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

C:\>man tkill.2

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

NAME

tkill, tgkill - send a signal to a thread

SYNOPSIS

int tkill(int tid, int sig);

int tgkill(int tgid, int tid, int sig);

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

DESCRIPTION

tgkill() 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 tgkill(). 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 appropri?ately.

ERRORS

EAGAIN The RLIMIT_SIGPENDING resource limit was reached and sig is a real-time sig?nal.

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

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