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

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

$ man llrint.3p

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

llrint, llrintf, llrintl ? round to the nearest integer value using current rounding direction

SYNOPSIS

```
#include <math.h>
long long llrint(double x);
long long llrintf(float x);
long long llrintl(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, rounding according to the current rounding direction.

An application wishing to check for error situations should set errno to zero and call feclearexcept(FE_ALL_EXCEPT) before calling these

functions. On return, if errno is non-zero or fetestexcept(FE_INVALID | FE_DIVBYZERO | FE_OVERFLOW | FE_UNDERFLOW) is non-zero, an error has occurred.

RETURN VALUE

Upon successful completion, these functions shall return the rounded integer value.

If x is NaN, a domain error shall occur, and an unspecified value is returned.

If x is +Inf, a domain error shall occur and an unspecified value is returned.

If x is -Inf, a domain error shall occur and an unspecified value is returned.

If the correct value is positive and too large to represent as a long long, an unspecified value shall be returned. On systems that support the IEC 60559 Floating-Point option, a domain error shall occur; other? wise, a domain error may occur.

If the correct value is negative and too large to represent as a long long, an unspecified value shall be returned. On systems that support the IEC 60559 Floating-Point option, a domain error shall occur; other? wise, a domain error may occur.

ERRORS

These functions shall fail if:

Domain Error

The x argument is NaN or ?Inf, or the correct value is not representable as an integer.

If the integer expression (math_errhandling & MATH_ERRNO) is non-zero, then errno shall be set to [EDOM]. If the in? teger expression (math_errhandling & MATH_ERREXCEPT) is non-zero, then the invalid floating-point exception shall be raised.

These functions may fail if:

Domain Error

The correct value is not representable as an integer.

If the integer expression (math_errhandling & MATH_ERRNO) is non-zero, then errno shall be set to [EDOM]. If the in? teger expression (math_errhandling & MATH_ERREXCEPT) is non-zero, then the invalid floating-point exception shall be raised.

The following sections are informative.

EXAMPLES

None.

APPLICATION USAGE

On error, the expressions (math_errhandling & MATH_ERRNO) and (math_er? rhandling & MATH_ERREXCEPT) are independent of each other, but at least one of them must be non-zero.

RATIONALE

These functions provide floating-to-integer conversions. They round ac? cording to the current rounding direction. If the rounded value is out? side the range of the return type, the numeric result is unspecified and the invalid floating-point exception is raised. When they raise no other floating-point exception and the result differs from the argu? ment, they raise the inexact floating-point exception.

FUTURE DIRECTIONS

None.

SEE ALSO

feclearexcept(), fetestexcept(), lrint()

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

COPYRIGHT

is the referee document. The original Standard can be obtained online at http://www.opengroup.org/unix/online.html .

Any typographical or formatting errors that appear in this page are most likely to have been introduced during the conversion of the source files to man page format. To report such errors, see https://www.ker?nel.org/doc/man-pages/reporting_bugs.html .