

decsystem10

OPERATING SYSTEM COMMANDS

REFERENCE CARD

(6.02 Monitor)

DEC-10-OTSMB-C-D

digital

CONVENTIONS

The following conventions have been used in illustrating command formats:

Convention	Meaning
UPPERCASE LETTERS	Represent necessary portions of the command line format.
lowercase letters	Represent variable portions of the command line format.
{ }	Represent alternative selections for the command line; one of the alternatives within the braces must be chosen by the user.
[]	Represent optional portions of the command line.

The following lists the variable portions of the command line descriptions. The left-column lists the variable names used on this reference card; the right-column explains what the user must supply in place of the variable name.

^	A delimiter of an identifier; it can be any alphanumeric character.
addr	An octal address.
arg	A letter or word specifying the desired function of a command.
condition	One or more reasons for allowing (not allowing) a break condition to occur. It can be either READ, WRITE, EXECUTE ALL, or MUUO.
core	A decimal number of blocks (n or nK) or pages (nP) of core.
ctrl-file-spec	A file specification, plus switches and keyword parameters, for the control file being submitted to the Batch input queue.
device	Either dev, devnn, devnnu, or devu.
dev:	Any physical device name.
devnn:	Any physical device name, followed by a 2-digit node number.

Convention	Meaning
devnnu:	Any physical device name, followed by a 2-digit node number and a 1-digit unit number.
devu:	Any physical device name followed by a 1-digit unit number.
drives	The physical drives on which a unit is to be mounted.
file[.ext]	Any legal filename from one to six characters, followed by an optional filename extension.
file-spec	A device name, a filename, a filename extension, and a directory name: <pre>[[device:] file [.ext] [[[directory]]]</pre>
input-specifications	A list of input file specifications for the files to be processed.
jobn	A user's job number assigned by the system.
jobname	A name of up to six characters for the job being entered into one of the system queues.
lh	The left half of a 36-bit word.
log-dev	Any logical device name from one to six alphanumeric characters.
log-file-spec	A file specification for the file that is to be used to record action taken during the execution of the control file.
name	A one- to six-character SIXBIT name to be used as an identifier. In some command lines, name must be delimited by an alphanumeric character (refer to the description of ^).
n	A number.
nnn	The density for the specified magnetic tape. The density can be 200, 556, or 800 bpi.
nnnn	A decimal number between 3 and 4094 designating the block size for the specified magnetic tape.

Convention	Meaning
<nnn>	A three-digit octal code indicating the protection of a file.
m	A TTY number.
prog	A program name of six or fewer characters.
queue name	A queue name which can be either INP:, LPT:, CDP:, PTP:, or PLT:.
rh	The right half of a 36-bit word.
/switches	One or more switches used to modify the command string. Each switch is preceded by a slash.
text	A message to be sent to the designated user or terminal.
[user number]	A numeric identification assigned to the user for the purpose of gaining access to the system. It is usually two numbers separated by a comma.

Note that the complete command format has been shown for the commands. Depending on the circumstances, only part of this format may be required. Refer to the DECsystem-10 Operating System Commands manual in order to determine the arguments required for a particular task. In addition, the commands can be abbreviated as long as the abbreviation does not conflict with any other command abbreviation.

Many command strings allow wild-card characters to be used in place of alphanumeric characters. These characters permit more than one file or directory to be referenced by a single specification. Two such wild-card characters are available:

1. * — The asterisk is a wild card for an entire field. When positioned in the appropriate context, it means:

	<u>Examples</u>	
a. any filename or extension	*.EXT	FILNAM.*
b. any project number or programmer number (also any subfile directory)	[*,1164]	[27,*]

Note that *.* and [*,*] are also possible.

2. ? – The question mark is a wild card for a single character. It can be used in any field mentioned above, provided the * does not share the field. It means: any character.

.EX? FIL???.EX? ?ILNAM.[27,116?] [* ,11??]

In addition, the directory name can be specified with the project number, the programmer number, or both numbers missing.

COMMANDS

ASSIGN $\left\{ \begin{array}{l} \text{dev} \\ \text{devnn} \\ \text{devnnu} \\ \text{devu} \end{array} \right\} \left[\left[\text{log-dev} \right] \right]$

Allocates an I/O device to the user's job without operator intervention. Assigns a logical name to a device.

ATTACH jobn [user number]

Detaches the current job and connects the terminal to the specified detached job.

BACKSPACE MTAn:m $\left\{ \begin{array}{l} \text{FILES} \\ \text{RECORDS} \end{array} \right\}$

Spaces a magtape backward the specified number of files or records.

CCONTINUE

Continues the program from the point at which it was interrupted, but leaves the terminal in monitor mode.

CLOSE device

Terminates I/O currently in progress on the specified device, performs the CLOSE monitor call, but does not release the device.

COMPILE list

Produces relocatable binary files for the specified source files.

CONTINUE

Continues the program from the point at which it was interrupted.

COPY file-spec <nnn> = file-spec $\left[\left[\dots \right] \right]$

Transfers files from one I/O device to another.

CORE n ↵

Types or modifies the amount of core assigned to the user's job.

CPUNCH jobname = list of input specifications ↵

Places entries into the card punch output spooling queue.

CREATE file.ext ↵

Opens a new file on disk for creation with LINED.

CREF ↵

Lists on the line printer any cross-referenced listing files generated by a previous COMPILE, LOAD, EXECUTE, or DEBUG command.

CSTART addr ↵

Begins execution of a program that was either loaded with a GET command or interrupted, but leaves the terminal in monitor mode.

D lh rh addr ↵

Deposits information in the user's core area.

DAYTIME ↵

Types the current date followed by the time of day.

DCORE file-specification ↵

Writes a core image file of the user's core area.

DDT ↵

Copies the saved program counter and starts the program at the beginning address of DDT, if DDT was loaded with the program (automatic in 6.01 and later monitors).

DEASSIGN device ↵

Returns devices assigned to the user's job to the monitor's pool of available devices and clears logical name assignments.

DEBUG list ↵

Produces relocatable binary files for the specified source files, loads the .REL file along with an appropriate system debugging program, and prepares for debugging.

DELETE list ↵

Deletes files from DECtape or disk.

DETACH ↵

Disconnects the terminal from the current job without affecting the status of the job.

DIRECT [output file specification = list of input file specifications] ↵

Lists the directory entries for the specified. No argument causes the user's directory entries to be listed.

DISMOUNT device [/switches] ↵

Returns, via the operator, devices assigned to the user's job to the monitor's pool of available devices.

DSK jobn ↵

Types disk usage for the combined structures of the specified job.

DUMP { /command [/command...]
@ file-specification } ↵

Writes a core image file, analyzes the file written, and provides printed output.

E addr ↵

Examines the specified core location in the user's core area.

EDIT file.ext ↵

Opens the specified file for editing with LINED.

EOF MTAn: ↵

Writes an end-of-file mark on the specified magnetic tape.

EXECUTE list ↵

Produces relocatable binary files for the specified source files, loads the .REL files, and begins execution.

FILE { C ↵
D, id, file.ext, file.ext ↵
F, ^tape-id^, file-spec [,...] ↵
L, id ↵
R, ^tape-id^, file-spec [,...] ↵
W ↵
Z, ^tape-id^, file-spec [,...] ↵ }

Provides remote control, via the operator, of DECTape to disk and disk to DECTape transfers.

FINISH device

Terminates I/O in progress on the specified device and performs a RELEASE monitor call and a DEASSIGN command.

FUDGE

Creates a library REL file by reading a temporary file generated by a previous COMPILE, LOAD, EXECUTE, or DEBUG command containing the /FUDGE switch.

GET file-spec core ↵

Loads a core image for the specified device, but does not begin execution.

HALT ↵ (CTRL/C)

Stops the job and stores the program counter in the job data area. CTRL/C can be used at user level as well as at monitor level.

HELP [{device* }] ↵

Outputs useful information on various system features.

INITIA [arg] ↵

Performs standard system initialization for the terminal issuing the command.

JCONT jobn ↵

Continues the specified job if it was in a ↑C state.

KJOB [file-spec =/letter list-of-file-structure-names,...] ↵

Gives up access to the system.

LABEL device: ^name^ ↵

Writes an identifier onto a DECTape.

LIST list ↵

Lists the specified files on the line printer.

LOAD list ↵

Produces relocatable binary files for the specified files, and loads the .REL files generated.

LOCATE node-id ↵

Establishes logically, the user's job at a specified node.

LOGIN [{ user number [/switches]
[user number] [/switches] }] ↵

Provides access to the system.

MAKE file-spec ↵

Opens a new file on disk for creation with TECO.

MOUNT device: log-dev: [/switches] [drives] ↵

Allocates an I/O device to the user's job via the operator.

NODE [node-id] [physical-device-name] [logical-device-name] ↵

Types out node information, or assigns the designated I/O device to the specified node, and optionally assigns a logical device name.

NSAVE file-specification [core] ↵

Writes a core image of the user's core area on the specified device.

NSSAVE file-specification [core] ↵

Writes a core image of the user's core area on the specified device.

OSAVE file-specification [core] ↵

Writes a core image of the user's core area on the specified device.

OSSAVE file-specification [core] ↵

Writes a core image of the user's core area on the specified device.

PJOB ↵

Outputs the job number to which the terminal is currently attached.

PLEASE device:program!text ↵

Provides two-way communication between the user and the operator.

PLOT jobname = list-of-input-specifications ↵

Places entries into the plotter output queue.

PRESERVE file.ext [,...] ↵

Renames the specified files with the standard protection code ORed with 100.

PRINT jobname = list-of-input-specifications ↵

Places entries into the line printer output spooling queue.

PROTECT file <nnn> [,...] ↵

Sets the specified files to the requested protections.

QUEUE { INP:jobname = ctrl-file-spec, log-file-spec ↵
queue name:jobname = list-of-file-specs ↵
listing-file-specs/LIST = list-of-queue-names ↵ }

Enters items into the specified system queue.

R file.ext [core] ↵

Loads a core image from the system device (SYS:) and starts it at the location specified within the file.

REASSIGN device: [jobn] ↵

Gives the specified device to the designated job.

REENTER ↵

Starts the program at an alternate entry point specified by the program.

RENAME new = old [,new = old,...] ↵

Changes the name and protection of one or more files on DECTape or disk.

RESOURCES ↵

Outputs the names of all available devices (except PTYs and TTYs), all file structures, and all physical units not in file structures.

REWIND device: ↵

Rewinds a magnetic tape or DECTape.

RUN file-spec [core] ↵

Loads a core image from the specified device and starts it at the location specified within the file.

SAVE file-spec [core] ↵

Writes a core image of the user's core area on the specified device.

SCHED ↵

Outputs the schedule bits set by the last SET SCHED command.

SEND { device:text ↵
JOB n text ↵
n: text ↵ }

Provides a one-way interconsole line of communication.

SET BLOCKSIZE device:nnnn ↵

Sets the default blocksize for the specified magnetic tape.

SET BREAK { AT addr ON condition ↵
NO condition ↵
NONE ↵
USERS⁴ ↵
NO USERS⁴ ↵ }

Sets address break locations in programs according to specified conditions.

SET CDR filename ↵

Sets the filename for the next card-reader spooling intercept.

SET CPU^{1,2} { CPxn ↵
NO CPxn ↵
ALL ↵
ONLY CPxn ↵ }

Sets the CPU specification for the job.

SET DENSITY device:nnn ↵

Sets the default density for the specified magnetic tape.

SET DSKFUL { ERROR ↵
PAUSE ↵ }

Controls the job when the user has exhausted his disk space.

SET DSKPRI n ↵¹

Sets the priority for the job's disk operations (data transfers and head positionings).

SET HPQ n ↵¹

Sets the high priority scheduler run queue for the job.

SET PHYSICAL { LIMIT core ↵
GUIDELINE core ↵ }

Specifies when the job will go virtual and specifies a guideline for the page fault handler if GUIDELINE is designated.

SET SPOOL { device: [,...] ↵
ALL ↵
NONE ↵
NO device [,...] ↵ }

Adds devices to or deletes devices from the list of spooled devices for this job.

SET TIME n ↵

Sets the central processor time limit for this job.

SET TTY { NO arg ↵
arg ↵ }

Sets properties to be associated with the terminal.

SET VIRTUAL LIMIT core ↵

Specifies the limit on the virtual memory for a job.

SET WATCH { arg [,...] ↵
ALL ↵
NONE ↵
NO arg [,...] ↵ }

Sets the output of incremental job statistics.

SKIP MTAn: { x FILES ↵
x RECORDS ↵
EOT ↵ }

Moves the specified magnetic tape forward the designated number of files or records or to the logical end of tape.

SSAVE file-spec [core] ↵

Writes a core image of the user's core area on the specified device.

START addr ↵

Begins execution of a program either previously loaded with the GET command or interrupted while running.

SUBMIT jobname = ctrl-file-spec, log-file-spec [/switches] ↵

Places entries into the Batch input queue.

SYSTAT [arg]

Prints information about the current status of the system.

TECO file-spec

Opens the specified file for editing with TECO.

TIME jobn

Outputs the running time for the specified job.

TPUNCH jobname = list-of-input-specs

Places entries into the paper tape punch output spooling queue.

TTY { NO arg }
{ arg }

Sets properties to be associated with the terminal.

TYPE list

Types the specified file(s) on the user's terminal.

UNLOAD device

Rewinds and unloads the specified magnetic tape or DECtape.

{ USESTAT }
{ CTRL/T }

Prints information on the terminal concerning the user's job.
CTRL/T can be used at the user level also.

VERSION

Outputs the version number of a program on the terminal.

WHERE device

Outputs the node number of the specified device.

ZERO device : [[directory]]

Clears the directory of the specified device.

Syntax * com arg1 arg2 ---

com - single letter as below

arg1 n:m

n - ~~first~~ line

m - ~~last~~ to line

(:m may be omitted)

^ first line

* last line

^:* entire file

o current line

<ex> previous line

<lf> next line

Commands

P print

D delete

I insert

R replace

F string <ex> find string

S old <ex> new <ex> n:m
substitute string

C x, n:m copy n:m to x

T x, n:m transp \equiv copy/delete

N i sequence in mov of i

E close, save line no

ES " , strip " "

E \emptyset quit (not to disc)

W save current file, not close

- ¹ Requires certain bits to be set in the privilege word.
- ² Available only on a multiprocessor system.
- ³ Used with KI10/KL10 virtual memory processors only.
- ⁴ Operator-privileged formats.

Order No: DEC-10-OTSMB-C-D

Additional copies may be ordered from the Software Distribution Center,
Digital Equipment Corporation, Whitney Street, Northboro, Mass.

Copyright © 1972, 1973, 1974, 1975 1976 by Digital Equipment Corporation