



# Spectrum Monitor Program

```

48 REM+++++
49 REM+      +
50 REM+  HCAC MONITOR 1  +
51 REM+  ----SPECTRUM----- +
52 REM+  SAVE THIS PROGRAM  +
53 REM+  BEFORE YOU RUN IT  +
54 REM+      +
55 REM+++++
100 GOSUB 1000 :REM *INIT*
200 CLS
300 PRINT " ** HCAC MONITOR 1 CO
MMANDS **"
400 FOR P=1 TO LT:PRINT Q$(P):NE
XT P
500 FOR Z=0 TO 1 STEP 0
550 GOSUB 2000 :REM *INPUT*
600 GOSUB (4500+CM*500)
650 NEXT Z
700 STOP
750 REM++++END MAIN PROG++++
1000 REM*****INIT S/R*****
1050 LET LT=4:DIM C$(LT):DIM Q$(
LT,24):DIM X$(16)
1100 LET X$="0123456789ABCDEF"
1150 LET C$="ADGQ":LET C1=-48:LE
T C2=10-CODE(C$(1))
1200 LET Q$(1)="      A - ALTER
MEMORY"
1220 LET Q$(2)="      D - DISPLA
Y MEMORY"
1240 LET Q$(3)="      G - EXECUT
E M/CODE"
1260 LET Q$(4)="      Q - EXIT
PROGRAM"
1300 RETURN
2000 REM*****INPUT S/R*****
2100 FOR P=0 TO 1 STEP 0
2150 PRINT:PRINT"COMMAND ?? "
2190 IF INKEY$("<>") THEN GO TO 21
90
2200 LET A$=INKEY$:IF A$="" THEN
GO TO 2200
2250 FOR J=1 TO LT
2300 IF A$=C$(J) THEN LET CM=J:L
ET J=LT:LET P=2
2350 NEXT J:NEXT P:IF A$="Q" THE
N RETURN
2400 PRINT Q$(CM)
2450 FOR P=0 TO 1 STEP 0
2500 INPUT"HEX ADDRESS (X=QUIT)"
:A$
2550 GOSUB 5200 :REM CHK&ADJ
2600 NEXT P:IF A$="X" THEN LET C
M=0
2650 RETURN
3000 REM*****HEX BYTE S/R****
3010 LET HB=INT(N/16):LET LB=N-H
B*16
3020 LET B$=X$(HB+1)+X$(LB+1)
3030 RETURN
3100 REM*****D-H S/R*****
3110 IF NM<256 THEN LET N=NM:GOS
UB 3000:LET H$="00"+B$:RETURN
3120 LET HI=INT(NM/256):LET LO=N
M-256*HI
3130 LET N=HI:GOSUB 3000:LET H$=
B$
3140 LET N=LO:GOSUB 3000:LET H$=
H$+B$
3150 RETURN
4000 REM*****H-D S/R*****
4050 LET RX=1:LET DN=0:LET HL=LE

```

```

N(H$):IF (HL<1) OR (HL>4) THEN L
ET DN=-1:RETURN
4100 FOR H=HL TO 1 STEP -1
4150 LET D$=H$(H)
4200 LET V=CODE(D$)+C1*(D$>="0"
AND D$<="9") + C2*(D$>="A" AND D
$<="F")
4250 IF V>15 THEN LET DN=-1:LET
H=1:NEXT H:RETURN
4300 LET DN=DN+V*RX:LET RX=RX*16
4350 NEXT H:RETURN
4500 REM*****DUMMY S/R*****
4550 RETURN
5000 REM*****ALTER S/R*****
5020 FOR P=0 TO 1 STEP 0
5040 PRINT A$:INPUT"NEW HEX VAL
UE (X=EXIT) ?":V$
5050 PRINT V$
5060 GOSUB 5340 :REM CHK&OBY
5080 NEXT P:RETURN
5200 REM*CHECK&ADJUST S/R**
5220 IF A$="X" THEN LET P=2:RETU
RN
5240 LET LL=LEN(A$):IF LL>4 THEN
RETURN
5260 LET H$=A$:GOSUB 4000
5280 IF DN>=0 THEN LET P=2:LET N
M=DN
5300 LET A$=A$+"  ":IF LL<4 THEN
LET A$="0000"(TO 4-LL)+A$
5320 RETURN
5340 REM*CHECK & OBEY S/R*
5360 IF V$="X" THEN LET P=2:RETU
RN
5380 LET H$=V$:GOSUB 4000
5400 IF (DN<0) OR (DN>255) THEN
RETURN
5420 POKE NM,DN
5440 LET NM=NM+1:IF NM>65535 THE
N LET P=2:RETURN
5460 GOSUB 3100 :REM D-H S/R
5480 LET A$=H$+"  ":RETURN
5500 REM*****DISPLAY S/R*****
5520 FOR P=0 TO 1 STEP 0
5540 INPUT"DEC.NO.OF BYTES (X=QUI
T)":N$:IF N$="X" THEN LET P=2:NE
XT P:RETURN
5560 LET BN=VAL(N$):IF (BN>0) AN
D (BN+NM<65536) THEN LET P=2
5580 NEXT P
5600 FOR B=NM TO (NM+BN-1) STEP
4
5620 LET L$="":LET NM=B:GOSUB 31
00
5640 PRINT H$:TAB(6);
5660 FOR C=0 TO 3
5680 LET N=PEEK(B+C):LET K$=","
5700 GOSUB 3000 :REM D-H S/R
5720 PRINT TAB(6+4*C);B$:
5740 IF N=0 THEN LET K$="■"
5760 IF (N>31) AND (N<128) THEN
LET K$=CHR$(N)
5780 LET L$=L$+K$
5800 NEXT C
5820 PRINT TAB(26);L$
5840 NEXT B:RETURN
6000 REM*****EXECUTE S/R****
6050 RANDOMIZE USR(NM):RETURN
6500 REM*****EXIT S/R*****
6550 PRINT TAB(5);"■■■■END OF PR
OGRAM■■■■"
6600 LET Z=2:RETURN

```

# BBC Micro

```

39 REM*****
40 REM*  HCAC MONITOR  :  *
41 REM*  -----BBC----- *
42 REM*  CHANGE THE SPECTRUM *
43 REM*  VERSION AS FOLLOWS: *
44 REM*  :  *
45 REM*  REPLACE CODE( BY ASC *
47 REM*  :  *
50 REM*  ADD,CHANGE,OR DELETE *
51 REM*  AS DIRECTED:  *
52 REM*  :  *
53 REM*****
60 4TV 255
70 MODE 7
200 PRINT CHR$(147);CHR$(142)
600 ON CM GOSUB 5000,5500,6000,6500
1050 LT=4:DIM C$(LT),Q$(LT)
1150 C$(1)="A":C$(2)="D":C$(3)="G":C$(3)
="0":C1=48:C2=ASC(C$(1))-10
2190 -----DELETE-----
3020 B$=MID$(X$,HB+1,1)+MID$(X$,LB+1,1)
4150 D$=MID$(H$,H,1)
4500 -----DELETE-----
4550 -----DELETE-----
5050 -----DELETE-----
5300 A$=A$+"  ":IF LL<4 THEN A$=LEFT$(10
000",4-LL)+A$
5420 ?(NM)=DN
5680 N$=(B+C):K$=","
5740 IF N=0 THEN K$=CHR$(255)
6050 CALL NM:RETURN
6600 Z=1:RETURN

```

# Commodore 64

```

49 REM*****
50 REM*  HCAC MONITOR 1  *
51 REM*  -----CM----- *
52 REM*  CHANGE THE SPECTRUM *
53 REM*  VERSION AS FOLLOWS: *
54 REM*  :  *
55 REM*  REPLACE ALL INSTANCES *
56 REM*  OF:"LET P=2" BY "P=1" *
57 REM*  :  *
58 REM*  REPLACE CODE( BY ASC *
59 REM*  :  *
60 REM*  AND CHANGE OR DELETE *
61 REM*  AS DIRECTED:  *
62 REM*  :  *
63 REM*****
200 PRINT CHR$(147);CHR$(142)
600 ON CM GOSUB 5000,5500,6000,6500
1050 LT=4:DIM C$(LT),Q$(LT)
1150 C$(1)="A":C$(2)="D":C$(3)="G":C$(3)
="0":C1=48:C2=ASC(C$(1))-10
2190 -----DELETE-----
3020 B$=MID$(X$,HB+1,1)+MID$(X$,LB+1,1)
4150 D$=MID$(H$,H,1)
4500 -----DELETE-----
4550 -----DELETE-----
5050 -----DELETE-----
5300 A$=A$+"  ":IF LL<4 THEN A$=LEFT$(10
000",4-LL)+A$
5740 IF N=0 THEN K$=CHR$(122)
6050 SYS(NM):RETURN
6600 Z=1:RETURN

```

This program will enable you to display the contents of memory, alter the contents of memory and execute a stored machine code program