
***Rocky Enterprise Linux 9.2 Manual Pages on command 'sincosf.3'***

***$ man sincosf.3***

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

NAME

sincos, sincosf, sincosl - calculate sin and cos simultaneously

SYNOPSIS

```
#define _GNU_SOURCE         /* See feature_test_macros(7) */
#include <math.h>
void sincos(double x, double *sin, double *cos);
void sincosf(float x, float *sin, float *cos);
void sincosl(long double x, long double *sin, long double *cos);
```

Link with -lm.

DESCRIPTION

Several applications need sine and cosine of the same angle x. These functions compute both at the same time, and store the results in *sin and *cos. Using this function can be more efficient than two separate calls to sin(3) and cos(3).

If x is a NaN, a NaN is returned in *sin and *cos.

If x is positive infinity or negative infinity, a domain error occurs, and a NaN is returned in *sin and *cos.

RETURN VALUE

These functions return void.

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 an infinity

errno is set to EDOM (but see BUGS). An invalid floating-point exception (FE_INVALID) is raised.

VERSIONS

These functions first appeared in glibc in version 2.1.

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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?sincos(), sincosf(), sincosl() ? Thread safety ? MT-Safe ?

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CONFORMING TO

These functions are GNU extensions.

NOTES

To see the performance advantage of sincos(), it may be necessary to disable gcc(1) built-in optimizations, using flags such as:

```
cc -O -lm -fno-builtin prog.c
```

BUGS

Before version 2.22, the glibc implementation did not set errno to EDOM when a domain error occurred.

SEE ALSO

cos(3), sin(3), tan(3)

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/.