

Processes

The Linux kernel is the core of a Linux installation. The kernel manages memory, provides software with a way to access the hard disk, doles out CPU time, and performs other critical low-level tasks. The kernel is loaded early in the boot process, and it's the kernel that's responsible for managing every other piece of software on a running Linux computer.

More about processes

Normally at boot, one process is started (`/sbin/init`). Then everything else is managed by init and are called child processes. (sometimes also referred to as daemons)

Internally, the kernel maintains process information in the process table . Tools such as ps and top (described shortly) enable you to view and manipulate this table.

Process ID numbers

Every process has a PID. Init's id is normally 1. Each process also has a parent process id(PPID).

- `ps aux --forest` can help show parent/child relationships
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More on Processes

- kill: find the pid and issue the command
 - We can also send it a signal like `kill -9 PID`
 - killall: kills by process name instead of pid
 - example: `killall -9 testme`
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Process related commands

- ps , ps aux
 - fg
 - bg
 - control + z
 - jobs
 - top
 - & # to run in background
 - sleep
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Process states

code	state
D	uninterruptable sleep (I/O is happening)
R	running
S	interruptable sleep (waiting for event to complete)
T	stopped or paused
Z	defunct (zombie)

Process Signals

Messages sent between processes. A numeric value.

Names:

- interrupts (Cntrl + c)

- sleep (Cntrl + z)
 - kill
 - etc..
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Process related files

- `/proc/cpuinfo`
- `/proc/meminfo`