



## ***Linux Ubuntu 26.04 Manual Pages on command 'ualarm.3'***

### ***\$ man ualarm.3***

ualarm(3)                      Library Functions Manual                      ualarm(3)

#### NAME

ualarm - schedule signal after given number of microseconds

#### LIBRARY

Standard C library (libc, -lc)

#### SYNOPSIS

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

```
useconds_t ualarm(useconds_t usecs, useconds_t interval);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

ualarm():

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 `ualarm()` function causes the signal `SIGALRM` to be sent to the invoking process after (not less than) `usecs` microseconds. The delay may be lengthened slightly by any system activity or by the time spent processing the call or by the granularity of system timers.

Unless caught or ignored, the `SIGALRM` signal will terminate the process.

If the interval argument is nonzero, further `SIGALRM` signals will be sent every interval microseconds after the first.

## RETURN VALUE

This function returns the number of microseconds remaining for any alarm that was previously set, or 0 if no alarm was pending.

## ERRORS

EINTR Interrupted by a signal; see [signal\(7\)](#).

EINVAL usecs or interval is not smaller than 1000000. (On systems where that is considered an error.)

## 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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? ualarm() ? Thread safety ? MT-Safe ?

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## STANDARDS

None.

## HISTORY

4.3BSD, POSIX.1-2001. POSIX.1-2001 marks it as obsolete. Removed in POSIX.1-2008.

4.3BSD, SUSv2, and POSIX do not define any errors.

POSIX.1-2001 does not specify what happens if the usecs argument is 0. On Linux (and probably most other systems), the effect is to cancel any pending alarm.

The type `useconds_t` is an unsigned integer type capable of holding integers in the range [0,1000000]. On the original BSD implementation, and in glibc before glibc 2.1, the arguments to `ualarm()` were instead typed as unsigned int. Programs will be more portable if they never mention `useconds_t` explicitly.

The interaction of this function 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)`, `usleep(3)` is unspecified.

This function is obsolete. Use `setitimer(2)` or POSIX interval timers (`timer_create(2)`, etc.) instead.

## SEE ALSO

`alarm(2)`, `getitimer(2)`, `nanosleep(2)`, `select(2)`, `setitimer(2)`, `usleep(3)`, `time(7)`