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

\$ 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 at? tributes(7).

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?Interface ? Attribute ? Value ?

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

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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

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