

Speeding Ahead

These three short programs, one for ZX Spectrum, one for the BBC Micro and the other for the Commodore 64, demonstrate the difference in speed of operation between BASIC and Machine Code by displaying either the entire character set (Commodore and (Spectrum), or colour blocks

```

100 REM*****BBC*****
149 REM*****BBC*****
150 REM*****BBC*****
151 REM*****BBC*****
200 MODE 4:TV 254
300 GOSUB 30000
400 FOR P=120 TO 6079
500 K=K+1:IF K>2679 THEN K=120
600 FOR P=120 TO 6079
700 FOR P=120 TO 6079
800 K=K+1:IF K>2679 THEN K=120
900 ?(HMEM+P)=(K+4232)
1000 NEXT P
1100 PRINT TAB(13);"THAT WAS BASIC"
1200 INPUT " HIT RETURN FOR MACHINE CODE
VERSION ",AS:CLS
1300 FOR L=0 TO 15:FOR B=0 TO 255 STEP L
1400 ?(SA)=LS:?(SA+1)=HS
1500 ?(FA)=LF:?(FA+1)=HF
1600 DUMMY=USR(PSTR)
1700 VDU 30
1800 NEXT B,LP
1900 STOP
30000 REM*****M/C LOADER S/R*****
30010 K=1919:PSTR=PAGE+8:VSTR=HMEM+192
00020 HS=INT(VSTR/256):LS=VSTR-256*HS:LF
=LS+56:HF=HS+2:SA=114:FA=116
30100 DATA 50,169,32,197,112,48,4,240,2,
133,112,165,112,32,227,255
30110 DATA 230,114,208,2,230,115,165,116
,197,114,208,7,165,117
30120 DATA 197,115,208,1,96,230,112,169,
128,197,112,208,224
30130 DATA 169,32,133,112,208,218,96,96,
96
30150 READ ZZ
30160 FOR BY=PSTR TO PSTR+ZZ
30170 READ MC:;(BY)=MC
30180 NEXT BY
30200 RETURN
30299 REM*****
30301 REM*****
30300 REM*****
30399 REM*****
30400 REM*****
30402 REM*****

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1 REM*****SPECTRUM M/C CODE*****
10 REM*****SPECTRUM M/C CODE*****
11 REM* DO NOT LIST LINE 1 *
12 REM* AFTER RUNNING PROG *
13 REM*****
99 REM*****
150 LET PTR=23635:LET SA=PEEK
(PTR)+(256*PEEK(PTR+1))+7
200 BORDER 2
350 DATA 1,0,3,17,0,88,33,0,0,
237,176,201
400 FOR X=0 TO 11
500 READ MC
600 POKE SA+X,MC
700 NEXT X
1000 LET OFFSET=0
1100 FOR X=0 TO 1 STEP 0
1200 POKE SA+7,OFFSET
1300 LET DUMMY=USR SA
1400 LET OFFSET=OFFSET+13
1500 IF OFFSET=>256 THEN LET
OFFSET=OFFSET-256*INT(OFFSET/256)
1600 NEXT X
1700 STOP
1799 REM*****
1800 REM*SAVE PROG BEFORE RUN*
1801 REM*SAVE PROG BEFORE RUN*
1802 REM*****

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99 REM *****
100 REM*COMMODORE M/C CODE DEMO *
101 REM*****
200 PRINT CHR$(147)
300 PRINT " THIS MON.T TAKE LONG"
400 GOSUB 60000
500 PRINT CHR$(147):REM CLEAR SCREEN
WHITE
600 CC=0
700 FOR P=SM TO FM
800 POKE P,CC:POKE P+OF,CL
900 CC=CC+1:IF CC>255 THEN CC=0
1000 NEXT P
1100 PRINT TAB(13);"THAT WAS BASIC"
1200 INPUT " HIT RETURN FOR MACHINE CODE
VERSION ",IA:
1300 FOR LP=1 TO 9:FOR B=0 TO 255 STEP L
1400 POKE SA,LS:POKE SA+1,HS
1500 POKE FA,LF:POKE FA+1,HF
1600 POKE BA,B:POKE CH,0
1700 SYS AA
1800 NEXT B,LP
1900 STOP
60000 REM*****M/C LOADER S/R*****
60010 SM=256*PEEK(648):OF=55296-SM:FM=SM
+999:BD=53280:SC=BD+1:CE=8:B=6:CL=0
60020 POKE BD,SC:POKE(648),LF=HS+3:
A=251:FA=253:BA=250:CH=2
60100 DATA 850,885,169,0,170,165,250,133
,2,165,2,129,251
60110 DATA 230,251,208,2,230,252,165,253
,197,251,208,7,165,254
60120 DATA 197,252,208,1,96,230,2,208,22
,240,223
60150 READ AA,ZZ
60160 FOR BY=AA TO ZZ
60170 READ MC:POKE BY,MC
60200 RETURN
60299 REM*****
60300 REM* SAVE THIS BEFORE RUNNING IT *
60301 REM*****

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Commodore 64

BBC Micro