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Rocky Enterprise Linux 9.2 Manual Pages on command 'tanf.3'

\$ man tanf.3

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

NAME

tan, tanf, tanl - tangent function

SYNOPSIS

```
#include <math.h>

double tan(double x);

float tanf(float x);

long double tanl(long double x);
```

Link with -lm.

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

tanf(), tanl():

```
_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
|| /* Since glibc 2.19: */ _DEFAULT_SOURCE
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
```

DESCRIPTION

These functions return the tangent of x, where x is given in radians.

RETURN VALUE

On success, these functions return the tangent of x.

If x is a NaN, a NaN is returned.

If x is positive infinity or negative infinity, a domain error occurs,

and a NaN is returned.

If the correct result would overflow, a range error occurs, and the functions return `HUGE_VAL`, `HUGE_VALF`, or `HUGE_VALL`, respectively, with the mathematically correct sign.

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.

Range error: result overflow

An overflow floating-point exception (`FE_OVERFLOW`) is raised.

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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?`tan()`, `tanf()`, `tanl()` ? Thread safety ? MT-Safe ?

??

CONFORMING TO

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

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

BUGS

Before version 2.10, the glibc implementation did not set `errno` to `EDOM` when a domain error occurred.

SEE ALSO

`acos(3)`, `asin(3)`, `atan(3)`, `atan2(3)`, `cos(3)`, `ctan(3)`, `sin(3)`

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A

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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/>.

2017-09-15

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