



## Rocky Enterprise Linux 9.2 Manual Pages on command 'clock.3'

C:\>man clock.3

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

### NAME

clock - determine processor time

### SYNOPSIS

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

```
clock_t clock(void);
```

### DESCRIPTION

The `clock()` function returns an approximation of processor time used by the program.

### RETURN VALUE

The value returned is the CPU time used so far as a `clock_t`; to get the number of seconds used, divide by `CLOCKS_PER_SEC`. If the processor time used is not available or its value cannot be represented, the function returns the value `(clock_t) -1`.

### ATTRIBUTES

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

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?Interface ? Attribute ? Value ?

??

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

??

### CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C89, C99. XSI requires that CLOCKS\_PER\_SEC equals 1000000 independent of the actual resolution.

## NOTES

The C standard allows for arbitrary values at the start of the program; subtract the value returned from a call to clock() at the start of the program to get maximum portability.

Note that the time can wrap around. On a 32-bit system where CLOCKS\_PER\_SEC equals 1000000 this function will return the same value approximately every 72 minutes.

On several other implementations, the value returned by clock() also includes the times of any children whose status has been collected via wait(2) (or another wait-type call). Linux does not include the times of waited-for children in the value returned by clock(). The times(2) function, which explicitly returns (separate) information about the caller and its children, may be preferable.

In glibc 2.17 and earlier, clock() was implemented on top of times(2). For improved accuracy, since glibc 2.18, it is implemented on top of clock\_gettime(2) (using the CLOCK\_PROCESS\_CPUTIME\_ID clock).

## SEE ALSO

clock\_gettime(2), getrusage(2), times(2)

## 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/>.