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

\$ man div.3

DIV(3)

Linux Programmer's Manual

DIV(3)

NAME

div, Idiv, Ildiv, imaxdiv - compute quotient and remainder of an inte? ger division

SYNOPSIS

#include <stdlib.h>

div_t div(int numerator, int denominator);

ldiv_t ldiv(long numerator, long denominator);

Ildiv_t Ildiv(long long numerator, long long denominator);

#include <inttypes.h>

imaxdiv_t imaxdiv(intmax_t numerator, intmax_t denominator);

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

Ildiv():

_ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L

DESCRIPTION

The div() function computes the value numerator/denominator and returns the quotient and remainder in a structure named div_t that contains two

integer members (in unspecified order) named quot and rem. The quo?

tient is rounded toward zero. The result satisfies quot*denomina? tor+rem = numerator.

The Idiv(), Ildiv(), and imaxdiv() functions do the same, dividing num? bers of the indicated type and returning the result in a structure of the indicated name, in all cases with fields quot and rem of the same type as the function arguments.

RETURN VALUE

The div_t (etc.) structure.

ATTRIBUTES

For an explanation of the terms used in this section, see at? tributes(7).

?Interface ? Attribute ? Value ?

?div(), Idiv(), Ildiv(), imaxdiv() ? Thread safety ? MT-Safe ?

CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C89, C99, SVr4, 4.3BSD. The functions II? div() and imaxdiv() were added in C99.

EXAMPLES

After

 $div_t q = div(-5, 3);$

the values q.quot and q.rem are -1 and -2, respectively.

SEE ALSO

abs(3), remainder(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/.

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