

# Advanced Unix Commands

These **advanced Unix commands** will allow you to accomplish various tasks in Unix and Unix like operating systems, generally giving you more options for managing your data and getting things done.

It is best if you get familiar with the [basic Unix commands](#) first.

Since this is an index of commands, do take a minute to explore each of the pages for all the listed commands, they contain examples of advanced usage of seemingly simple commands. There's also a very useful [Unix Reference](#) section that explores some of the most useful topics at greater length and depth.

## Unix file operations

- [basename](#) – get filename from the full path (remove directory names)
- [ln](#) – make links and symlinks to files and directories
- [find](#) – finding files and directories in Unix

## Unix system status commands

- [dmesg](#) – show latest kernel buffer messages
- [last](#) – show history of user logins and reboot/shutdown commands
- [w](#) – show who is logged on and what they are doing
- [who -r](#) – confirm current run-level of your Unix/Linux OS
- [uname](#) – print Unix system information: hostname, kernel version, etc
- [lsb\\_release](#) – find Linux Standard Base (LSB) information

# Privileged Access

- **su** – switch user (commonly used to become root)
- **sudo** – run commands with elevated (usually root-like) privileges
  - be sure to check out [sudo reference](#)
- **visudo** – edit the /etc/sudoers file safely

# Advanced process management in Unix

- **ps -aef** – show full listing of processes on your system
- **ptree** – show process tree in Solaris (can be done with ps in Linux)
- **kill** – kill a process (or send a specific signal to it)
- **nice** – start a process with certain priority (CPU resourcing)
- **renice** – update a CPU priority of an existing process
- **pmap** – print process map – detailed low-level memory usage
- **pfiles** – shows list of files/network ports open by process in Solaris

# Text Manipulation commands

- **awk** – text processing and data extraction in text files
- **grep** – find and extract lines from text
- **egrep** – extended grep – advanced pattern matching in text files
- **sed** – stream editor (search/replace values in a string)
- **tr** – translate characters in a string using provided rules

# Unix filesystems commands

- **fstyp** – confirm a type of filesystem on the specified device

- **df** – shows filesystem usage for active (mounted) filesystems
- **du** – shows disk usage info for files and directories

## Working with disks and filesystems

- **mount** – attach filesystem into the file tree
- **umount** – detach filesystem from the file tree
- **dd** – copy or securely erase disks and disk partitions
- **fsck** – check filesystem integrity
- **growfs** – grow filesystem
- **tune2fs** – adjust tunable filesystem parameters (for ext2/ext3)
- **mkfs** – make new filesystem

## Networking

- **iptables** – manage firewall rules on a Linux server
- **netstat** – network statistics and network routing information
- **traceroute** – tracing ICMP routes to a remote host

## See also

- [Basic Unix commands](#)
- [Unix Commands](#)
- [Unix Reference](#)