



Exploring Disk and Process Commands

Welcome to our presentation on disk and process commands! In this guide, we'll dive into powerful commands like `df`, `du`, `ps`, and more.



by Abhi

Disk Commands

df

The df command is your gateway to understanding file system disk space usage. Discover how much space is used and available.

du

Estimate file space usage with du. Uncover the size of directories and files, helping you manage them more effectively.

free

Memory is vital. Use the free command to analyze the amount of free and used system memory, ensuring optimal performance.

Syntax

Syntax of du :

```
du [options] [directory/file]
```

Syntax of df :

```
df [OPTION]... [FILE]...
```

Syntax of free :

```
free [OPTION]
```

Process Commands

```
CPU: [|||||||||||||||||||||||||||||||||||||] [100.0%] Tasks: 46, 44 thr: 4 running
Mem: [|||||||||||||||||||||||||||||||||] 641/200180 Load average: 1.58 1.67 1.64
Swp: [|||||||||] 0/204700 Uptime: 03:05:15

ps -eo pid,ppid,user,rss,shs,s,cpu%,mem%,inode,command
1639 root 20 0 42328 940 404 S 100.0 0.0 2521:23 echo "find"
26709 root 20 0 42328 940 404 R 72.8 0.0 0:05.96 echo "find"
26710 root 20 0 42328 940 404 R 72.8 0.0 0:05.87 echo "find"
26875 andreas-ga 20 0 26152 3940 2936 R 1.0 0.2 0:01.36 top
26881 nobody 20 0 4440 9548 8460 S 0.0 0.5 0:00.03 Passenger uat-router
1085 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:14.45 /usr/sbin/mysqld
1654 root 20 0 42328 940 404 S 0.0 0.0 1:06.53 echo "find"
1344 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:01.80 /usr/sbin/mysqld
1 root 20 0 33468 3820 2712 S 0.0 0.2 0:03.67 /sbin/init
1325 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.46 /usr/sbin/mysqld
2473 andreas-ga 20 0 150M 53104 4024 S 0.0 0.2 0:01.12 shd: andreas-galli@pts/0
1323 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.55 /usr/sbin/mysqld
1322 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.44 /usr/sbin/mysqld
1348 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:01.13 /usr/sbin/mysqld
1319 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.57 /usr/sbin/mysqld
1653 root 20 0 42328 940 404 S 0.0 0.0 0:00.96 echo "find"
25843 root 20 0 450M 5244 7236 S 0.0 0.4 0:00.03 Passenger watchdog
25846 root 20 0 372M 9552 8456 S 0.0 0.5 0:00.03 Passenger core
25837 root 20 0 342M 26284 20008 S 0.0 1.3 0:00.08 /usr/sbin/apache2 -k start
25848 root 20 0 372M 9552 8456 S 0.0 0.5 0:00.01 Passenger core
1315 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.41 /usr/sbin/mysqld
1320 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.60 /usr/sbin/mysqld
2170 root 20 0 150M 4528 5448 S 0.0 0.3 0:00.07 shd: andreas-galli [priv]
1324 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.43 /usr/sbin/mysqld
1326 mysql 20 0 741M 92588 11048 S 0.0 4.5 0:00.38 /usr/sbin/mysqld
1586 clamav 20 0 54668 5892 4512 S 0.0 0.3 0:14.22 /usr/bin/freshclam -d --quiet
261 root 20 0 19744 1968 1700 S 0.0 0.1 0:00.10 upstart-udev-bridge --daemon
300 root 20 0 51448 3540 2856 S 0.0 0.2 0:00.18 /lib/systemd/systemd-udevd --daemon
407 root 20 0 15412 1612 1212 S 0.0 0.1 0:00.04 upstart-file-bridge --daemon
454 messagebus 20 0 39232 2280 1896 S 0.0 0.1 0:00.04 dbus-daemon --system --fork
448 syslog 20 0 249M 2868 2336 S 0.0 0.1 0:00.02 rsyslogd
469 syslog 20 0 249M 2868 2336 S 0.0 0.1 0:00.00 rsyslogd
470 syslog 20 0 249M 2868 2336 S 0.0 0.1 0:00.02 rsyslogd
458 syslog 20 0 249M 2868 2336 S 0.0 0.1 0:00.08 rsyslogd
496 root 20 0 15244 204 0 S 0.0 0.0 0:00.02 upstart-socket-bridge --daemon
520 root 20 0 43452 3216 2836 S 0.0 0.2 0:00.01 /lib/systemd/systemd-logind
649 root 20 0 12252 2880 1004 S 0.0 0.2 0:00.00 dhclient -l -v -pf /run/dhclient.eth0.pid -lf /var/lib/dhclient.eth0.leases -
876 root 20 0 15820 2192 1040 S 0.0 0.1 0:00.00 /sbin/getty -8 38400 tty4
879 root 20 0 15820 2128 1976 S 0.0 0.1 0:00.00 /sbin/getty -8 38400 tty5
```

ps

Gain insight into your system's processes with ps. Take a snapshot of running programs and identify resource usage like a pro.

```
root@AJT: /home/demon
/demon# kill -l
 2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 7) SIGBUS      8) SIGFPE      9) SIGKILL     10) SIGUSR1
12) SIGUSR2     13) SIGPIPE    14) SIGALRM     15) SIGTERM
17) SIGCHLD     18) SIGCONT    19) SIGSTOP     20) SIGTSTP
22) SIGTTOU     23) SIGURG     24) SIGXCPU     25) SIGXFSZ
27) SIGPROF     28) SIGWINCH   29) SIGIO       30) SIGPWR
34) SIGRTMIN    35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57) SIGRTMAX-7
59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
64) SIGRTMAX

/demon#
```

kill

Terminate or signal unruly processes with the powerful kill command. Regain control and ensure a smooth-running system.

Understanding the ps Command

The `ps` command is a powerful tool used in Unix-like operating systems to display information about running processes. It provides a snapshot of the current processes running on your system, including their process IDs (PIDs), parent PIDs, CPU and memory usage, and other details.

The `ps` command has various options that allow you to customize the output and filter the processes based on different criteria. For example, you can use the `-e` option to display information about all processes on the system, or the `-u` option to show processes owned by a specific user.

Using the `ps` command can help you monitor and manage your system's resources, identify resource-intensive processes, troubleshoot issues, and more.

Let me know if you need any further information or if there's anything specific you'd like to know about the `ps` command!

Syntax : `ps [option]`

```
drwxr-xr-x. 38 root root 4096 May 18 16:03 lib
drwxr-xr-x.  2 root root 4096 May 18 16:03 local
lrwxrwxrwx.  1 root root   11 May 14 00:12 lock -> ../run/lock
drwxr-xr-x. 14 root root 4096 Sep 14 20:42 log
lrwxrwxrwx.  1 root root   10 Jul 30 22:43 mail -> spool/mail
```

KILL

Terminate or signal unruly processes with the powerful kill command. Regain control and ensure a smooth-running system.

Syntax : kill [signal] PID