

Linux Command Line

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graphical user interfaces make easy tasks easy,
while command line interfaces make difficult tasks possible.

Introduction

When we speak of the command line, we are really referring to the shell. The shell is a program that takes keyboard commands and passes them to the operating system to carry out. Almost all Linux distributions supply a shell program from the GNU Project called bash. The name "bash" is an acronym for "Bourne Again SHell", a reference to the fact bash is an enhanced replacement for sh, the original Unix shell program written by Steve Bourne.

Try Something

- ▶ `date`
- ▶ `cal`
- ▶ `df`

Useful Commands

- ▶ `pwd` - Print name of current working directory
- ▶ `cd` - Change directory
- ▶ `ls` - List directory contents
- ▶ `file` - Determine file type
- ▶ `less` - View file contents (less is more)

File Commands

- ▶ `cp` –Copy files and directories
- ▶ `mv` –Move/rename files and directories
- ▶ `mkdir` –Create directories
- ▶ `rm` –Remove files and directories
- ▶ `ln` –Create hard and symbolic links

Wildcard

Wildcard	Meaning
*	Matches any characters
?	Matches any single character
[characters]	Matches any character that is a member of the set characters
[!characters]	Matches any character that is not a member of the set characters
[:class:]	Matches any character that is a member of the specified class

Table: Wildcards

Character Class	Meaning
[:alnum:]	Matches any alphanumeric character
[:alpha:]	Matches any alphabetic character
[:digit:]	Matches any numeral
[:lower:]	Matches any lowercase letter
[:upper:]	Matches any uppercase letter

Table: Commonly Used Character Classes

Command

- ▶ type –Indicate how a command name is interpreted
- ▶ which –Display which executable program will be executed
- ▶ man –Display a command's manual page
- ▶ apropos –Display a list of appropriate commands
- ▶ info –Display a command's info entry
- ▶ whatis –Display a very brief description of a command
- ▶ alias –Create an alias for a command

I/O Redirection

- ▶ cat - Concatenate files
- ▶ sort - Sort lines of text
- ▶ uniq - Report or omit repeated lines
- ▶ grep - Print lines matching a pattern
- ▶ wc - Print newline, word, and byte counts for each file
- ▶ head - Output the first part of a file
- ▶ tail - Output the last part of a file
- ▶ tee - Read from standard input and write to standard output and files

Slice & Dice

- ▶ cat - Concatenate files
- ▶ sort - Sort lines of text
- ▶ uniq - Report or omit repeated lines
- ▶ cut - Remove sections from each line of files
- ▶ paste - Merge lines of files
- ▶ join - Join lines of two files on a common field
- ▶ comm - Compare two sorted files line by line
- ▶ diff - Compare files line by line
- ▶ sed - Stream editor for filtering and transforming text

Q & A