1 CheatSheet: Linux Process LINUX

- PDF Link: cheatsheet-process-A4.pdf, Category: linux
- Blog URL: `https://cheatsheet.dennyzhang.com/cheatsheet-process-A4`
- Related posts: CheatSheet: Linux Files, CheatSheet: Linux Networking, #denny-cheatsheets

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1.1 Linux Process Status

Status	Type
`R` Ready or running	`TASK_RUNNING(R)`
`D` Uninterruptible sleep (usually IO)	`TASK_UNINTERRUPTIBLE(D)`
`S` Interruptible sleep (waiting for an event to complete)	`TASK_INTERRUPTIBLE(S)`
`T` Execution stopped	`TASK_STOPPED(T)`
`Z` defunct/zombie, terminated but not cleaned up by its parent	`TASK_ZOMBIE(Z)`
Processes contribute to CPU load	`R`, `D`

1.2 Find process

Name	Comment
Sort processes by ram usage	`ps -eo size,pid,user,pcpu,command --sort -rss`
Sort processes by cpu usage	`ps -eo size,pid,user,pcpu,command --sort -pcpu`
Get parent process id by pid	ps -o ppid= -p <pid>
Find process by name	`pgrep <process_name>`
List zombie processes	See zombie-process.sh
List all process	`ps aux`, `ps axjf`

1.3 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‘`

1.4 Examine process

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

1.5 Kill process

Name	Comment
Kill process gracefully	`kill <pid>`, `kill -15 <pid>`, `kill -TERM <pid>`
Kill process by force	`kill -9 <pid>`, `kill -KILL <pid>`
kill process by its full process name	`pkill <processname>`
kill process by it’s partial name	`pkill -f <process-string>`
Kill process by process name	`killall <process_name>`

1.6 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	`cat /proc/$pid/limits`
Check cpu utilization	`/proc/loadavg`
List all partitions	`/proc/partitions`
List all modules	`/proc/modules`
List TCP/UDP packages	`sudo cat /proc/$PID/net/nf_conntrack`
Get current IP from /proc	See proc-get-ip.sh

1.7 More Resources