



Rocky Enterprise Linux 9.2 Manual Pages on command 'tkill.2'

\$ man tkill.2

TKILL(2) Linux Programmer's Manual TKILL(2)

NAME

tkill, tkill - send a signal to a thread

SYNOPSIS

```
int tkill(int tid, int sig);
```

```
int tkill(int tgid, int tid, int sig);
```

Note: There is no glibc wrapper for tkill(); see NOTES.

DESCRIPTION

tkill() sends the signal sig to the thread with the thread ID tid in the thread group tgid. (By contrast, kill(2) can be used to send a signal only to a process (i.e., thread group) as a whole, and the signal will be delivered to an arbitrary thread within that process.)

tkill() is an obsolete predecessor to tkill(). It allows only the target thread ID to be specified, which may result in the wrong thread being signaled if a thread terminates and its thread ID is recycled. Avoid using this system call.

These are the raw system call interfaces, meant for internal thread library use.

RETURN VALUE

On success, zero is returned. On error, -1 is returned, and `errno` is set appropriately.

ERRORS

EAGAIN The `RLIMIT_SIGPENDING` resource limit was reached and `sig` is a real-time signal.

EAGAIN Insufficient kernel memory was available and `sig` is a real-time signal.

EINVAL An invalid thread ID, thread group ID, or signal was specified.

EPERM Permission denied. For the required permissions, see `kill(2)`.

ESRCH No process with the specified thread ID (and thread group ID) exists.

VERSIONS

`tkill()` is supported since Linux 2.4.19 / 2.5.4. `tgkill()` was added in Linux 2.5.75.

Library support for `tgkill()` was added to `glibc` in version 2.30.

CONFORMING TO

`tkill()` and `tgkill()` are Linux-specific and should not be used in programs that are intended to be portable.

NOTES

See the description of `CLONE_THREAD` in `clone(2)` for an explanation of thread groups.

`Glibc` does not provide a wrapper for `tkill()`; call it using `syscall(2)`.

Before `glibc` 2.30, there was also no wrapper function for `tgkill()`.

SEE ALSO

`clone(2)`, `gettid(2)`, `kill(2)`, `rt_sigqueueinfo(2)`

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.