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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'timersub.3' command

$ man timersub.3

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

NAME

timeradd, timersub, timercmp, timerclear, timerisset - timeval opera?

tions

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:

_BSD_SOURCE

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 nor? malized such that res->tv_usec has a value in the range 0 to 999,999.

timerclear() zeros out the timeval structure pointed to by tvp, 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 tvp 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/.