



## ***Red Hat Enterprise Linux Release 9.2 Manual Pages on 'abs.3' command***

### ***\$ man abs.3***

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

#### NAME

abs, labs, llabs, imaxabs - compute the absolute value of an integer

#### SYNOPSIS

```
#include <stdlib.h>

int abs(int j);

long labs(long j);

long long llabs(long long j);

#include <inttypes.h>

intmax_t imaxabs(intmax_t j);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

```
llabs():

    _ISOC99_SOURCE || _POSIX_C_SOURCE >= 200112L
```

#### DESCRIPTION

The `abs()` function computes the absolute value of the integer argument `j`. The `labs()`, `llabs()`, and `imaxabs()` functions compute the absolute value of the argument `j` of the appropriate integer type for the function.

#### RETURN VALUE

Returns the absolute value of the integer argument, of the appropriate integer type for the function.

#### ATTRIBUTES

For an explanation of the terms used in this section, see at?

tributes(7).

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?Interface      ? Attribute    ? Value    ?

??

?abs(), labs(),    ? Thread safety ? MT-Safe ?

?llabs(), imaxabs() ?                ?        ?

??

## CONFORMING TO

POSIX.1-2001, POSIX.1-2008, C99, SVr4, 4.3BSD. C89 only includes the  
abs() and labs() functions; the functions llabs() and imaxabs() were  
added in C99.

## NOTES

Trying to take the absolute value of the most negative integer is not  
defined.

The llabs() function is included in glibc since version 2.0. The imax?  
abs() function is included in glibc since version 2.1.1.

For llabs() to be declared, it may be necessary to define  
\_ISOC99\_SOURCE or \_ISOC9X\_SOURCE (depending on the version of glibc)  
before including any standard headers.

By default, GCC handles abs(), labs(), and (since GCC 3.0) llabs() and  
imaxabs() as built-in functions.

## SEE ALSO

cabs(3), ceil(3), fabs(3), floor(3), rint(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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