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

**\$ man rtime.3**

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

NAME

`rtime` - get time from a remote machine

## SYNOPSIS

```
#include <rpc/auth_des.h>

int rtime(struct sockaddr_in *addrp, struct rpc_timeval *timep
          struct rpc_timeval *timeout);
```

## DESCRIPTION

This function uses the Time Server Protocol as described in RFC 868 to obtain the time from a remote machine.

The Time Server Protocol gives the time in seconds since 00:00:00 UTC 1 Jan 1900, and this function subtracts the appropriate constant in order to convert the result to seconds since the Epoch, 1970-01-01 00:00:00 +0000 (UTC).

When `timeout` is non-NULL, the udp/time socket (port 37) is used. Otherwise, the tcp/time socket (port 37) is used.

## RETURN VALUE

On success, 0 is returned, and the obtained 32-bit time value is stored in `timep->tv_sec`. In case of error -1 is returned, and `errno` is set appropriately.

## ERRORS

All errors for underlying functions (sendto(2), poll(2), recvfrom(2), connect(2), read(2)) can occur. Moreover:

EIO The number of returned bytes is not 4.

ETIMEDOUT

The waiting time as defined in timeout has expired.

## 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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?rtime() ? Thread safety ? MT-Safe ?

??

## NOTES

Only IPv4 is supported.

Some in.timed versions support only TCP. Try the example program with  
use\_tcp set to 1.

## BUGS

rtime() in glibc 2.2.5 and earlier does not work properly on 64-bit ma?  
chines.

## EXAMPLES

This example requires that port 37 is up and open. You may check that  
the time entry within /etc/inetd.conf is not commented out.

The program connects to a computer called "linux". Using "localhost"  
does not work. The result is the localtime of the computer "linux".

```
#include <stdio.h>
#include <stdlib.h>
#include <errno.h>
#include <string.h>
#include <time.h>
#include <rpc/auth_des.h>
#include <netdb.h>
static int use_tcp = 0;
static char *servername = "linux";
int
```

```
main(void)
{
    struct sockaddr_in name;
    struct rpc_timeval time1 = {0,0};
    struct rpc_timeval timeout = {1,0};
    struct hostent *hent;
    int ret;
    memset(&name, 0, sizeof(name));
    sethostent(1);
    hent = gethostbyname(servername);
    memcpy(&name.sin_addr, hent->h_addr, hent->h_length);
    ret = rtime(&name, &time1, use_tcp ? NULL : &timeout);
    if (ret < 0)
        perror("rtime error");
    else {
        time_t t = time1.tv_sec;
        printf("%s\n", ctime(&t));
    }
    exit(EXIT_SUCCESS);
}
```

## SEE ALSO

[ntpd\(1\)](#), [inetd\(8\)](#)

## 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/>.