NAME

finite, finitef, finitel, isinf, isinff, isinfl, isnan, isnanf, isnanl - BSD floating-point classification functions

SYNOPSIS

#include <math.h>

int finite(double *x***);**
int finitef(float *x***);**
int finitel(long double *x***);**

int isinf(double *x***);**
int isinff(float *x***);**
int isinfl(long double *x***);**

int isnan(double *x***);**
int isnanf(float *x***);**
int isnanl(long double *x***);**

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

finite(), **finitef**(), **finitel**():
      _BSD_SOURCE || _SVID_SOURCE
isinf():
      _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600 || _ISOC99_SOURCE;
      or *cc -std=c99*
isinff(), **isinfl**():
      _BSD_SOURCE || _SVID_SOURCE
isnan():
      _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE || _ISOC99_SOURCE;
      or *cc -std=c99*
isnanf(), **isnanl**():
      _BSD_SOURCE || _SVID_SOURCE || _XOPEN_SOURCE >= 600

DESCRIPTION

The **finite**(), **finitef**(), and **finitel**() functions return a nonzero value if x is neither infinite nor a not-a-number (NaN) value, and 0 otherwise.

The **isnan**(), **isnanf**(), and **isnanl**() functions return a nonzero value if x is a NaN value, and 0 otherwise.

The **isinf**(), **isinff**(), and **isinfl**() functions return 1 if x is positive infinity, -1 if x is negative infinity, and 0 otherwise.

ATTRIBUTES

Multithreading (see pthreads(7))

The **finite**(), **finitef**(), **finitel**(), **isinf**(), **isinff**(), **isinfl**(), **isnan**(), **isnanf**(), and **isnanl**() functions are thread-safe.

NOTES

Note that these functions are obsolete. C99 defines macros **isfinite**(), **isinf**(), and **isnan**() (for all types) replacing them. Further note that the C99 **isinf**() has weaker guarantees on the return value. See fpclassify(3).

SEE ALSO

fpclassify(3)

COLOPHON

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