



Linux Ubuntu 26.04 Manual Pages on command 'pkill.1'

\$ man pkill.1

PGREP(1)

User Commands

PGREP(1)

NAME

pgrep, pkill, pidwait - look up, signal, or wait for processes based on name and other at?

tributes

SYNOPSIS

pgrep [options] pattern

pkill [options] pattern

pidwait [options] pattern

DESCRIPTION

pgrep looks through the currently running processes and lists the process IDs which match the selection criteria to stdout. All the criteria have to match. For example,

```
$ pgrep -u root sshd
```

will only list the processes called sshd AND owned by root. On the other hand,

```
$ pgrep -u root,daemon
```

will list the processes owned by root OR daemon.

pkill will send the specified signal (by default SIGTERM) to each process instead of listing them on stdout.

pidwait will wait for each process instead of listing them on stdout.

OPTIONS

-signal

--signal signal

Defines the signal to send to each matched process. Either the numeric or the symbolic

symbolic signal name can be used. In pgrep or pidwait mode only the long option can be

used and has no effect unless used in conjunction with `--require-handler` to filter to processes with a userspace signal handler present for a particular signal.

`-c, --count`

Suppress normal output; instead print a count of matching processes. When count does not match anything, e.g. returns zero, the command will return non-zero value. Note that for `pkill` and `pidwait`, the count is the number of matching processes, not the processes that were successfully signaled or waited for.

`-d, --delimiter delimiter`

Sets the string used to delimit each process ID in the output (by default a newline). (pgrep only.)

`-e, --echo`

Display name and PID of the process being killed. (`pkill` only.)

`-f, --full`

The pattern is normally only matched against the process name. When `-f` is set, the full command line is used.

`-g, --pgroup pgrp,...`

Only match processes in the process group IDs listed. Process group 0 is translated into `pgrep`'s, `pkill`'s, or `pidwait`'s own process group.

`-G, --group gid,...`

Only match processes whose real group ID is listed. Either the numerical or symbolic value may be used.

`-i, --ignore-case`

Match processes case-insensitively.

`-l, --list-name`

List the process name as well as the process ID. (pgrep only.)

`-a, --list-full`

List the full command line as well as the process ID. (pgrep only.)

`-n, --newest`

Select only the newest (most recently started) of the matching processes.

`-o, --oldest`

Select only the oldest (least recently started) of the matching processes.

`-O, --older secs`

Select processes older than secs.

-P, --parent ppid,...

Only match processes whose parent process ID is listed.

-s, --session sid,...

Only match processes whose process session ID is listed. Session ID 0 is translated into pgrep's, pkill's, or pidwait's own session ID.

-t, --terminal term,...

Only match processes whose controlling terminal is listed. The terminal name should be specified without the "/dev/" prefix.

-u, --euid euid,...

Only match processes whose effective user ID is listed. Either the numerical or symbolic value may be used.

-U, --uid uid,...

Only match processes whose real user ID is listed. Either the numerical or symbolic value may be used.

-v, --inverse

Negates the matching. This option is usually used in pgrep's or pidwait's context. In pkill's context the short option is disabled to avoid accidental usage of the option.

-w, --lightweight

Shows all thread ids instead of pids in pgrep's or pidwait's context. In pkill's context this option is disabled.

-x, --exact

Only match processes whose names (or command lines if -f is specified) exactly match the pattern.

-F, --pidfile file

Read PIDs from file. This option is more useful for pkill or pidwait than pgrep.

-L, --logpidfile

Fail if pidfile (see -F) not locked.

-r, --runstates D,R,S,Z,...

Match only processes which match the process state.

-A, --ignore-ancestors

Ignore all ancestors of pgrep, pkill, or pidwait. For example, this can be useful when elevating with sudo or similar tools.

-H, --require-handler

Only match processes with a userspace signal handler present for the signal to be sent.

--cgroup name,...

Match on provided control group (cgroup) v2 name. See `cgroups(8)`

--ns pid

Match processes that belong to the same namespaces. Required to run as root to match processes from other users. See `--nslist` for how to limit which namespaces to match.

--nslist name,...

Match only the provided namespaces. Available namespaces: `ipc`, `mnt`, `net`, `pid`, `user`, `uts`.

-q, --queue value

Use `sigqueue(3)` rather than `kill(2)` and the value argument is used to specify an integer to be sent with the signal. If the receiving process has installed a handler for this signal using the `SA_SIGINFO` flag to `sigaction(2)`, then it can obtain this data via the `si_value` field of the `siginfo_t` structure.

-V, --version

Display version information and exit.

-h, --help

Display help and exit.

OPERANDS

pattern

Specifies an Extended Regular Expression for matching against the process names or command lines.

EXAMPLES

Example 1: Find the process ID of the named daemon:

```
$ pgrep -u root named
```

Example 2: Make syslog reread its configuration file:

```
$ pkill -HUP syslogd
```

Example 3: Give detailed information on all xterm processes:

```
$ ps -fp $(pgrep -d, -x xterm)
```

Example 4: Make all chrome processes run nicer:

```
$ renice +4 $(pgrep chrome)
```

EXIT STATUS

- 0 One or more processes matched the criteria. For `pkill` and `pidwait`, one or more processes must also have been successfully signalled or waited for.
- 1 No processes matched or none of them could be signalled.
- 2 Syntax error in the command line.
- 3 Fatal error: out of memory etc.

NOTES

The process name used for matching is limited to the 15 characters present in the output of `/proc/pid/stat`. Use the `-f` option to match against the complete command line, `/proc/pid/cmdline`. Threads may not have the same process name as the parent process but will have the same command line.

The running `pgrep`, `pkill`, or `pidwait` process will never report itself as a match.

The `-O --older` option will silently fail if `/proc` is mounted with the `subset=pid` option.

BUGS

The options `-n` and `-o` and `-v` can not be combined. Let me know if you need to do this.

Defunct processes are reported.

`pidwait` requires the `pidfd_open(2)` system call which first appeared in Linux 5.3.

SEE ALSO

`ps(1)`, `regex(7)`, `signal(7)`, `sigqueue(3)`, `killall(1)`, `skill(1)`, `kill(1)`, `kill(2)`, `cgroups(8)`.

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REPORTING BUGS

Please send bug reports to procps@freelists.org

procps-ng

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