



Rocky Enterprise Linux 9.2 Manual Pages on command 'pthread_tryjoin_np.3'

C:\>man pthread_tryjoin_np.3

PTHREAD_TRYJOIN_NP(3) Linux Programmer's Manual PTHREAD_TRYJOIN_NP(3)

NAME

pthread_tryjoin_np, pthread_timedjoin_np - try to join with a terminated thread

SYNOPSIS

```
#define _GNU_SOURCE           /* See feature_test_macros(7) */
#include <pthread.h>
int pthread_tryjoin_np(pthread_t thread, void **retval);
int pthread_timedjoin_np(pthread_t thread, void **retval,
                          const struct timespec *abstime);
```

Compile and link with -pthread.

DESCRIPTION

These functions operate in the same way as pthread_join(3), except for the differences described on this page.

The pthread_tryjoin_np() function performs a nonblocking join with the thread thread, returning the exit status of the thread in *retval. If thread has not yet terminated, then instead of blocking, as is done by pthread_join(3), the call returns an error.

The pthread_timedjoin_np() function performs a join-with-timeout. If thread has not yet terminated, then the call blocks until a maximum time, specified in abstime. If the timeout expires before thread terminates, the call returns an error.

The abstime argument is a structure of the following form, specifying an absolute time measured since the Epoch (see time(2)):

```

struct timespec {
    time_t tv_sec; /* seconds */
    long tv_nsec; /* nanoseconds */
};

```

RETURN VALUE

On success, these functions return 0; on error, they return an error number.

ERRORS

These functions can fail with the same errors as `pthread_join(3)`.

`pthread_tryjoin_np()` can in addition fail with the following error:

EBUSY thread had not yet terminated at the time of the call.

`pthread_timedjoin_np()` can in addition fail with the following errors:

ETIMEDOUT

The call timed out before thread terminated.

EINVAL abstime value is invalid (`tv_sec` is less than 0 or `tv_nsec` is greater than 1e9).

`pthread_timedjoin_np()` never returns the error **EINTR**.

VERSIONS

These functions first appeared in glibc in version 2.3.3.

ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

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?Interface ? Attribute ? Value ?

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?`pthread_tryjoin_np()`, ? Thread safety ? MT-Safe ?

?`pthread_timedjoin_np()` ? ? ?

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CONFORMING TO

These functions are nonstandard GNU extensions; hence the suffix "`_np`" (non-portable) in the names.

EXAMPLE

The following code waits to join for up to 5 seconds:

```

struct timespec ts;

int s;

```

```
...
if (clock_gettime(CLOCK_REALTIME, &ts) == -1) {
    /* Handle error */
}
ts.tv_sec += 5;
s = pthread_timedjoin_np(thread, NULL, &ts);
if (s != 0) {
    /* Handle error */
}
```

SEE ALSO

clock_gettime(2), pthread_exit(3), pthread_join(3), pthreads(7)

COLOPHON

This page is part of release 5.05 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/>.

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