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

$ man clock.3p

CLOCK(3P) POSIX Programmer's Manual CLOCK(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

clock ? report CPU time used

SYNOPSIS

#include <time.h>

clock_t clock(void);

DESCRIPTION

The functionality described on this reference page is aligned with the ISO C standard. Any conflict between the requirements described here and the ISO C standard is unintentional. This volume of POSIX.1?2017 defers to the ISO C standard.

The clock() function shall return the implementation's best approxima? tion to the processor time used by the process since the beginning of an implementation-defined era related only to the process invocation.

RETURN VALUE

To determine the time in seconds, the value returned by clock() should be divided by the value of the macro CLOCKS_PER_SEC. CLOCKS_PER_SEC is defined to be one million in <time.h>. If the processor time used is

not available or its value cannot be represented, the function shall return the value (clock_t)-1.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

In programming environments where clock_t is a 32-bit integer type and CLOCKS_PER_SEC is one million, clock() will start failing in less than 36 minutes of processor time for signed clock_t, or 72 minutes for un? signed clock_t. Applications intended to be portable to such environ? ments should use times() instead (or clock_gettime() with CLOCK_PROCESS_CPUTIME_ID, if supported).

In order to measure the time spent in a program, clock() should be called at the start of the program and its return value subtracted from the value returned by subsequent calls. The value returned by clock() is defined for compatibility across systems that have clocks with dif? ferent resolutions. The resolution on any particular system need not be to microsecond accuracy.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

asctime(), clock_getres(), ctime(), difftime(), gmtime(), localtime(), mktime(), strftime(), strptime(), time(), times(), utime()

The Base Definitions volume of POSIX.1?2017, <time.h>

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