



Tech Info Library

Softcard III: Selecting 40-Column and 80-Column Text Modes

Revised: 11/30/84
Security: Everyone

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There are several ways to switch to either 40 or 80 column mode in the CP/M environment. One way is to write a short assembly language program, assemble it, then load it as a .COM file. Another way is to use the BASIC's CHR\$ functions to change modes. Don't forget to reset the viewport when changing to 80 column mode. Refer to the Standard Device Drivers Manual for further information.

Below are two assembly language programs which allows you to set 40 or 80 column modes from the CP/M command level. Enter these in your ED.COM editor, then assembled them using ASM.COM. Once assembled, load them into .COM files using the Load utility on the CP/M System Disk.

```
;
;      Forty.COM
;
BDOS    EQU    0005H    ; BDOS entry point
WARM    EQU    0000H    ; Warm start entry point
PRINT   EQU    9        ; Print string command
;
;      ORG      0100H    ; Beginning of TPA
;
;      LXI      D,CMD5   ; Point to command string
;      MVI      C,PRINT  ; Set-up BDOS command
;      CALL     BDOS      ; Call BDOS to print string
;      JMP      WARM      ; Warm start return to CP/M
;
CMD5:   DB      16       ; Set text mode
;      DB      1         ; To 40 column mode
;      DB      28       ; Clear viewport command
;      DB      '$'       ; End print string command
;
;      End
;
;      Eighty.COM
;
```

```

BDOS    EQU    0005H    ; BDOS entry point
WARM    EQU    0000H    ; Warm start entry point
PRINT   EQU    9        ; Print string command
;
        ORG     0100H    ; Beginning of TPA
;
        LXI     D,CMD$   ; Point to command string
        MVI     C,PRINT  ; Set-up BDOS command
        CALL    BDOS     ; Call BDOS to print string
        JMP     WARM     ; Warm start return to CP/M
;
CMD$:    DB      16       ; Set text mode
        DB      2        ; To 80 column mode
        DB      1        ; Reset viewport
        DB      28       ; Clear viewport command
        DB      '$'      ; End print string command
;
        End

```

From Microsoft BASIC, use:

A. To switch to 40 Column mode:

```

100 Print CHR$(16) + CHR$(1) + CHR$(28)
110 End

```

B. To switch to 80 Column mode:

```

100 Print CHR$(16) + CHR$(2) + CHR$(1) + CHR$(28)
110 End

```

Apple Tech Notes

Tech Info Library Article Number:615