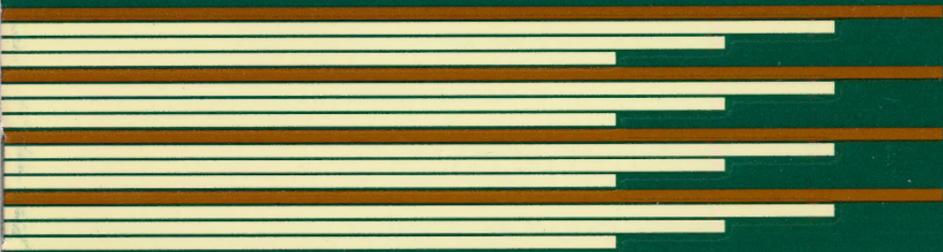


MICROSOFT®

**Quick
Reference
Guide**



For CP/M-80

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Quick Reference Guide

for CP/M®-80 Operating System

This book is a syntax guide to the CP/M-80 operating system (version 2.2) for the SoftCard. Detailed explanations of the individual items can be found in the *SoftCard Installation and Operation Manual* and the *Osborne CP/M User Guide*.

Syntax Conventions

The following notation is used in descriptions of command and statement syntax:

- | | |
|------|--|
| [] | Square brackets indicate that the enclosed entry is optional. |
| < > | Angle brackets indicate user-supplied data. When the angle brackets enclose lowercase text, the user must type in an entry defined by the text; for example, <filename>. When the angle brackets enclose uppercase text, the user must press the key named by the text; for example, <RETURN>. |
| { } | Braces indicate that the user has a choice between two or more entries. At least one of the entries enclosed in braces must be chosen, unless the entries are also enclosed in square brackets. |
| ... | Ellipses indicate that an entry may be repeated as many times as needed or desired. |
| CAPS | Capital letters indicate portions of statements or commands that must be entered exactly as shown. |

All other punctuation, such as commas, colons, slash marks, and equal signs, must be entered exactly as shown.

CP/M-80 Built-In Commands

DIR Command Lines

DIR [d:] Displays directory on drive d:

DIR <d>:[filename.ext][*.*]

Displays directory of all files on drive <d:> whose names match the <filename.ext> or ambiguous reference *.*

ERA Command Lines

ERA [d:]<filename.ext>

Erases the file <filename.ext> on drive d:

ERA [d:]*.*

Erases all files on drive d:

Line Editing Commands

Control-C Restarts CP/M (warm start)

Control-E Moves to beginning of next line

Control-H Deletes one character

Control-J Same as carriage return

Control-M Same as carriage return ()

Control-P Turns on/off the list device echo (usually your printer)

Control-R Repeats current command line

Control-S Temporarily stops display of data on the screen or printer

Control-U Cancels current command line

Control-X Cancels current command line

Delete (DEL) Deletes one character and echoes (repeats) it

REN Command Line

REN [d:]<new filename.ext> = <old filename.ext>

Finds the file <old filename.ext> and renames it <new filename.ext>

SAVE Command Line

SAVE <nnn> [d:]<filename.ext>

Saves a portion of the TPA in file <filename.ext> on drive [d:] <nnn> is the number of 256 byte pages of memory

TYPE Command Line

TYPE [d:]<filename.ext>

Displays the contents of file <filename.ext> from drive d: on the screen

USER Command Line

USER <n> Sets the user number to <n>

<d>: Command Line

<d>: Changes the currently logged disk drive to drive <d>:

Transient Commands

DUMP Command Line

DUMP [d:]<filename.ext>

Displays each byte (in hex) stored in the file <filename.ext> on drive [d:]

LOAD Command Line

LOAD <d:filename> Reads the file <filename.HEX> on drive d: and creates the executable program file <filename.COM> on drive [d:]

PIP Command Lines

PIP Loads PIP into memory

PIP <pipcommandline>

Loads PIP into memory; PIP executes the command <pipcommandline>, then exits to CP/M

PIP Command Summary

[d:]<new filename.ext> = [d:]<old filename.ext>[par]

Copies old file to new file

[d:]<new filename.ext> = [d:]<filename1.ext>[p],[d:]<old filename2.ext>[p],...

Merges files together and creates <filename.ext>

[d:]<filename.ext> = <dev:>[p]

Copies data from device <dev:> to file <filename.ext> on drive d:

<dev:> = [d:]<filename.ext>[p]

Copies data from <filename.ext> on drive d: to device <dev:>

<dev1:> = <dev2:>[p]

Copies data to device <dev1:> from device <dev2:>

PIP Parameter Summary

B Specifies block mode transfer

D<n> Deletes all characters after the <n>th column

E Echoes the copying to the console as it is being performed

F Removes form feed characters during transfer

G<n> Directs PIP to copy a file from user area <n>

H Checks for proper Intel Hex File format

I Ignores any :00 records in Intel Hex File transfers

L	Translates uppercase letters to lowercase
N	Adds a line number to each line transferred
O	Object file transfer (ignores end-of-file markers)
P<n>	Issues page feed after every <n>th line; default value is 60 lines
Q<s>^Z	Specifies end (quit) of copying after the string <s> is encountered
R	Directs PIP to copy from a System file
S<s>^Z	Specifies start of copying after the string <s> is encountered
T<n>	Sets tab stops to every <n>th column
U	Translates lowercase letters to uppercase
V	Verifies copy by comparison after copy finished (disk copies only)
W	Directs PIP to copy onto a R/O file
Z	Zeros the "parity" bit on ASCII characters

PIP Destination Devices

CON:	PUN:	LST:	Logical devices
TTY:	PTP:	LPT:	
CRT:	UP1:	UL1:	Physical devices
UC1:	UP2:		
	OUT:	PRN:	Special PIP devices

PIP Source Devices

CON:	RDR:		Logical devices
TTY:	PTR:		
CRT:	UR1:		Physical devices
UC1:	UR2:		
NUL:	EOF:	INP:	Special PIP devices

STAT Command Lines

STAT Displays attributes and amount of free space for all disk drives accessed since last warm or cold start

STAT <d:> Displays amount of free space on disk in drive d:

STAT [d:]<filename1.ext>
Displays size and attributes of file(s) <filename.ext> on drive d:

STAT [d:]<filename.ext> \$<atr>
Assigns the attribute <atr> to the file <filename.ext> on drive d:

STAT DEV: Reports which physical devices are currently assigned to the four logical devices

STAT VAL: Reports the possible device assignments and partial STAT command line summary

STAT <log:> = <phy:>
Assigns the physical device <phy:> to the logical device <log:>

STAT USR: Reports the current user number, as well as all user numbers for which there are files on currently-logged drive

STAT <d:>DSK: Reports the characteristics of disk drive <d:>

STAT <d:> = R/O Assigns a temporary write-protect status to drive <d:>

SUBMIT Command Line

SUBMIT <filename>[parameters]
Creates a file \$\$\$SUB which contains the commands listed in <filename.SUB>

XSUBMIT Command Line

XSUB Loads instructions specified by SUBMIT into memory

Utility Programs

ASM Command Lines

ASM [d:]<filename.ext>

Assembles <filename.ext>

ASM <filename.ext>[par]

Assembles <filename.ext> with parameters ([par])

DDT Command Lines

DDT Loads DDT and waits for DDT commands

DDT Command Summary

A<ssss> Enters assembly language statements starting at address <ssss>

D Displays the contents of the next 192 bytes of memory

D<ssss>,<ffff> Displays memory contents starting at address <ssss> to address <ffff>

F<ssss>,<ffff>,<cc> Fills memory with constant <cc> from address <ssss> to address <ffff>

G Begins execution at the address contained in the program counter

G<ssss> Begins execution at address <ssss>

G<ssss>,<bbbb> Sets a breakpoint at address <bbbb>, begins execution at address <ssss>

G,<bbbb> Sets a breakpoint at address <bbbb>, begins execution at the address contained in the program counter

G,<bbbb>,<cccc> Sets breakpoints at addresses <bbbb> and <cccc>, begins execution at the address contained in the program counter

I<filename.ext> Sets up the default file control block using the name <filename.ext>

L	Lists the next eleven lines of assembly language program
L<ssss>	Lists eleven lines of assembly language program starting at address <ssss>
L<ssss>,<ffff>	Lists the assembly language program starting at address <ssss> and finishing at address <ffff>
M<ssss>,<ffff>,<dddd>	Moves memory block (address <ssss> to <ffff>) to address <dddd>
R	Reads a file from disk (use I command first)
R<nnnn>	Reads a file from disk beginning at address <nnnn> higher than normal (use I command first)
S<ssss>	Displays memory at address <ssss> and optionally changes the contents
T<nnnn>	Traces the execution of <nnnn> program instructions
U<nnnn>	Executes <nnnn> program instructions, then stops and displays the CPU registers' contents
X	Displays the CPU registers' contents
X<r>	Displays contents of CPU register or flag <r> and optionally changes it

ED Command Line

ED:[d:]<filename.ext>

Invokes the editor and searches for <filename.ext> on drive d:

ED Command Summary

Note: Non-alphabetic commands follow the Z command.

<n>A	Appends lines
B	Moves CP to beginning of edit buffer
-B	Moves CP to end of edit buffer

<n>C	Moves <n> characters forward
<-n>C	Moves <n> characters backward
<n>D	Deletes <n> characters after the CP
<-n>D	Deletes <n> characters before the CP
E	Ends edit, closes files, and returns to CP/M
<n>F<string>^Z	Finds the <n>th occurrence of <string>
H	Moves to head of edited file
I	Enters insert mode
I<string>^Z	Inserts string
I<string>	Inserts line
<n>J<findstring>^Z<insertstring>^Z<endstring>^Z	Juxtaposition—beginning after the CP, finds <findstring>, inserts <insertstring> after it; then deletes all following characters up to but not including <endstring>; repeats until performed <n> times
<n>K	Deletes <n> lines after the CP
<-n>K	Deletes <n> lines before the CP
/-nL	Moves by lines—moves the CP to the beginning of the line, then moves the CP <n> lines forward or backward
<n>L	Moves forward by <n> lines
<-n>L	Moves backward by <n> lines
<n>M<commandstring>^Z	Macro command—repeats execution of the ED commands in <commandstring> <n> times
<n>N<string>^Z	Finds <string> with autoscan
O	Returns to original file
<n>P	Moves CP forward and prints <n> pages

< -n>P	Moves CP backward and prints <n> pages
Q	Quits edit
R	Reads block move file
R<filename>	Reads library file
<n>S<findstring>^Z<replacestring>^Z	Substitutes string
<n>T	Displays <n> lines before the CP
< -n>T	Displays <n> lines after the CP
If the CP is not at the beginning of a line:	
OT	Displays from the beginning of the line to the CP
T	Displays from the CP to the end of the line
OTT	Displays the entire line without moving the CP
U	Uppercase translation
OV	Edits buffer; frees space (size)
V	Verifies line numbers
<n>W	Writes lines to disk
<n>X	Block transfer
<n>Z	Delays execution of the command which follows it
<n:>	Moves CP to line number <n>
<:m>	Continues through line number <m>
[-]<n>	Moves forward (or backward) and displays one line

CP/M PROMPTS

d:>	CP/M waiting for command; drive d: is currently logged drive
*	PIP waiting for command
*	ED waiting for command
nnnn:*	ED waiting for command; character pointer is at line number nnnn
-	DDT waiting for command

Error Messages

BDOS ERR ON x: BAD SECTOR

BDOS ERR ON x: R/O

BDOS ERR ON x: SELECT

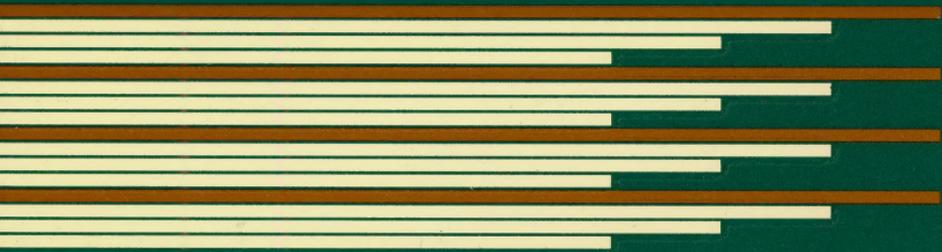
BDOS ERR ON x: FILE R/O

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