

# Adventures in Atari BASIC

## References

Nearly every source of Atari programming knowledge from the 1980s is available online, much of it in original scanned format and some in searchable text. These references should help you follow along with “Adventures in Atari BASIC” as well as dive much deeper.

A wide variety of Atari magazines are available at the [Classic Computer Magazine Archive](#). My favorite was *ANALOG Computing*, which is available via the [Internet Archive](#) (including [issue #13](#), containing *Space Assault*).

Most of the computer books that I owned are available at the [Internet Archive](#) as well, and text of many of these books can be found on [AtariArchives](#). My favorite computer books of this era were [Compute's First Book of Atari](#) (1981) and [Compute's First Book of Atari Graphics](#) (1982).

## Space Assault Source Code

Originally published in [ANALOG Computing #13, September 1983](#). Some lines of the original source included inverse characters of the ATASCII character set. These have been changed to standard ASCII for better readability.

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1000 REM *
1010 REM * SPACE ASSAULT
1020 REM * Version 2.9
1030 REM * Mike Walters 1983
1040 REM *
1050 REM
1060 GOSUB 2330:REM * Title Screen
1070 GOSUB 2070:REM * Draw Playfield
1080 GOTO 1500
1090 REM * Move Enemy Ships
1100 ON INT(RND(0)*3)+1 GOTO 1110,1120,1130
1110 YSHIP=YSHIP+3:GOTO 1130
1120 YSHIP=YSHIP-3
1130 IF YSHIP<15 THEN YSHIP=15
1140 IF YSHIP>50 THEN YSHIP=50
1150 IF DIR=1 THEN XSHIP=XSHIP+3
1160 IF DIR=2 THEN XSHIP=XSHIP-3
1170 IF SHIP=1 THEN A=USR(MOVE,1,PMB,PM1,XSHIP,YSHIP,7)
1180 IF SHIP=2 THEN A=USR(MOVE,2,PMB,PM2,XSHIP,YSHIP,9)
1190 IF SHIP=3 THEN A=USR(MOVE,3,PMB,PM3,XSHIP,YSHIP,8)
1200 IF XSHIP<20 OR XSHIP>210 THEN GOSUB 1280
1210 IF XSHIP>TARGET+38 AND XSHIP<TARGET+44 THEN GOSUB 1820
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1220 RETURN
1230 REM * Get Random Target
1240 NUM=INT(RND(0)*7)+1:TARGET=BUILDING(NUM)
1250 IF TARGET=999 THEN 1240
1260 RETURN
1270 REM * Random Ship, Direction
1280 SHIP=INT(RND(0)*3)+1
1290 DIR=INT(RND(0)*2)+1
1300 YSHIP=INT(RND(0)*35)+15
1310 IF DIR=1 THEN XSHIP=20
1320 IF DIR=2 THEN XSHIP=210
1330 IF SHIP=1 THEN SOUND 2,0,16,3
1340 IF SHIP=2 THEN SOUND 2,255,12,3
1350 IF SHIP=3 THEN SOUND 2,92,12,3
1360 GOSUB 1240:RETURN
1370 REM * Shoot Tower Gun
1380 POKE 53278,0
1390 COLOR 2:PLOT 150,63:DRAWTO X-44,Y-12:FOR N=1 TO 10:SOUND
0,N,12,8:NEXT N:SOUND 0,0,0,0
1400 COLOR 0:PLOT 150,63:DRAWTO X-44,Y-12
1410 IF SHIP=1 THEN IF PEEK(53253)<>0 AND PEEK(53261)<>0 THEN
EXP=1:SD=40:SC=SC+500:POKE 53249,0:GOSUB 1280
1420 IF SHIP=2 THEN IF PEEK(53254)<>0 AND PEEK(53262)<>0 THEN
EXP=1:SD=40:SC=SC+100:POKE 53250,0:GOSUB 1280
1430 IF SHIP=3 THEN IF PEEK(53255)<>0 AND PEEK(53263)<>0 THEN
EXP=1:SD=40:SC=SC+300:POKE 53251,0:GOSUB 1280
1440 RETURN
1450 REM * Explosion Routine
1460 SD=SD+5:IF SD>100 THEN SOUND 1,0,0,0:EXP=0:RETURN
1470 SETCOLOR 4,0,14:SETCOLOR 4,0,0
1480 SOUND 1,SD,8,8:RETURN
1490 REM * Initialize & P/M Setup
1500 TRAP 1510:DIM
BUILDING(7),XPOS(15),YPOS(15),PMMOV$(100),P0$(7),P1$(7),P2$(9),P3$(8)
1510 X=125:Y=70:SC=0:HITS=0:MOVE=ADR(PMMOV
$):PM0=ADR(P0$):PM1=ADR(P1$):PM2=ADR(P2$):PM3=ADR(P3$)
1520 RESTORE 1530:FOR N=1 TO 7:READ A:BUILDING(N)=A:NEXT N
1530 DATA 15,35,55,75,95,115,135
1540 RESTORE 1550:FOR N=1 TO 15:READ A:XPOS(N)=A:READ A:YPOS(N)=A:NEXT
N
1550 DATA 0,0,0,0,0,0,0,0,4,4,4,-4,4,0,0,0,-4,4,-4,-4,-4,0,0,0,0,4,0,-
4,0,0
1560 RESTORE 1570:FOR N=1 TO 100:READ A:PMMOV$(N)=CHR$(A):NEXT N
1570 DATA
216,104,104,104,133,213,104,24,105,2,133,206,104,133,205,104,133,204,1
04,133,203,104,104,133,208

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1580 DATA
104,104,133,209,104,104,24,101,209,133,207,166,213,240,16,165,205,24,1
05,128,133,205,165,206,105
1590 DATA
0,133,206,202,208,240,160,0,162,0,196,209,144,19,196,207,176,15,132,21
2,138,168,177,203,164
1600 DATA
212,145,205,232,169,0,240,4,169,0,145,205,200,192,128,208,224,166,213,
165,208,157,0,208,96
1610 RESTORE 1650:FOR N=1 TO 7:READ A:P0$(N)=CHR$(A):NEXT N
1620 FOR N=1 TO 7:READ A:P1$(N)=CHR$(A):NEXT N
1630 FOR N=1 TO 9:READ A:P2$(N)=CHR$(A):NEXT N
1640 FOR N=1 TO 8:READ A:P3$(N)=CHR$(A):NEXT N
1650 DATA
102,66,129,195,129,66,102,60,126,255,213,255,126,60,129,66,36
1660 DATA 60,36,60,36,66,129,255,102,60,24,24,60,102,255
1670 PMBASE=INT((PEEK(145)+3)/4)*4:POKE 54279,PMBASE:PMB=PMBASE*256
1680 POKE 704,10:POKE 705,149:POKE 706,40:POKE 707,102
1690 POKE 623,1:POKE 53257,1:POKE 53258,1:POKE 53259,1:POKE
559,46:POKE 53277,3:GOSUB 1280
1700 REM * Main Loop
1710 ST=STICK(0)
1720 X=X+XPOS(ST):Y=Y+YPOS(ST)
1730 IF X<48 THEN X=48
1740 IF X>198 THEN X=198
1750 IF Y<12 THEN Y=12
1760 IF Y>50 THEN Y=50
1770 A=USR(MOVE,0,PMB,PM0,X,Y,7)
1780 IF STRIG(0)=0 THEN GOSUB 1380
1790 GOSUB 1100:IF EXP=1 THEN GOSUB 1460
1800 GOTO 1710
1810 REM * Destroy VPP
1820 COLOR 2:PLOT TARGET,YSHIP-10:DRAWTO TARGET,85
1830 FOR N=1 TO 5:FOR A=9 TO 50 STEP 3:SOUND 0,A,10,8:NEXT A:NEXT N
1840 COLOR 0:PLOT TARGET,YSHIP-10:DRAWTO TARGET,85
1850 SCR=PEEK(560)+PEEK(561)*256:B=PEEK(SCR+4)
1860 FOR N=1 TO 50:POKE SCR+4,B+PEEK(53770)/200:SOUND 0,N,0,8:NEXT N
1870 FOR N=TARGET-5 TO TARGET+5:COLOR 0:PLOT N,80:DRAWTO N,91-
RND(0)*5:SOUND 0,N,0,8:NEXT N
1880 FOR N=1 TO 50:SETCOLOR 4,0,14:SOUND 0,N,0,8:SETCOLOR 4,0,0:NEXT N
1890 SOUND 0,0,0,0:POKE SCR+4,B
1900 HITS=HITS+1
1910 IF HITS=7 THEN SOUND 2,0,0,0:FOR N=1 TO 200:NEXT N:FOR N=53248 TO
53251:POKE N,0:NEXT N:GOTO 1950
1920 BUILDING(NUM)=999:GOSUB 1240
1930 RETURN

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1940 REM * Game Over Routine
1950 GRAPHICS 1+16:DL=PEEK(560)+PEEK(561)*256+4:POKE DL-1,71:POKE
DL+2,7
1960 POKE DL+3,7:POKE DL+4,7:POKE DL+11,7:POKE DL+12,7:POKE
DL+13,7:POKE DL+14,7
1970 POKE DL+15,65:POKE DL+16,PEEK(560):POKE DL+17,PEEK(561)
1980 SETCOLOR 0,4,4:SETCOLOR 1,0,10:SETCOLOR 2,6,6:SETCOLOR 3,2,6:TRAP
2030:IF SC>HSC THEN HSC=SC
1990 POKE 87,2:POSITION 5,1:? #6;"GAME OVER":POKE 87,1:POSITION 3,7:?
#6;"SCORE - ";SC
2000 POSITION 1,9:? #6;"HIGH SCORE - ";HSC:POSITION 7,11:?
#6;"press":POSITION 5,13:? #6;"S T A R T"
2010 DIM X$(60):X$="...all vpps destroyed...mission terminated...alien
takeover"
2020 DIM A$(LEN(X$)),C$(LEN(X$)):A$=X$
2030 POSITION 0,4:? #6;A$(1,20):C$=A$(2):C$(LEN(C$)+1)=A$:A$=C$
2040 FOR I=1 TO 30:NEXT I:SOUND RND(0)*3,RND(0)*255,10,RND(0)*8:IF
PEEK(53279)<>6 THEN 2030
2050 FOR N=0 TO 3:SOUND N,0,0,0:NEXT N:GOTO 1060
2060 REM * Draw Playfield Routine
2070 GRAPHICS 7+16:SETCOLOR 0,0,8:SETCOLOR 1,4,4:SETCOLOR 2,12,4
2080 COLOR 2:FOR N=1 TO 50:PLOT RND(0)*159,RND(0)*55+40:NEXT N
2090 COLOR 1:PLOT 150,64:FOR N=66 TO 68:PLOT 147,N:DRAWTO 153,N:NEXT N
2100 AD=0:FOR N=72 TO 75:PLOT 145+AD,N:DRAWTO 155-AD,N:AD=AD+1:NEXT N
2110 AD=0:FOR N=80 TO 83:PLOT 148-AD,N:DRAWTO 152+AD,N:AD=AD+1:NEXT N
2120 FOR N=88 TO 94:PLOT 145,N:DRAWTO 155,N:NEXT N
2130 COLOR 2:PLOT 149,65:DRAWTO 151,65:FOR N=69 TO 71:PLOT
145,N:DRAWTO 155,N:NEXT N
2140 FOR N=76 TO 79:PLOT 148,N:DRAWTO 152,N:NEXT N
2150 FOR N=84 TO 87:PLOT 145,N:DRAWTO 155,N:NEXT N
2160 PLOT 145,95:DRAWTO 155,95
2170 COLOR 0:FOR N=89 TO 94 STEP 2:FOR A=146 TO 154 STEP 2:PLOT
A,N:NEXT A:NEXT N
2180 COLOR 1:PLOT 147,77:DRAWTO 145,77:DRAWTO 145,75:DRAWTO
144,75:PLOT 145,77:DRAWTO 144,75:PLOT 145,77:DRAWTO 145,79:DRAWTO
144,79
2190 PLOT 153,77:DRAWTO 155,77:DRAWTO 155,75:DRAWTO 156,75:PLOT
155,77:DRAWTO 155,79:DRAWTO 156,79
2200 FOR N=10 TO 140 STEP 20
2210 COLOR 1:FOR I=N TO N+2:PLOT I,84:DRAWTO I,95:NEXT I
2220 FOR I=N+4 TO N+9:PLOT I,88:DRAWTO I,95:NEXT I
2230 COLOR 0:FOR I=85 TO 94 STEP 2:PLOT N+1,I:NEXT I
2240 COLOR 2:FOR I=80 TO 83:PLOT N,I:DRAWTO N+2,I:NEXT I
2250 PLOT N+4,86:DRAWTO N+9,86:PLOT N+4,87:DRAWTO N+9,87
2260 PLOT N+5,89:DRAWTO N+8,89
2270 COLOR 0:FOR I=N+5 TO N+8 STEP 2:PLOT I,91:NEXT I

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2280 COLOR 1:PLOT N+5,85:DRAWTO N+7,85:PLOT N+6,84
2290 NEXT N
2300 COLOR 3:FOR N=0 TO 159:PLOT N,95:DRAWTO N,95-(2*RND(0)):NEXT N
2310 RETURN
2320 REM * Title Screen
2330 GRAPHICS 7+16:SETCOLOR 0,4,4:SETCOLOR 1,9,4:SETCOLOR 2,15,6
2340 DL=PEEK(560)+PEEK(561)*256+4
2350 POKE DL+89,6:POKE DL+90,6:POKE DL+91,65:POKE DL+92,PEEK(560):POKE
DL+94,PEEK(561)
2360 COLOR 4:FOR N=1 TO 35:PLOT RND(0)*159,RND(0)*80:NEXT N
2370 RESTORE 2390:COLOR 1:FOR N=1 TO 8:READ DX,DY:PLOT DX,DY:READ
NUM:FOR A=1 TO NUM:READ DX,DY:DRAWTO DX,DY
2380 NEXT A:NEXT N:PLOT 70,60:PLOT 71,60
2390 DATA
7,20,5,7,8,14,8,14,20,14,12,7,12,21,15,5,16,15,16,20,22,20,22,25,16,25
2400 DATA
30,20,5,25,20,25,25,31,25,31,30,25,30,34,36,5,34,25,40,25,40,36,40,30,
34,30
2410 DATA
43,33,3,43,42,49,42,49,33,52,37,2,52,49,58,49,60,44,3,65,44,63,44,63,5
5
2420 DATA 70,46,3,70,57,71,57,71,46
2430 COLOR 2:AD=0:FOR N=10 TO 20:PLOT 95-AD,N:DRAWTO
125+AD,N:AD=AD+1:NEXT N
2440 AD=0:FOR N=20 TO 30:PLOT 80-AD,N:DRAWTO 140+AD,N:AD=AD+1:NEXT N
2450 AD=0:FOR N=30 TO 35:PLOT 75+AD,N:DRAWTO 145-AD,N:AD=AD+3:NEXT N
2460 COLOR 3:AD=0:FOR N=12 TO 17:PLOT 98-AD,N:DRAWTO
122+AD,N:AD=AD+1:NEXT N
2470 COLOR 0:PLOT 85,19:DRAWTO 135,19:PLOT 75,31:DRAWTO 145,31:PLOT
98,12
2480 DRAWTO 122,12:DRAWTO 127,17:DRAWTO 93,17:DRAWTO 98,12
2490 PLOT 112,12:DRAWTO 116,17:PLOT 107,12:DRAWTO 105,17
2500 COLOR 3:AD=0:FOR N=36 TO 70:PLOT 95+AD,N:DRAWTO 125-
AD,N:AD=AD+0.35:NEXT N
2510 COLOR 1:AD=0:FOR N=36 TO 55:PLOT 103+AD,N:DRAWTO 117-
AD,N:AD=AD+0.35:NEXT N
2520 TPS=PEEK(88)+PEEK(89)*256:POKE 87,1:TPS=TPS+3521:POKE 88,TPS-
(INT(TPS/256)*256):POKE 89,INT(TPS/256)
2530 POSITION 4,1: ? #6;"PRESS START"
2550 RESTORE 2600:SOUND 2,144,10,8
2560 READ DUR:IF DUR=-1 THEN 2550
2570 READ TONE:SOUND 0,TONE,10,8:SOUND 1,TONE-1,10,8:FOR N=1 TO
DUR*12:NEXT N:SOUND 0,0,0,0:SOUND 1,0,0,0
2580 IF PEEK(53279)=6 THEN SOUND 2,0,0,0:GOTO 2610
2590 GOTO 2560

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2600 DATA
5,108,5,96,1,108,1,96,5,91,5,81,1,91,1,81,3,72,3,53,3,60,1,91,1,81,7,7
2,-1
2610 GRAPHICS 2+16:SETCOLOR 4,4,0:SETCOLOR 0,15,4
2620 POSITION 3,3:? #6;"WOULD YOU LIKE":POSITION 3,4:? #6;"TO BE
BRIEFED":POSITION 2,5:? #6;"ON YOUR MISSION?"
2630 POSITION 6,7:? #6;"(Y OR N)"
2640 OPEN #1,4,0,"K":GET #1,A:CLOSE #1
2650 IF A=89 THEN 2680
2660 IF A=78 THEN RETURN
2670 GOTO 2640
2680 GRAPHICS 0:SETCOLOR 2,9,0:POKE 752,1
2690 POSITION 8,3:? " - OFFICIAL BRIEFING - ":? :?
2700 ? "          You are the Chief Gunnery Post":? "Officer on the jungle
planet of KALA,"
2710 ? "the planet Earth's only source of":? "vegetation after the
Great Famine."
2720 ? "          The Earth needs this source of":? "vegetation, but
unfortunately so do"
2730 ? "the aliens from CLOVIS IV, who have":? "fallen into the same
situation that"
2740 ? "the Earth has.":? "          Because of this, the aliens are":?
"now fiercely attacking the planet."
2750 ? :? :? " Press Any Key To Continue Briefing ":OPEN
#1,4,0,"K":GET #1,A:CLOSE #1
2760 ? " ":? :? :? "          The Clovis Aliens have 3 types":? "of
attacking craft. The first are the"
2770 ? "COMBAT SAUCERS, piloted by the Royal":? "Strike Force. Next,
the DEVASTATION"
2780 ? "SATELLITES, carried over from the War":? "of 2031. Last are
the newly developed"
2790 ? "PURPLE MARAUDERS, the aliens' most":? "advanced craft.":?
"          The Clovis Aliens are trying to"
2800 ? "destroy the 7 Vegetation Processing":? "Plants (VPPs). Protect
them by"
2810 ? "eliminating the aliens before they":? "destroy them.":? :?
"          You are the Earth's only hope!"
2820 ? :? "          GOOD LUCK!":? :? "Press Any Key To Begin Your
Mission"
2830 OPEN #1,4,0,"K":GET #1,A:CLOSE #1
2840 RETURN

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