NAME

lround, lroundf, lroundl, llround, llroundf, llroundl - round to nearest integer, away from zero

SYNOPSIS

#include <math.h>

long int lround(double *x***);**
long int lroundf(float *x***);**
long int lroundl(long double *x***);**

long long int llround(double *x***);**
long long int llroundf(float *x***);**
long long int llroundl(long double *x***);**

Link with *-lm*.

Feature Test Macro Requirements for glibc (see feature_test_macros(7)):

All functions shown above:
_XOPEN_SOURCE >= 600 || _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L;
or *cc -std=c99*

DESCRIPTION

These functions round their argument to the nearest integer value, rounding away from zero, regardless of the current rounding direction (see fenv(3)).

Note that unlike the round(3) and ceil(3), functions, the return type of these functions differs from that of their arguments.

RETURN VALUE

These functions return the rounded integer value.

If *x* is a NaN or an infinity, or the rounded value is too large to be stored in a *long* (*long long* in the case of the **ll*** functions), then a domain error occurs, and the return value is unspecified.

ERRORS

See math_error(7) for information on how to determine whether an error has occurred when calling these functions.

The following errors can occur:

Domain error: *x* is a NaN or infinite, or the rounded value is too large
An invalid floating-point exception (**FE_INVALID**) is raised.

These functions do not set *errno*.

VERSIONS

These functions first appeared in glibc in version 2.1.

ATTRIBUTES

Multithreading (see pthreads(7))

The **lround**(), **lroundf**(), **lroundl**(), **llround**(), **llroundf**(), and **llroundl**() functions are thread-safe.

CONFORMING TO

C99, POSIX.1-2001.

SEE ALSO

ceil(3), floor(3), lrint(3), nearbyint(3), rint(3), round(3)

COLOPHON

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