



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

\$ man timercmp.3

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

NAME

timeradd, timersub, timercmp, timerclear, timerisset - timeval operations

SYNOPSIS

```
#include <sys/time.h>

void timeradd(struct timeval *a, struct timeval *b,
              struct timeval *res);

void timersub(struct timeval *a, struct timeval *b,
              struct timeval *res);

void timerclear(struct timeval *tvp);

int timerisset(struct timeval *tvp);

int timercmp(struct timeval *a, struct timeval *b, CMP);
```

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

All functions shown above:

Since glibc 2.19:

 _DEFAULT_SOURCE

Glibc 2.19 and earlier:

DESCRIPTION

The macros are provided to operate on `timeval` structures, defined in `<sys/time.h>` as:

```
struct timeval {
    time_t    tv_sec;    /* seconds */
    suseconds_t tv_usec; /* microseconds */
};
```

`timeradd()` adds the time values in `a` and `b`, and places the sum in the `timeval` pointed to by `res`. The result is normalized such that `res->tv_usec` has a value in the range 0 to 999,999.

`timersub()` subtracts the time value in `b` from the time value in `a`, and places the result in the `timeval` pointed to by `res`. The result is normalized such that `res->tv_usec` has a value in the range 0 to 999,999.

`timerclear()` zeros out the `timeval` structure pointed to by `tv`, so that it represents the Epoch: 1970-01-01 00:00:00 +0000 (UTC).

`timerisset()` returns true (nonzero) if either field of the `timeval` structure pointed to by `tv` contains a nonzero value.

`timercmp()` compares the timer values in `a` and `b` using the comparison operator `CMP`, and returns true (nonzero) or false (0) depending on the result of the comparison. Some systems (but not Linux/glibc), have a broken `timercmp()` implementation, in which `CMP` of `>=`, `<=`, and `==` do not work; portable applications can instead use

```
!timercmp(..., <)
!timercmp(..., >)
!timercmp(..., !=)
```

RETURN VALUE

`timerisset()` and `timercmp()` return true (nonzero) or false (0).

ERRORS

No errors are defined.

CONFORMING TO

Not in POSIX.1. Present on most BSD derivatives.

SEE ALSO

gettimeofday(2), time(7)

COLOPHON

This page is part of release 5.10 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/>.

Linux

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