

**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. **tkill()** was added in Linux 2.5.75.

Library support for **tkill()** was added to glibc in version 2.30.

**CONFORMING TO**

**tkill()** and **tkill()** 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 **tkill()**.

**SEE ALSO**

**clone(2)**, **gettid(2)**, **kill(2)**, **rt\_sigqueueinfo(2)**

**COLOPHON**

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