NAME

modf, modff, modfl − extract signed integral and fractional values from floating-point number

SYNOPSIS

#include <math.h>

double modf(double *x*, **double ****iptr*);
float modff(float *x*, **float ****iptr*);
long double modfl(long double *x*, **long double ****iptr*);

Link with *−lm*.

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

modf(), **modfl**():
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE

DESCRIPTION

These functions break the argument *x* into an integral part and a fractional part, each of which has the same sign as *x*. The integral part is stored in the location pointed to by *iptr*.

RETURN VALUE

These functions return the fractional part of *x*.

If *x* is a NaN, a NaN is returned, and **iptr* is set to a NaN.

If *x* is positive infinity (negative infinity), +0 (−0) is returned, and **iptr* is set to positive infinity (negative infinity).

ERRORS

No errors occur.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes**(7).

Interface	Attribute	Value
modf(), **modff**(), **modfl**()	Thread safety	MT-Safe

CONFORMING TO

C99, POSIX.1-2001, POSIX.1-2008.

The variant returning *double* also conforms to SVr4, 4.3BSD, C89.

SEE ALSO

frexp(3), **ldexp**(3)

COLOPHON

This page is part of release 5.02 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/.