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

\$ man round.3p

ROUND(3P) POSIX Programmer's Manual ROUND(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

round, roundf, roundl ? round to the nearest integer value in a float?
floating-point format

SYNOPSIS

```
#include <math.h>

double round(double x);

float roundf(float x);

long double roundl(long double x);
```

DESCRIPTION

The functionality described on this reference page is aligned with the ISO C standard. Any conflict between the requirements described here and the ISO C standard is unintentional. This volume of POSIX.1-2017 defers to the ISO C standard.

These functions shall round their argument to the nearest integer value in floating-point format, rounding halfway cases away from zero, regardless of the current rounding direction.

RETURN VALUE

Upon successful completion, these functions shall return the rounded integer value. The result shall have the same sign as x .

If x is NaN, a NaN shall be returned.

If x is ± 0 or $\pm \text{Inf}$, x shall be returned.

ERRORS

No errors are defined.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

The integral value returned by these functions need not be expressible as an `intmax_t`. The return value should be tested before assigning it to an integer type to avoid the undefined results of an integer overflow.

These functions may raise the inexact floating-point exception if the result differs in value from the argument.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

`feclearexcept()`, `fetestexcept()`

The Base Definitions volume of POSIX.1-2017, Section 4.20, Treatment of Error Conditions for Mathematical Functions, `<math.h>`

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ROUND(3P)