# 1 CheatSheet: Linux Process

LINUX

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- PDF Link: cheatsheet-process-A4.pdf, Category: linux
- Blog URL: https://cheatsheet.dennyzhang.com/cheatsheet-process-A4
- $\bullet$ Related posts: Cheat Sheet: Linux Files, Cheat Sheet: Linux Networking, #denny-cheat sheets

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#### 1.1 Find process

Name	Comment
Sort processes by ram usage	ps -eo size,pid,user,pcpu,commandsort -rss
Sort processes by cpu usage	ps -eo size,pid,user,pcpu,commandsort -pcpu
Get parent process id by pid	$\operatorname{ps}$ -o $\operatorname{ppid} = \operatorname{-p} < \operatorname{pid} >$
Find process by name	pgrep <pre>process_name&gt;</pre>
List zombie processes	See zombie-process.sh
List all process	ps aux, ps axjf

### 1.2 Top Command

Name	Comment
Top show process full command line	Use c to toggle
Top sort process by memory usage	Shift+m
Top for certain processes	top -p 'pgrep -d "," java'

### 1.3 Examine process

Name	Comment
Trace system calls and signals by pid	strace -p <pid></pid>
List all file handlers by pid	lsof -p <pid></pid>
Display process tree by pid	pstree -A -n -p <pid></pid>
List all listening ports by pid	See proc-listen-ports.sh
Get process ram usage by pid	sudo pmap -x <pid></pid>

### 1.4 Kill process

Name	Comment	
Kill process gracefully	kill <pid>, kill -15 <pid>, kill -TERM <pid></pid></pid></pid>	
Kill process by force	kill -9 <pid>, kill -KILL <pid></pid></pid>	
kill process by its full process name	pkill <processname></processname>	
kill process by it's partial name	<pre>pkill -f <pre>process-string&gt;</pre></pre>	
Kill process by process name	killall <process_name></process_name>	

## 1.5 Explore /proc filesystem

Name	Comment
Check process start command	cat /proc/\$pid/cmdline
Check process environment variables	cat /proc/\$pid/environ
Check process ulimits setting	<pre>cat /proc/\$pid/limits</pre>
Check cpu utilization	/proc/loadavg
List all partitions	/proc/partitions
List all modules	/proc/modules
List TCP/UDP packages	<pre>sudo cat /proc/\$PID/net/nf_conntrack</pre>
Get current IP from /proc	See proc-get-ip.sh

### 1.6 Linux Process Status

Status	Type
Ready or running	TASK_RUNNING(R)
Blocked (waiting for an event)	TASK_INTERRUPTIBLE(S)
Blocked (usually for I/O)	TASK_UNINTERRUPTIBLE(D)
Terminated but not cleaned up by its parent	TASK_ZOMBIE(Z)
Execution stopped	TASK_STOPPED(T)

### 1.7 More Resources

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