NAME

copysign, copysignf, copysignl - copy sign of a number

SYNOPSIS

#include <math.h>

double copysign(double *x***, double** *y***);**
float copysignf(float *x***, float** *y***);**
long double copysignl(long double *x***, long double** *y***);**

Link with *-lm*.

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

copysign(), **copysignf**(), **copysignl**():
_SVID_SOURCE || _BSD_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE ||
_POSIX_C_SOURCE >= 200112L;
or *cc -std=c99*

DESCRIPTION

The **copysign**(), **copysignf**(), and **copysignl**() functions return a value whose absolute value matches that of *x*, but whose sign bit matches that of *y*.

For example, *copysign(42.0, -1.0)* and *copysign(-42.0, -1.0)* both return -42.0.

RETURN VALUE

On success, these functions return a value whose magnitude is taken from *x* and whose sign is taken from *y*.

If *x* is a NaN, a NaN with the sign bit of *y* is returned.

ERRORS

No errors occur.

ATTRIBUTES

Multithreading (see pthreads(7))

The **copysign**(), **copysignf**(), and **copysignl**() functions are thread-safe.

CONFORMING TO

C99, POSIX.1-2001. This function is defined in IEC 559 (and the appendix with recommended functions in IEEE 754/IEEE 854).

NOTES

On architectures where the floating-point formats are not IEEE 754 compliant, these functions may treat a negative zero as positive.

SEE ALSO

signbit(3)

COLOPHON

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