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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'nextdownf.3' command

\$ man nextdownf.3

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

NAME

nextup, nextupf, nextupl, nextdown, nextdownf, nextdownl - return next floating-point number toward positive/negative infinity

SYNOPSIS

```
#define _GNU_SOURCE /* See feature_test_macros(7) */

#include <math.h>

double nextup(double x);

float nextupf(float x);

long double nextupl(long double x);

double nextdown(double x);

float nextdownf(float x);

long double nextdownl(long double x);
```

Link with -Im.

DESCRIPTION

The `nextup()`, `nextupf()`, and `nextupl()` functions return the next repre?

sentable floating-point number greater than x .

If x is the smallest representable negative number in the corresponding type, these functions return -0 . If x is 0 , the returned value is the smallest representable positive number of the corresponding type.

If x is positive infinity, the returned value is positive infinity. If x is negative infinity, the returned value is the largest representable finite negative number of the corresponding type.

If x is `Nan`, the returned value is `NaN`.

The value returned by `nextdown(x)` is $-\text{nextup}(-x)$, and similarly for the other types.

RETURN VALUE

See [DESCRIPTION](#).

VERSIONS

These functions first appeared in glibc in version 2.24.

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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?`nextup()`, `nextupf()`, `nextupl()`, ? Thread safety ? MT-Safe ?

?`nextdown()`, `nextdownf()`, `nextdownl()` ? ? ?

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CONFORMING TO

These functions are described in IEEE Std 754-2008 - Standard for

Floating-Point Arithmetic and ISO/IEC TS 18661.

SEE ALSO

`nearbyint(3)`, `nextafter(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/>.