

NAME

pgrep, **pkill**, **pidwait** – look up, signal, or wait for processes based on name and other attributes

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 signal name can be used. (**pkill** only.)

-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 *grp*,...

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 symbolical 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 symbolical value may be used.
- U, --uid uid,...**
Only match processes whose real user ID is listed. Either the numerical or symbolical 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 **pid wait** 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.
- 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`.

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

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.

SEE ALSO

ps(1), **regex**(7), **signal**(7), **sigqueue**(3), **killall**(1), **skill**(1), **kill**(1), **kill**(2)

AUTHOR

Kjetil Torgrim Homme <kjetilho@ifi.uio.no>

REPORTING BUGS

Please send bug reports to <procps@freelists.org>