,(254):AND %10000:JP Z,GOCONTLEVEL
LD A,%01111111:IN A,(254):AND %01000:JP NZ,WAITYESNO
JR NOCONT
NOCVNT CALL BLOWALL
NOCONT CALL PAUSE
CALL GETDATA
LD A,(PLAYERUP):AND 1:LD HL,LIVES1:ADD A,L:LD L,A
LD A,(HL):OR A:JP Z,ENTERNAME
CALL ENTERNAME

LD A,(PLAYERUP):XOR 3:LD (PLAYERUP),A
CP "1":JP Z,GOES
JP MAINLEVEL

CONTPLAYS DB 0,0

GOCONTLEVEL
LD A,(PLAYERUP):SUB "1":LD HL,LIVES1:ADD A,L:LD L,A
LD A,CONTLIVES:LD (HL),A:LD (LIVES),A
LD DE,$5900:LD HL,BAKSCS:LD BC,$100:LDIR

CORGI DB 62
DB 0
OR A:JP Z,CONTLEVEL
JP CONTBIG

,*****
,
,** WALK HERO OFF THE SCREEN **
,*****

DOBACKS CALL BEEPER:DI
LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
LD DE,(EXP30X):CALL PRTBACK
CALL PRTHERO
CALL DUMPBACK
CALL GOMOVBAD
CALL ENEMYBAR:CALL RAND

DOBACK CALL COPYBACK
CALL PRTBAD0:CALL PRTRUCK
CALL PRTBAD1:CALL PRTTANK
LD A,0:CALL COPOUT:LD A,1:CALL COPOUT
LD A,2:CALL COPOUT:LD A,3:CALL COPOUT
CALL PRTBAD2

LD A,4:JP COPOUT

BLOWLOT CALL SPRINT
DB PRINK,5*8+64
DB PRSIZE,0
DB PRAT,01,03,PRMULTY,30," "
DB PRAT,01,04,PRMULTY,30," "
DB PRAT,01,05,PRMULTY,30," "
DB PREOF
CALL RESETBAD
LD A,1:LD (NOMOREBAD+1),A
JR BLOWLOTE

BLOWALL LD IX,BADDAT:LD B,NOBADS
CLRLOP CALL OKDIE:LD DE,BADLEN:ADD IX,DE:DJNZ CLRLOP

BLOWLOTE XOR A:LD (TANKX),A:LD (TRUCKX),A:LD (HELIX),A

LD B,$78
VANITY PUSH BC:LD A,B:AND $0F:JR NZ,SKPVAN
LD A,$70:SUB B:RRA :RRA :RRA :RRA :LD (CRUM+1),A
CALL VANISH

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```

CALL OLDCOLS
SKPVAN
LD A,255:LD (ENEMY),A
CALL DOBACKS
POP BC:LD A,B:SUB 7:LD B,A:DJNZ VANITY
RET

WALKOFF
LD A,1:LD (NOMOREBAD+1),A
XOR A:LD (HEROT),A
LD A,12:LD (HEROP),A

WALKOFFLOOP
CALL BEEPER:DI
LD A,(POS):INC A:LD (POS),A
LD A,255:LD (ENEMY),A
CALL DOBACKS
CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE
LD A,(FUDLR):AND $40:CALL NZ,PAUSE0
LD A,(POS):AND 1:JR NZ,SKIPPY
LD A,(HEROP):INC A:CP 14:JR C,OSKER:LD A,10
OSKER
LD (HEROP),A
LD A,(HEROX):ADD A,8:LD (HEROX),A
CP $E0:JR NC,DFSD
SKIPPY
JP WALKOFFLOOP

DFSD
LD DE,(HEROOX):JP PRTBACK

;*****
;
; ** PLAY LEVEL ROUTINE **
;*****

PLAYLEVEL
LD A,(SECTION):AND 3
LD HL,MAP1:LD DE,$21C:CALL MULT
LD (MAPAD),HL

LD A,(SECTION):RRA :AND 1:LD A,CHRS1/256:JR Z,OK1
LD A,CHRS2/256
OK1
LD (CADS+1),A

CALL PRTLIVES

LD HL,$5800:LD BC,$1800
BOPL
LD (HL),C:LD A,L:OR $1F:LD L,A:LD (HL),C:INC HL
DJNZ BOPL

CALL DUMPAP

LD A,STARTENEMY:LD (ENEMY),A

JP COPYSCREEN

;*****
;
; ** PRINT LIVES ETC.... **
;*****

PRTLIVES
CALL CLS
PRTLIVELY
CALL SPRINT
DB PRSIZE,0
DB PRINK,7+64
DB PRAT,00,21
DB PRMULTY,64+4," "
DB PRINK,16+7+64,"ENEMY"
DB PRINK,1+64,PRMULTY,22,$81
SKYCOL
DB PRINK,5+64
DB PRAT,01,00,PRMULTY,30,$82
DB PRAT,01,01,PRMULTY,30,$82
DB PRAT,01,02,PRMULTY,30,$82
DB PRINK,40+2+64,PREOF

LD HL,BONUSSPR+$60
LD DE,$50A1
LD B,$10
BDP
LD A,(HL):CPL :LD (DE),A:INC HL:INC E
LD A,(HL):CPL :LD (DE),A:INC HL:INC E
LD A,(HL):CPL :LD (DE),A:INC HL:INC D
LD A,(HL):CPL :LD (DE),A:INC HL:DEC E
LD A,(HL):CPL :LD (DE),A:INC HL:DEC E
LD A,(HL):CPL :LD (DE),A:INC HL:INC D
LD A,D:AND 7:JR NZ,DSS
LD A,E:ADD A,32:LD E,A
LD D,$50
DSS
DJNZ BDP

```



```

SOBLK      LD  A,(LEVEL):CP  4:JR  NZ,SOBLK
            LD  A,(SECTION):OR  A:JR  Z,OKBLK
            LD  A,(LEVEL):CP  2:JR  NZ,NOBLK
            LD  A,(SECTION):CP  3:JR  NZ,NOBLK
OKBLK      LD  HL,$5800:LD  B,$60
BLKBLP     LD  A,(HL):AND  &370:LD  (HL),A:INC  L:DJNZ  BLKBLP
NOBLK

PRTLIFES   LD  A,($5801):AND  &307:OR  &020:LD  (ATTR),A
            CALL SPRINT
            DB  PRSIZE,0
            DB  PRAT,01,00,$82,$82,$82
            DB  PRAT,01,01,$82,$82,$82
            DB  PRAT,01,02,$82,$82,$82
            DB  PREOF
            LD  A,(LIVES):OR  A:JR  Z,SKIPLIVES
            CP  10:JR  C,OKL:LD  A,9
            LD  B,A:LD  HL,LIVESXY
LIVESBLP   LD  E,(HL):INC  HL:LD  D,(HL):INC  HL:PUSH HL:PUSH BC
            LD  A,128:CALL  PRTCELL:POP  BC:POP  HL:DJNZ  LIVESBLP
SKIPLIVES  CALL SPRINT
            DB  PRSIZE,1
            DB  PRAT,05,00,PRINK,&117
PLAYERUP   DB  "1UP"
            DB  PRSIZE,0
            DB  PREOF
            LD  HL,$4001:LD  DE,BAKSC+1:LD  BC,$1803:CALL  QBLP
            JP  PRTSCORE

```

```

,*****
;
; ** THE GAME CODE **
;
,*****

```

```

SHOWLENUM  LD  B,10:CALL  BEEPERDELAY

            LD  HL,$5900:LD  DE,BAKSCS:LD  BC,$0100:LDIR

            CALL SPRINT
            DB  PRSIZE,0,PRINK,7
            DB  PRAT,04,09
            DBH 20942095969497959694
            DB  PRMULTY,14," "
            DB  PRAT,04,10
            DBH 209420989994979899942020
            DB  $9D,PRMULTY,5," ",$9D,PRMULTY,5," "
            DB  PRAT,04,11
            DBH 20942094209497942094
            DB  PRMULTY,14," "
            DB  PRAT,04,12
            DBH 2098998999A9B98999899
            DB  PRMULTY,13," "
            DB  PREOF

            LD  A,(LEVEL):ADD  A,A:ADD  A,A:ADD  A,A:ADD  A,A
            LD  E,A:LD  D,0:LD  HL,NUMTXT-16:ADD  HL,DE
            LD  DE,$0912:CALL  PRINT

            LD  A,(SECTION):ADD  A,A:ADD  A,A:ADD  A,A:ADD  A,A
            LD  E,A:LD  D,0:LD  HL,NUMTXT:ADD  HL,DE
            LD  DE,$0918:CALL  PRINT

            LD  HL,$5904:LD  BC,$0118:LD  E,0:CALL  ATRBOX
            LD  HL,$59A4:LD  BC,$0118:LD  E,0:CALL  ATRBOX

            CALL PRTLIFES

            LD  HL,LEVCOL:LD  (FIRECALL+1),HL
            CALL FIREDELAY
            LD  HL,RETURN:LD  (FIRECALL+1),HL

            LD  HL,BAKSCS:LD  DE,$5900:LD  BC,$0100:LDIR
            CALL COPYBACK
            JP  DUMPBACK

THEGAME    LD  DE,(EXP10X):CALL  EXPBACK:LD  DE,(EXP20X):CALL  EXPBACK
            LD  DE,(EXP30X):CALL  EXPBACK
            CALL HELIBACK
            CALL DUMPBACK

```


	CALL PRTLIFES
	CALL COPYSCREEN
	XOR A:LD (DECODE+1),A:LD (GAMEOVER+1),A LD (GAMERET+1),A:DEC A:LD (DEADMODE+1),A CALL COLSIG
GAMELOOP	CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A LD DE,(EXP10X):CALL EXPBACK:LD DE,(EXP20X):CALL EXPBACK LD DE,(EXP30X):CALL EXPBACK:LD DE,(BONOX):CALL BONBACK CALL PRTHERO CALL PRTBONOS CALL HELIBACK:CALL PRTHELI CALL PRTHSCORE CALL DUMPBACK LD DE,(SIGHTOX):CALL PRTBACK2X2:CALL OLDCOLS CALL PRTSIGHT:CALL COLSIG CALL PRTBONOS CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3 CALL PRTBULLETS:CALL PRTBOMB CALL DOBACK CALL RAND CALL ENEMYBAR LD A,(FUDLR):AND %01000000:CALL NZ,PAUSE0 CALL PRTBOMB:CALL PRTBULLETS CALL BOMBS:CALL MOVEBULLETS CALL MOVEBAD CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE CALL DECODE CALL BULCOLISH
GAMEOVER	LD A,0:OR A:RET NZ
GAMERET	LD A,0:OR A:JR Z,GERTY INC A:LD (GAMERET+1),A:CP 15:RET NC
GERTY ;	LD A,\$7F:IN A,(254):BIT 1,A:RET Z JP GAMELOOP
COPYSCREEN CPP BPP	LD HL,\$4000:LD DE,BAKSC:LD C,21 LD B,8 PUSH HL:PUSH BC:LD BC,32:LDIR :POP BC:POP HL INC H:DJNZ BPP LD A,L:ADD A,32:LD L,A:JR C,SPP LD A,H:SUB 8:LD H,A
SPP	DEC C:JP NZ,CPP LD HL,BAKSCS:LD DE,BACKSCR:LD BC,\$800:LDIR :RET
DUMPSCREEN	LD HL,BACKSCR:LD DE,BAKSCS:LD BC,\$800:LDIR LD DE,\$4000:LD HL,BAKSC:LD C,21 LD B,8
CDP BDS	PUSH DE:PUSH BC:LD BC,32:LDIR :POP BC:POP DE INC D:DJNZ BDS LD A,E:ADD A,32:LD E,A:JR C,SDP LD A,D:SUB 8:LD D,A
SDP	DEC C:JP NZ,CDP:RET
	,***** ,** BULLETS** ,*****
GRENADES	DBH 000000000000000000000000C1200002D DBH 5A80805E2900002D2D0000120C000000 DBH 00000000000000007088040172CA0A0ZE DBH 2FA04017088000700000000000000000 DBH 000080030440A00B14A0A00A0BD0280B DBH 1794F4170BE8100403E00000000000000

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DBH 0000C0010220D0050B28280B0BA8E805
DBH 0BD48A1717DAAA170BF4080403F00000

BULLETPRS DBH 400000E0E000040
DBH 200000707000020
DBH 100000383800010
DBH 0800001C1C00008
DBH 0400000E0E00004
DBH 020000070700002
DBH 010080030380001
DBH 0080C00101C08000

PRTBONOS LD DE,(BONX):LD (BONX),DE
LD A,(BONX):OR A:RET Z
PUSH DE
LD A,(BONT):AND 3:LD DE,$30:LD HL,BONUSSPR:CALL MULT
POP DE
PUSH HL:CALL DIXAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL:LD B,2*4
PRTBOLP POP DE:LD A,E:AND (HL):LD (HL),A:INC L
LD A,D:AND (HL):LD (HL),A:INC L
POP DE:LD A,E:AND (HL):LD (HL),A:INC H
LD A,D:AND (HL):LD (HL),A:DEC L
POP DE:LD A,E:AND (HL):LD (HL),A:DEC L
LD A,D:AND (HL):LD (HL),A:INC H
LD A,H:AND 7:JR NZ,BOSK
LD A,L:ADD A,32:LD L,A:JR C,BOSK
LD A,H:SUB 8:LD H,A
BOSK DJNZ PRTBOLP:LD SP,(SPSTR):RET

BONUSSPR DBH FFFFFFFF0FFE0FF17EB00DFA0D50509
DBH 0AAC00005FB01A8AC08875F10A3AE28
DBH 2F1754B2C4AA2FDF7DF7F8FE3FFFFFFF
DBH FFFFFFFC7FFFFFFF803BC57FFCF3803515
DBH 60ECD242A50500A4A00BEB1714A0A497
DBH EF1F0CADD31BFFFFFF7EDF20FFFFFFF
DBH FFFFFFFF0FEFDF7FBF00FAFA565F5F
DBH B1FDFD015F5F19FAFA6A5FBF25FAFA1A
DBH 7FFF2AFADF0SFFFFFFBFEFF07FFFFFFF

PRTBULLETS LD IX,BULDAT:LD B,NOBUL
PRTBULLOP PUSH BC:LD E,(IX+XPOS):LD A,(IX+YPOS):CP $50:JP C,BADB
CP $A6:JR NC,BADB:SUB (IX+HEIGHT):LD D,A:JR GOODB
BADB LD DE,$0000
GOODB CALL PRTBUL
NXTB POP BC:LD DE,BULLEN:ADD IX,DE:DJNZ PRTBULLOP:RET

INITBONUS LD A,(BONX):OR A:RET NZ
LD A,(RND2):AND 15:CP 12:RET C
LD A,(RND3):AND 3:LD A,2:JR NZ,REES
LD A,(RND1):AND 3:CP 3:RET Z
REES LD (BONT),A
LD A,E:AND $F8:CP 8:RET C:CP $E0:RET NC:LD (BONX),A
LD A,D:LD (BONY),A
LD A,$F8:LD (BONYDIR),A
JP JINGLE

MOVEBONUS LD A,(BONX):OR A:RET Z
LD A,(POS):AND 3:JR Z,OKBON
LD A,(BONYDIR):INC A:LD (BONYDIR),A
OKBON LD A,(BONY):LD D,A:LD A,(BONYDIR):ADD A,D:LD (BONY),A
CP $98:RET C
LD A,$98:LD (BONY),A
LD A,(BONX):ADD A,6:LD E,A:LD D,$08
LD HL,(HEROX):LD H,$18:CALL HITA:JR C,NOS
XOR A:LD (BONX),A
CALL PICKUP
LD A,(BONT):CP 2:JP Z,INCGREN
INC A:LD (GUNTYPE+1),A
LD A,200:LD (COUNTER+1),A:RET
NOS LD A,(BONYDIR):CP 40:RET C
XOR A:LD (BONX),A
RET

MOVEBULLETS CALL MOVEBONUS
LD IX,BULDAT:LD B,NOBUL
MOVBLP LD A,(IX+XPOS):OR A:JP Z,NEXTBUL

INC (IX+YPOS):INC (IX+YPOS)

```

```

INC (IX+YPOS):INC (IX+YPOS)

LD A,(IX+YTYPE):ADD A,A:LD E,A:LD D,0
LD HL,YTABS:ADD HL,DE
LD E,(HL):INC HL:LD D,(HL)
LD A,(IX+YCOUNT)
; SRL A
ADD A,E:LD E,A:ADC A,D:SUB E:LD D,A
LD A,(DE):LD (IX+HEIGHT),A
INC (IX+YCOUNT)

DEC (IX+XDEL):JP P,NEXTBUL
LD A,(IX+XRES):LD (IX+XDEL),A
LD A,(IX+XPOS):ADD A,(IX+XDIR):ADD A,(IX+XDIR)
ADD A,(IX+XDIR):ADD A,(IX+XDIR)
CP $08:JR C,CEFS
CP $F8:JR C,EFES
CEFS XOR A
EFES LD (IX+XPOS),A

PUSH BC
LD IY,BDING
LD B,2
BSP LD A,2:SUB B:ADD A,5:LD HL,BUILDUS
CALL ADDHLA
LD A,(HL):OR A:JP Z,NBX

LD L,(IY+00):LD H,(IY+02)
LD E,(IX+XPOS):SRL E:SRL E:SRL E:LD D,$01
SET 6,L:SET 6,E:CALL HITA:JR C,NBX

LD L,(IY+01):LD H,(IY+03)
LD A,(IX+YPOS):SUB (IX+HEIGHT):SRL A:SRL A:SRL A
LD E,A:LD D,$01
SET 6,L:SET 6,E:CALL HITA:JR C,NBX

LD A,2:SUB B:ADD A,5:LD (CRUM+1),A
PUSH IY:PUSH IX:PUSH BC
CALL VANISH
POP BC:POP IX:POP IY

LD (IX+XPOS),0

NBX LD DE,4:ADD IY,DE:DJNZ BSP
POP BC

NEXTBUL LD DE,BULLEN:ADD IX,DE
DEC B:JP NZ,MOVBULP:RET

YTABS DW TAB0
DW TAB1
DW TAB2
DW TAB3
DW TAB4

TAB0 DS 38,0

TAB1 DBH 403E3C3A38363432302E2C2A28262420
DBH 1E1C1A18161412100E0C0A0806040200
DBH 0000000000

TAB2 DBH 0C1420303C4850565A5C5E5E
DBH 5E5E5C5A5650483C3020140C

TAB3 DBH 0C14202E384044464848
DBH 4848464440382E20140C

TAB4 DBH 0C14202C34383A3C3C
DBH 3C3C3A38342C20140C

INITBUL LD (BTYPE+3),A
LD A,E:ADD A,C:LD E,A:LD A,D:ADD A,B:LD D,A

CALL RAND

LD IY,BULDAT:LD BC,BULLEN:LD L,NOBUL
BUPL LD A,(IX+XPOS):OR A:JR Z,GOTBUL
ADD IY,BC:DEC L:JR NZ,BUPL:RET
GOTBUL LD (IX+XPOS),E:LD (IX+YPOS),D:LD (IY+HEIGHT),$0C
LD A,(RND1):AND $07:LD (IY+XRES),A:LD (IY+XDEL),A

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BTYPE	LD A,(RND3):AND 128:RLCA :ADD A,A:DEC A:ADD A,A
	LD (IY+XDIR),A
	LD (IY+YTYPE),0
	LD (IY+YCOUNT),0
	LD A,(IY+YTYPE):ADD A,A:LD E,A:LD D,0
	LD HL,YTABS:ADD HL,DE
	LD E,(HL):INC HL:LD D,(HL)
	LD A,(IY+YCOUNT):ADD A,E:LD E,A:ADC A,D:SUB E:LD D,A
	LD A,(DE):LD (IY+HEIGHT),A
	JP GUNFIRE
PRTBUL	LD A,(IX+YTYPE):CP 1:JR C,PTBUL
	LD BC,\$20:JR Z,FSK
	LD A,(IX+YPOS):SUB \$50
OKB	SRL A:SRL A:SRL A:SRL A:CP 4:JR C,OKB:LD A,3
FSK	LD B,A:LD C,0:SRL B:RR C:SRL B:RR C:SRL B:RR C
PTBUL	LD HL,GRENADES:ADD HL,BC:LD B,8:JR PTBL
	LD A,E:AND 7:ADD A,A:ADD A,A:ADD A,A:LD C,A:LD B,0
	LD HL,BULLETSPRS:ADD HL,BC:LD B,2
PTBL	LD A,E:OR A:JR NZ,PK1:LD E,\$F8
PK1	PUSH HL:CALL DIXAD:EX DE,HL:POP HL
	LD (SPSTR),SP:LD SP,HL:EX DE,HL
PRTBULP	POP DE:LD A,E:XOR (HL):LD (HL),A:INC L
	LD A,D:XOR (HL):LD (HL),A:INC H
	POP DE:LD A,E:XOR (HL):LD (HL),A:DEC L
	LD A,D:XOR (HL):LD (HL),A:INC H
	LD A,H:AND 7:JR NZ,BLSK
	LD A,L:ADD A,32:LD L,A:JR C,BLSK
	LD A,H:SUB 8:LD H,A
BLSK	DJNZ PRTBULP:LD SP,(SPSTR):RET
BULCOLISH	LD IX,BULDAT:LD B,NOBUL
BULCOLP	LD A,(IX+YPOS):CP \$A6:JR C,NBC
	LD E,(IX+XPOS):LD A,(IX+YPOS):SUB (IX+HEIGHT):LD D,A
	LD A,(IX+YTYPE):OR A:CALL NZ,INITEXP
	LD (IX+XPOS),0:LD (IX+YPOS),0:LD (IX+HEIGHT),12
	LD A,(FLASHHIM):OR A:JR NZ,NBC
	LD A,(DECODE+1):OR A:JR NZ,NBC
	LD A,(HEROX):AND \$F8:ADD A,\$04:LD L,A:LD H,\$18
	LD D,8:CALL HITA:JR C,NBC
	XOR A:LD (DEADM0DE+1),A:DEC A:LD (DECODE+1),A
NBC	LD DE,BULLEN:ADD IX,DE:DJNZ BULCOLP:RET
SIZUS	DB 01,14,01,14
	DB 01,14,01,14
	DB -4,24,-4,24
	DB -4,24,-4,24
GUNDAMAGE	DB 01,04,10,20
SIGX	DB 0
XSIZE	DB 0
SIGY	DB 0
YSIZE	DB 0
SIZES	DW \$1010,\$1010,\$1818
GRENADECOLISH	LD DE,\$0000
	LD HL,(SIGHTX):PUSH HL
	LD (SIGHTX),DE:LD A,3:CALL GRENCOLISH
	POP HL:LD (SIGHTX),HL
	RET
FIRECOLISH	LD A,(GUNTYPE+1)
GRENCOLISH	LD E,A:LD D,0:LD HL,GUNDAMAGE:ADD HL,DE
	LD A,(HL):LD (DAMAGE),A
	LD A,E:ADD A,A:ADD A,A:LD E,A
	LD HL,SIZUS:ADD HL,DE
	LD E,(HL):INC HL:LD C,(HL):INC HL
	LD D,(HL):INC HL:LD B,(HL):INC HL
	LD A,(SIGHTX):ADD A,E:LD (SIGX),A
	LD A,C:LD (XSIZE),A

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LD A,(SIGHTY):ADD A,D:LD (SIGY),A
LD A,B:LD (YSIZE),A
,*****
FIREBOLP LD IX,BULDAT:LD B,NOBUL
LD A,(IX+XPOS):OR A:JR Z,SIET
LD E,A:LD D,4
LD HL,(SIGX)
CALL HITA:JR C,SIET
LD A,(IX+YPOS):SUB (IX+HEIGHT):LD E,A:LD D,4
LD HL,(SIGY)
CALL HITA:JR C,SIET

PUSH BC
LD DE,(SIGHTX):LD A,E:ADD A,8:LD E,A
LD A,D:ADD A,8:LD D,A:CALL BAZOOKABIT
POP BC

LD (IX+XPOS),0
LD A,3:CALL ADDSCORE
CALL DECBADENG
SIET LD DE,BULLEN:ADD IX,DE:DJNZ FIREBOLP
,*****
COLTYP LD A,0:OR A:JP NZ,BIGCOLI
,*****
NOX LD IX,BUILDING:LD B,5
LD A,(IX+00):ADD A,A:ADD A,A:JR Z,NXT:LD E,A
LD A,(IX+02):ADD A,A:ADD A,A:DEC A:LD D,A
LD HL,(SIGX):CALL HITA:JR C,NXT
LD A,(IX+01):ADD A,A:ADD A,A:LD E,A
LD A,(IX+03):ADD A,A:ADD A,A:DEC A:LD D,A
LD HL,(SIGY):LD A,L:ADD A,8:LD L,A
LD A,H:SUB 8:LD H,A:CALL HITA:JR C,NXT:JP NOSAD
NXT LD DE,4:ADD IX,DE:DJNZ NOX
,*****
FIRECOLP LD IX,BADAT:LD A,(NOBAD):LD B,A
LD A,(IX+ACTION):OR A:JR Z,NBZ
CP 6:JR Z,NBZ
CP 9:JR Z,NBZ
PUSH BC
LD A,(IX+YPOS):SUB $40
RRA :RRA :RRA :AND 6
LD E,A:LD D,0:LD HL,SIZES:ADD HL,DE
LD A,(HL):EX AF,AF:INC HL
LD D,(HL):LD E,(IX+XPOS)
LD HL,(SIGX)
CALL HITA:JR C,SITE

EX AF,AF:LD D,A:LD E,(IX+YPOS)
LD HL,(SIGY)
CALL HITA:JR C,SITE

CALL SETDIE

CALL DECBADENG

LD E,(IX+XPOS):LD D,(IX+YPOS):CALL INITBONUS
SITE POP BC
NBZ LD DE,BADLEN:ADD IX,DE:DJNZ FIRECOLP
,*****
LD A,(TANKX):OR A:JR Z,NOTANK
LD E,A:LD D,$24
LD HL,(SIGX)
CALL HITA:JR C,NOTANK
LD A,(TANKY):LD E,A:LD D,$18
LD HL,(SIGY)
CALL HITA:JR C,NOTANK
LD A,1:LD (PRTTANK+1),A
LD A,4:CALL ADDSCORE
LD A,(DAMAGE):LD E,A
LD A,(TANKH):SUB E:LD (TANKH),A:JP P,NOTANK
LD A,(TANKX):ADD A,$10:LD E,A:LD D,$60:CALL BAZOOKABIT

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XOR A:LD      (TANKX),A  
LD    A,1:CALL DECBADENERGY  
  
NOTANK  
  
;*****  
  
LD    A,(TRUCKX):OR   A:JR     Z,NOTRUCK  
LD    E,A:LD D,$24  
LD    HL,(SIGX)  
CALL  HITA:JR C,NOTRUCK  
LD    A,(TRUCKY):LD E,A:LD D,$18  
LD    HL,(SIGY)  
CALL  HITA:JR C,NOTRUCK  
LD    A,1:LD (PRITRUCK+1),A  
LD    A,4:CALL ADDSCORE  
LD    A,(DAMAGE):LD E,A  
LD    A,(TRUCKH):SUB E:LD (TRUCKH),A:JP P,NOTRUCK  
LD    A,(TRUCKX):ADD A,$10:LD E,A  
LD    A,(TRUCKY):ADD A,$18:LD D,A:CALL BAZOOKABIT  
XOR   A:LD (TRUCKX),A  
LD    A,1:CALL DECBADENERGY  
  
NOTRUCK  
  
;*****  
  
LD    A,(HELI X):OR   A:JR     Z,NOHEL I  
LD    E,A:LD D,$24:LD HL,(SIGX):CALL HITA:JR C,NOHEL I  
LD    DE,(HELI Y):LD D,$18:LD HL,(SIGY)  
CALL  HITA:JR C,NOHEL I  
LD    A,5:CALL ADDSCORE  
LD    A,(DAMAGE):LD E,A  
LD    A,(HELI H):SUB E:LD (HELI H),A:JP P,NOHEL I  
LD    DE,(HELI X):LD A,E:ADD A,$10:LD E,A  
LD    A,D:ADD A,$20:LD D,A:CALL BAZOOKABIT  
XOR   A:LD (HELI X),A  
LD    A,1:CALL DECBADENERGY  
  
NOHEL I  
NOSAD  
  
;*****  
  
BUILDCOLISH  
  
LD    A,(SIGX):LD E,A:LD A,(SIGY):LD D,A  
SRL   D:SRL D:SRL D:SRL E:SRL E  
LD    A,D:OR 64:LD (SY+1),A:LD A,E:OR 64:LD (SX+1),A  
LD    A,(XSIZ E):DEC A:SRL A:SRL A:SRL A:LD (SX+2),A  
LD    A,(YSIZ E):DEC A:SRL A:SRL A:SRL A:LD (SY+2),A  
  
LD    IX,BUILDINGS:LD B,5  
  
BUILBLP  
  
LD    HL,BUILDUS:LD A,5:SUB B  
CALL  ADDHLA  
LD    A,(HL)  
OR    A:JR Z,NOBUILD  
  
LD    A,(IX+0):OR 64:LD E,A:LD D,(IX+2):DEC D  
LD    HL,$0000:CALL HITA:JR C,NOBUILD  
LD    A,(IX+1):OR 64:LD E,A:LD D,(IX+3):DEC D  
LD    HL,$0000:CALL HITA:JR C,NOBUILD  
SY    PUSH BC:LD A,5:SUB B:CALL CRUMBLE  
LD    A,6:CALL ADDSCORE  
POP   BC  
NOBUILD LD DE,$04:ADD IX,DE:DJNZ BUILBLP:RET  
  
;*****  
;** CRUMBLE BACKGROUND ROUTINES **  
;*****  
  
CRUMBLECHRS  
  
DB    %00000000  
DB    %01000000  
DB    %00010000  
DB    %00000100  
DB    %00000000  
DB    %00000010  
DB    %00000000  
DB    %00000000  
  
DB    %00000000  
DB    %00000000  
DB    %00000000  
DB    %00100000
```



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DB %00001010
DB %00000000
DB %00100000
DB %00000000

DB %00000000
DB %01000000
DB %00000000
DB %00100000
DB %00000000
DB %00001000
DB %00000000
DB %00001000

DB %00000000
DB %00000000
DB %00000100
DB %00000000
DB %00010000
DB %00100000
DB %00001000
DB %00000010

COPOUT ADD A,A:ADD A,A
LD E,A:LD D,0:LD HL,BUILDING:ADD HL,DE

LD E,(HL):INC HL:LD D,(HL):INC HL
LD B,(HL):INC HL:LD A,(HL)
ADD A,A:ADD A,A:ADD A,A:RET Z:LD C,A
LD A,D:AND $3F:ADD A,BAKSC/256:LD D,A
COPL PUSH HL:PUSH DE:PUSH BC
LD L,E:LD A,D:ADD A,$11:LD H,A
ZOPL LD A,(HL):LD (DE),A:INC E:INC L:DJNZ ZOPL
POP BC:POP DE:POP HL
LD A,E:ADD A,32:LD E,A:ADC A,D:SUB E:LD D,A
DEC C:JP NZ,COPL:RET

CRUMBLE LD (CRUM+1),A
LD E,A:LD D,0:LD HL,BUILD:ADD HL,DE
LD A,(HL):OR A:RET Z
LD A,(DAMAGE):LD E,A
LD A,(HL):SUB E:JR NC,OKSR:XOR A
OKSR AND $FC:LD (HL),A
LD A,E:CP 10:JR NC,DEFZ
LD A,(HL):AND $0F:RET NZ
DEFZ LD A,(HL):OR A:JP Z,VANISH

CALL DECBADENG

CRUM LD A,0:ADD A,A:ADD A,A:LD HL,BUILDINGS
CALL ADDHLA
LD E,(HL):INC HL:LD D,(HL):INC HL
LD A,D:OR E:RET Z
LD C,(HL):INC HL:LD B,(HL):INC HL

LD H,32
CRUMHLP PUSH HL:PUSH DE:PUSH BC

CALL RAND
LD A,(RND1):AND 15:CP C:JR NC,OV1:ADD A,E:LD E,A
LD A,(RND2):AND 15:CP B:JR NC,OV1:ADD A,D:LD D,A

LD A,(SECTION):LD H,A:ADD A,A:ADD A,A:ADD A,H:LD H,A
LD A,(CRUM+1):ADD A,H
LD HL,BUILDINGCOLS:ADD L:LD L,A:ADC H:SUB L:LD H,A
LD A,(HL):LD (COMPARE+1),A

LD A,D:RRCA:RRCA:RRCA:LD H,A
AND $E0:OR E:LD L,A:LD A,H:AND 3:OR 88:LD H,A
LD A,(HL):AND &077
COMPARE CP &007:JR NZ,OV1

CALL CHAD
LD HL,CRUMBLECHRS:LD A,(RND3):AND 3:ADD A,A:ADD A,A
ADD A,A
CALL ADDHLA
LD B,8
CRUMBLELOP LD A,(DE):OR (HL):XOR (HL):LD (DE),A:INC HL
LD A,E:ADD A,32:LD E,A:ADC A,D:SUB E:LD D,A
DJNZ CRUMBLELOP

OV1 POP BC:POP DE:POP HL:DEC H:JP NZ,CRUMHLP:RET

```

,*****

VANISH

CALL OLDCLS

LD HL,BUILDUS:LD A,(CRUM+1)

CALL ADDHLA

LD A,(HL):OR A:RET Z

LD IY,BINGS

LD HL,L1_1 ; BACKGROUND

LD A,(SECTION)

LD B,A:ADD A,A:LD C,A:ADD A,A:ADD A,B:ADD A,C:LD B,A

LD A,(CRUM+1):ADD A,B:LD B,A:JR Z,SKPAD

BLP

LD E,(IY+02):LD A,(IY+03):LD D,0:CALL MULT

LD DE,4:ADD IY,DE

DJNZ BLP

SKPAD

LD A,(LEVEL):DEC A:LD DE,\$300:CALL MULT

DI :LD A,\$3F:LD I,A

LD A,HIDEPAGE:CALL SELECTPAGE

LD DE,BACKGROUND:LD BC,8*9:LDIR

CALL SELECTPAGE0

LD A,\$FE:LD I,A

LD IY,BACKGROUND

LD A,(CRUM+1):ADD A,A:ADD A,A:LD HL,BUILDINGS

CALL ADDHLA

LD E,(HL):INC HL:LD D,(HL):INC HL:LD A,D:OR E:RET Z

LD B,(HL):INC HL:LD C,(HL)

LD L,E:SET 6,L:LD H,B:LD (CHKX+1),HL

LD L,D:SET 6,L:LD H,C:LD (CHKY+1),HL

LD H,CHRS1/256

LD L,ATRS1/256

LD A,(SECTION):CP 2:JR C,OKA

LD H,CHRS2/256

LD L,ATRS2/256

OKA

LD A,H:LD (CH1+1),A:LD (TOS+1),A

LD A,L:LD (AT1+1),A

PUSH BC:PUSH DE

VANCLP

PUSH BC:PUSH DE

VANBLP

CALL CHAD:LD A,D:CP BACKSCR/256:CALL C,TET

LD L,(IY+00)

CH1

LD H,CHRS1/256

LD B,8

VABLP

LD A,(HL):LD (DE),A:LD A,E:ADD A,32:LD E,A

ADC A,D:SUB E:LD D,A:INC H:DJNZ VABLP

POP DE:PUSH DE

LD A,D:RRCA :RRCA :RRCA :LD D,A:AND 224:OR E:LD E,A

LD A,D:AND 3:OR 88:LD D,A

AT1

LD L,(IY+00)

LD H,ATRS1/256

LD A,(HL):LD (DE),A

INC IY

POP DE:INC E:POP BC:DJNZ VANBLP

POP DE:INC D:POP BC:DEC C:JP NZ,VANCLP

POP DE:POP BC:SRL B

LD A,E:ADD A,B:ADD A,A:ADD A,A:ADD A,A:LD E,A

LD A,D:ADD A,C:ADD A,A:ADD A,A:ADD A,A:LD D,A

PUSH BC:PUSH DE:CALL BAZOOKABIT:POP DE:POP BC

LD A,E:SUB B:LD E,A

PUSH BC:PUSH DE:CALL BAZOOKABIT:POP DE:POP BC

LD A,E:ADD B:LD E,A:CALL BAZOOKABIT

LD DE,(SIGHTX):LD (SIGHTOX),DE

CALL COLSIG

LD A,(CRUM+1):CP 5:LD A,2:CALL C,DECBADENERGY


```

LD HL,BUILDUS:LD A,(CRUM+1):CALL ADDHLA:LD (HL),0
LD IX,BUILDING
LD B,5
CHKBLP LD A,(IX+00):OR A:JR Z,NOH
LD A,(IX+00):OR 64:LD E,A:LD D,(IX+02):DEC D
CHKX LD HL,$0000:DEC H:CALL HITA:JP C,NOH
LD A,(IX+01):OR 64:LD E,A:LD D,(IX+03):DEC D
CHKY LD HL,$0000:DEC H:CALL HITA:JP C,NOH
XOR A
LD (IX+00),A:LD (IX+01),A:LD (IX+02),A:LD (IX+03),A
NOH LD DE,4:ADD IX,DE:DJNZ CHKBLP
RET

```

```

TET LD (DD+1),DE:POP AF:POP DE:PUSH DE:PUSH AF
LD A,D:AND 7:RRCA :RRCA :RRCA :OR E:LD E,A
LD A,D:AND 24:OR 64:LD D,A
LD L,(IY+00)
TOS LD H,CHRS1/256
LD B,8
VABP LD A,(HL):LD (DE),A:INC D:INC H:DJNZ VABP
DD LD DE,0:RET
CHAD LD A,D:CP 7:JR C,01:CP 15:JR NC,01:ADD A,9+8
01 ADD A,BAKSC/256:LD D,A:RET

```

```

;*****
;** BACK GROUND PRINTING ROUTINES **
;*****

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```

HELIBACK LD DE,(HELIOX):LD A,E:OR A:RET Z
CALL DIXAD:PUSH HL:LD DE,(HELIOX):CALL TWATAD:POP DE
LD B,24/2
HELIBLP LD C,H:LDI :LDI :LDI :LDI :LDI :DEC E:INC D
LD A,L:ADD A,32-1:LD L,A:ADC A,H:SUB L:LD H,A
LDD :LDD :LDD :LDD :INC E:INC D
LD A,L:ADD A,32+1:LD L,A:ADC A,H:SUB L:LD H,A
LD A,D:AND 7:JR NZ,HELISK
LD A,E:ADD A,32:LD E,A:JR C,HELISK
LD A,D:SUB 8:LD D,A
HELISK DJNZ HELIBLP:RET

```

```

EXPBACK LD A,D:ADD A,8:LD D,A
LD A,E:OR A:RET Z
CALL DIXAD:PUSH HL:CALL DICAD:POP DE:LD BC,$10FF
JR BACKBLP

```

```

BONBACK LD A,E:OR A:RET Z
CALL DIXAD:PUSH HL:CALL DICAD:POP DE:LD BC,$08FF
JR BACKBLP

```

```

PRTBACK DI :LD A,E:OR A:RET Z
CALL DIXAD:PUSH HL:CALL DICAD:POP DE:LD BC,$14FF
BACKBLP LDI :LDI :LDI :LDI :DEC E:INC D
LD A,L:ADD A,32-1:LD L,A:ADC A,H:SUB L:LD H,A
LDD :LDD :LDD :INC E:INC D
LD A,L:ADD A,32+1:LD L,A:ADC A,H:SUB L:LD H,A
LD A,D:AND 7:JR NZ,BAKSKP
LD A,E:ADD A,32:LD E,A:JR C,BAKSKP
LD A,D:SUB 8:LD D,A
BAKSKP DJNZ BACKBLP:RET

```

```

PRTBACK3X2
PRTBACK2X2 CALL DIXAD:PUSH HL:CALL DICAD:POP DE:LD BC,$08FF
BACKBLP2X2 LDI :LDI :INC D:DEC E
LD A,L:ADD A,32-1:LD L,A:ADC A,H:SUB L:LD H,A
LDD :LDD :INC D:INC E
LD A,L:ADD A,32+1:LD L,A:ADC A,H:SUB L:LD H,A
LD A,D:AND 7:JR NZ,BAKSKP2X2
LD A,E:ADD A,32:LD E,A:JR C,BAKSKP2X2
LD A,D:SUB 8:LD D,A
BAKSKP2X2 DJNZ BACKBLP2X2:RET

```

```

;*****
;** PRINT SPRITE ROUTINES **
;*****

```

```

PRTHERO LD DE,(HEROOX):CALL PRTBACK
LD A,(HEROP)
SUB 5:JR NC,ERT
LD A,(HEROP)

```

ERT LD HL,HEROSPR:LD DE,320:CALL MULT
LD DE,(HEROX):LD (HEROOX),DE

PRHIM LD A,(FLASHHIM):DEC A:JP M,PRTSPR
LD (FLASHHIM),A
LD A,(POS):AND 1:JR NZ,PRTSPR
DBH 061010FE10FE10FEC9

PRTSPR PUSH HL:CALL PIXAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL:LD B,5*4
SPRBLP POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC H
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC L
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC H
LD A,H:AND 7:JR NZ,SKPRY
LD A,L:ADD A,32:LD L,A:JR C,SKPRY
LD A,H:SUB 8:LD H,A
SKPRY DJNZ SPRBLP
DB 49
SPSTR DW 0
RET

,*****

COLSOLD DB 0,0,0,0

OLDCOLS LD HL,(SIGHTOX):SRL H:SRL H:SRL H:SRL L:SRL L:SRL L
LD A,H:AND 7:RRCA :RRCA :RRCA :OR L:LD L,A
LD A,H:RRA :RRA :RRA :AND 3:OR 88:LD H,A
LD DE,COLSOLD
LD A,(DE):LD (HL),A:INC DE:INC L
LD A,(DE):LD (HL),A:INC DE
LD A,L:ADD A,31:LD L,A:ADC A,H:SUB L:LD H,A
LD A,(DE):LD (HL),A:INC DE:INC L
LD A,(DE):LD (HL),A:INC DE:RET

SIGCOL DB 56+64

COLSIGS DBH 0444054506460747
DBH 4707460645054404

COLSIG LD HL,(SIGHTX):SRL H:SRL H:SRL H:SRL L:SRL L:SRL L
LD A,H:AND 7:RRCA :RRCA :RRCA :OR L:LD L,A
LD A,H:RRA :RRA :RRA :AND 3:OR 88:LD H,A
LD DE,COLSOLD:LD A,(HL):LD (DE),A
LD A,(SIGCOL):LD (HL),A:INC DE:INC L
LD A,(HL):LD (DE),A:LD A,(SIGCOL):LD (HL),A
INC DE:LD A,L:ADD A,31:LD L,A:ADC A,H:SUB L:LD H,A
LD A,(HL):LD (DE),A:LD A,(SIGCOL):LD (HL),A
INC DE:INC L:LD A,(HL):LD (DE),A
LD A,(SIGCOL):LD (HL),A
LD A,(POS):RRA :AND 15:LD E,A:LD D,0
LD HL,COLSIGS:ADD HL,DE:LD A,(HL):LD (SIGCOL),A
RET

PRTSIGHT LD HL,SIGHTS:LD DE,(SIGHTX):LD (SIGHTOX),DE
PUSH HL:CALL PIXAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL:LD B,2*4
SIGBLP POP DE:LD (HL),E:INC L:LD (HL),D:INC H
POP DE:LD (HL),E:DEC L:LD (HL),D:INC H
LD A,H:AND 7:JR NZ,SLZ
LD A,L:ADD A,32:LD L,A:JR C,SLZ
LD A,H:SUB 8:LD H,A
SLZ DJNZ SIGBLP:LD SP,(SPSTR):RET

,*****

PRTBAD0 LD HL,PRT2X2:LD C,0:JR BAD1LOP
PRTBAD1 LD HL,PRT2X2:LD C,1:JR BAD1LOP
PRTBAD2 LD HL,PRT3X3:LD C,2:JR BAD1LOP

BAD1LOP LD (BADJUMP+1),HL
LD IX,BADDAT:LD A,(NOBAD):LD B,A
BAD1LP PUSH BC:LD A,(IX+TYPE):CP C:JR NZ,BAD1SKP

```

LD A,(IX+ACTION):CP 7:JR Z,SRS
CP 8:JR Z,SRS:CP 9:JR NZ,ERX
SRS LD HL,(PRTBADADD+1):PUSH HL:LD HL,FROGSPR
LD A,(IX+OFFSET):OR A:JR Z,ER:LD HL,LEGSPR
ER LD (PRTBADADD+1),HL
LD E,(IX+XPOS):LD D,(IX+YPOS)
XOR A:CALL PRT2X2
POP HL:LD (PRTBADADD+1),HL
JP BAD1SKP

ERX LD E,(IX+XPOS):LD D,(IX+YPOS):LD A,(IX+PHASE)
BADJUMP CALL PRT2X2
BAD1SKP POP BC:LD DE,BADLEN:ADD IX,DE:DJNZ BAD1LP:RET

,*****

PRT2X2 PUSH DE:ADD A,A:ADD A,A:LD L,A:LD A,E:RRA :AND 3
ADD A,L
PRTBADADD LD HL,BADSPR2X2:LD DE,$60:CALL MULT:POP DE
LD A,E:CP $F8:RET NC

LD B,2*4
LD A,(IX+ACTION)
CP 7:JR Z,GD2
CP 9:JR NZ,POK2

GD2 LD A,(IX+COUNT):ADD A,A:ADD A,D:LD D,A
LD A,(IX+COUNT):XOR 7:INC A:LD B,A
POK2 PUSH HL:CALL TWATAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL
BAD1BLP POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A
LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A
LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
DJNZ BAD1BLP:LD SP,(SPSTR):RET

,*****

PRT3X3 PUSH DE:ADD A,A:ADD A,A:LD L,A
LD A,(IX+ACTION)
CP 10:JR Z,PIL
CP 2:JR Z,PIL
CP 4:JR Z,PIL
CP 1:JR NZ,POK
PIL LD A,(IX+OFFSET):OR A:JR Z,POK
AND 3:ADD A,L:JR RTG
POK LD A,E:RRA :AND 3:ADD A,L
RTG LD HL,BADSPR3X3:LD DE,$C0:CALL MULT:POP DE
LD A,E:CP $F0:RET NC

LD B,3*4
LD A,(IX+ACTION)
CP 9:JR Z,GD3
CP 7:JR NZ,POK3

GD3 LD A,(IX+COUNT):ADD A,A:ADD A,D:LD D,A
LD A,(IX+COUNT):XOR 7:INC A:ADD A,4:LD B,A

POK3 PUSH HL:CALL TWATAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL
BAD2BLP POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC HL;HL'S
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:INC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A
LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A:DEC HL
POP DE:LD A,(HL):AND E:OR D:LD (HL),A
LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
DJNZ BAD2BLP:LD SP,(SPSTR):RET

,*****

DEADHELI CALL RAND
LD A,(POS):AND $3F:RET NZ
LD A,(RND2):AND $1F:CP $10:RET C

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LD A,(NOMOREBAD+1):OR A:RET NZ

LD A,(INITBYTE):AND ANDHELI:RET NZ

LD A,(HEROX):AND $F8:SUB 8:JR C,EFJO
CP $10:JR NC,NMO
EFJO
NMO LD A,$10
LD (HELIX),A
LD A,$D8:LD (HELIY),A
LD A,8:LD (HELIH),A
LD A,2:LD (OKD+1),A
RET

SDED XOR A:LD (HELIX),A:RET

PRTHELI LD DE,(HELIX):LD (HELIOX),DE
LD A,(HELIX):OR A:JR Z,DEADHELI

HELIINTRO LD A,(HELIY):CP $D8:JR NC,OKD
CP 24:JR Z,GOWE
OKD ADD A,2:LD (HELIY),A:CP $D8:JR Z,SDED
CP 24:JR NZ,HS

XOR A:LD (GOWE+1),A

GOWE LD A,0:INC A:AND 15:LD (GOWE+1),A:JR NZ,SKPW
LD A,(HELIY):SUB 2:LD (HELIY),A:LD A,0-2:LD (OKD+1),A
JR HS

SKPW ADD A,A:ADD A,A:ADD A,$6C:LD D,A
LD A,(HELIX):ADD A,$08:LD E,A
LD A,(POS):AND 1:JR Z,ER1
LD A,E:ADD A,$20:LD E,A

ER1 LD A,1:LD (GOBAZ+1),A

LD A,D:CP $A0:JR C,SKPWE
PUSH DE:LD A,E:SUB $10:LD E,A:LD D,$10
LD HL,(HEROX):LD H,$10:CALL HITA:POP DE:JR C,SKPWE

LD A,(FLASHHIM):OR A:JR NZ,SKPWE
LD A,(DECODE+1):OR A:JR NZ,SKPWE
XOR A:LD (DEADMODE+1),A:INC A:LD (DECODE+1),A
PUSH DE:CALL HS:POP DE
SKPWE LD A,0:OR A:CALL NZ,BAZOOKABIT
GOBAZ XOR A:LD (GOBAZ+1),A:RET

HS LD A,0:XOR 1:LD (HS+1),A
LD DE,120:LD HL,HELI:CALL MULT

LD DE,(HELIX):LD (HELIOX),DE
PUSH HL:CALL DIXAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL:LD B,3*4
H0 POP DE:LD A,(HL):XOR E:LD (HL),A:INC L
LD A,(HL):XOR D:LD (HL),A:INC L
POP DE:LD A,(HL):XOR E:LD (HL),A:INC L
LD A,(HL):XOR D:LD (HL),A:INC L
POP DE:LD A,(HL):XOR E:LD (HL),A:INC H
LD A,(HL):XOR D:LD (HL),A:DEC L
POP DE:LD A,(HL):XOR E:LD (HL),A:DEC L
LD A,(HL):XOR D:LD (HL),A:DEC L
POP DE:LD A,(HL):XOR E:LD (HL),A:DEC L
LD A,(HL):XOR D:LD (HL),A:INC H
LD A,H:AND 7:JR NZ,SH
LD A,L:ADD A,32:LD L,A:JR C,SH
LD A,H:SUB 8:LD H,A
SH DJNZ H0:LD SP,(SPSTR)
RET

;*****
;
TRX EQU $60

DEADTRUCK CALL RAND
LD A,(POS):AND 127:RET NZ
LD A,(RND2):AND $1F:CP $10:RET C
LD A,(NOMOREBAD+1):OR A:RET NZ

LD A,(INITBYTE):AND ANDTRUCK:RET NZ

LD A,$38:LD (TRUCKY),A
LD A,$E8:LD (TRUCKX),A:LD A,16:LD (TRUCKH),A:JR PT3

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PRTTRUCK    LD  A,0:OR  A:JR  Z,PT3
             XOR  A:LD  (PRTTRUCK+1),A
             XOR  A:CALL  SMODTANK:CALL  PT3
             DB   62
             OR   D:JP   SMODTANK
PT3          LD  A,(TRUCKX):OR  A:JR  Z,DEADTRUCK
             CP   TRX:JR  NZ,NOT70
TRUCKC       LD  A,0:DEC  A:LD  (TRUCKC+1),A
             JP   M,NOT70
             CALL INITBAD:JP  NOT80
NOT70        LD  A,64:LD  (TRUCKC+1),A
             LD  A,(TRUCKX):SUB  4:LD  (TRUCKX),A
NOT80        LD  A,(TRUCKX):AND  4:LD  DE,240/4:LD  HL,TRUCK:CALL  MULT
             LD  DE,(TRUCKX):JP  OKT

,*****
TX           EQU  $90

DEADTANK     CALL  RAND
             LD  A,(POS):AND  127:RET  NZ
             LD  A,(RND2):AND  $1F:CP  $10:RET  C
             LD  A,(NOMOREBAD+1):OR  A:RET  NZ

             LD  A,(INITBYTE):AND  ANDTANK:RET  NZ

             LD  A,$48:LD  (TANKY),A
             LD  A,4:LD  (TANKX),A:LD  A,8:LD  (TANKH),A
             JR   PT2
PRTTANK      LD  A,0:OR  A:JR  Z,PT2
             XOR  A:LD  (PRTTANK+1),A
             XOR  A:CALL  SMODTANK:CALL  PT2
             DB   62
             OR   D
SMODTANK     LD  (T0+3),A:LD  (T1+3),A:LD  (T2+3),A:LD  (T3+3),A
             LD  (T4+3),A:LD  (T5+3),A:LD  (T6+3),A:LD  (T7+3),A
             LD  (T8+3),A:LD  (T9+3),A:RET

PT2          LD  HL,TANKX:LD  A,(HL):OR  A:JR  Z,DEADTANK
             LD  E,0
             CP   TX:JR  C,NEXTTANK
             CP   TX+12:JR  NC,NEXTTANK

             CP   TX+7:JR  C,TANKTO

             LD  A,(HL):AND  3:ADD  A,TX:LD  (HL),A
             LD  E,2:CALL  OKTANK
             LD  HL,TANKX:LD  A,(HL):OR  8:LD  (HL),A

             LD  A,(POS):AND  3:RET  NZ
             INC  (HL):RET

TANKTO       LD  A,(POS):AND  1:JR  NZ,TKS
             INC  (HL)
             LD  A,(HL):AND  7:CP  6:JR  NZ,TKS
             PUSH HL

             LD  E,(HL):LD  D,$4C:LD  BC,$140C
             LD  A,0:CALL  INITBUL

             CALL  GUNFIRE
             POP  HL
TKS          LD  E,2:JR  OKTANK

NEXTTANK     ADD  A,4:LD  (HL),A
             SUB  $F0:JR  NZ,OKTANK:LD  (HL),A:RET

OKTANK       LD  A,(HL)
             AND  4:RRA  :RRA  :ADD  A,E:LD  HL,TANK:LD  DE,240:CALL  MULT
             LD  DE,(TANKX):LD  D,$48
             LD  A,E:CP  $F0:RET  NC
             CP   TX+12:JR  C,OKT
             SUB  8:LD  E,A
OKT          PUSH HL:CALL  TWATAD:EX  DE,HL:POP  HL
             LD  (SPSTR),SP:LD  SP,HL:EX  DE,HL:LD  B,3*4
T0           POP  DE:LD  A,(HL):AND  E:OR  D:LD  (HL),A:INC  HL;HL'S
T1           POP  DE:LD  A,(HL):AND  E:OR  D:LD  (HL),A:INC  HL
T2           POP  DE:LD  A,(HL):AND  E:OR  D:LD  (HL),A:INC  HL
T3           POP  DE:LD  A,(HL):AND  E:OR  D:LD  (HL),A:INC  HL
T4           POP  DE:LD  A,(HL):AND  E:OR  D:LD  (HL),A
             LD  A,L:ADD  A,32:LD  L,A:ADC  A,H:SUB  L:LD  H,A

```

```

T5      POP DE:LD  A,(HL):AND E:OR D:LD (HL),A:DEC HL;HL'S
T6      POP DE:LD  A,(HL):AND E:OR D:LD (HL),A:DEC HL
T7      POP DE:LD  A,(HL):AND E:OR D:LD (HL),A:DEC HL
T8      POP DE:LD  A,(HL):AND E:OR D:LD (HL),A:DEC HL
T9      POP DE:LD  A,(HL):AND E:OR D:LD (HL),A
        LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
        DJNZ T0:LD SP,(SPSTR):RET

```

;*****

RESETBAD

```
XOR A:LD (NOMOREBAD+1),A
```

```

        LD IX,BADDAT:LD B,NOBADS:LD DE,BADLEN
RBADL   CALL SETDEAD
        ADD IX,DE:DJNZ RBADL

```

```

        LD IX,BULDAT:LD B,NOBUL:LD DE,BULLEN
RBULL   LD (IX+XPOS),0:LD (IX+YPOS),$E0:LD (IX+HEIGHT),$E0
        ADD IX,DE:DJNZ RBULL

```

```

        LD HL,BULSP:LD DE,BULSP+1:LD BC,BOMBNUM*BOMBLEN-1
        LD (HL),OFF:LDIR

```

```

XOR A:LD (HELIX),A:LD (HELIOX),A
        LD (TRUCKX),A:LD (TANKX),A
        LD (BONX),A:LD (BONOX),A
        LD (ENEMY),A
        LD (EXP10X),A:LD (EXP20X),A:LD (EXP30X),A
        LD (EXP1X),A:LD (EXP2X),A:LD (EXP3X),A
        DEC A:LD (EXP1P),A:LD (EXP2P),A:LD (EXP3P),A
        RET

```

MOVEBAD

```
XOR A:LD (ALREADYINIT+1),A
```

GOMOVBAD

```

        LD IX,BADDAT:LD A,(NOBAD):LD B,A
MB2LP   PUSH BC:CALL RAND
        LD A,(IX+ACTION):ADD A,A:LD E,A:LD D,0
        LD HL,ACTIONTAB:ADD HL,DE:LD E,(HL):INC HL:LD D,(HL)
        LD (CALLER+1),DE
CALLER   CALL $0000
        LD A,(IX+XPOS):OR A:CALL Z,SETDEAD
        LD DE,BADLEN:ADD IX,DE
        POP BC:DJNZ MB2LP
        RET

```

ACTIONTAB

```

DW DEAD          ; 00
DW WALK           ; 01
DW TURNTO        ; 02
DW FIREBUL       ; 03
DW TURNBACK      ; 04
DW THROW         ; 05
DW DIE           ; 06
DW CLIMBUP       ; 07
DW FROGFIRE      ; 08
DW FROGDOWN      ; 09
DW WALKRIGHT     ; 10

```

HEIGHTS

```
DB $40,$50,$60,$60
```

TYPES

```
DB $00,$01,$02,$02
```

INITBAD

INBLP

```

        LD IX,BADDAT:LD A,(NOBAD):LD B,A
        LD A,(IX+ACTION):OR A:JR NZ,SKPE
        CALL RAND
        LD (IX+XPOS),$80:LD (IX+YPOS),$40:LD (IX+TYPE),0
        LD A,(RND1):AND 1:LD (IX+PHASE),A
        INC A:CP 1:JR Z,SPS:LD A,10

```

SPS

SKPE

```

        LD (IX+ACTION),A
        LD DE,BADLEN:ADD IX,DE:DJNZ INBLP:RET

```

DEAD

ALREADYINIT

```

        LD (IX+XPOS),$FF
        LD A,0:OR A:RET NZ

```

```

        LD A,(POS):AND 3:RET NZ
        LD A,(RND1):AND $3F
        CP $20:RET C

```

MAXDIF

```
INC A:LD (ALREADYINIT+1),A
```

NOMOREBAD

```
LD A,0:OR A:RET NZ
```


	LD A,(RND2):AND 3:LD E,A:LD D,0:LD HL,HEIGHTS
	ADD HL,DE:LD A,(HL):LD (IX+YPOS),A
	LD E,4:ADD HL,DE:LD A,(HL):LD (IX+TYPE),A
	CP 2:JR Z,INITFROG
CROG	LD A,R:BIT 0,A:JR Z,INITWRIGHT
INITWLEFT	LD (IX+XPOS),\$F8:LD (IX+ACTION),1:LD (IX+PHASE),0
TRYNOTON	LD A,(IX+TYPE):CP 2:RET NC
	ADD A,A:INC A:SUB (IX+PHASE):LD HL,INITTYPES:CALL ADDHLA
	LD A,(INITBYTE):AND (HL):RET Z:JP SETDEAD
INITWRIGHT	LD (IX+XPOS),\$04:LD (IX+ACTION),10:LD (IX+PHASE),1
	JR TRYNOTON
INITTYPES	DB ANDBAD1LT,ANDBAD1RT
	DB ANDBAD2LT,ANDBAD2RT
INITFROG	LD A,(INITBYTE):AND ANDFROG:JP Z,CROG
	LD A,(IX+YPOS):CP \$60:JP NZ,SETDEAD
	DEC (IX+TYPE):LD A,(RND3):AND \$F8:LD (IX+XPOS),A
	LD (IX+PHASE),2:LD (IX+OFFSET),0
	LD (IX+ACTION),7:LD (IX+COUNT),7
	LD A,(RND2):AND \$06:ADD A,\$60:LD (IX+YPOS),A
	RET
CLIMBUP	DEC (IX+COUNT):RET NZ
	LD A,(RND3):AND 0:JR Z,NDOW
	LD A,(RND1):AND 1:JR Z,WR
WL	LD (IX+ACTION),1:LD (IX+PHASE),0:RET
WR	LD (IX+ACTION),10:LD (IX+PHASE),1:RET
NDOW	INC (IX+ACTION):LD (IX+COUNT),16:RET
FROGFIRE	DEC (IX+COUNT):RET P
	LD E,(IX+XPOS):LD D,(IX+YPOS):LD BC,\$1404
	LD A,0:CALL INITBUL
	INC (IX+ACTION):LD (IX+COUNT),0:RET
FROGDOWN	INC (IX+COUNT):LD A,(IX+COUNT):AND 7:RET NZ
	JP SETDEAD
WALKRIGHT	CALL TESTDIE
	LD A,(IX+XPOS):CP \$A0:LD E,1:CALL NC,TESTSIDES
	LD A,(IX+YPOS):AND \$20:RLCA:RLCA:RLCA:ADD A,2
	ADD A,(IX+XPOS):AND \$FE:LD (IX+XPOS),A
	RRA:RRA:AND 3:OR \$FC:LD (IX+OFFSET),A
	CALL TRYFIRE:JP NZ,SKIPSUMFIN
	LD A,(IX+XPOS):OR 7:LD (IX+XPOS),A
	LD (IX+ACTION),2
	JR SKIPSUMFIN
TRYFIRE	LD A,(IX+XPOS):AND 7:RET NZ
	LD HL,FIRESUMS-1:LD A,(LEVEL):CALL ADDHLA
	LD A,(RND1):AND (HL):RET
FIRESUMS	DB 15,7,3,1,1
TESTDIE	LD A,(IX+XPOS):CP 4:JP C,STDED
	CP \$FC:RET C
STDED	JP SETDEAD
TESTSIDES	LD A,(IX+TYPE):CP 2:RET NC
	ADD A,A:ADD A,E:LD HL,INITTYPES:CALL ADDHLA
	LD A,(INITBYTE):AND (HL):RET Z
	POP BC:LD A,E:JP TESTACLE
WALK	CALL TESTDIE
	LD A,(IX+XPOS):CP \$60:LD E,0:CALL C,TESTSIDES
	LD A,(IX+YPOS):AND \$20:RLCA:RLCA:RLCA:ADD A,2:NEG
	ADD A,(IX+XPOS):AND \$FE:LD (IX+XPOS),A
	RRA:RRA:AND 3:OR \$FC:LD (IX+OFFSET),A
ERZ	CALL TRYFIRE:JR NZ,SKIPSUMFIN
	DEC (IX+XPOS):INC (IX+ACTION)
SKIPSUMFIN	LD A,(IX+XPOS):OR A:RET NZ
SETDEAD	LD (IX+ACTION),0:LD (IX+XPOS),\$FF:RET
TURNTO	CALL TESTDIE
	DEC (IX+XPOS)

	LD	A,(IX+XPOS):RRA	:RRA :AND 3:OR \$FC:	LD (IX+OFFSET),A
	LD	A,(IX+XPOS):AND 7:	RET NZ	
SETFIRE				
	LD	A,(IX+TYPE):CP	2:JR NC,OIKF	
	INC	(IX+ACTION)		
	LD	A,(IX+XPOS):CP	\$40:JR C,KRC:CP \$C0:JR NC,KRC	
	DEC	(IX+ACTION)		
OIKF				
	LD	(IX+COUNTER),6:	LD (IX+PHASE),2	
	INC	(IX+ACTION):LD A,	(RND1):AND 2:LD E,A	
	ADD	A,(IX+ACTION):LD	(IX+ACTION),A	
	CP	5:JR NZ,NOTGR		
	LD	A,(LEVEL):CP	1:JR NZ,NOTGR	
	LD	A,(SECTION):CP	3-1:JR NC,NOTGR	
	LD	(IX+ACTION),3:	LD E,0	
NOTGR				
	LD	A,(IX+XPOS):AND \$F8:	ADD A,E:LD (IX+XPOS),A:	RET
FIREBUL				
	DEC	(IX+COUNTER):RET P		
	LD	E,(IX+XPOS):LD D,	(IX+YPOS):LD BC,\$1408	
	LD	A,0:	CALL INITBUL	
KRC				
	DEC	(IX+XPOS):INC (IX+ACTION):LD	(IX+PHASE),0	
	RET			
TURNBACK				
	CALL	TESTDIE		
	DEC	(IX+XPOS)		
SETS				
D	LD	A,(IX+XPOS):RRA	:RRA :AND 3:OR \$FC:	LD (IX+OFFSET),A
	LD	A,(IX+XPOS):AND 7:	RET NZ	
	LD	A,(RND2)		
TESTACLE				
	LD	C,0:AND 1:JR NZ,ERAZ		
	LD	A,10:	INC C	
ERAZ				
	LD	(IX+ACTION),A:	LD (IX+PHASE),C	
	RET			
TROW				
	INC	(IX+XPOS)		
	LD	A,(IX+XPOS):AND 7:	RET NZ	
	LD	E,(IX+XPOS):LD D,	(IX+YPOS):LD BC,\$00F8	
	LD	A,(IX+YPOS):SRL A:SRL	A:SRL A:SRL A:SRL A:SUB 2	
	CALL	INITBUL		
	DEC	(IX+XPOS):LD (IX+ACTION),1:	LD (IX+PHASE),0:	RET
SETDIE				
	LD	A,(IX+ACTION):CP	6:RET Z:CP 9:JR NZ,OKDIE	
	LD	A,(IX+OFSETE):OR A:	RET NZ	
OKDIE				
	LD	A,(IX+XPOS):AND \$F8:	LD (IX+XPOS),A	
	LD	A,(IX+ACTION):CP	6:RET Z	
	LD	(IX+PHASE),3:	LD (IX+COUNTE),7:LD (IX+OFSETE),0	
	LD	E,6:CP 7:JR C,FROGDIE		
	CP	9+1:JR NC,FROGDIE:	LD E,9	
	LD	(IX+OFSETE),1:	LD (IX+PHASE),2:LD (IX+COUNTE),0	
FROGDIE				
	LD	(IX+ACTIONS),E		
	LD	A,(IX+YPOSE):SRL A:SRL	A:SRL A:SRL A:SRL A:SUBL 4:LD E,A	
	LD	A,2:SUBL E:JP ADDSCORE		
DIE				
	DEC	(IX+CUNTE):JP M,SETDEAD		
	LD	E,(IX+CUNTE):LD D,0:	LD HL,DIES:ADD HL,DE	
	LD	A,(IX+YPOSE):ADD A,(HL):LD	(IX+YPOSE),A	
	LD	A,(IX+CUNTE):RRA	:CPL :AND 2:LD E,A	
	LD	A,(IX+XPOSE):AND \$F8:	OR E:LD (IX+XPOSE),A:	RET
DIES				
	DB	4,2,1,0,-1,-2,-4		
	,*****			
COPYBACK				
	LD	HL,BACKSCR:LD DE,BAKSCS:	LD BC,\$800:LDIR :	RET
DUMPBACK				
	DI	:	LD HL,BAKSCS+1:LD DE,\$40E1:CALL PLINE	
	LD	DE,\$4801:CALL PLINE:	LD DE,\$4821:CALL PLINE	
	LD	DE,\$4841:CALL PLINE:	LD DE,\$4861:CALL PLINE	
	LD	DE,\$4881:CALL PLINE:	LD DE,\$48A1:CALL PLINE	
	LD	DE,\$48C1		
PLINE				
PLIN1				
	LDI	:	LDI :LDI :LDI :LDI :LDI :LDI :LDI	
	LDI	:	LDI :LDI :LDI :LDI :LDI :LDI :LDI	
	LDI	:	LDI :LDI :LDI :LDI :LDI :LDI :LDI	
	LDI	:	LDI :LDI :LDI :LDI :LJNC HL:LJC L	
	LD	BC,\$100-\$1E:EX DE,HL:	ADD HL,BC:EX DE,HL	
	DEC	A:JP NZ,PLIN1:RET		


```

;*****
;
; ** MISC ROUTINES **
;*****
;

DELAYBC    DEC BC:LD  A,B:OR  C:JP  NZ,DELAYBC:RET

HITA       LD  A,H          ;L=X
           ADD A,L          ;H=XLEN
           CP   E           ;E=X1
           RET  C           ;D=X1LEN
           LD  A,D          ;NC=HIT
           ADD A,E
           CP   L
           RET

RAND       PUSH HL:PUSH BC:LD  HL,RND1:LD  C,(HL):INC HL:LD  A,(HL)
           SRL C:SRL C:SRL C:XOR C:INC HL:RRA
           RL (HL):DEC HL:RL (HL):DEC HL:RL (HL):POP BC:POP HL
           RET

RND1       DB  128
RND2       DB  255
RND3       DB  63

ADHHLA     ADD A,L:LD  L,A:ADC A,H:SUB L:LD  H,A:RET

MULT        OR  A:RET Z:RRA :JR  NC,MULT1:ADD HL,DE
MULT1      EX  DE,HL:ADD HL,HL:EX  DE,HL:JP  MULT

TWATAD     LD  A,D:ADD A,64:LD  D,A
           LD  A,E:SRL A:SRL A:SRL A:LD  L,A:LD  H,D
           XOR A:RR H:RRA :RR H:RRA :RR H:RRA :OR  L:LD  L,A
           LD  A,H:ADD A,BAKSC/256:SUB 8:LD  H,A:RET

DICAD      PUSH DE:SRL E:SRL E:SRL E
           LD  HL,BAKSC-$800:LD  A,D:ADD A,64:LD  D,0
           ADD HL,DE:LD  E,32:CALL MULT:POP DE:RET

DIXAD      RES 0,D
PIXAD      LD  A,D:ADD A,64:OR  A:RRA :SCF :RRA :OR  A:RRA
           XOR D:AND $F8:XOR D:SUB 8:LD  H,A
           LD  A,E:RLCA :RLCA :RLCA :XOR D:AND $C7:XOR D
           RLCA :RLCA :LD  L,A:RET

PIXDN      INC H:LD  A,H:AND 7:RET NZ
           LD  A,L:ADD A,32:LD  L,A:RET C
           LD  A,H:SUB 8:LD  H,A:RET

PIXDNDE    INC D:LD  A,D:AND 7:RET NZ
           LD  A,E:ADD A,32:LD  E,A:RET C
           LD  A,D:SUB 8:LD  D,A:RET

CHRAD      LD  A,D:AND 7:RRCA :RRCA :RRCA :OR  E:LD  E,A
           LD  A,D:AND 24:OR  64:LD  D,A:RET

;*****
;
; ** INTERRUPT ROUTINES **
;*****
;

INTER      DI  :LD  HL,INTPAGE:LD  DE,INTPAGE+1:LD  BC,$100
           LD  (HL),$FF:LDIR
           LD  HL,INTRUP:LD  DE,$FFF4:LD  BC,12:LDIR
           LD  A,INTPAGE/256:LD  I,A:IM 2 :EI  :RET

INTRUP     JP  INTS:DB  "BAGOOIE",24

INTS       DI  :PUSH AF:LD  A,$FF:LD  R,A:POP AF:EI  :RETI

;*****
;
; ** PRINT ROUTINES **
;*****
;

UDGS
HEARTCHR   DB  %11111111
           DB  %10010011
           DB  %01100001
           DB  %01000001
           DB  %10000011
           DB  %11000111
           DB  %11101111
           DB  %11111111

```

ENERGYCHR	DBH 0066666666666600
FULLCHR	DBH FFFFFFFFFFFFFFFF
HIGHHEART	DB %00000000 DB %01101100 DB %10011110 DB %10111110 DB %01111100 DB %00111000 DB %00010000 DB %00000000
BAG1	DB %11000000 DB %10100010 DB %10100101 DB %11100101 DB %10010111 DB %10010101 DB %11100101 DB %00000000
BAG2	DB %00000000 DB %00100000 DB %01010000 DB %01000000 DB %01110000 DB %01010000 DB %00110000 DB %00010000
NAMECHR	DBH 002060FFFF602000 DBH 00F0F81C0C3F1E0C
BOXCHR	DBH 0000000000000302 DBH 000000000000FF00 DBH 000000000000E020 DBH 02020202020202 DBH 2020202020202020 DBH 0203000000000000 DBH 00FF000000000000 DBH 20E0000000000000
CURVECHR	DBH FFFCF0E0C0C08080 DBH FF3F0F0703030101 DBH 8080C0C0E0F0FCFF DBH 01010303070F3FFF
LEVELCHR	DBH F0F0F0F0F0F0F0F0 DBH FFFFFFFFF0F0F0F0 DBH FEFEFEFE00000000 DBH 1E1E1E1E1E1E1E1E DBH F0F0F0FFFFFFFFFF DBH 00000000FEFEFEFE DBH F87C3E1F0F070301 DBH 3E7CF8F0E0C08000 DBH 00000000F0F0F0F0 DBH 00000000FFFFFFFF DBH FFFFFFFF00000000 DBH FEFEFEFE1E1E1E1E DBH 1E1E1E1EFEFEFEFE DBH F0F0F0FEFEFEFE
SPRINT	POP HL:CALL PRINT:JP (HL)
PRINT	LD A,(HL):INC HL CP PREOF:RET Z CP 32:JP C,PRTCODES CALL PRTCELL:JP PRINT
PRTUDG	LD L,A:LD H,0:ADD HL,HL:ADD HL,HL:ADD HL,HL LD BC,UDGS:ADD HL,BC:LD (UDGHL+1),HL POP BC:POP DE:POP HL:LD BC,(FONT):PUSH BC LD BC,UDGRET:PUSH BC:PUSH HL:PUSH DE:PUSH BC LD BC,0:LD (FONT),BC
UDGHL	LD HL,\$0000:JR PRTCHR
UDGRET	POP BC:LD (FONT),BC:RET
PRTCELL	PUSH HL:PUSH DE:PUSH BC XOR 128:JP P,PRTUDG

```

PRTCHR      LD  L,A:LD  H,7:ADD HL,HL:ADD HL,HL:ADD HL,HL
             LD  A,D:AND 7:RRCA :RRCA :RRCA :OR  E:LD  E,A
             LD  A,D:AND 24:OR  64:LD  D,A:PUSH DE
             LD  B,8
CHRBLP      LD  A,(HL)
FONT         RRCA :OR  (HL):LD  (DE),A
SIZE        NOP :NOP
             INC D:LD  A,D:AND 7:JR  NZ,PSKP
             LD  A,E:ADD A,32:LD  E,A:JR  C,PSKP
             LD  A,D:SUB 8:LD  D,A
PSKP        INC HL:DJNZ CHRBLP
             POP DE
             LD  A,D:RRA :RRA :RRA :AND 3:OR  88:LD  D,A
             DB  62
ATTR        DB  2+64
             OR  A:JP  M,NOMORE+1
             JR  NOMORE
FROM        LD  (DE),A
             LD  A,E:ADD A,32:LD  E,A:ADC A,D:SUB E:LD  D,A
             LD  A,(ATTR)
NOMORE      LD  (DE),A:POP BC:POP DE:POP HL
             INC E:LD  A,E:CP 32:RET C
DOWNLINE    LD  E,0:INC D:LD  A,D:CP 24:RET C:LD  D,0:RET

PRTCODES    CP  PRDLLL:JP  Z,PRTDLLL
             CP  PRLEFT:JP  Z,PRTLEFT
             CP  PRRIGHT:JP  Z,PRTRIGHT
             CP  PRUP:JP  Z,PRTUP
             CP  PRDOWN:JP  Z,PRTDOWN
             CP  PRAT:JP  Z,PRTAT
             CP  PRMULTY:JP  Z,PRTMULTY
             CP  PRENT:JP  Z,PRTENT
             CP  PRINK:JP  Z,PRTINK
             CP  PRCLS:JP  Z,PRTCLS
             CP  PRFONT:JP  Z,PRTFONT
             CP  PRSIZE:JP  Z,PRTSIZE
             JP  PRINT

PRTSIZE     LD  A,(HL):INC HL:LD  BC,0:OR  A:LD  A,NOMORE-FROM
             JR  Z,SETSIZE:XOR A:DB 1
             INC D:LD  (DE),A
SETSIZE     LD  (SIZE),BC:LD  (FROM-1),A:JP  PRINT

PRTMULTY    LD  B,(HL):INC HL:LD  C,(HL):INC HL
             LD  A,B:OR  A:JP  Z,PRINT
PRTM1       PUSH BC:LD  A,C:CALL PRTCELL:POP BC:DJNZ PRTM1:JP  PRINT

PRTLEFT     LD  A,E:DEC A:AND 31:LD  E,A:JP  PRINT
PRTRIGHT    LD  A,E:INC A:AND 31:LD  E,A:JP  PRINT
PRTUP       DEC D:JP  P,PRINT:LD  D,23:JP  PRINT
PRTDLLL     LD  A,E:SUB 3:AND 31:LD  E,A
PRTDOWN     INC D:LD  A,D:CP 24:JP  C,PRINT:LD  D,0:JP  PRINT

PRTFONT     LD  A,(HL):INC HL:LD  BC,0:OR  A:JR  Z,SETFONT:DB 1
             RRCA :OR  (HL)
SETFONT     LD  (FONT),BC:JP  PRINT

PRTCLS      PUSH HL:CALL CLS:POP HL:JP  PRINT

PRTAT       LD  E,(HL):INC HL:LD  D,(HL):INC HL:JP  PRINT

PRTENT      CALL DOWNLINE:JP  PRINT

PRTINK      LD  A,(HL):INC HL:LD  (ATTR),A:JP  PRINT

CLS         LD  HL,$5800:LD  DE,$5801:LD  BC,$02FF
             LD  A,(ATTR):LD  (HL),A:LDIR
             LD  HL,$4000:LD  DE,$4001:LD  BC,$17FF
             LD  (HL),0:LDIR :LD  DE,$0000:RET

;*****
;
; ** SLOW CLEAR SCREEN ROUTINE **
;*****

SLOWCLS     LD  HL,$5800
SRF         LD  A,(HL):AND &107:LD  (HL),A:INC HL
             LD  A,H:CP  $5B:JR  C,SRF

             LD  E,$08
SCEP        LD  HL,$4000
             LD  C,192
SCCP        LD  B,16

```

```

SCBP      OR  A
SM1        RR  (HL):INC  L
           OR  A
SM2        RL  (HL):INC  HL
           DJNZ SCBP
           LD  A,(SM1+1):LD  (SM2+1),A:XOR  8:LD  (SM1+1),A
           DEC C:JP  NZ,SCCP
           DEC E:JP  NZ,SCEP
           JP  CLS

;*****
;
; ** PRINT SCORE AND GRENADE ROUTINE **
;*****

SCORE1     DB  "99999999"
SCORE2     DB  "99999999"
GREN1      DB  "99"
GREN2      DB  "99"

PRTSCORE   LD  A,$4F:LD  (ATTR),A

           CALL SPRINT
           DB  PRSIZE,1
           DB  PRAT,09,00
SCORE      DB  "99999999"
           DB  PRSIZE,0

           DB  PRINK,7+64
           DB  PRAT,01,23
NOOFGREN   DB  "10 "
           DB  PREOF

           LD  HL,$4009:LD  DE,BAKSC+9:LD  BC,$1008
QBLP       PUSH HL:PUSH DE:PUSH BC:LD  B,0:LDIR :POP  BC:POP  DE:POP  HL
           LD  A,E:ADD  A,32:LD  E,A:ADC  A,D:SUB  E:LD  D,A
           INC H:LD  A,H:AND  7:JR  NZ,SDPE
           LD  A,L:ADD  A,32:LD  L,A:LD  A,H:SUB  8:LD  H,A
SDPE       DJNZ QBLP
           RET

;
; *TEN
SCOREADS   DB  0,1          ; CLOSE  MEN
           DB  0,2          ; MIDDLE MEN
           DB  0,3          ; FAR    MEN
           DB  0,1          ; BULLET / GRENADE
           DB  0,3          ; TRUCK / TANK
           DB  0,5          ; HELI
           DB  0,1          ; HIT  BUILDING
           DB  0,5          ; BIG  BADDY

ADDScore   PUSH AF:PUSH BC:PUSH DE:PUSH HL:CALL ADDSC
           POP  HL:POP  DE:POP  BC:POP  AF:RET

ADDSC      AND  7:ADD  A,A:LD  E,A:LD  D,0:LD  HL,SCOREADS:ADD  HL,DE
           LD  D,(HL):INC  HL:LD  E,(HL)
           LD  HL,SCORE+7-1:LD  B,8-1
ADDBLP     LD  A,(HL):ADD  A,E:LD  (HL),A
           CP  "9"+1:JR  C,ADDRET
           SUB  10:LD  (HL),A
           LD  E,D:INC  E:LD  D,0
           LD  A,E:CP  10:JR  C,SD
           LD  DE,$0100
SD         DEC  HL

           LD  A,B:CP  5:JR  NZ,SFS
           LD  A,(LIVES):INC  A:LD  (LIVES),A
           PUSH HL:PUSH DE:PUSH BC:CALL PRTLIFES:POP  BC:POP  DE:POP  HL

SFS        DJNZ ADDBLP
           JR  FULLSCORE

ADDRET     LD  E,D:LD  D,0:LD  A,E:OR  A:RET  Z
           JP  SD

INCScore   LD  HL,SCORE+7-1:LD  B,8-1:CALL INCBLP:RET  C
FULLSCORE  LD  HL,"99":LD  (SCORE+0),HL:LD  (SCORE+2),HL
           LD  (SCORE+4),HL:LD  (SCORE+6),HL:RET

DECGREN    LD  HL,NOOFGREN+1:LD  B,2
DECBLP     DEC  (HL):LD  A,(HL):CP  "0":RET  NC

```

```

LD (HL),"9":DEC HL:DJNZ DECBP
LD HL,"00":LD (NOOFGREN),HL
SCF :RET

INCGREN LD HL,NOOFGREN+1:LD B,2:CALL INCBP:RET C
LD HL,"99":LD (NOOFGREN),HL:RET

INCBP INC (HL):LD A,(HL):CP "9"+1:RET C
LD (HL),"0":DEC HL:DJNZ INCBP
OR A:RET

;*****
;
; ** KEYBOARD ROUTINES **
;*****

KEYBOARD
DB %11111101,%01000 ; F
DB %10111111,%10000 ; H
DB %01111111,%00001 ; SPACE
KEYBRD DB %01111111,%00100 ; M
DB %11111011,%00001 ; Q
DB %11111101,%00001 ; A
DB %11011111,%00010 ; O
DB %11011111,%00001 ; P

FACEII
DB %11101111,%00001 ; 0
DB %11101111,%00010 ; 9
DB %11101111,%00100 ; 8
DB %11101111,%10000 ; 6
DB %11101111,%01000 ; 7

CURSORS
DB %11101111,%00001 ; 0
DB %11101111,%01000 ; 7
DB %11101111,%10000 ; 6
DB %11110111,%10000 ; 5
DB %11101111,%00100 ; 8

DEMOMODE LD A,%00011010:AND $1F:LD E,A
GOGREN LD A,0:INC A:AND 31:LD (GOGREN+1),A
JR Z,ERO
SET 5,E
ERO LD A,(SIGHTX):CP $18:JR NC,SPZ
RES 1,E
SET 0,E
SPZ LD A,(SIGHTX):CP $E0:JR C,SPO
RES 0,E
SET 1,E
SPO LD A,(SIGHTY):CP $40:JR NC,SOZ
RES 3,E
SET 2,E
SOZ LD A,(SIGHTY):CP $70:JR C,S00
RES 2,E
SET 3,E
S00 LD A,E:LD (DEMOMODE+1),A
LD A,(FUDLR):AND $C0:OR E:LD (FUDLR),A
RET

READKEYS LD A,Z
PUSH AF
LD HL,KEYBOARD:LD BC,$0300:CALL CONTLOP
POP AF

LD HL,KEYBRD:OR A:JR Z,GOTCONT
DEC A:JR Z,KEMPSTON
LD HL,FACII:DEC A:JR Z,GOTCONT
LD HL,CURSORS
LD B,5:CALL CONTLOP
GOTCONT JR GOFUD

CONTLOP LD A,(HL):INC HL:IN A,(254)
AND (HL):INC HL:JR NZ,NOSCF:SCF
NOSCF RL C:DJNZ CONTLOP:RET

KEMPSTON IN A,(31):AND 31:ADD A,A:ADD A,A:ADD A,A
LD B,5
SRO RLA :RL C:DJNZ SRO

GOFUD LD A,C:LD (FUDLR),A
AND 128:RET Z
LD A,(PLAYERUP):SUB "1":LD HL,CONTPLAYS:CALL ADDHLA

```

```

LD (HL),1
LD A,1:LD (LIVES),A
LD A,(DECODE+1):OR A:RET NZ
XOR A:LD (DEADMODE+1),A
INC A:LD (DECODE+1),A:RET

PAUSE LD B,20:JP BEEPERDELAY

PAUSE0 CALL WAITNOKEY:CALL WAITKEY
WAITNOKEY PUSH HL:PUSH BC:CALL READKEYS:POP BC:POP HL
OR A:JR NZ,WAITNOKEY
XOR A:IN A,($FE):CPL :AND 31:JR NZ,WAITNOKEY:RET
WAITKEY PUSH HL:PUSH BC:CALL READKEYS:POP BC:POP HL
OR A:RET NZ
XOR A:IN A,($FE):CPL :AND 31:JR Z,WAITKEY:RET

WAITNOSKEY EI :HALT :DI
PUSH HL:PUSH BC:CALL NPL:CALL READKEYS:POP BC:POP HL
OR A:JR NZ,WAITNOSKEY
XOR A:IN A,($FE):CPL :AND 31:JR NZ,WAITNOSKEY:RET
WAITKEY EI :HALT :DI
PUSH HL:PUSH BC:CALL NPL:CALL READKEYS:POP BC:POP HL
OR A:RET NZ
XOR A:IN A,($FE):CPL :AND 31:JR Z,WAITKEY:RET

;*****
;
; ** KEYBOARD DECODE ROUTINES **
;*****
;

DEADMODE LD A,255:INC A:AND 31:LD (DEADMODE+1),A
JR NZ,DOM

LD A,64:LD (FLASHHIM),A

CHEATMODE LD A,CHEAT:OR A:JR Z,NOCHEAT
; ** CHEAT MODE **
LD A,0:LD (DECODE+1),A:JR DECODE

NOCHEAT LD A,15:LD (GAMEOVER+1),A

XOR A:LD (DECODE+1),A
DOM AND $10:RRA :RRA :RRA :RRA
ADD A,18:LD (HEROP),A:RET

DECODE LD A,0:OR A:JR NZ,DEADMODE
LD A,1:LD (HEROT),A:CALL FIRE:CALL MOVEHIM

LD HL,HEROT:LD A,(HL):INC HL
CALL ADDHLA
LD A,(HL):LD (HEROP),A

LD A,(HEROT):OR A:RET Z
LD C,2:LD A,(HEROX):LD E,A
LD A,(SIGHTX):LD L,A
SUB E
JR C,LOWER
CP 32:JR C,OK
INC C:CP 64:JR C,OK
INC C
LD A,C
ADD A,5
LD (TURNP),A
LD (HEROP),A
RET

HIGHER LOWER NEG :CP 32:JR C,OK
DEC C:CP 64:JR C,OK
DEC C:JR OK

MOVEHIM LD A,(FUDLR):AND $20:CALL SETUP

LD A,(FUDLR):AND $10:JR NZ,MOVESIGHT
LD A,(FUDLR)
LD DE,(HEROX):RRA :PUSH AF:CALL C,MRIGHT:POP AF
RRA :CALL C,MLEFT
LD (HEROX),DE
MOVESIGHT LD DE,(SIGHTX):LD A,(FUDLR)
RRA :PUSH AF:CALL C,RIGHT:POP AF
RRA :PUSH AF:CALL C,LEFT:POP AF
RRA :PUSH AF:CALL C,DOWN:POP AF
RRA :CALL C,UP

```



```

LD (SIGHTX),DE
RET

MLEFT LD A,E:SUB 4:CP $10:RET C:LD E,A
XOR A:LD (HEROT),A
LD A,(WALKT):DEC A:AND 1:LD (WALKT),A:CP 1:RET NZ
LD A,(WALKP):CP 14:JR C,OSL-2
INC A:CP 18:JR C,OSL:LD A,14
OSL LD (WALKP),A
RET

MRIGHT LD A,E:ADD A,4:CP $D8:RET NC:LD E,A
XOR A:LD (HEROT),A
LD A,(WALKT):INC A:AND 1:LD (WALKT),A:RET NZ
ANIWALK LD A,(WALKP):CP 14:JR NC,OSR-2
INC A:CP 14:JR C,OSR:LD A,10
OSR LD (WALKP),A
RET

LEFT LD A,E:SUB 8:CP $10:RET C:LD E,A:RET
RIGHT LD A,E:ADD A,8:CP $E8:RET NC:LD E,A:RET
DOWN LD A,D:ADD A,8:CP $74:RET NC:LD D,A:RET
UP LD A,D:SUB 8:CP $18:RET C:LD D,A:RET

FIRE LD A,(FUDLR):AND $10:RET Z

; LD A,(HEROY):XOR 2:LD (HEROY),A

GUNTYPE LD A,0
ADD A,A:LD E,A:LD D,0:LD HL,GUNTYPES:ADD HL,DE
LD E,(HL):INC HL:LD D,(HL)
EX DE,HL
OR A:JR Z,NOR
COUNTER LD A,0:DEC A:LD (COUNTER+1),A
SUB 255:JR NZ,NOR
LD (GUNTYPE+1),A
NOR JP (HL)

GUNTYPES DW NORMALGUN
DW MACHINEGUN
DW BAZOOKA

MACHINEGUN LD A,(POS):AND 0:RET NZ:CALL GUNSHOF:JP FIRECOLISH
NORMALGUN LD A,(POS):AND 1:RET NZ:CALL GUNSHOF:JP FIRECOLISH
BAZOOKA LD A,(POS):AND 3:RET NZ:CALL GUNSHOF
LD DE,(SIGHTX):LD A,E:ADD A,8:LD E,A
LD A,D:ADD A,8:LD D,A:CALL BAZOOKABIT
JP FIRECOLISH

BAZOOKABIT PUSH DE:LD A,(INITEXP+1):INC A:CP 3:JR C,OK2:XOR A
OK2 LD (INITEXP+1),A:LD E,A:ADD A,A:ADD A,A:ADD A,E
LD E,A:LD D,0:LD HL,EXP1X:ADD HL,DE
POP DE:LD A,E:CP $10:JR C,FEOK:SUB $10
FEOK CP $E0:JR C,FESOK:LD A,$D8
FESOK LD (HL),A
INC HL
LD A,D:SUB $28:LD (HL),A:INC HL:LD (HL),0
JP GUNSHOT

DECBIGENG SRL A:INC A
LD E,A:SRL E:SRL E:SRL E:AND 7
DECFG ADD A,0:CP 8:JR C,ORFE:AND 7:INC E
ORFE LD (DECFG+1),A:LD A,E
DECBADENERGY ADD A,A:ADD A,A:ADD A,A:LD E,A
LD A,(ENEMY):ADD A,E:LD (ENEMY),A:JR ERE
DECBADENG LD A,(ENEMY):INC A:LD (ENEMY),A
ERE CP $A9:RET C
LD A,(GAMERET+1):OR A:RET NZ
LD A,1:LD (GAMERET+1),A:RET

; *****
; ** BEEPER ROUTINES **
; *****

BEEPERDELAY PUSH BC:CALL BEEPER:POP BC:DJNZ BEEPERDELAY:RET

BEEPER XOR A:LD R,A
EI
DB 62
BEEPNUM DB 0
OR A:JR Z,NOBEEP
PUSH HL:PUSH DE:PUSH BC

```

```

ADD A,A:LD E,A:LD D,0:LD HL,FXNUMS-2:ADD HL,DE
LD E,(HL):INC HL:LD D,(HL):EX DE,HL:CALL JPHL
LD A,(BEEPNUM):CP 4:JR NC,OFS
XOR A:LD (BEEPNUM),A
OFS POP BC:POP DE:POP HL:RET
NOBEEP EI :HALT
RTSLABEL RET

JPHL JP (HL)

GOBEEP LD C,A:LD A,(BEEPNUM):OR A:RET NZ
LD A,C:LD (BEEPNUM),A:RET

;*****
;
; ** DRUM SOUND EFFECTS... **
;*****
;

FXNUMS DW DOOW,MOT1,MOT2,TWATER,PICKER

PICKER LD A,0:INC A:AND $1F:LD (PICKER+1),A:JR NZ,MEOT
XOR A:LD (BEEPNUM),A
MEOT LD A,(RND1):OR 128:JR DOW

FROWFX LD A,$78:LD (TWATER+1),A
LD A,8:LD (TWATER+3),A
LD A,4:LD (BEEPNUM),A
RET

JINGLE LD A,$C8:LD (TWATER+1),A
LD A,0-8:LD (TWATER+3),A
LD A,4:LD (BEEPNUM),A
RET

PICKUP XOR A:LD (PICKER+1),A
LD A,5:LD (BEEPNUM),A
RET

TWATER LD A,0:ADD A,$08:LD (TWATER+1),A
OR A:JP M,DOW
LD A,(TWATER+3):CP 0-8:JR Z,FROWFX
LD A,0:LD (BEEPNUM),A:JR NOBEEP
DOW LD C,A
TWTP LD A,24:OUT (254),A:LD B,C
Z0 LD A,R:RET M:DJNZ Z0
LD A,0:OUT (254),A:LD B,C
Z1 LD A,R:RET M:DJNZ Z1
JP TWTP

WOODX LD A,1:LD (BEEPNUM),A:RET
DOOW LD E,$1F:LD D,5
WOD LD B,E
Z2 LD A,R:RET M:DJNZ Z2
LD A,24:OUT (254),A:LD A,E:RRCA :LD E,A
LD B,A
Z3 LD A,R:RET M:DJNZ Z3
LD A,0:OUT (254),A:DEC D:JR NZ,WOD:RET

TOM1X LD A,2:JP GOBEEP
MOT1 LD E,0:LD D,15
TOM10 LD B,E
Z4 LD A,R:RET M:DJNZ Z4
LD A,24:OUT (254),A:LD A,E:ADD A,4:LD E,A
LD B,E
Z5 LD A,R:RET M:DJNZ Z5
LD A,0:OUT (254),A:DEC D:JR NZ,TOM10:RET

TOM2X LD A,3:JP GOBEEP
MOT2 LD E,0:LD D,21
TOM20 LD B,E
Z6 LD A,R:RET M:DJNZ Z6
LD A,24:OUT(254),A:INC E:INC E
LD B,E
Z7 LD A,R:RET M:DJNZ Z7
LD A,0:OUT (254),A:DEC D:JR NZ,TOM20:RET

;*****
;
; ** MORE SOUND FX **
;*****
;

```



```

GUNFIRE      CALL WOODX
              LD C,6:LD E,$0F:CALL SEND1
              LD C,7:LD HL,$1000+%00100111:CALL SEND2
              LD C,11:LD HL,$0800:CALL SEND2
              LD C,13:LD E,1:JP SEND1

GUNSHOF
              XOR A:LD R,A
              CALL DOOW
              JR GUNSHOT+3
GUNSHOT      CALL TOM1X
              LD C,6:LD E,$1F:CALL SEND1
              LD C,7:LD HL,$1000+%00100111:CALL SEND2
              LD C,11:LD HL,$0C00:CALL SEND2
              LD C,13:LD E,1:JP SEND1

EXPLODE      CALL TOM2X
              LD C,6:LD E,$00:CALL SEND1
              LD C,7:LD E,%00100111:CALL SEND1
              LD C,9:LD E,$10:CALL SEND1
              LD C,11:LD HL,$1500:CALL SEND2
              LD C,13:LD E,1:JP SEND1

SEND2
;            RET
              LD E,L:PUSH BC:CALL SEND1:POP BC:LD E,H
              INC C

SEND1
;            RET
              LD A,C:LD BC,$FFFD:OUT (C),A:LD BC,$BFFD:OUT (C),E:RET

,*****
,
,** ENEMY BAR ROUTINE **
,*****
,

ENEMYBAR     LD A,30
              LD B,32-10
ENBAR        LD A,(ENEMYBAR+1):INC A:CP 31:JR C,SKP:LD A,9
SKP          LD (ENEMYBAR+1),A:LD L,A
              LD A,(ENEMY):SRL A:SRL A:SRL A:ADD A,9
              CP L:LD C,2+64:JR NC,SKPENEMY:LD C,1+64
SKPENEMY     LD H,$5A:LD A,L:ADD A,$E0:LD L,A:LD (HL),C
              DJNZ ENBAR:RET

,*****
,
,** THE GUN SIGHTS **
,*****
,

SIGHTS
              DBH 9249B66D
              DBH 4812399C
              DBH 7E7EFA5F
              DBH 8FF1E247
              DBH 47E2F18F
              DBH 5FFA7E7E
              DBH 9C391248
              DBH 6DB64992

,*****
,
,** DUMP MAP TO BACK SCREEN ROUTINE **
,*****
,

DUMPMP       LD HL,(MAPAD)
              LD D,3
DMDLP        LD E,1
DMELP        PUSH DE:PUSH HL:LD L,(HL)
CADS         LD H,CHRS1/256
              LD A,D:AND 7:RRA :RRA :RRA :OR E:LD E,A
              LD A,D:AND 24:OR 64:LD D,A:LD B,8
DMBLP        LD A,(HL):LD (DE),A:INC H:INC D:DJNZ DMBLP
              LD A,D:RRA :RRA :RRA :DEC A:AND 3:OR 88:LD D,A
              LD A,(HL):LD (DE),A:POP HL:INC HL:POP DE
              INC E:LD A,E:CP 31:JR NZ,DMELP
              INC D:LD A,D:CP 21:JR NZ,DMDLP:RET

,*****
,
,** INVERT SPRITE ROUTINES **
,*****
,

INVERTSET    LD HL,CHRS1:LD BC,$800:CALL INVCHR
              LD HL,ATRS1:LD B,$00:CALL INVATR

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```

LD HL,CHRS2:LD BC,$800:CALL INVCHR
LD HL,ATRS2:LD B,$00:CALL INVATR
RET

INVCHR LD A,(HL):CPL :LD (HL),A:INC HL
DEC BC:LD A,B:OR C:JP NZ,INVCHR:RET

INVATR LD A,(HL):LD E,A:AND 7:ADD A:ADD A:ADD A:LD D,A
LD A,E:AND $C0:OR D:LD D,A
LD A,E:RRA :RRA :RRA :AND 7:OR D
LD (HL),A:INC HL:DJNZ INVATR:RET

;*****
;** EXPLOSION SPRITE + ROUTINE **
;*****

EXPLODESPR
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000200
DBH 0005000000800A000000B400000401700
DBH 00F5600009C0D0304F9E20000FDA0B
DBH 00000000000000000000000000000000
DBH 00000000000000000000000000000200
DBH 0005000000800A000000A800000800A00
DBH 000B400000400B000017400000401700
DBH 0017400000401700002DA00000A02F00
DBH 005FD00000E85D00005DE80000E85D00
DBH 009DE80000C8AC0000B9740000FABC00
DBH 01B45D00C03D780609F20E20D017C817
DBH 00000000000001F000060C00000209F00
DBH 017FD00000D0FB0202EEE80000E8B105
DBH 05E2A8000074700B0BD0B400007AA00B
DBH 0BC01A0000BAB00505E05A0000FAF805
DBH 02F2740000E87D01009B900000606B00
DBH 0029400000402D000059A00000505A00
DBH 005ED0000068580000B4E8000074BC00
DBH 00B874000034B80000B05400003A7C01
DBH 00800000300040112AA00048A881D156
DBH B96A4250A0ADF55E29DBD240406D5F14
DBH 0C0D76806440406030006D8E4050006
DBH 1800697A3D0C40255C0005B26C0000B8
DBH 59040058E403202F16400FB2641F8808
DBH 070903D820010418240055D03038325F
DBH 27E41FA8D08B8D19073E21ECB2B87B05
DBH 0BA2D1F4E8EB490A11B077D060190526
DBH 00000008140080000140000800008000
DBH 00008000004001000000800814000000
DBH 00C00008000200102D0000000102805
DBH 02102900801200000000010000000000
DBH 0000000040010000000042A0C0A20002
DBH 05004100000000020000000000000000
DBH 0010000000004280000100A0000041800
DBH 402400008000A8A1425001408002A001

INITEXP LD A,0:INC A:CP 3:JR C,INK1:XOR A
INK1 LD (INITEXP+1),A:PUSH IX
PUSH DE:LD E,A:ADD A,A:ADD A,A:ADD A,E:LD E,A
LD D,0:LD IX,EXP1X:ADD IX,DE:POP DE
LD A,E:AND $F8:SUB 8
CP $E8:JR NC,XITEXP:CP 8:JR C,XITEXP
LD (IX+XPOS),A:LD (IX+YPOS),$80:LD (IX+PHASE),0
PUSH HL:PUSH DE:PUSH BC:CALL GUNSHOT:POP BC:POP DE:POP HL
XITEXP POP IX:RET

PRTEXPLOD1
LD DE,(EXP1X):LD (EXP10X),DE
LD A,(EXP1P):OR A:RET M
LD A,(EXP1P):LD HL,EXPLODESPR:LD DE,128:CALL MULT
LD DE,(EXP1X):LD (EXP10X),DE:CALL PRTEXP
LD A,(EXP1P):INC A:LD (EXP1P),A:CP 5:RET C
XOR A:LD (EXP1X),A:CPL :LD (EXP1P),A:RET

PRTEXPLOD2
LD DE,(EXP2X):LD (EXP20X),DE
LD A,(EXP2P):OR A:RET M
LD A,(EXP2P):LD HL,EXPLODESPR:LD DE,128:CALL MULT
LD DE,(EXP2X):LD (EXP20X),DE:CALL PRTEXP
LD A,(EXP2P):INC A:LD (EXP2P),A:CP 5:RET C

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XOR A:LD (EXP2X),A:CPL :LD (EXP2P),A:RET

PRTEXPLOD3
LD DE,(EXP3X):LD (EXP30X),DE
LD A,(EXP3P):OR A:RET M
LD A,(EXP3P):LD HL,EXPLODESPR:LD DE,128:CALL MULT
LD DE,(EXP3X):LD (EXP30X),DE:CALL PRTEXP
LD A,(EXP3P):INC A:LD (EXP3P),A:CP 5:RET C
XOR A:LD (EXP3X),A:CPL :LD (EXP3P),A:RET

PRTEXP
LD A,D:ADD A,8:LD D,A:LD B,4*4
CP $80:JR NC,EXPBS:ADD A,8:LD D,A:LD B,3*4

EXPBS
PUSH HL:CALL DIXAD:EX DE,HL:POP HL
LD (SPSTR),SP:LD SP,HL:EX DE,HL

EXPBLP
POP DE:LD A,(HL):XOR E:LD (HL),A:INC L
LD A,(HL):XOR D:LD (HL),A:INC L
POP DE:LD A,(HL):XOR E:LD (HL),A:INC L
LD A,(HL):XOR D:LD (HL),A:INC H
POP DE:LD A,(HL):XOR E:LD (HL),A:DEC L
LD A,(HL):XOR D:LD (HL),A:DEC L
POP DE:LD A,(HL):XOR E:LD (HL),A:DEC L
LD A,(HL):XOR D:LD (HL),A:INC H
LD A,H:AND 7:JR NZ,EXPRY
LD A,L:ADD A,32:LD L,A:JR C,EXPRY
LD A,H:SUB 8:LD H,A

EXPRY
DJNZ EXPBLP
LD SP,(SPSTR)
RET

;*****
; ** FROG MAN SPRITE **
;*****

FROGSPR
DBH FC007F00FF00FF000380F803F80201BC
DBH FF008F0000C2F002E00A008107700308
DBH 003DC012C012002D010401E40050E007
DBH E00900CC011403480020C010C0100050
DBH 03280104002080228021005001040184
DBH 00EA8022C01000DD03080710006DE008

LEGSPR
DBH E100FF00FF009F00FF00C01E80217F00
DBH 076003987E00004500503C810164001A
DBH 3C818020C0183882012403081842E007
DBH F0040C2107D00F600822F004F8020822
DBH 0F200F200052FC01FE00008D07100710
DBH 0084FE00FC01004107100F200000FC01

;*****
; ** BACKGROUND INFORMATION FOR EXPLODING BUILDINGS **
;*****

BACKGROUND
DS 8*9

;*****
; ** BULLETS ROUTINES **
;*****

FINDBUL
LD HL,BULSP:LD DE,BOMBLN:LD B,BOMBNUM
FINDL
LD A,(HL):OR A:RET M
ADD HL,DE:DJNZ FINDL:RET

SETUP
RET Z:LD A,(SETUP):XOR 8:LD (SETUP),A:AND 8:RET NZ
CALL FINDBUL:RET P
PUSH HL:CALL DECGREN:POP HL:RET C

PUSH HL:CALL FROWFX:POP HL

LD DE,(HEROX)

;HL=SPDATA
;DE=INIT XY
SETBULL
LD A,E:ADD A,$10:LD E,A
LD A,D:ADD A,8:AND $FE:LD D,A

LD (HL),0:INC L ; TYP
LD (HL),E:INC L ; XNO
LD (HL),D:INC L ; YNO

LD A,L:EX AF,AF:EX DE,HL

```

```

LD A,(SIGHTX):ADD A,$08:LD E,A
LD A,(SIGHTY):ADD A,$10:LD D,A

LD C,0-8:LD B,C:LD A,L:SUB E:JR NC,ANGLEFT
NEG :LD C,8
ANGLEFT LD E,A:LD A,H:SUB D:JR NC,ANGUP
NEG :LD B,8
ANGUP LD D,A

EX AF,AF:LD L,A:LD H,BULPAGE/256

LD A,E:SUB D:JR C,YBIGGA

LD (HL),C:INC L ; XMV
LD (HL),0:INC L ; YMV
LD (HL),D:INC L ; INT
LD (HL),E:INC L ; COW
LD (HL),E:INC L ; BIG
LD (HL),0:INC L ; XAD
LD (HL),B:INC L ; YAD

LD A,(SIGHTX):LD (HL),A:INC L; XTO
LD A,(SIGHTY):LD (HL),A:INC L; YTO

LD A,E:RRA :RRA :RRA :RRA :RRA :AND 3
LD (HL),A:INC L ; COUNTER
LD (HL),A ; CNTRES

RET

YBIGGA LD (HL),0:INC L ; XMV
LD (HL),B:INC L ; YMV
LD (HL),E:INC L ; INT
LD (HL),D:INC L ; COW
LD (HL),D:INC L ; BIG
LD (HL),C:INC L ; XAD
LD (HL),0:INC L ; YAD

LD A,(SIGHTX):LD (HL),A:INC L; XTO
LD A,(SIGHTY):LD (HL),A:INC L; YTO

LD A,D:RRA :RRA :RRA :RRA :RRA :AND 3
LD (HL),A:INC L ; COUNTER
LD (HL),A ; CNTRES

RET

;*****
BOMBS LD HL,BULSP:LD B,BOMBNUM
BUL LD A,(HL):OR A:JP M,NOBO
PUSH HL:LD A,L:ADD A,BOMBLEN-2:LD L,A
DEC (HL):JP P,OKZA
INC L:LD A,(HL):DEC L:LD (HL),A
POP HL:PUSH HL
LD A,(HL):INC A:AND 7:LD (HL),A:JR NZ,OKZA
LD (HL),255
PUSH BC:INC L:LD E,(HL):INC L:LD D,(HL)
LD (GRENADECOLISH+1),DE:CALL BAZOOKABIT:CALL GRENADECOLISH
POP BC
OKZA POP HL
LD A,(HL):OR A:CALL P,BULHOME
NOBO LD A,L:ADD A,BOMBLEN:LD L,A:DJNZ BUL:RET

;*****
BULHOME LD A,L:EX AF
LD A,(HL):SUB 3:CCF :SBC A,0:LD D,A
INC L ; TYP
LD E,(HL):INC L ; XNO
LD A,(HL):ADD A,D:LD D,A:INC L; YNO
LD A,(HL):ADD A,E:LD E,A:INC L; XMV
LD A,(HL):ADD A,D:LD D,A:INC L; YMV
LD C,(HL):INC L ; INT
LD A,(HL):SUB C:LD (HL),A; COW
JR NC,BHOM
INC L:ADD A,(HL):DEC L; BIG
LD (HL),A:INC L:INC L
LD A,(HL):ADD A,E:LD E,A:INC L; XAD
LD A,(HL):ADD A,D:LD D,A; YAD
BHOM EX AF,AF:ADD A,2:LD L,A
LD (HL),D:DEC L:LD (HL),E:DEC L

```

```

LD A,L:ADD A,BOMBLEN-4:LD L,A
LD A,(HL)
CALL TESTHITA:LD A,0:JR C,NOTYET
INC L:LD A,(HL):DEC L
PUSH DE:LD E,D:CALL TESTHITA:POP DE:LD A,0:JR C,NOTYET
PUSH HL:PUSH BC
LD (GRENADECOLISH+1),DE
CALL BAZOOKABIT
CALL GRENADECOLISH
POP BC:POP HL
LD A,255
NOTYET EX AF,AF:LD A,L:SUB BOMBLEN-4:LD L,A:EX AF,AF
OR A:RET Z
LD (HL),A:RET
TESTHITA PUSH HL:PUSH DE
LD L,A:LD H,16:LD D,4:CALL HITA
POP DE:POP HL
RET

```

,*****

```

PRTBOMB LD B,BOMBNUM
LD C,BULSP-BULPAGE
PRBL LD H,BULPAGE/256:LD L,C
PUSH BC:LD A,(HL):OR A:CALL P,PRBUL:POP BC
LD A,C:ADD A,BOMBLEN:LD C,A:DJNZ PRBL:RET
PRBUL LD C,(HL)
INC L:LD A,(HL):CP $01*8:JR C,BLOFF
CP $1E*8:JR NC,BLOFF:LD E,A
INC L:LD A,(HL)
CP 192:JP C,PBL:DEC L
BLOFF DEC L:LD (HL),OFF:RET
PBL LD D,A
LD A,C:CPL :AND 6:ADD A,A:ADD A,A:ADD A,A:ADD A,A
LD HL,GRENADES
CALL ADDHLA
LD HL,GRENADES+$20
LD B,8:JP PTBL

```

,*****
,** CONGRADULATIONS **
,*****

```

CONGRATS CALL SPRINT
DB PRINK,0,PRCLS
DB PRINK,7,PRSIZE,1
DB PRAT,00,03," From the Commanders office "
DB PRAT,00,07," Good work soldier, we commend "
DB PRAT,00,09," you for your bravery, in "
DB PRAT,00,11," halting the armed forces of "
DB PRAT,00,13," the terrorists. "
DB PRAT,00,17," Return to Head Quarters. "
DB PRAT,00,19," Your next mission awaits you "
DB PREOF

LD HL,GOODWORK:LD (FIRECALL+1),HL
CALL FIREDELAY
LD HL,RETURN:LD (FIRECALL+1),HL
RET

```

```

GOODWORK LD IX,COLS:LD HL,$5860:LD BC,$0112:CALL CLPER
JP SCRCOL

```

,*****
,** TITLE PAGE **
,*****

```

SHOWTITLEPAGE CALL SPRINT:DB PRINK,7,PRCLS,PREOF
; CALL SPRINT:DB PRSIZE,0
; DB PRAT,07,01
; DBH 959E9F20959E9F20959E9420959E9F20942020
; DB PRAT,07,02
; DBH 94202020989DA020989DA120989DA020942020
; DB PRAT,07,03
; DBH 94202020942097209420972094209720942020
; DB PRAT,07,04
; DBH 989DA02094209720989DA02094209720989D9C
; DB PREOF

DI
LD A,PICCPAGE:CALL SELECTPAGE

```



```

LD HL,PICAD+$08E0:LD DE,$4000
LD C,5*8
CLPR LD B,32
BLPR LD A,(HL):LD (DE),A:INC L:INC E:DJNZ BLPR
LD A,E:SUB 32:LD E,A:LD A,L:SUB 32:LD L,A
INC H:LD A,H:AND 7:JR NZ,HKR
LD A,L:ADD A,32:LD L,A:JR C,HKR
LD A,H:SUB 8:LD H,A
HKR INC D:LD A,D:AND 7:JR NZ,DPR:LD D,$40
LD A,E:ADD A,32:LD E,A
DPR DEC C:JP NZ,CLPR
CALL SELECTPAGE0
EI
RET

```

,*****

```

FIREDELAY XOR A:LD (FUDLR),A
LD HL,$0080
FIREDEL PUSH HL:EI :HALT
FIRECALL CALL RETURN:POP HL:LD B,%01111111
FIREBLP LD A,B:IN A,(254):CPL :AND 31:JR NZ,GOODRET
RRC B:JP C,FIREBLP:DEC HL:LD A,H:OR L:JP NZ,FIREDEL
RETURN RET
GOODRET LD A,%10000:LD (FUDLR),A:RET

```

,*****

```

CLPER LD E,0:LD A,C:SRL A:INC A:LD (CHKR+1),A
LD A,B:LD (AD1+1),A:ADD A,A:LD (AD2+1),A
CLP1 LD B,16
BP1 INC E:LD A,E:AND $1F:LD (IXS+2),A
IXS LD A,(IX+00):LD (HL),A:INC HL:DJNZ BP1:LD B,16
BLP2 DEC E:LD A,E:AND $1F:LD (IXZ+2),A
IXZ LD A,(IX+00):LD (HL),A:INC HL:DJNZ BLP2:LD A,C
CHKR CP 3:JR Z,OKE:PUSH AF:LD A,E
AD1 ADD A,4:LD E,A:POP AF:JR NC,OKE:LD A,E
AD2 SUB 4:LD E,A
OKE DEC C:JP NZ,CLP1:RET

```

,*****

```

SCRCOL LD HL,COLS+1:LD DE,COLS:LD BC,32
LD A,(DE):LDIR :LD (DE),A:RET

```

,*****

```

TITCOLS LD IX,COLS:LD HL,$59E0:LD BC,$0105:CALL CLPER
JR SCRCOL
COLORS LD IX,COLS:LD HL,$5800:LD BC,$0105:CALL CLPER
LD IX,COLS:LD HL,$58E0:LD BC,$0102:CALL CLPER
LD IX,COLS:LD HL,$5960:LD BC,$040A:CALL CLPER
JR SCRCOL
PLAYUPCOL LD HL,$592A:LD DE,COLS:LD C,4
LD A,20:LD (ADDE+1),A:LD A,12:LD (LBL-1),A:CALL LCL
LD A,8:LD (ADDE+1),A:LD A,24:LD (LBL-1),A:RET
LEVCOL LD HL,$5924:LD DE,COLS:LD C,4
LCL LD A,(DE):INC DE:LD B,24
LBL LD (HL),A:INC L:DJNZ LBL
LD A,L
ADDE ADD A,8:LD L,A:ADC A,H:SUB L:LD H,A
DEC C:JR NZ,LCL:JP SCRCOL
COLS DBH 0040014102420343044405450646074747
DBH 47074606450544044303420241014000

```

,*****

```

,** HIGH SCORE PAGE **
,*****

```

```

NAMEADD EQU 6
SCOREADD EQU 18
LEVADD EQU 27
HILEN EQU 30

```

```

HIGHSCORES
CALL SHOWTITLEPAGE
CALL SPRINT

```



```

HIGHSCORETEXT DB PRSIZE,1
DB PRAT,09,07,"BEST 10 PLAYERS",PRSIZE,0
HI1 DB PRAT,03,11,"01 JAMES ",$84,$85," 00000000 ALL"
HI2 DB PRAT,03,12,"02 Jacqui H 00000000 5-2"
HI3 DB PRAT,03,13,"03 Special FX 00000000 4-4"
HI4 DB PRAT,03,14,"04 Chas D 00000000 4-2"
HI5 DB PRAT,03,15,"05 Paul F 00000000 3-4"
HI6 DB PRAT,03,16,"06 Chris W 00000000 3-2"
HI7 DB PRAT,03,17,"07 David W 00000000 2-4"
HI8 DB PRAT,03,18,"08 Miles C 00000000 2-2"
HI9 DB PRAT,03,19,"09 Jed B 00000000 1-4"
HI10 DB PRAT,03,20,"10 Special FX 00000000 1-2"
DB PREOF
HIGHDELAY LD HL,COLORS:LD (FIRECALL+1),HL
CALL FIREDELAY
LD HL,RETURN:LD (FIRECALL+1),HL
JP SLOWCLS

```

```

,*****
,
,** SHOW LEVEL NUMBER **
,*****
,

```

```

ATRBOX LD A,C:LD C,B:LD B,A
ATRCLP PUSH BC:PUSH HL
ATRBLP LD (HL),E:INC L:DJNZ ATRBLP
POP HL:LD A,L:ADD A,32:LD L,A:ADC A,H:SUB L:LD H,A
POP BC:DEC C:JP NZ,ATRCLP:RET

```

```

NUMTXT DB $20,$94,$20,PRDLLL
DB $9E,$94,$20,PRDLLL
DB $20,$94,$20,PRDLLL
DB $9D,$98,$9C,PREOF

```

```

DB $95,$9E,$9F,PRDLLL
DB $9D,$9D,$A0,PRDLLL
DB $94,$20,$20,PRDLLL
DB $98,$9D,$A0,PREOF

```

```

DB $95,$9E,$9F,PRDLLL
DB $20,$9D,$A0,PRDLLL
DB $20,$20,$97,PRDLLL
DB $98,$9D,$A0,PREOF

```

```

DB $94,$20,$20,PRDLLL
DB $94,$20,$9C,PRDLLL
DB $98,$9D,$98,PRDLLL
DB $20,$20,$94,PREOF

```

```

DB $95,$9E,$9E,PRDLLL
DB $98,$9D,$99,PRDLLL
DB $20,$20,$97,PRDLLL
DB $98,$9D,$A0,PREOF

```

```

,*****
,
,** ENTER NAME ROUTINE **
,*****
,

```

```

PAPER EQU 32+64

ENTERNAME LD IX,HI1
LD C,10

HICKCLP PUSH IX
LD DE,SCOREADD:ADD IX,DE

HICKBLP LD HL,SCORE:LD B,8
LD A,(HL):CP (IX+00):JP C,SKPHI
JR NZ,GOTI
INC HL:INC IX:DJNZ HICKBLP

GOTI LD A,10+11:SUB C:LD (HINUM),A
LD A,C:DEC A:JR Z,OKHI

LD HL,HI9+NAMEADD
LD DE,HI10+NAMEADD

ALP PUSH HL:PUSH DE
LD BC,10:LDIR
INC HL:INC DE:INC HL:INC DE
LD BC,8:LDIR
INC HL:INC DE

```

```

LD BC,3:LDIR
POP HL:LD BC,0-HILEN:ADD HL,BC:EX DE,HL
POP HL:ADD HL,BC
DEC A:JP NZ,ALP

OKHI
POP HL:LD DE,NAMEADD:ADD HL,DE:LD (STAD+1),HL

EX DE,HL:LD HL,BLANK:LD BC,11:LDIR
INC DE:LD HL,SCORE:LD BC,8:LDIR

INC DE:LD A,(LEVEL):ADD A,"0":LD (DE),A:INC DE
LD A,"-":LD (DE),A:INC DE
LD A,(SECTION):ADD A,"1":LD (DE),A

LD A,(LEVEL):CP 6:JR NZ,SHI
LD A,"L":LD (DE),A:DEC DE:LD (DE),A:DEC DE
LD A,"A":LD (DE),A

SHI
LD HL,BLANK:LD DE,NAMETEXT:LD BC,11:LDIR
CALL GETNAME
STAD
LD DE,$0000:LD HL,NAMETEXT:LD BC,10:LDIR
JP HIGHDELAY

SKPHI
POP IX:LD DE,HILEN:ADD IX,DE
DEC C:JP NZ,HCHKCLP:RET

GETNAME
GONAME
XOR A:LD (NAMX),A:LD (NAMOX+1),A

CALL SHOWTITLEPAGE
LD HL,HIGHSCORETEXT:CALL PRINT
LD HL,NAMEEOT:CALL PRINT

GONAMLOP
EI :HALT

LD IX,COLS:LD HL,$5960:LD BC,$040A:CALL CLPER
CALL SCRCOL

CALL NAMOX
LD A,(NAMX):LD (NAMOX+1),A
ADD A,6:LD E,A:LD A,(HINUM):LD D,A
CALL CHRAD:EX DE,HL:LD A,H:OR 7:LD H,A

SFEO
LD DE,%1111000011110000
LD A,(POS):INC A:LD (POS),A:AND 1:JR Z,SDFS

RRC D:RLC E
LD (SFEO+1),DE

SDFS
LD A,D:AND $0F:LD C,A
LD A,E:AND $F0:OR C:LD C,A
LD (HL),A

LD A,(POS):RRA :BIT 3,A:JR Z,FEP:CPL
AND 7:LD B,A:LD A,H:AND $F8:OR B:LD H,A
LD A,(HL):OR C:LD (HL),A

LD IX,COLS:LD HL,$5800:LD BC,$0105:CALL CLPER
LD IX,COLS:LD HL,$58E0:LD BC,$0102:CALL CLPER

LD A,(POS):AND 3:JP NZ,SKFFE
CALL READKEYS

LD HL,LETTERS:LD DE,0:DB 62
DB 0
LD B,32
legy
CP (HL):JR Z,GOTLET
INC E:INC HL:DJNZ legy

GOTLET
LD A,(FUDLR):RRA :JR NC,NRT:INC E
NRT
RRA :JR NC,NLT:DEC E
NLT
LD A,E:AND 31:LD E,A
LD A,(NAMX):CP 10:JR NZ,CADGE
LD A,E:CP 31:JR Z,BSD
CP 29:JR NC,CADGE
BSD
LD A,E:AND 1:ADD A,29:LD E,A
CADGE
LD HL,LETTERS:ADD HL,DE:LD A,(HL)

DB 33
LETTERADDR
DW 0
LD (HL),A

```

```

SKFFE
LD A,(FUDLR)
AND $10
POPEYE
JR Z,SDFFE
LD A,(POPEYE):XOR 8:LD (POPEYE),A:AND 8:JR NZ,SDFFE

LD A,(HL):CP $86:JR Z,DELT
CP $87:JR Z,RYT

LD A,(NAMX):CP 10:JR NC,SDFFE
INC A:LD (NAMX),A
CP 10:JR NZ,FEV
INC HL:LD (HL),$87:JR SDFFE
FEV
LD A,(HL):INC HL:LD (HL),A:JR SDFFE

DELT
LD A,(NAMX):OR A:JR Z,SDFFE
LD (HL)," ":DEC A:LD (NAMX),A
DEC HL:LD (HL),$86:JR SDFFE

RYT
LD (HL)," "
NAMOX
LD DE,$0000:LD HL,NAMETEXT:ADD HL,DE
LD A,(HINUM):LD D,A:LD A,E:ADD A,6:LD E,A
LD (LETTERADDR),HL:LD A,(HL):LD (LETTERVAL),A
JP PRTCELL

SDFFE
JP GONAMLOP

NAMX
DB 0

NAMEEOT
DB PRINK,7,PRSIZE,0,PRAT,6
HINUM
DB 0
NAMETEXT
DB " ",PREOF
BLANK
DB "A "

LETTERS
DB "ABCDEFGHIJKLMNOPQRSTUVWXYZ.-",$83,$86,$87," "

;*****
;
; ** LOAD LEVEL SECTION **
;*****

LOADLEVEL
XOR A:LD (ATTR),A:CALL CLS
DI :LD A,I:PUSH AF:LD A,$3F:LD I,A

;*****
;
LD A,(LEVEL):DEC A:ADD A,A:LD E,A:LD D,0
LD HL,LEVADS:ADD HL,DE:LD E,(HL):INC HL:LD D,(HL)
LD A,E:CALL SELECTPAGE
LD H,D:LD L,0

LD DE,CHRS1:LD BC,CHRSLEN:LDIR
LD DE,MAP1:LD BC,MAPLEN:LDIR

LD DE,CHRS2:LD BC,CHRSLEN:LDIR
LD DE,MAP3:LD BC,MAPLEN:LDIR

CALL INVERTSET

;*****
;
CALL SELECTPAGE0
LD HL,HIDEADDR+$230:LD DE,$50
LD A,(LEVEL):DEC A:CALL MULT:PUSH HL
LD HL,HIDEADDR:LD DE,$70:LD A,(LEVEL):DEC A:CALL MULT

LD A,HIDEPAGE:CALL SELECTPAGE
LD DE,BINGS:LD BC,$70:LDIR

POP HL:LD DE,BSINGS:LD BC,$50:LDIR

;*****
;
CALL SELECTPAGE0
LD HL,HIDECOLADDR:LD DE,20:LD A,(LEVEL):DEC A:CALL MULT
LD A,HIDEPAGE:CALL SELECTPAGE
LD DE,BUILDINGCOLS:LD BC,20:LDIR

;*****
;
CALL SELECTPAGE0

```

```

LD A,(LEVEL):LD DE,$300:LD HL,BIGBADDIES:DEC A:CALL MULT
LD A,PICTUREPAGE:CALL SELECTPAGE
PUSH HL:LD DE,$4000:LD BC,$300:LDIR :POP HL
LD DE,$1000:ADD HL,DE:LD DE,BIGSTART:LD BC,$300:LDIR
CALL SELECTPAGE0
LD HL,$4000:LD DE,BIGBADDY:LD BC,$300:LDIR

;*****
;
POP AF:LD I,A:EI
RET

;*****
; ** DATA INFORMATION FOR BIG VAN **
;*****

BIGX EQU 0
BIGY EQU 1
BIGP EQU 2
BIGT EQU 3
BIGE EQU 4
BIGLEN EQU 5

BY EQU $48
FY EQU $4C

;*****
; XPO,YPO,TYP,XTO,ENG
;
BIGINITVAN
DB $00,$48,$08,$20,$10
DB $00,$48,$08,$40,$10
DB $00,$48,$08,$60,$10
DB $00,$48,$08,$80,$10
DB $00,$48,$08,$A0,$10
DB $00,$48,$08,$C0,$10
DB $00,$48,$0C,$00,$40

BIGXYSVAN EQU BADDAT
MAINXYVAN EQU BIGXYSVAN+6*BIGLEN

;*****
;
ANIMSVAN DB 3,4,5,5,5,5,4,3
TRANSIT DB 1,1,2,2
VAN DB 0

BIGMISINIT DB $20,$50,$00,$00,$10
DB $40,$58,$00,$00,$10
DB $78,$60,$00,$00,$10
DB $B0,$58,$00,$00,$10
DB $D0,$50,$00,$00,$10
DB $60,$48,$00,$00,$E0

ANIMS2 DB 0,0
ANISMIS DB 0,0,1,1,2,2,3,3

;*****
; ** CODE END LABEL **
;*****

CODEEND

;*****
; ** BIG BADDY ROUTINES FOR ALL LEVELS **
;*****

;*****
; ** BIG BADDY LEV 0 **
;*****

BIGSTART
BIGCOLI RET
DW 0

BIGROUTINES DS $300-3,$C9

;*****
; ** BIG END LABEL **
;*****

BIGEND

```

```

;*****
;** BIG BADDY LEVEL 1 **
;*****

ORG BIGSTART
LOAD $4000
JP BIGCOLIHELI

BIGMAINHELI
CALL RESETBAD

XOR A:LD (GAMEOVER+1),A:LD (GAMERET+1),A
INC A:LD (NOMOREBAD+1),A
LD A,$FF:LD (DEADMODE+1),A

LD HL,$1860:LD (BIGXHELI),HL
LD HL,$0104:LD (BADDIRHELI+1),HL
XOR A:LD (POS),A

CALL PRTLIVELY
CALL DUMPSCREEN
CALL PRTLIFES

BIGLOOPHELI
LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
LD DE,(EXP30X):CALL PRTBACK

CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A

LD DE,(BIGXHELI):CALL PRTBACK8X3
LD DE,(SIGHT0X):CALL PRTBACK3X2:CALL OLDCLS
CALL PRTSIGHT
CALL MOVEBIGHELI
CALL PRTBIGHELI
CALL PRTSIGHT:CALL COLSIG

CALL PRTHERO

CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

CALL PRTBULLETS:CALL PRTBOMB

CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE
CALL ENEMYBAR
CALL RAND
LD A,(FUDLR):AND %01000000:CALL NZ,PAUSE0

EI :HALT :DI
EI :HALT :DI

CALL PRTBOMB:CALL PRTBULLETS
CALL MOVEBULLETS

LD A,1:LD (COLTYP+1),A
CALL BOMBS
CALL DECODE
XOR A:LD (COLTYP+1),A

CALL BULCOLISH
CALL PRTSORE

CNT
LD A,$18:INC A:LD (CNT+1),A:AND $29:JR NZ,NOFEHELI
LD A,(CNT+1):RRA :AND 7
ADD A,A:ADD A,A:ADD A,$10:LD C,A
LD B,$10:LD DE,(BIGXHELI):LD A,D:ADD A,$38:LD D,A
LD A,1:CALL INITBUL

NOFEHELI

LD A,(GAMERET+1):OR A:JR NZ,BIGEXPHELI
LD A,(GAMEOVER+1):OR A:JP Z,BIGLOOPHELI
LD A,(LIVES):DEC A:LD (LIVES),A:RET Z
JP BIGMAINHELI

MOVEBIGHELI
BADDIRHELI
LD DE,(BIGXHELI)
LD HL,$0000
LD A,E:ADD A,L:LD E,A
CP $08+1:JR C,SWAPX
CP $E0-$30:JR C,NOSWAPX

SWAPX
NOSWAPX
LD A,L:NEG :LD L,A:ADD A,E:LD E,A

LD A,D:ADD A,H:LD D,A
CP $08+1:JR C,SWAPY
CP $40:JR C,NOSWAPY

```

```

SWAPY      LD  A,H:NEG :LD  H,A:ADD  A,D:LD  D,A
NOSWAPY

LD  (BIGXHELI),DE
LD  (BADDIRHELI+1),HL
RET

,*****
,

BIGEXPHELI
CALL OLDCLS
CALL ENEMYBAR
LD  B,128
EXPLOPHELI
PUSH BC
CALL BEEPER

EI  :HALT
LD  DE,(EXP10X):CALL PRTBACK:LD  DE,(EXP20X):CALL PRTBACK
LD  DE,(EXP30X):CALL PRTBACK

CALL PRTBIGHELI
CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

LD  A,(POS):INC  A:LD  (POS),A
AND 1:JR  NZ,EFEDHELI
CALL RAND
LD  DE,(BIGXHELI)
LD  A,(RND1):AND  $3F:ADD  A,E:LD  E,A
LD  A,(RND2):AND  $0F:ADD  A,$10:ADD  A,D:LD  D,A
CALL BAZOOKABIT
EFEDHELI

POP  BC:DJNZ EXPLOPHELI

LD  DE,(BIGXHELI):CALL PRTBACK8X3
LD  DE,(SIGHTOX):CALL PRTBACK3X2:CALL OLDCLS
LD  DE,(EXP10X):CALL PRTBACK:LD  DE,(EXP20X):CALL PRTBACK
LD  DE,(EXP30X):CALL PRTBACK

RET

,*****
,

PRTBIGHELI  LD  A,(BIGXHELI):RRA :RRA :AND 1
LD  HL,BIGBADDY:LD  DE,$180:CALL MULT
DB 17
BIGXHELI    DB  $00
BIGYHELI    DB  $08
LD  BC,$1808

LD  A,C:SRL  B:LD  C,B:LD  B,A
PUSH HL:CALL DIXAD:EX  DE,HL:POP  HL
PUSH BC
DHCLP
DHBLP1
LD  A,(DE):AND  (HL):INC  HL:OR  (HL):LD  (DE),A:INC  HL
INC  E:DJNZ DHBLP1:POP  BC:DEC  E:INC  D:PUSH BC
DHBLP2
LD  A,(DE):AND  (HL):INC  HL:OR  (HL):LD  (DE),A:INC  HL
DEC  E:DJNZ DHBLP2:POP  BC:INC  E:INC  D

LD  A,D:AND  7:JR  NZ,DHSC
LD  A,E:ADD  A,32:LD  E,A:JR  C,DHSC
LD  A,D:SUB  8:LD  D,A
DHSC        DEC  C:JP  NZ,DHCLP:RET

PRTBACK8X3  CALL DIXAD:PUSH HL:CALL DICAD:POP  DE:LD  BC,$0CFF
BACKBLP8X3  LDI  :LDI  :LDI  :LDI  :LDI  :LDI  :LDI  :LDI  :INC  D:DEC  E
LD  A,L:ADD  A,32-1:LD  L,A:ADC  A,H:SUB  L:LD  H,A
LDD  :LDD  :LDD  :LDD  :LDD  :LDD  :LDD  :LDD  :INC  D:INC  E
LD  A,L:ADD  A,32+1:LD  L,A:ADC  A,H:SUB  L:LD  H,A
LD  A,D:AND  7:JR  NZ,BAKSKP8X3
LD  A,E:ADD  A,32:LD  E,A:JR  C,BAKSKP8X3
LD  A,D:SUB  8:LD  D,A
BAKSKP8X3   DJNZ BACKBLP8X3:RET

,*****
,
** BIG BAD BUKIN COLISH **
,*****
,

BIGCOLIHELI
LD  A,(BIGXHELI):LD  E,A:LD  D,$24:LD  HL,(SIGX)
CALL HITA:JR  C,NGHELI
LD  A,(BIGYHELI):LD  E,A:LD  D,$18:LD  HL,(SIGY)

```



```

CALL HITA:JR C,NGHELI

LD A,7:CALL ADDSCORE
LD A,(DAMAGE):CALL DECBIGENG
NGHELI RET

;*****
;
; ** BIG END LABEL **
;*****

BIGENDHELI

;*****
;
; ** BIG BADDY LEVEL 2 **
;*****

ORG BIGSTART
LOAD $4300
JP BIGCOLISUB

BIGMAINSUB CALL RESETBAD

XOR A:LD (GAMEOVER+1),A:LD (GAMERET+1),A
LD (GUNNO+1),A
DEC A:LD (DEADMODE+1),A

CALL PRTLIVELY
CALL DUMPSCREEN
CALL PRTLIFES

LD HL,$5860:LD (BIGXSUB),HL
LD HL,$0204:LD (BADDIRSUB+1),HL
XOR A:LD (POS),A

BIGLOOPSUB CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A
RRA :RRA :RRA :AND 1:LD E,A
LD A,(GUNNO+1):CP 14:JR C,ES:CP 18:JR NC,SE
ES ADD A,E
SE LD (GUNNO+1),A

LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
LD DE,(EXP30X):CALL PRTBACK
CALL PRTHERO

DBH 060010FE10FE10FE10FE10FE
CALL DUMPBK
LD DE,(SIGHTOX):CALL PRTBACK3X2:CALL OLDCLS

CALL COPYBACK
CALL MOVEBIGSUB
CALL PRTBIGSUB

CALL PRTSIGHT:CALL COLSIG

CALL PRTBULLETS
CALL PRTBOMB

CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE
CALL ENEMYBAR
CALL RAND
LD A,(FUDLR):AND $40:CALL NZ,PAUSE0

EI :HALT :DI
CALL PRTBOMB:CALL PRTBULLETS
CALL MOVEBULLETS

LD A,1:LD (COLTYP+1),A
CALL BOMBS
CALL DECODE
XOR A:LD (COLTYP+1),A

CALL BULCOLISH
CALL PRTSCORE

LD A,(GUNNO+1):AND $1F:CP 14:JR C,NOFESUB
CP 18:JR NC,NOFESUB
AND 3:LD HL,COFE:CALL ADDHLA
LD B,$1C:LD C,(HL):LD DE,(BIGXSUB):LD A,0:CALL INITBUL
LD A,(GUNNO+1):CPL :AND 3:LD HL,COFE:CALL ADDHLA

```

```

NOFESUB      LD  B,$1C:LD  C,(HL):LD  DE,(BIGXSUB):LD  A,0:CALL INITBUL

              LD  A,(GAMERET+1):OR  A:JR  NZ,BIGEXPSUB

              LD  A,(GAMEOVER+1):OR  A:JP  Z,BIGLOOPSUB
              LD  A,(LIVES):DEC  A:LD  (LIVES),A:RET  Z
              JP  BIGMAINSUB

COFE         DB  $08,$10,$30,$38

MOVEBIGSUB   LD  DE,(BIGXSUB)
BADDIRSUB    LD  HL,$0000
              LD  A,E:ADD  A,L:LD  E,A
              CP  $20+1:JR  C,SWAPXSUB
              CP  $E0-$38:JR  C,NOSWAPXSUB
SWAPXSUB     LD  A,L:NEG  :LD  L,A:ADD  A,E:LD  E,A
NOSWAPXSUB   LD  (BIGXSUB),DE
              LD  (BADDIRSUB+1),HL
              RET

;*****

BIGEXPSUB    CALL OLDCOLS
              CALL ENEMYBAR
              LD  B,128
EXPLOPSUB    PUSH BC
              CALL BEEPER

              EI  :HALT
              CALL DUMPBACK
              XOR  A:LD  (GUNNO+1),A
              CALL PRTBIGSUB
              CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

              LD  A,(POS):INC  A:LD  (POS),A
              AND  1:JR  NZ,EFEDSUB
              CALL RAND
              LD  DE,(BIGXSUB)
              LD  A,(RND1):AND  $3F:ADD  A,E:LD  E,A
              LD  A,(RND2):AND  $0F:ADD  A,$10:ADD  A,0:LD  D,A
              CALL BAZOOKABIT
EFEDSUB      POP  BC:DJNZ  EXPLOPSUB

              LD  DE,(SIGHTOX):CALL PRTBACK3X2:CALL OLDCOLS
              LD  DE,(EXP1OX):CALL PRTBACK:LD  DE,(EXP2OX):CALL PRTBACK
              LD  DE,(EXP3OX):CALL PRTBACK

              RET

;*****

ANIMSSUB     DB  0,0,0,0,1,2,3,4,4,3,2,1,0,0,0,0

PRTBIGSUB    LD  A,(BIGXSUB):RRA  :RRA  :AND  1
              LD  HL,BIGBADDY:LD  DE,$108:CALL MULT
              DB  17
BIGXSUB      DB  $00
BIGYSUB      DB  $58
              LD  A,$58+$18:SUB  D:RET  Z
              LD  B,A:LD  C,$0B
              CALL DUMPBADSUB

GUNNO        LD  A,0:INC  A:LD  (GUNNO+1),A:RRA
              AND  15:LD  HL,ANIMSSUB:CALL ADDHLA:LD  A,(HL):DEC  A:RET  M
              LD  DE,$1E:LD  HL,BIGBADDY+$210:CALL MULT

              LD  A,(BIGXSUB):AND  4:JR  Z,OK3
              LD  DE,$78:ADD  HL,DE

OK3          LD  DE,(BIGXSUB)
              LD  A,E:ADD  A,$08:LD  E,A:LD  A,D:ADD  A,$0C:LD  D,A

              LD  A,$58+$0A+$0C:SUB  D:RET  Z:RET  C:LD  B,A:LD  C,$03

              DB  62
              XOR  (HL):LD  (DSBLP1+1),A:LD  (DSBLP2+1),A

```

```

        PUSH HL:PUSH DE:PUSH BC
        CALL DUMPBADSUB
        POP BC:POP DE:POP HL

        LD A,E:ADD A,$28:LD E,A:CALL DUMPBADSUB

        DB 62
        AND (HL):LD (DSBLP1+1),A:LD (DSBLP2+1),A:RET

DUMPBADSUB LD A,C:SRL B:LD C,B:LD B,A
            PUSH HL:CALL DICAD:EX DE,HL:POP HL
            PUSH BC
DSCLP      LD A,(DE):AND (HL):LD (DE),A:INC HL
DSBLP1     INC E:DJNZ DSBLP1:POP BC
            LD A,E:ADD A,32-1:LD E,A:ADC A,D:SUB E:LD D,A
            PUSH BC
DSBLP2     LD A,(DE):AND (HL):LD (DE),A:INC HL
            DEC E:DJNZ DSBLP2:POP BC
            LD A,E:ADD A,32+1:LD E,A:ADC A,D:SUB E:LD D,A
            DEC C:JP NZ,DSCLP:RET

,*****
,
,** BIG BAD BUKIN COLISH **
,*****
,

BIGCOLISUB LD A,(BIGXSUB):LD E,A:LD D,$50
            LD HL,(SIGX)
            CALL HITA:JR C,NGSUB
            LD A,(BIGYSUB):LD E,A:LD D,$18
            LD HL,(SIGY)
            CALL HITA:JR C,NGSUB
            LD A,7:CALL ADDSCORE
            LD A,(DAMAGE):CALL DECBIGENG
NGSUB      RET

,*****
,
,** BIG END LABEL **
,*****
,

BIGENDSUB

,*****
,
,** BIG BADDY LEVEL 3 **
,*****
,

        ORG BIGSTART
        LOAD $4600
        JP BIGCOLIVAN

BIGMAINVAN CALL RESETBAD
            XOR A:LD (POS),A:LD (NOIN+1),A
            LD (GAMEOVER+1),A:LD (GAMERET+1),A
            DEC A:LD (DEADMODE+1),A
            LD A,1:LD (FEIN+1),A

            LD HL,BIGINITVAN:LD DE,BIGXYSVAN:LD BC,7*BIGLEN:LDIR

            CALL PRTLIVELY
            CALL DUMPSCREEN
            CALL PRTLIFES

BIGLOOPVAN CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A

            LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
            LD DE,(EXP30X):CALL PRTBACK
            CALL PRTHERO

            DBH 060010FE10FE10FE10FE10FE

            CALL DUMPBACK

            LD DE,(SIGHT0X):CALL PRTBACK3X2:CALL OLDCOLS
            CALL PRTSIGHT:CALL COLSIG

            CALL PRTBULLETS:CALL PRTBOMB
            CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

            CALL COPYBACK
            CALL MOVEBIGVAN
            CALL PRTBIGVAN

```

```

CALL READKEYS
LD A,(MODE):OR A:CALL NZ,DEMOMODE
CALL ENEMYBAR
LD A,(FUDLR):AND $40:CALL NZ,PAUSE0

EI :HALT :DI
CALL PRTBOMB:CALL PRTBULLETS
CALL MOVEBULLETS

LD A,1:LD (COLTYP+1),A
CALL BOMBS
CALL DECODE
XOR A:LD (COLTYP+1),A

CALL BULCOLISH
CALL PRTPSCORE

LD A,(GAMERET+1):OR A:JR NZ,BIGEXPVAN
LD A,(GAMEOVER+1):OR A:JP Z,BIGLOOPVAN
LD A,(LIVES):DEC A:LD (LIVES),A:RET Z
JP BIGMAINVAN

,*****

BIGEXPVAN
CALL OLDROLS
CALL ENEMYBAR
LD B,128
EXPLOPVAN
PUSH BC:CALL BEEPER

EI :HALT
CALL DUMPBACK
CALL PRTBIGVAN
CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

CALL RAND:LD A,(RND3):AND 7:JR Z,EFEDVAN
LD HL,BIGXYSVAN-BIGLEN:LD DE,BIGLEN:CALL MULT
LD A,(HL):CP 8:JR C,EFEDVAN:LD E,A:INC HL:LD D,(HL)
LD A,(RND1):AND $0F:ADD A,$08:ADD A,E:LD E,A
LD A,(RND2):AND $0F:ADD A,$10:ADD A,D:LD D,A
CALL BAZOOKABIT
EFEDVAN
POP BC:DJNZ EXPLOPVAN

LD DE,(SIGHT0X):CALL PRTBAC3X2:CALL OLDROLS
LD DE,(EXP10X):CALL PRTBAC:LD DE,(EXP20X):CALL PRTBAC
LD DE,(EXP30X):CALL PRTBAC

JP RESETBAD

TRYINVAN
NOIN
LD A,(IX+BIGX):AND $18:CP $10:RET NZ
LD A,0:OR A:RET NZ
LD IX,BIGXYSVAN
LD DE,BIGLEN
LD B,6
GBIE
LD A,(IX+BIGX):OR A:JR Z,BGOT
ADD IX,DE:DJNZ GBIE
LD A,1:LD (NOIN+1),A
RET
BGOT
LD (IX+BIGX),$F0
LD (IX+BIGY),FY
LD (IX+BIGE),$10
LD (IX+BIGP),$08
RET

,*****

FEIN
LD A,0:DEC A:AND 63:LD (FEIN+1),A:JR NZ,FNON
LD IX,BIGXYSVAN:LD B,6:LD DE,BIGLEN
FECO
LD A,(IX+BIGX):OR A:JR Z,FES
ADD IX,DE:DJNZ FECO:JR FNON
FES
LD IX,MAINXYVAN
LD (IX+XPOS),$F0:LD (IX+BIGY),FY:LD (IX+BIGE),$40
XOR A:LD (NOIN+1),A:LD (FEIN+1),A
JR FNON

MOVEBIGVAN
LD A,(MAINXYVAN+BIGX):CP 8:JR C,FEIN
LD A,0:LD (FEIN+1),A
FNON
LD IX,BIGXYSVAN
LD B,7
MOBILPVAN
LD A,(IX+BIGX):OR A:JR Z,FNE
CP (IX+BIGT):JR Z,FLUFFYVAN

```

```

SUB 8:LD (IX+BIGX),A
LD A,B:DEC A:JP Z,TRYINVAN
FNE LD DE,BIGLEN:ADD IX,DE:DJNZ MOBILPVAN:RET

FLUFFYVAN LD A,B:CP 1:JR Z,DEW:LD (IX+BIGY),BY
DEW LD A,(POS):AND 1:JR NZ,FNE
LD A,(IX+BIGP):CP $0C:JR Z,FNE
OR A:JR NZ,NOFREEZE
CALL RAND:LD A,(RND1):AND $1F:CP $1C:JR C,FNE
XOR A
NOFREEZE INC A:CP 12:JR Z,N12
CP 8:JR NZ,N08
N12 XOR A
N08 LD (IX+BIGP),A
CP 4:JR NZ,FNE
LD E,(IX+BIGX):LD D,(IX+BIGY)
PUSH BC:LD BC,$1008:LD A,0:CALL INITBUL:POP BC
JR FNE

PRTBIGVAN LD IX,MAINXYVAN-BIGLEN:LD B,6:CALL BIGLOPVAN
LD IX,MAINXYVAN:INC B
BIGLOPVAN PUSH BC:LD E,(IX+BIGP):LD D,0:LD HL,ANIMSVAN:ADD HL,DE
LD A,(HL):LD HL,BIGBADDY:LD DE,$78:CALL MULT
LD E,(IX+BIGX):LD D,(IX+BIGY):CALL DUMPBAGVAN
LD DE,0-BIGLEN:ADD IX,DE:POP BC:DJNZ BIGLOPVAN:RET

DUMPBAGVAN LD A,E:CP 8:RET C:LD BC,$2203
DUMPBADVAN LD A,C:SRL B:LD C,B:LD B,A
PUSH HL:CALL TWATAD:EX DE,HL:POP HL
DVCLP PUSH BC
DVBLP1 LD A,(HL):LD (DE),A:INC HL:INC DE:DJNZ DVBLP1:POP BC
LD A,E:ADD A,32-1:LD E,A:ADC A,D:SUB E:LD D,A:PUSH BC
DVBLP2 LD A,(HL):LD (DE),A:INC HL:DEC DE:DJNZ DVBLP2:POP BC
LD A,E:ADD A,32+1:LD E,A:ADC A,D:SUB E:LD D,A
DEC C:JP NZ,DVCLP:RET

```

```

,*****
,
,** BIG BAD BUKIN COLISH **
,*****
,

```

```

BIGCOLIVAN LD IX,BIGXYSVAN
LD B,7

BIGVCR LD A,(IX+BIGX):CP 8:JR C,NV
LD E,(IX+BIGX):LD D,$18:LD HL,(SIGX):CALL HITA:JR C,NV
LD E,(IX+BIGY):LD D,$20:LD HL,(SIGY):CALL HITA:JR C,NV

LD A,7:CALL ADDSCORE

LD A,(DAMAGE):LD E,A
LD A,(IX+BIGE):SUB E:JR NC,0EV:XOR A
0EV LD (IX+BIGE),A
JR NZ,NV

PUSH BC:LD A,(IX+BIGX):ADD A,$08:LD E,A
LD A,(IX+BIGY):ADD A,$20:LD D,A:CALL BAZOOKABIT:POP BC

LD A,1:CALL DECBADENERGY
LD A,(GAMERET+1):OR A:JR NZ,NV
LD (IX+BIGX),0

NV LD DE,BIGLEN:ADD IX,DE:DJNZ BIGVCR
RET

```

```

,*****
,
,** BIG END LABEL **
,*****
,

```

BIGENDVAN

```

,*****
,
,** BIG BADDY LEVEL 4 **
,*****
,

```

```

ORG BIGSTART
LOAD $4900
JP BIGCOLID00R
JR BIGMAINDOOR

```

```

;BIGX EQU 0
;BIGY EQU 1

```

```

;BIGP      EQU 2
;BIGT      EQU 3
;BIGE      EQU 4
;BIGLEN    EQU 5

BIGXYSDOOR DS 3*BIGLEN

INITXYSDOOR DB $20,$48,110,$00,$40
             DB $B0,$48,110,$00,$40
             DB $68,$40,110,$00,$40

BIGMAINDOOR
CALL RESETBAD
XOR A:LD (POS),A
LD (GAMEOVER+1),A:LD (GAMERET+1),A
DEC A:LD (DEADMODE+1),A

LD HL,INITXYSDOOR:LD DE,BIGXYSDOOR:LD BC,3*BIGLEN:LDIR

CALL PRTLIVELY
CALL DUMPSCREEN
CALL PRTLIFES

BIGLOOPDOOR CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A

LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
LD DE,(EXP30X):CALL PRTBACK
CALL PRTHERO

DBH 060010FE10FE10FE10FE10FE

CALL DUMPBACK

LD DE,(SIGHT0X):CALL PRTBACK3X2:CALL OLDCLS
CALL PRTSIGHT:CALL COLSIG

CALL PRTBULLETS:CALL PRTBOMB
CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

CALL COPYBACK
CALL MOVEBIGDOOR
CALL PRTBIGDOOR

CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE
CALL ENEMYBAR
CALL RAND
LD A,(FUDLR):AND $40:CALL NZ,PAUSE0

EI :HALT :DI
CALL PRTBOMB:CALL PRTBULLETS
CALL MOVEBULLETS

LD A,1:LD (COLTYP+1),A
CALL BOMBS
CALL DECODE
XOR A:LD (COLTYP+1),A

CALL BULCOLISH
CALL PRTSCORE

LD A,(GAMERET+1):OR A:JP NZ,BIGEXPDOOR
LD A,(GAMEOVER+1):OR A:JP Z,BIGLOOPDOOR
LD A,(LIVES):DEC A:LD (LIVES),A:RET Z
JP BIGMAINDOOR

,*****
,BIGEXPDOOR
CALL OLDCLS
CALL ENEMYBAR
LD B,128
EXPLOPDOOR PUSH BC
CALL BEEPER

EI :HALT
CALL DUMPBACK
CALL PRTBIGDOOR
CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

LD A,(POS):INC A:LD (POS),A
AND 1:JR NZ,EFEDDOOR
CALL RAND

```



```

BDXY      LD  DE,$0000
          LD  A,(RND1):AND $3F:ADD A,E:LD E,A
          LD  A,(RND2):AND $0F:ADD A,$10:ADD A,D:LD D,A
          CALL BAZOOKABIT
EFEDDOOR  POP  BC:DJNZ EXPLOPDOOR

          LD  DE,(SIGHTOX):CALL PRTBACK3X2:CALL OLDROLS
          LD  DE,(EXP1OX):CALL PRTBACK:LD DE,(EXP2OX):CALL PRTBACK
          LD  DE,(EXP3OX):CALL PRTBACK

          RET

,*****
TYPESF    DBH 00000000000000102030303020100

MOVEBIGDOOR
          LD  IX,BIGXSDOOR
          LD  B,3

MOBILPDOOR
          LD  A,(IX+BIGE):OR A:JR Z,NOGO

          LD  A,(IX+BIGP):OR A:JR Z,TRYOPEN
          INC A:AND $0F:LD (IX+BIGP),A
          CP  11:JR NZ,NOGO

          PUSH BC
          LD  E,(IX+BIGX):LD D,(IX+BIGY)
          PUSH DE:LD BC,$180C:LD A,0:CALL INITBUL:POP DE
          PUSH DE:LD BC,$181A:LD A,0:CALL INITBUL:POP DE
          LD  BC,$1824:LD A,0:CALL INITBUL
          POP  BC

NOGO      LD  DE,BIGLEN:ADD IX,DE:DJNZ MOBILPDOOR:RET

TRYOPEN   CALL RAND
          LD  A,(RND1):AND $1F:CP $1C:JR C,NOGO

          LD  (IX+BIGP),1
          JR  NOGO

,*****

PRTBIGDOOR LD IX,BIGXSDOOR:LD B,3
PRBILPDOOR LD A,(IX+BIGP):LD HL,TYPESF:CALL ADDHLA:LD A,(HL)
          LD  HL,BIGBADDY:LD DE,$90:CALL MULT
          LD  E,(IX+BIGX):LD D,(IX+BIGY)
          LD  A,(IX+BIGE):OR A:CALL NZ,DUMPBAGDOOR
          LD  DE,BIGLEN:ADD IX,DE:DJNZ PRBILPDOOR:RET

DUMPBAGDOOR PUSH BC:LD BC,$1806
DUMPBADOOR  LD A,C:SRL B:LD C,B:LD B,A
          PUSH HL:CALL TWATAD:EX DE,HL:POP HL
DDCLP      PUSH BC
DDBLP1     LD A,(HL):LD (DE),A:INC HL:INC E:DJNZ DDBLP1
          POP  BC
          LD  A,E:ADD A,32-1:LD E,A:ADC A,D:SUB E:LD D,A
          PUSH BC
DDBLP2     LD A,(HL):LD (DE),A:INC HL:DEC E:DJNZ DDBLP2
          POP  BC
          LD  A,E:ADD A,32+1:LD E,A:ADC A,D:SUB E:LD D,A
          DEC C:JP NZ,DDCLP:POP BC:RET

,*****
, ** BIG BAD BUKIN COLISH **
,*****

BIGCOLIDOO LD IX,BIGXSDOOR:LD B,3
BICOLPDOOR PUSH BC:LD A,(IX+BIGE):OR A:JR Z,ND
          LD  E,(IX+BIGX):LD D,$30:LD HL,(SIGX):CALL HITA:JR C,ND
          LD  E,(IX+BIGY):LD D,$18:LD HL,(SIGY):CALL HITA:JR C,ND

          LD  A,7:CALL ADDSCORE

          LD  A,(DAMAGE):LD E,A
          LD  A,(IX+BIGE):SUB E:JR NC,OE:XOR A
OE         LD  (IX+BIGE),A:JR NZ,ND

          LD  A,(IX+BIGX):ADD A,$08:LD E,A
          LD  A,(IX+BIGY):ADD A,$18:LD D,A:CALL BAZOOKABIT
          LD  A,(IX+BIGX):ADD A,$28:LD E,A

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```

LD A,(IX+BIGY):ADD A,$18:LD D,A:CALL BAZOOKABIT

LD E,(IX+BIGX):LD D,(IX+BIGY):LD (BDXY+1),DE

LD A,8:CALL DECBADENERGY

ND POP BC:LD DE,BIGLEN:ADD IX,DE:DJNZ BICOLPDOOR:RET

;*****
;
; ** BIG END LABEL **
;*****

BIGENDDOOR

;*****
;
; ** BIG BADDY LEVEL 5 **
;*****

ORG BIGSTART
LOAD $4C00
JP BIGCOLIMIS

BIGMAINMIS

CALL RESETBAD

XOR A:LD (POS),A:LD (GAMEOVER+1),A:LD (GAMERET+1),A
INC A:LD (NOMOREBAD+1),A
SUB 2:LD (DEADMODE+1),A

LD HL,BIGMISINIT:LD DE,BIGXYMIS:LD BC,BIGLEN*6:LDIR

CALL PRTLIVELY
CALL DUMPSCREEN
CALL PRTLIFES

BIGLOOPMIS CALL BEEPER:DI :LD A,(POS):INC A:LD (POS),A

LD DE,(EXP10X):CALL PRTBACK:LD DE,(EXP20X):CALL PRTBACK
LD DE,(EXP30X):CALL PRTBACK
CALL PRTHERO

DBH 060010FE10FE10FE10FE10FE

CALL DUMPBACK

LD DE,(SIGHTOX):CALL PRTBACK3X2:CALL OLDCLS
CALL PRTSIGHT:CALL COLSIG

CALL PRTBULLETS:CALL PRTBOMB
CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

CALL COPYBACK
CALL PRTBIGMIS
CALL MOVEBIGMIS

CALL READKEYS:LD A,(MODE):OR A:CALL NZ,DEMOMODE
CALL ENEMYBAR
CALL RAND
LD A,(FUDLR):AND $40:CALL NZ,PAUSE0

EI :HALT :DI
CALL PRTBOMB:CALL PRTBULLETS
CALL MOVEBULLETS

LD A,1:LD (COLTYP+1),A
CALL BOMBS
CALL DECODE
XOR A:LD (COLTYP+1),A

CALL BULCOLISH

CALL PRSCORE

LD A,(GAMERET+1):OR A:JP NZ,BIGEXPMIS
LD A,(GAMEOVER+1):OR A:JP Z,BIGLOOPMIS
LD A,(LIVES):DEC A:LD (LIVES),A:RET Z
JP BIGMAINMIS

;*****
;
BIGEXPMIS

```

```

EXPLOPMIS    CALL OLDCLS
              CALL ENEMYBAR
              LD  B,128
              PUSH BC
              CALL BEEPER

              EI  :HALT
              CALL DUMPBAC
              CALL PRTBIGMIS
              CALL PRTEXPLOD1:CALL PRTEXPLOD2:CALL PRTEXPLOD3

              LD  A,(POS):INC A:LD  (POS),A
              AND 1:JR  NZ,EFEDMIS
              CALL RAND
              LD  DE,(MAINXY+BIGX)
              LD  A,(RND1):AND $3F:ADD A,E:LD  E,A
              LD  A,(RND2):AND $0F:ADD A,$10:ADD A,D:LD  D,A
              CALL BAZOOKABIT
EFEDMIS      POP  BC:DJNZ EXPLOPMIS

              LD  DE,(SIGHT0X):CALL PRTBACK2X2:CALL OLDCLS
              LD  DE,(EXP10X):CALL PRTBACK:LD  DE,(EXP20X):CALL PRTBACK
              LD  DE,(EXP30X):CALL PRTBACK

              LD  HL,$0101:LD  (BUILDUS),HL
              JP  BLOWLOT

MOVEBIGMIS   LD  A,(POS):AND 3:CALL Z,FEFE

              LD  A,(POS):AND 1:RET  NZ
              LD  IX,BIGXYMIS
              LD  B,6
MOBILPMIS    LD  A,(IX+BIGP):CP  6:ADC A,0:AND 7:LD  (IX+BIGP),A
              LD  DE,BIGLEN:ADD IX,DE:DJNZ MOBILPMIS
              RET

FEFE          CALL RAND:LD  A,(RND1):AND 7:CP  6:RET  NC
              ADD A,A:LD  E,A:LD  D,0:LD  HL,BULINIT:ADD HL,DE
              LD  E,(HL):INC HL:LD  B,(HL):LD  HL,BULXYSMIS:ADD HL,DE
INITFIRING    LD  E,(HL):INC HL:LD  D,(HL):INC HL:PUSH HL:PUSH BC
              LD  BC,$0C00:XOR A:CALL INITBUL
              POP BC:POP  HL:DJNZ INITFIRING
              RET

,*****

PRTBIGMIS     LD  A,(MAINXY+BIGP):LD  E,A:LD  D,0
              LD  HL,ANISMIS:ADD HL,DE:LD  A,(HL):LD  E,A
              LD  HL,BIGSIZ:ADD HL,DE:LD  A,(HL):LD  (BIGB),A
              LD  HL,BIGXYSMIS:ADD HL,DE:LD  A,(HL):LD  (MAINXY+BIGY),A
              SLA E:LD  HL,ANIMADDR:ADD HL,DE
              LD  E,(HL):INC HL:LD  D,(HL):EX  DE,HL
              LD  DE,(MAINXY)
              DB  1
BIGC           DB  $09
BIGB           DB  $18
              CALL DUMPBADMIS

              LD  IX,BIGXYMIS
              LD  B,5
BIGVLP         LD  E,(IX+BIGX)
              LD  D,(IX+BIGY)
              PUSH BC

              PUSH DE
              LD  E,(IX+BIGP):LD  D,0:LD  HL,ANIMS2:ADD HL,DE
              LD  A,(HL):ADD A,A:LD  E,A:LD  D,0:LD  HL,ANIM2ADDR
              ADD HL,DE:LD  E,(HL):INC HL:LD  D,(HL):EX  DE,HL
              SRL A:LD  E,A:LD  A,2:SUB E:ADD A,A:ADD A,A:ADD A,A
              LD  B,A
              POP  DE

              LD  A,D:ADD A,B:LD  D,A
              LD  A,$18:SUB B:LD  B,A:LD  C,3
              CALL DUMPBADMIS

              POP BC:LD  DE,BIGLEN:ADD IX,DE:DJNZ BIGVLP:RET

DUMPBADMIS    LD  A,C:SRL B:LD  C,B:LD  B,A
              PUSH HL:CALL TWATAD:EX  DE,HL:POP  HL

```

```

DMCLP      PUSH BC
DMBLP1     LD  A,(HL):LD  (DE),A:INC HL:INC DE:DJNZ DMBLP1:POP BC
           LD  A,E:ADD A,32-1:LD  E,A:ADC A,D:SUB E:LD  D,A
           PUSH BC
DMBLP2     LD  A,(HL):LD  (DE),A:INC HL:DEC DE:DJNZ DMBLP2:POP BC
           LD  A,E:ADD A,32+1:LD  E,A:ADC A,D:SUB E:LD  D,A
           DEC C:JP  NZ,DMCLP:RET

```

```

,*****

```

```

BIGCOLIMIS
           LD  A,(MAINXY+BIGX):LD  E,A:LD  A,(BIGC)
           ADD A,A:ADD A,A:ADD A,A:LD  D,A
           LD  HL,(SIGX):CALL HITA:JR  C,NM

           LD  A,(MAINXY+BIGY):LD  E,A:LD  A,(BIGB)
           LD  D,A
           LD  HL,(SIGY):CALL HITA:JR  C,NM

           LD  A,7:CALL ADDSCORE
           LD  A,(DAMAGE):CALL DECBIGENG

```

```

NM
BICOLPMIS LD  IX,BIGXYMIS:LD  B,5
           PUSH BC
           LD  E,(IX+BIGX):LD  D,$18:LD  HL,(SIGX):CALL HITA:JR  C,NT
           LD  E,(IX+BIGY):LD  D,$18:LD  HL,(SIGY):CALL HITA:JR  C,NT

           LD  A,0:CALL ADDSCORE
           LD  A,(DAMAGE):LD  E,A
           LD  A,(IX+BIGE):SUB E:LD  (IX+BIGE),A:JR  NC,NT

           LD  (IX+BIGP),0:LD  (IX+BIGE),$10
           LD  A,(IX+BIGX):ADD A,$08:LD  E,A
           LD  A,(IX+BIGY):ADD A,$18:LD  D,A:CALL BAZOOKABIT

NT         LD  DE,BIGLEN:ADD IX,DE:POP BC:DJNZ BICOLPMIS:RET

```

```

,*****

```

```

BULINITs   DB  00,6
           DB  12,2
           DB  16,2
           DB  20,2
           DB  24,2
           DB  28,2

BULXYSMIS  DW  $566C,$4C7C,$587C,$4C88,$5888,$5698
           DW  $5624,$5630
           DW  $5E44,$5E50
           DW  $667C,$6688
           DW  $5EB4,$5EC0
           DW  $56D4,$56E0

BIGSIz     DB  $08,$0C,$14,$18
BIGXYSMIS  DB  $58,$54,$4C,$48

ANIMADDR   DW  BIGBADDY,BIGBADDY+$48,BIGBADDY+$B4,BIGBADDY+$168
ANIMZADDR  DW  BIGBADDY+$240,BIGBADDY+$240+$18,BIGBADDY+$240+$48

;BIGX      EQU  0
;BIGY      EQU  1
;BIGP      EQU  2
;BIGT      EQU  3
;BIGE      EQU  4
;BIGLEN    EQU  5

BIGXYMIS   EQU  BADDAT
MAINXY     EQU  BIGXYMIS+BIGLEN*5

```

```

,*****
;
; ** BIG END LABEL **
,*****

```

```

BIGENDMIS
,*****
; ** SPECTRUM AY SOUND CHIP MUSIC DRIVER **
,*****

ORG BAKSC

```

```

MUSICSTART
;*****
;
; ** SPECTRUM AY SOUND CHIP MUSIC DRIVER **
;*****

;*****
;
; ** EQUATES **
;*****

FIN            EQU 128
LOP            EQU 254

END            EQU 128
RTS            EQU 128
REST           EQU 129
VOLUME         EQU 130
TRANS          EQU 131

DRUM           EQU 132
BASS           EQU 132
SNR1           EQU 133
SNR2           EQU 134
WOOD           EQU 135
TOM1           EQU 136
TOM2           EQU 137

REPEAT         EQU 0

SEQ            EQU 00
POSI           EQU 02
LASTNOTE       EQU 04
TRANSDIR       EQU 05
TRANSOFS       EQU 06
TRANSSPD       EQU 07
TRANSCNT       EQU 08
DEL            EQU 09
OFFSET         EQU 10
VOLTYPE        EQU 11
VOL            EQU 12
SILENCE        EQU 13
INFOLEN        EQU 14

;*****

C0             EQU 0
C_0            EQU 1
D0             EQU 2
D_0            EQU 3
E0             EQU 4
F0             EQU 5
F_0            EQU 6
G0             EQU 7
G_0            EQU 8
A0             EQU 9
A_0            EQU 10
B0             EQU 11
C1             EQU 12
C_1            EQU 13
D1             EQU 14
D_1            EQU 15
E1             EQU 16
F1             EQU 17
F_1            EQU 18
G1             EQU 19
G_1            EQU 20
A1             EQU 21
A_1            EQU 22
B1             EQU 23
C2             EQU 24
C_2            EQU 25
D2             EQU 26
D_2            EQU 27
E2             EQU 28
F2             EQU 29
F_2            EQU 30
G2             EQU 31
G_2            EQU 32
A2             EQU 33
A_2            EQU 34
B2             EQU 35
C3             EQU 36
C_3            EQU 37

```

D3	EQU	38
D_3	EQU	39
E3	EQU	40
F3	EQU	41
F_3	EQU	42
G3	EQU	43
G_3	EQU	44
A3	EQU	45
A_3	EQU	46
B3	EQU	47
C4	EQU	48
C_4	EQU	49
D4	EQU	50
D_4	EQU	51
E4	EQU	52
F4	EQU	53
F_4	EQU	54
G4	EQU	55
G_4	EQU	56
A4	EQU	57
A_4	EQU	58
B4	EQU	59
C5	EQU	60
C_5	EQU	61
D5	EQU	62
D_5	EQU	63
E5	EQU	64
F5	EQU	65
F_5	EQU	66
G5	EQU	67
G_5	EQU	68
A5	EQU	69
A_5	EQU	70
B5	EQU	71
C6	EQU	72
C_6	EQU	73
D6	EQU	74
D_6	EQU	75
E6	EQU	76
F6	EQU	77
F_6	EQU	78
G6	EQU	79
G_6	EQU	80
A6	EQU	81
A_6	EQU	82
B6	EQU	83
C7	EQU	84
C_7	EQU	85
D7	EQU	86
D_7	EQU	87
E7	EQU	88
F7	EQU	89
F_7	EQU	90
G7	EQU	91
G_7	EQU	92
A7	EQU	93
A_7	EQU	94
B7	EQU	95

;*****

;*****

PAGE10

ENABLE	DB	%00111000
--------	----	-----------

TONESETTINGS	DB	%00001000
	DB	%00010000
	DB	%00100000
DRUMSETTINGS	DB	%00000001
	DB	%00000010
	DB	%00000100

SWITCH0FS	DB	%11110110
	DB	%11101101
	DB	%11011011
	DB	%11110110
	DB	%11101101
	DB	%11011011

FXTAB	DB	\$00	; BASS
-------	----	------	--------


```

DB $1F ; SNARE1
DB $07 ; SNARE2
DB $10 ; WOOD
DB $17 ; TOM1
DB $1B ; TOM2

ROUTTAB DW FINISH
        DW RESTABIT
        DW SETFADES
        DW SETTRANS
        DW DODRUM
        DW DODRUM
        DW DODRUM
        DW DODRUM
        DW DODRUM
        DW DODRUM

SLD EQU 00
DRM EQU 01
TRB EQU 02
BAS EQU 03

ADSRTABLE DB SLIDVOLTB-PAGE10
          DB DRUMVOLTB-PAGE10
          DB TREBVOLTB-PAGE10
          DB BASSVOLTB-PAGE10

SLIDVOLTB DB 10,LOP
DRUMVOLTB DB 15,15,13,13,11,11,07,07,03,03,00,FIN
TREBVOLTB DB 15,14,13,12,11,10,9,8,7,6,5,4,3,2,1,0,FIN
BASSVOLTB DB 15,14,13,12,11,12,13,12,11,10,09,08,07,08,09,08,07,06
          DB 05,06,07,06,05,04,03,04,05,04,03,02,01,02,03,02,01,00,FIN

,*****

TUNES DW CABAL1,CABAL2,CABAL3

,*****

TREBINFO DS INFOLEN
BASSINFO DS INFOLEN
DRUMINFO DS INFOLEN

,*****

PLAYMUSIC XOR A
          CALL INITTUNE
LOOP EI :HALT :DI
; CALL SCRCOL
; LD A,(COLS)
; LD HL,$5801+11*32:LD DE,32-1
; LD (HL),A:INC L:LD (HL),A
; ADD HL,DE:LD (HL),A:INC L:LD (HL),A
CALL DOMUSIC
LD A,$EF:IN A,(254):CPL :AND 31:JR NZ,KILLER
XOR A:IN A,(254):CPL :AND 31:JR Z,LOOP
KILLER LD C,$3F:LD A,7:JP SENDONE

,*****

INITTUNE LD HL,TUNES:LD DE,$0006:CALL MULT
        LD E,(HL):INC HL:LD D,(HL):INC HL:LD (TREBINFO+SEQ),DE
        LD E,(HL):INC HL:LD D,(HL):INC HL:LD (BASSINFO+SEQ),DE
        LD E,(HL):INC HL:LD D,(HL):INC HL:LD (DRUMINFO+SEQ),DE

        LD A,%00111000:LD (ENABLE),A

        XOR A:LD (TREBINFO+TRANSDIR),A:LD (TREBINFO+TRANSOFS),A
        LD (TREBINFO+TRANSSPD),A:LD (TREBINFO+TRANSCNT),A
        LD (TREBINFO+VOLTYPE),A:LD (TREBINFO+DEL),A
        LD (TREBINFO+SILENCE),A:LD (TREBINFO+VOL),A
        LD A,0:LD (TREBINFO+OFFSET),A
        LD HL,(TREBINFO+SEQ):LD E,(HL):INC HL:LD D,(HL):INC HL
        LD (TREBINFO+SEQ),HL:LD (TREBINFO+POSI),DE

        XOR A:LD (BASSINFO+TRANSDIR),A:LD (BASSINFO+TRANSOFS),A
        LD (BASSINFO+TRANSSPD),A:LD (BASSINFO+TRANSCNT),A
        LD (BASSINFO+VOLTYPE),A:LD (BASSINFO+DEL),A
        LD (BASSINFO+SILENCE),A:LD (BASSINFO+VOL),A
        LD A,1:LD (BASSINFO+OFFSET),A

```

```

LD HL,(BASSINFO+SEQ):LD E,(HL):INC HL:LD D,(HL):INC HL
LD (BASSINFO+SEQ),HL:LD (BASSINFO+POSI),DE

XOR A:LD (DRUMINFO+TRANSDIR),A:LD (DRUMINFO+TRANSOFS),A
LD (DRUMINFO+TRANSPD),A:LD (DRUMINFO+TRASCNT),A
LD (DRUMINFO+VOLTYPE),A:LD (DRUMINFO+DEL),A
LD (DRUMINFO+SILENCE),A:LD (DRUMINFO+VOL),A
LD A,2:LD (DRUMINFO+OFFSET),A
LD HL,(DRUMINFO+SEQ):LD E,(HL):INC HL:LD D,(HL):INC HL
LD (DRUMINFO+SEQ),HL:LD (DRUMINFO+POSI),DE

RET

,*****
,
DOMUSIC
LD IX,TREBINFO:CALL DOCHANNEL
LD IX,BASSINFO:CALL DOCHANNEL
LD IX,DRUMINFO:CALL DOCHANNEL
LD A,(ENABLE):LD C,A:LD A,7:JP SENDONE

,*****
,
SENDTWO
;
RET
LD C,L
PUSH AF
CALL SENDONE
POP AF
LD C,H
INC A

SENDONE
;
RET
PUSH BC:LD BC,$FFFD:OUT (C),A:POP BC
LD A,C:LD BC,$BFFD:OUT (C),A:RET

,*****
,
VOLLOOP LD (IX+VOL),0
JR FADEVOL

DOCHANNEL LD A,(IX+DEL):OR A:JP Z,RETRYNOTE
DEC (IX+DEL):JP Z,RETRYNOTE

DEC (IX+TRASCNT):JP P,DECT
LD A,(IX+TRANSPD):LD (IX+TRASCNT),A

LD A,(IX+TRANSOFS):ADD A,(IX+TRANSDIR):LD (IX+TRANSOFS),A
LD A,(IX+LASTNOTE):CALL GETVALUE

DECT

FADEVOL LD A,(IX+SILENCE):OR A:JP Z,SENDVOL
LD HL,ADSRTABLE:LD A,(IX+VOLTYPE):ADD A,L:LD L,A
LD A,(HL):ADD A,(IX+VOL):LD L,A
INC (IX+VOL)
LD A,(HL):CP LOP:JP Z,VOLLOOP:CP FIN:JP Z,VOLEND

SENDVOL LD C,A:LD A,8:ADD A,(IX+OFFSET):JP SENDONE

VOLEND DEC (IX+VOL):LD C,0:LD A,8:ADD A,(IX+OFFSET):JP SENDONE

,*****
,
RETRYNOTE LD L,(IX+POSI):LD H,(IX+POSI+1)
LD A,(HL):INC HL:OR A:JP M,GETROUT

,*****
,
GETNOTE LD E,(HL):LD (IX+DEL),E:INC HL
LD (IX+POSI),L:LD (IX+POSI+1),H

DONOTE LD (IX+LASTNOTE),A:CALL GETVALUE
LD A,(IX+TRANSDIR):NEG :LD (IX+TRANSOFS),A
LD (IX+VOL),0
LD (IX+SILENCE),1
LD A,(IX+OFFSET):CALL ENABLER
JP FADEVOL

GETVALUE ADD A,(IX+TRANSOFS):ADD A,A:LD L,A:LD H,0:LD DE,OCT0
ADD HL,DE:LD E,(HL):INC HL:LD D,(HL):EX DE,HL
LD A,(IX+OFFSET):ADD A,A:JP SENDTWO

```

```

,*****
,
GETROUT      ADD A,A:PUSH HL:LD HL,ROUTTAB:LD E,A:LD D,0:ADD HL,DE
LD E,(HL):INC L:LD D,(HL):LD (ROUTJUMP+1),DE:POP HL
ROUTJUMP     JP $0000

```

```

,*****
,
FINISH       LD L,(IX+SEQ):LD H,(IX+SEQ+1)
FINIS        LD E,(HL):INC HL:LD D,(HL):INC HL
LD A,D:OR E:JR Z,FINJUMP
LD (IX+SEQ),L:LD (IX+SEQ+1),H
LD (IX+POSI),E:LD (IX+POSI+1),D
JP RETRYNOTE

```

```

,*****
,
FINJUMP      LD E,(HL):INC HL:LD D,(HL):EX DE,HL:JP FINIS

```

```

,*****
,
RESTITAB    LD A,(HL):INC HL:LD (IX+DEL),A
LD (IX+POSI),L:LD (IX+POSI+1),H
LD (IX+SILENCE),0:RET

```

```

,*****
,
SETFADES    LD A,(HL):INC HL:LD (IX+VOLTYPE),A:LD (IX+VOL),0
LD (IX+POSI),L:LD (IX+POSI+1),H
JP RETRYNOTE

```

```

,*****
,
SETTRANS    LD A,(HL):INC HL:LD (IX+TRANSDIR),A:LD (IX+TRANSOFS),0
LD A,(HL):INC HL:LD (IX+TRANSSPD),A:LD (IX+TRANSCNT),A
LD (IX+POSI),L:LD (IX+POSI+1),H
JP RETRYNOTE

```

```

,*****
,
ENABLER     PUSH HL:PUSH AF:LD HL,SWITCHOFS:ADD A,L:LD L,A
LD A,(ENABLE):AND (HL):LD (ENABLE),A:POP AF
LD HL,TONESETTINGS:ADD A,L:LD L,A
LD A,(ENABLE):OR (HL):LD (ENABLE),A:POP HL:RET

```

```

,*****
,
DODRUM      LD A,(HL):ADD A,133-3:LD C,A:INC HL
INC HL
LD E,(HL):LD (IX+DEL),E:INC HL
LD (IX+POSI),L:LD (IX+POSI+1),H
LD A,C:SUB BASS:LD HL,FXTAB:ADD A,L:LD L,A
LD C,(HL):LD A,6:CALL SENDONE

LD A,(IX+OFFSET):ADD A,3:CALL ENABLER

LD (IX+VOL),0:LD (IX+SILENCE),1:RET

```

```

,*****
,
OCT0        DW $777,$70C,$6A7,$647,$5ED,$598
DW $547,$4FC,$4D4,$470,$431,$3F4
OCT1        DW $3DC,$386,$353,$324,$2F6,$2CC
DW $2A4,$27E,$25A,$238,$218,$1FA
OCT2        DW $1DE,$1C3,$1AA,$192,$17B,$166
DW $152,$13F,$12D,$11C,$10C,$0FD
OCT3        DW $0EF,$0E1,$0D5,$0C9,$0BE,$0B3
DW $0A9,$09F,$096,$08E,$086,$07F
OCT4        DW $077,$071,$06A,$064,$05F,$059
DW $054,$050,$04B,$047,$043,$03F
OCT5        DW $03C,$038,$035,$032,$02F,$02D
DW $02A,$028,$026,$024,$022,$020
OCT6        DW $01E,$01C,$01B,$019,$018,$016
DW $015,$014,$013,$012,$011,$010

```

```

,*****
,
** CABAL MUSIC DATA **
,*****
t EQU 6

```

CABAL1	DW	SEQ0,SEQ0,SEQ0,SEQ0	; 26 V1
CAB1	DW	SEQ3	; 00 V1
	DW	SEQ3	; 00 V1
	DW	SEQ6	; 01 V1
	DW	SEQ6	; 01 V1
	DW	SEQ7	; 20 V1
	DW	SEQ7	; 20 V1
	DW	SEQ7	; 21 V1
	DW	SEQ7	; 21 V1
	DW	SEQ11	; 22 V1
	DW	SEQ11	; 22 V1
	DW	SEQ13	; 24 V1
	DW	SEQ13	; 24 V1
	DW	SEQ15	; 25 V1
	DW	SEQ15	; 25 V1
	DW	SEQ17	; 19 V1
	DW	SEQ17	; 19 V1
	DW	SEQ11	; 22 V1
	DW	SEQ7	; 20 V1
	DW	SEQ7	; 20 V1
	DW	SEQ7	; 21 V1
	DW	SEQ7	; 21 V1
	DW	REPEAT	
	DW	CAB1	

CABAL2	DW	SEQ1,SEQ1,SEQ1,SEQ1	; 26 V2
CAB2	DW	SEQ4	; 00 V2
	DW	SEQ4	; 00 V2
	DW	SEQ4	; 01 V2
	DW	SEQ4	; 01 V2
	DW	SEQ8	; 20 V2
	DW	SEQ8	; 20 V2
	DW	SEQ10	; 21 V2
	DW	SEQ10	; 21 V2
	DW	SEQ12	; 22 V2
	DW	SEQ12	; 22 V2
	DW	SEQ14	; 24 V2
	DW	SEQ14	; 24 V2
	DW	SEQ16	; 25 V2
	DW	SEQ16	; 25 V2
	DW	SEQ18	; 19 V2
	DW	SEQ18	; 19 V2
	DW	SEQ12	; 22 V2
	DW	SEQ8	; 20 V2
	DW	SEQ8	; 20 V2
	DW	SEQ10	; 21 V2
	DW	SEQ10	; 21 V2
	DW	REPEAT	
	DW	CAB2	

CABAL3	DW	SEQ2	; 26 V3
CAB3	DW	SEQ5	; 00 V3
	DW	SEQ5	; 00 V3
	DW	SEQ5	; 01 V3
	DW	SEQ5	; 01 V3
	DW	SEQ9	; 20 V3
	DW	SEQ9	; 20 V3
	DW	SEQ9	; 21 V3
	DW	SEQ9	; 21 V3
	DW	SEQ5	; 22 V3
	DW	SEQ5	; 22 V3
	DW	SEQ9	; 24 V3
	DW	SEQ9	; 24 V3
	DW	SEQ9	; 25 V3
	DW	SEQ9	; 25 V3
	DW	SEQ19	; 19 V3
	DW	SEQ19	; 19 V3
	DW	SEQ5	; 22 V3
	DW	SEQ5	; 22 V3
	DW	SEQ9	; 20 V3
	DW	SEQ9	; 20 V3
	DW	SEQ9	; 21 V3
	DW	SEQ9	; 21 V3
	DW	REPEAT	
	DW	CAB3	

;-----26-----

SEQ0

```
;
DB PATCH,4*7,PWM,8*6
DB VOLUME,TRB

DB C2,2*t
DB C2,2*t
DB C2,2*t
DB C2,2*t
DB C2,2*t
DB C2,2*t
DB C2,2*t
DB C2,2*t
DB END
```

SEQ1

```
DB VOLUME,BAS
DB G3,2*t
DB C3,2*t
DB G3,2*t
DB C4,2*t
DB G3,2*t
DB C3,2*t
DB G3,2*t
DB C3,2*t
DB END
```

SEQ2

```
DB VOLUME,DRM

DB DRUM,4,-2,1*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,18*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,2*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,1*t
DB DRUM,4,-2,18*t
DB END
```

;-----00-----

SEQ3

```
;
DB PATCH,0*7,PWM,0*6
DB VOLUME,TRB

DB C2,2*t
DB C2,4*t
DB C2,4*t
DB C2,2*t
DB A_1,4*t
DB C2,2*t
DB C2,4*t
DB C2,4*t
DB C2,2*t
DB D_2,4*t
DB C2,2*t
DB C2,4*t
DB C2,4*t
DB C2,2*t
DB A_1,4*t
DB C2,2*t
DB C2,4*t
```

DB C2,4*t
DB C2,2*t
DB A_1,1*t
DB A_1,3*t
DB END

SEQ4

;
;
;

DB PATCH,16*7,PWM,1*6
DB ARPON
DW ARP1

DB VOLUME,BAS
DB C4,2*t
DB C4,1*t
DB C4,1*t
DB C4,2*t
DB C4,1*t
DB C4,1*t
DB C4,1*t
DB C4,1*t
DB C4,1*t
DB C4,1*t
DB A_3,1*t
DB A_3,19*t
DB A_3,2*t
DB A_3,1*t
DB A_3,1*t
DB A_3,2*t
DB A_3,1*t
DB A_3,1*t
DB A_3,1*t
DB A_3,1*t
DB A_3,2*t
DB C4,1*t
DB C4,13*t
DB C4,2*t
DB C4,1*t
DB C4,1*t
DB A_3,1*t
DB A_3,1*t
DB END

SEQ5

DB VOLUME,DRM

DB DRUM,3,0,4*t
DB DRUM,4,0,2*t

DB DRUM,5,8,1*t
DB DRUM,5,8,1*t

DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,2*t

DB DRUM,5,8,1*t
DB DRUM,5,8,1*t

DB DRUM,3,0,4*t
DB DRUM,4,0,4*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t

DB DRUM,5,8,1*t
DB DRUM,5,8,1*t

DB DRUM,3,0,4*t
DB DRUM,4,0,4*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t

DB DRUM,5,8,1*t
DB DRUM,5,8,1*t

DB DRUM,3,0,2*t

;-----01-----

DB VOLUME,TRB

;- - - - -20- - - - -

```
DB PATCH,0*7,PWM,0*6
DB VOLUME,TRB
```

DB END

SEQ8
;

```
DB PATCH,1*7,PWM,2*6

DB VOLUME,BAS

DB D_4,1*t
DB D_4,1*t
DB D_4,2*t
DB D_4,2*t
DB D_4,1*t
DB D4,2*t
DB D4,3*t
DB C4,2*t
DB C4,4*t
DB D_4,1*t
DB D_4,2*t
DB D_4,2*t
DB D4,2*t
DB D4,1*t
DB D4,2*t
DB C4,2*t
DB C4,3*t
DB F4,1*t
DB F4,2*t
DB F4,3*t
DB D_4,2*t
DB D_4,1*t
DB D_4,2*t
DB D4,2*t
DB D4,4*t
DB F4,2*t
DB F4,3*t
DB D_4,2*t
DB D_4,1*t
DB D_4,2*t
DB D4,2*t
DB G3,2*t
DB END
```

SEQ9

```
DB VOLUME,DRM

DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,4*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,2*t
DB DRUM,3,0,2*t
DB END
```

;-----21-----

SEQ10
;

```
DB PATCH,0*7,PWM,0*6
DB VOLUME,BAS

DB D_4,6*t
DB D4,2*t
DB D_4,2*t
DB C4,4*t
```

```

DB D_4,4*t
DB D_4,4*t
DB D4,2*t
DB D_4,2*t
DB C4,6*t
DB F4,6*t
DB D_4,2*t
DB D4,2*t
DB A_3,2*t
DB G3,4*t
DB B3,6*t
DB C4,6*t
DB D4,4*t
DB END

```

;-----22-----

SEQ11

```

;
DB PATCH,0*7,PWM,0*6
DB VOLUME,TRB
DB C2,2*t
DB C2,2*t
DB C2,14*t
DB D_2,2*t
DB D_2,4*t
DB D_2,1*t
DB D_2,2*t
DB D_2,1*t
DB D_2,2*t
DB F2,4*t
DB C2,2*t
DB C2,14*t
DB D_2,2*t
DB D_2,4*t
DB D_2,1*t
DB D_2,2*t
DB D_2,1*t
DB D_2,2*t
DB F2,2*t
DB END

```

SEQ12

```

;
;
;
DB PATCH,16*7,PWM,3*6
DB ARPON
DW ARP1
DB VOLUME,BAS
DB C4,6*t
DB C4,6*t
DB C4,6*t
DB C4,6*t
DB C4,4*t
DB C4,1*t
DB C4,7*t
DB C4,8*t
DB C4,8*t
DB C4,8*t
DB C4,1*t
DB C4,3*t
;
DB VIBON
;
DW VI81
DB END

```

;-----24-----

SEQ13

```

;
DB PATCH,0*7,PWM,7*6
DB VOLUME,TRB
DB G1,2*t
DB G1,2*t
DB G2,2*t
DB G1,4*t
DB G1,2*t
DB G2,2*t
DB G1,2*t
DB F1,2*t
DB F1,2*t
DB F2,2*t
DB F1,4*t
DB F1,2*t
DB F2,2*t
DB F1,2*t
DB D_1,1*t

```

```

DB D_1,1*t
DB D_1,2*t
DB D_2,2*t
DB D_1,4*t
DB D_1,2*t
DB D_2,2*t
DB D_1,2*t
DB F1,2*t
DB F1,2*t
DB F2,2*t
DB F1,4*t
DB F1,2*t
DB F2,2*t
DB F1,2*t
DB END

```

MYVV1

```

DB 1
DB -12
DB 1
DB 0
DB 1
DB +12
DW MYVV1

```

SEQ14

```

; DB PATCH,16*7,PWM,1*6
; DB VIBON
; DW MYVV1

DB VOLUME,BAS
DB G3,6*t
DB F3,2*t
DB G3,2*t
DB A_3,4*t
DB G3,4*t
DB G3,4*t
DB F3,2*t
DB G3,2*t
DB C4,4*t
DB G3,4*t
DB G3,4*t
DB F3,2*t
DB G3,6*t
DB G3,4*t
DB G3,4*t
DB F3,2*t
DB G3,2*t
DB D4,6*t
DB END

```

;-----25-----

SEQ15

```

; DB PATCH,0*7,PWM,0*6
DB VOLUME,TRB
DB C2,1*t
DB C2,1*t
DB C2,4*t
DB C2,1*t
DB C3,2*t
DB C2,1*t
DB C2,2*t
DB C2,2*t
DB C2,4*t
DB F2,2*t
DB F2,2*t
DB F2,1*t
DB F2,2*t
DB F2,1*t
DB F2,2*t
DB F3,2*t
DB F2,4*t
DB G2,2*t
DB G2,2*t
DB G2,1*t
DB G2,2*t
DB G2,1*t
DB G2,2*t
DB G3,2*t

```

DB G2,4*t
DB F2,1*t
DB E2,1*t
DB F2,2*t
DB G2,1*t
DB G2,2*t
DB G2,1*t
DB G2,2*t
DB G3,2*t
DB G2,2*t
DB END

SEQ16

; DB PATCH,16*7,PWM,7*6
; DB ARPON
; DW ARP1

DB VOLUME,BAS
DB REST,32*t
DB G4,4*t
DB G4,4*t
DB G4,2*t
DB G4,2*t
DB G4,6*t
DB G4,1*t
DB G4,1*t
DB G4,3*t
DB G4,2*t
DB G4,1*t
DB G4,2*t
DB G4,2*t
DB G4,1*t
DB G4,1*t
DB VIBON
DW VIB1
DB END

;-----19-----

SEQ17

; DB PATCH,0*7,PWM,1*6
DB VOLUME,TRB
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB C2,1*t
DB C2,1*t
DB C3,1*t
DB C2,1*t
DB D_2,1*t
DB D_2,1*t
DB D_3,1*t
DB D_2,1*t
DB D_2,1*t
DB D_2,1*t
DB D_2,1*t
DB D_3,1*t
DB D_2,1*t

DB D_2,1*t
DB D_2,1*t
DB D_3,1*t
DB D_2,1*t
DB D_2,1*t
DB D_2,1*t
DB D_3,1*t
DB D_2,1*t
DB F2,1*t
DB F2,1*t
DB F3,1*t
DB F2,1*t
DB F2,1*t
DB F2,1*t
DB F3,1*t
DB F2,1*t
DB F2,1*t
DB F2,1*t
DB F3,1*t
DB F2,1*t
DB F2,1*t
DB F3,1*t
DB F2,1*t
DB F_2,1*t
DB F_3,1*t
DB G2,1*t
DB G3,1*t
DB END

SEQ18

;
;
;
DB PATCH,16*7,PWM,3*6
DB ARPON
DW ARP1

DB VOLUME,BAS
DB C4,2*t
DB C4,1*t
DB C4,2*t
DB C4,2*t
DB C4,2*t
DB C4,1*t
DB C4,2*t
DB A_3,1*t
DB A_3,19*t
DB A_3,1*t
DB A_3,1*t
DB A_3,1*t
DB A_3,2*t
DB A_3,1*t
DB A_3,2*t
DB A_3,2*t
DB A_3,1*t
DB A_3,1*t
DB C4,1*t
DB C4,3*t
DB REST,16*t
;
DB VIBON
;
DW VIB1
DB END

SEQ19

DB VOLUME,DRM

DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,1*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,4*t
DB DRUM,3,0,2*t
DB DRUM,4,0,2*t
DB DRUM,4,0,2*t
DB DRUM,3,0,4*t
DB DRUM,4,0,2*t
DB DRUM,3,0,4*t
DB DRUM,3,0,2*t
DB DRUM,4,0,4*t
DB DRUM,3,0,2*t
DB DRUM,3,0,2*t
DB DRUM,4,0,3*t


```

DB DRUM,3,0,1*t
DB DRUM,4,0,2*t
DB DRUM,3,0,1*t
DB DRUM,4,0,2*t
DB DRUM,4,0,1*t
DB DRUM,4,0,2*t
DB END

```

MUSICEND

```

,*****
;
; ** PISS ON OPERATION WOLF **
;*****
,

```

PISSTAKE

```

CALL KEYS
RET C
LD A,C
CP "J"
RET NZ
LD HL,CHEATM
LD (POL+1),HL
YYU LD A,30
LD (TIM1+1),A
TIM1 LD A,30
DEC A
LD (TIM1+1),A
RET Z
EI
HALT
CALL KEYS
LD HL,CHEATM
LD A,(HL)
INC A
JR Z,GOTCHEAT
INC C
CP C
JR NZ,TIM1
INC HL
LD (POL+1),HL
JR YYU
GOTCHEAT INC A
LD (CHEATMODE+1),A
RET
CHEATM DB "JAMES T KIRK OF THE ENTERPRISE", $FF

```

```

; NO ENTRY REQUIS
;RETURNS C=ASCI VAL OF KEY PRES/NC
;NO KEY CARRY SET

```

KEYS

```

CALL KEYFET
LD A,C
RET
KEYFET XOR A
LD (KEYV),A
LD L,0
LD DE,5
LD B,8 ;CHECK 8 ROWS
LD C,254 ;START WITH CS/V
KF1 LD A,C
IN A,(254)
AND 31
CP 31
PUSH BC
CALL NZ,KPRESD1
POP BC
ADD HL,DE ; INC POINTER
RLC C ; INC ROW
DJNZ KF1
LD A,(KEYV)
LD C,A
OR A
JR Z,NKY
LD HL,MKEYTABL ;ASCI TAB
NSHF LD A,C
ADD A,L
LD L,A
JR NC,JJ

```

```

                INC H
JJ              LD C,(HL)
                LD A,C
                OR A
                RET
NKY            SCF          ; NO KEY PRESSED
                RET
KPRESD1        OR %11100000
                LD H,L
                LD B,5
KPRESD        SRL A
                JR NC,KP1
                INC H
                DJNZ KPRESD
                RET
KP2            LD A,C
                INC H
                JR KPRESD
KP1            LD C,A
                LD A,H
                CP $24
                JR Z,KP2
                OR A
                JR Z,KP2
                LD (KEYV),A
                RET

                DB 0
                DB 0
KEYV           DB 0
;CPSHFT       DB 0

MKEYTABL
SHFTAB
CSHTAB
                DB CSH,"ZXCASDFGQWERT"
                DB "1234509876POIUY"
                DB EN,"LKJH ",SSH,"MNB"

ENDOF
CSH           EQU 0
EN            EQU 13
SSH           EQU 0

; *****

NODOTS        EQU 16
;XPOS         EQU 0 ; XPOS
;YPOS         EQU 1 ; YPOS
SPD           EQU 2 ; SPEED
;XDIR         EQU 3 ; COUNTER
DOTLEN        EQU 4

DOTS          DS NODOTS*DOTLEN

; *****

RESETDOTS     LD IX,DOTS:LD B,NODOTS:LD DE,DOTLEN
RESDOTLOP     LD (IX+YPOS),$FF:ADD IX,DE:DJNZ RESDOTLOP:RET

; *****

PLOTDOTS      LD IX,DOTS:LD B,NODOTS
PLOTLOP       LD A,(IX+HEIGHT):CP 10:JR Z,NEXTDOT
                LD E,(IX+XPOS):LD D,(IX+YPOS):CALL PLOT
NEXTDOT       LD DE,DOTLEN:ADD IX,DE:DJNZ PLOTLOP:RET

; *****

MOVEDOTS      XOR A:LD (NOTDOT+1),A:LD IX,DOTS:LD B,NODOTS
MOVELOP       LD A,(IX+XPOS):ADD A,(IX+XDIR):LD (IX+XPOS),A
                LD A,(IX+YPOS):CP 192:JR NC,NOTDOT

                LD A,(IX+YPOS):ADD A,(IX+SPD):LD (IX+YPOS),A
                INC (IX+SPD):JR NEXTMOVE

```

```

NOTDOT      LD  A,0:OR  A:JR  NZ,NEXTMOVE
            LD  A,1:LD  (NOTDOT+1),A
            LD  A,R:AND  7:LD  C,A
            RRA  :AND  3:INC  A:LD  (IX+XDIR),A
            LD  A,C:CPL  :LD  (IX+HEIGHT),A
            LD  (IX+XPOS),$7E:LD  (IX+YPOS),$91

NEXTMOVE    LD  DE,DOTLEN:ADD  IX,DE:DJNZ  MOVELOP:RET

```

```

,*****

```

```

PLOT        LD  A,D:CP  192:RET  NC
            OR  A:RRA  :SCF  :RRA  :OR  A:RRA
            XOR  D:AND  $F8:XOR  D:LD  H,A
            LD  A,E:RLCA  :RLCA  :RLCA
            XOR  D:AND  $C7:XOR  D:RLCA  :RLCA  :LD  L,A
            LD  A,E:CPL  :AND  7:ADD  A,A:ADD  A,A:ADD  A,A:ADD  A,A:ADD  A,199
            LD  (SETER+1),A:XOR  A
SETER       SET  0,A:XOR  (HL):LD  (HL),A:RET

```

```

INTROEND

```

```

,*****
; ** END OF FILE **
,*****

```