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

$ man ntp_gettime.3

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

NAME

   ntp_gettime, ntp_gettimex - get time parameters (NTP daemon interface)

SYNOPSIS

   #include <sys/timex.h>

   int ntp_gettime(struct ntptimeval *ntv);

   int ntp_gettimex(struct ntptimeval *ntv);

DESCRIPTION

   Both of these APIs return information to the caller via the ntv argu?

   ment, a structure of the following type:

     struct ntptimeval {

       struct timeval time;   /* Current time */

       long maxerror;   /* Maximum error */

       long esterror;   /* Estimated error */

       long tai;   /* TAI offset */

       /* Further padding bytes allowing for future expansion */

     };

   The fields of this structure are as follows:

time   The current time, expressed as a timeval structure:

        struct timeval {

            time_t   tv_sec;   /* Seconds since the Epoch */

            suseconds_t tv_usec; /* Microseconds */

        };

maxerror

    Maximum error, in microseconds. This value can be initialized

    by ntp_adjtime(3), and is increased periodically (on Linux: each

    second), but is clamped to an upper limit (the kernel constant

    NTP_PHASE_MAX, with a value of 16,000).

esterror

    Estimated error, in microseconds.   This value can be set via

    ntp_adjtime(3) to contain an estimate of the difference between

    the system clock and the true time. This value is not used in?

    side the kernel.

tai   TAI (Atomic International Time) offset.

ntp_gettime() returns an ntptimeval structure in which the time, maxer?

ror, and esterror fields are filled in.

ntp_gettimex() performs the same task as ntp_gettime(), but also re?

turns information in the tai field.

RETURN VALUE

    The return values for ntp_gettime() and ntp_gettimex() are as for adj?

    timex(2). Given a correct pointer argument, these functions always

    succeed.

VERSIONS

    The ntp_gettime() function is available since glibc 2.1. The ntp_get?

    timex() function is available since glibc 2.12.

ATTRIBUTES

    For an explanation of the terms used in this section, see at?

    tributes(7).

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    ?Interface   ? Attribute   ? Value   ?

    ??

?ntp_gettime(), ntp_gettimex() ? Thread safety ? MT-Safe ?

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CONFORMING TO

ntp_gettime() is described in the NTP Kernel Application Program Inter?
face. ntp_gettimex() is a GNU extension.

SEE ALSO

adjtimex(2), ntp_adjtime(3), time(7)

NTP "Kernel Application Program Interface"

?http://www.slac.stanford.edu/comp/unix/package/rtems/src/ssrlApps/

ntpNanoclock/api.htm?

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/.