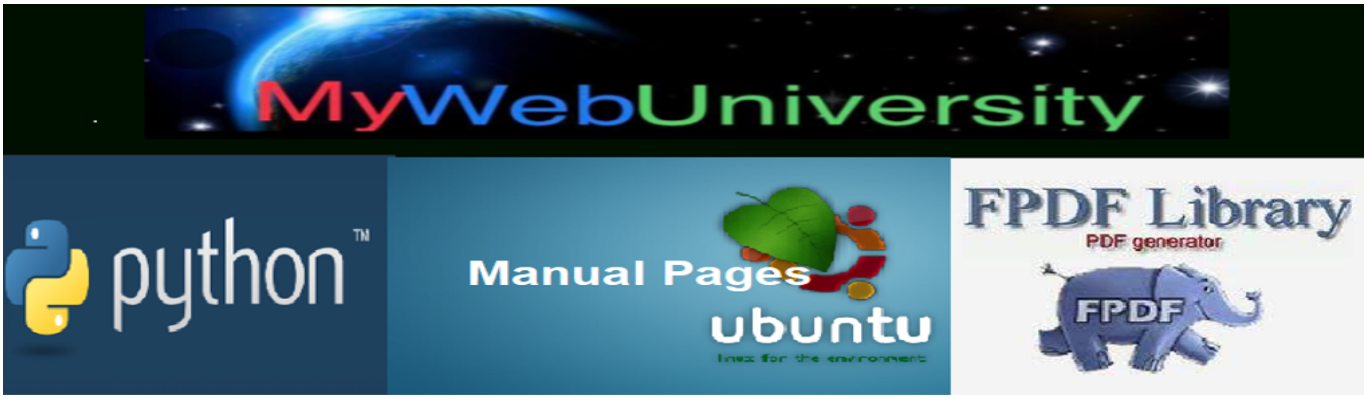

Full credit is given to the above companies including the Operating System (OS) that this PDF file was generated!

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

$ man nextup.3

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

NAME

nextup, nextupf, nextupl, nextdown, nextdownf, nextdownl - return next floating-point num?

ber 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 -lm.

DESCRIPTION

The nextup(), nextupf(), and nextupl() functions return the next representable floating-

point number greater than x.

If x is the smallest representable negative number in the corresponding type, these func?

tions 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 in?

finity, the returned value is the largest representable finite negative number of the cor?

responding type.

If x is Nan, the returned value is NaN.

The value returned by nextdown(x) is -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 attributes(7).

Interface	Attribute	Value
nextup(), nextupf(), nextupl(),	Thread safety	MT-Safe
nextdown(), nextdownf(), nextdownl()		

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/.