



Linux Ubuntu 26.04 Manual Pages on command 'usleep.3'

\$ man usleep.3

usleep(3) Library Functions Manual usleep(3)

NAME

usleep - suspend execution for microsecond intervals

LIBRARY

Standard C library (libc, -lc)

SYNOPSIS

```
#include <unistd.h>
```

```
int usleep(useconds_t usec);
```

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

usleep():

Since glibc 2.12:

```
(_XOPEN_SOURCE >= 500) && !(_POSIX_C_SOURCE >= 200809L)
```

```
|| /* glibc >= 2.19: */ _DEFAULT_SOURCE
```

```
|| /* glibc <= 2.19: */ _BSD_SOURCE
```

Before glibc 2.12:

```
_BSD_SOURCE || _XOPEN_SOURCE >= 500
```

DESCRIPTION

The usleep() function suspends execution of the calling thread for (at least) usec microseconds. The sleep may be lengthened slightly by any system activity or by the time spent processing the call or by the granularity of system timers.

RETURN VALUE

The usleep() function returns 0 on success. On error, -1 is returned, with errno set to indicate the error.

ERRORS

EINTR Interrupted by a signal; see `signal(7)`.

EINVAL usec is greater than or equal to 1000000. (On systems where that is considered an error.)

ATTRIBUTES

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

[illegible]

? Interface	? Attribute	? Value	?
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[illegible]

? usleep() ? Thread safety ? MT-Safe ?

[illegible]

STANDARDS

None.

HISTORY

4.3BSD, POSIX.1-2001. POSIX.1-2001 declares it obsolete, suggesting `nanosleep(2)` instead.

Removed in POSIX.1-2008.

On the original BSD implementation, and before glibc 2.2.2, the return type of this function is `void`. The POSIX version returns `int`, and this is also the prototype used since glibc 2.2.2.

Only the EINVAL error return is documented by SUSv2 and POSIX.1-2001.

CAVEATS

The interaction of this function with the SIGALRM signal, and with other timer functions such as alarm(2), sleep(3), nanosleep(2), setitimer(2), timer_create(2), timer_delete(2), timer_getoverrun(2), timer_gettime(2), timer_settime(2), ualarm(3) is unspecified.

SEE ALSO

`alarm(2), getitimer(2), nanosleep(2), select(2), setitimer(2), sleep(3), ualarm(3), usleep(3),
clock_gettime(2), clock_getres(2), clock_nanosleep(2), clock_settime(2), clock_t(7),
conds_t(3type), time(7)`