

KORN SHELL 93 – BUILT-IN COMMANDS

Mt Xia publishes information on a variety of topics such as Business Continuity, Disaster Recovery, High Availability, AIX, and Shell Programming.

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| Built-in Commands |
|---|
| <p>alias [-ptx] [name[=value] ...] create an alias; with no arguments, display all aliases -p print "alias" before each alias -t set or print a tracked alias -x obsolete: does nothing</p> |
| <p>bg [jobid] put <i>jobid</i> in the background</p> |
| <p>break [n] exit from enclosing loop (for, while, until, select), if <i>n</i> is specified, exit from <i>n</i>th enclosing loop</p> |
| <p>builtin [-ds] [-f file] [name ...] with no arguments, display all built-in commands -d delete built-in <i>name</i> -f load new built-ins from shared library <i>file</i> -s display special built-ins</p> |
| <p>cd [-LP] [dir] if <i>dir</i> not specified, change CWD to \$HOME -L use logical path for cd -P use physical path for cd - change CWD to \$OLDPWD</p> |
| <p>command [-pvV] name [arg ...] if -v or -V not specified, execute <i>name</i> with <i>arg</i> -p use a default search path, not \${PATH} -v behave like whence -V behave like whence -v</p> |
| <p>conditional commands</p> |

| Built-in Commands |
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| <p>see "conditionals and looping" quick reference case if then else [...] [[...]] ((...)) && !</p> |
| <p>continue [n] if <i>n</i> not specified, go to next iteration of smallest enclosing loop. if <i>n</i> is specified, go to next iteration of <i>n</i>th enclosing loop.</p> |
| <p>disown [jobid ...] do not send HUP signal to specified <i>jobids</i> when shell exits, if none specified use all active jobs.</p> |
| <p>echo [words] send <i>words</i> to STDOUT followed by newline, if no <i>words</i> specified, send newline.</p> |
| <p>eval [words] re-evaluate <i>words</i> using shell processing and execute result.</p> |
| <p>exec [-a name] [-c] [words] execute <i>words</i> in place of shell -a use name for argv[0] -c clear the environment first if <i>words</i> equal: <i>n</i>><i>file</i> : open output <i>file</i> using file descriptor <i>n</i> <i>n</i><<i>file</i> : open input <i>file</i> using file descriptor <i>n</i> <i>n</i><><i>file</i> : open input/output file using <i>file</i> descriptor <i>n</i> <i>n</i><&- : close input file opened on file descriptor <i>n</i> <i>n</i>>&- : close output file opened on file descriptor <i>n</i> <i>n</i>>&<i>m</i> : redirect file descriptor <i>n</i> to file descriptor <i>m</i></p> |
| <p>exit [n] exit from current shell. If <i>n</i> is not specified use \${?}.</p> |
| <p>export [-p] [name[=value] ...] export a shell variable to the environment. if no name specified, display all exported variables -p print the word "export" before each variable</p> |
| <p>false performs no action, but has a return value of 1</p> |
| <p>fc [-e editor] [-lnr] [first [last]] display shell history from first to last</p> |

| Built-in Commands |
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| <p>-e editor run editor if specified, else run \${FCEDIT} -l display on STDOUT -n don't display line numbers -r reverse order</p> |
| <p>fg [jobid] put <i>jobid</i> in the foreground</p> |
| <p>getconf [name [pathname]] display POSIX configuration parameters for name and pathname</p> |
| <p>getopts [-a name] optstring name [arg ...] parse command line options and arguments -a <i>name</i> use <i>name</i> for error and usage messages</p> |
| <p>hist [-e editor] [-lnr] [-N num] [first [last]] display shell history from <i>first</i> to <i>last</i> -e <i>editor</i> run <i>editor</i> if specified, else run \${FCEDIT} -l display on STDOUT -n don't display line numbers -N <i>num</i> <i>num</i> is relative to current command -r reverse order</p> |
| <p>jobs [-lnp] [jobid ...] display job information, if <i>jobid</i> not specified, display all job information -l also list process ID's -n list jobs whose status has changed -p only list process groups</p> |
| <p>kill [-n signal] [-s signal] jobid send signal identified by <i>signal</i> or <i>signal</i> to <i>jobid</i>. if no signal specified send SIGTERM -n <i>signal</i> send signal corresponding to <i>signal</i> -s <i>signal</i> send signal corresponding to <i>signal</i></p> |
| <p>let arg ... evaluate <i>arg</i> as an arithmetic expression. exit value is 0 if result of expression is non-zero. exit value is 1 if result of expression is zero.</p> |
| <p>looping commands see "conditionals and looping" quick reference for (word list) for (arithmetic) select (menu generator)</p> |

Built-in Commands

getopts (command line option processing)
 until (loop until expression is true)
 while (loop while expression is true)

newgrp [word]

change current group to *word*

print [-f format] [-enprRs] [-u n] [word ...]

display *words* on STDOUT

-e evaluate escape sequences (default)
 -f *format* behave as printf command
 -n suppress printing newline character at end of line
 -p print to STDIN of co-process
 -r suppress evaluation of escape sequences
 -R same as -r but also ignore other options
 -s print to history file
 -u *n* print to file descriptor *n* (default is 1)

printf format [arg ...]

display output like ANSI C printf, format operators:

%b expand escape sequences in strings
 %d decimal
 %H HTML/XML
 %n put number chars printed into variable
 %P convert regular expression to ksh pattern
 %R convert ksh pattern to regular expression
 %q display quoted string that can be re-read
 %(fmt)T display date/time in date format *fmt*
 %Z evaluates to a null character

pwd [-LP]

display the name of the current working directory (CWD)

-L display logical path (default)
 -P display physical path

read [-A name] [-d delim] [-n count] [-t timeout]**[-prs] [-u n] [name?prompt] [variables ...]**

read from STDIN and assign input to *variables*
 -A *name* read words into indexed array *name*
 -d *delim* use *delim* to separate words in input
 -n *count* read at most *count* bytes
 -p read from STDOUT of co-process
 -r do not interpret “\” in input
 -s save input in history file
 -t *timeout* wait *timeout* seconds for input

Built-in Commands

-u *n* read from file descriptor *n* (default=0)
name?prompt displays “*prompt*” and reads input into variable identified by *name*

readonly [-p] [name=value] ...]

mark variable *names* as read-only. Displays list of existing read-only variables if *names* not specified.
 -p print “readonly” before each variable

return [n]

exit a function with return value of *n*. if *n* not specified return value is \${?}. If not in function, behaves like exit.

set

see “**set and typeset**” quick reference

shift [n]

shifts position of all command line arguments *n* positions to the left. if *n* not specified, default value of *n* is 1

sleep seconds

stop execution for a given number of *seconds*

test

evaluates conditional expressions: see “**Testing**” quick reference

times

print accumulated process times

trap [-p] [word] [sigs]

if a signal is received that is in the list of *sigs*, execute *word*. *sigs* is list of signal numbers or names.

if *word* is null – signal is ignored

if *word* is “-” - default action of signal is performed

if *word* is non-null – *word* is executed

true

performs no action, but has a return value of 0

typeset

see “**set and typeset**” quick reference

ulimit [type] [options] [limit]

set or display per-process limits. default action is to set both hard and soft limits, displays soft limits.

-H hard limit *type*

Built-in Commands

-S soft limit *type*
 -a display all limits
 -c core file size (512 byte blocks)
 -d kilobytes of data segment
 -f maximum file size (512 byte blocks)
 -m kilobytes of physical memory
 -n maximum number of file descriptors +1
 -p size of pipe buffers (512 byte blocks)
 -s kilobytes of stack segment
 -t cpu seconds
 -v kilobytes of virtual memory
limit can be result of arithmetic expression
limit can be set to “unlimited” to set it to maximum

umask [-S] [mask]

with no arguments, displays the current mask. if mask is specified it is subtracted from default permissions of 666 for files, or 777 for directories.
 -S print current mask in symbolic form. symbolic mask is permissions to keep.

unalias [-a] names

remove aliases *names*
 -a remove all aliases

unset [-fnv] [names]

unsets variables, name references, or functions

-v unset variables *names*
 -f unset functions *names*
 -n unset nameref *names*

wait [jobid]

wait for job *jobid* to complete, if *jobid* not specified, wait for all child processes to complete.

whence [-afpv] name ...

indicate how each *name* is treated by the shell

-a display all interpretations of *name*
 -f skip the search for functions
 -v display verbose information
 -p do a path search even if *name* is a keyword, alias, or function