ps Cheatsheet

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Quick reference for listing and filtering processes with ps in Linux

The `ps` command displays process information in Linux. This cheatsheet covers common output formats, filtering patterns, sorting, and practical process-inspection commands.

Basic Syntax

Core `ps` command forms.

`ps`	Show processes in the current shell
`ps -e`	Show all running processes
`ps -f`	Show full-format output
`ps aux`	BSD-style all-process listing with user and resource info
`ps -ef`	SysV-style all-process listing

List Processes

Common process listing commands.

`ps -e`	List all processes
`ps -ef`	Full process list with PPID and start time
`ps aux`	Detailed list including CPU and memory usage
`ps -u username`	Processes owned by a specific user
`ps -p 1234`	Show one process by PID

Select and Filter

Filter output to specific process groups.

`ps -C nginx`	Match processes by command name
`ps -p 1234,5678`	Show multiple PIDs
`ps -u root -U root`	Show processes by effective and real user
`ps -t pts/0`	Show processes attached to a terminal
`ps -eo pid,ppid,cmd,%mem,%cpu --sort=-%cpu`	Custom output sorted by CPU

Custom Output Columns

Show only the process fields you need.

`ps -eo pid,cmd`	PID and command
`ps -eo user,pid,%cpu,%mem,cmd`	User, PID, CPU, memory, command
`ps -eo pid,lstart,cmd`	PID with full start time
`ps -o pid= -o comm=`	Output without column headers
`ps -p 1234 -o pid,ppid,user,%cpu,%mem,cmd`	Custom fields for one PID

Process Tree and Parent/Child

Inspect process hierarchy.

`ps -ejH`	Hierarchical process view
`ps -axjf`	Forest view (BSD style)
`ps -o pid,ppid,cmd -p 1234`	Parent-child context for one process
`ps -eo pid,ppid,cmd --sort=ppid`	Group processes by parent PID

Useful Patterns

Common real-world combinations.

`` `ps aux ``	`grep nginx` ``
`ps -C nginx -o pid,cmd`	Cleaner command-name search without grep
`` `ps -eo pid,%cpu,%mem,cmd –sort=-%mem ``	`head` ``
`` `ps -eo pid,%cpu,cmd –sort=-%cpu ``	`head` ``
`` `ps -ef ``	`grep -v grep` ``

Troubleshooting

Quick checks for common `ps` usage issues.

`Command not visible in output`	Use `ps -ef` or `ps aux` for full list
`Process disappears between checks`	It may be short-lived; sample repeatedly or use `watch`
`grep shows itself`	Use `ps -C name` or `pgrep` instead of raw grep
`Missing expected process details`	Add fields with `-o` (for example `%cpu`, `%mem`, `lstart`)
`Need exact process ID for kill`	Use `ps -C name -o pid=` or `pgrep name`

Related Guides

Use these guides for full process-management workflows.

Ps Command in Linux	Full ps guide with examples
Kill Command in Linux	Terminate processes by PID
Pkill Command in Linux	Kill processes by name/pattern
Pgrep Command in Linux	Find process IDs by name and pattern
How to Kill a Process in Linux	Practical process-stop workflow