## NAME

ffs, ffsl, ffsll − find first bit set in a word

## SYNOPSIS

```
#include <strings.h>

int ffs(int i);

#include <string.h>

int ffsl(long int i);

int ffsll(long long int i);
```

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

**ffs**():
Since glibc 2.12:
_XOPEN_SOURCE >= 700
|| ! (_POSIX_C_SOURCE >= 200809L)
|| /* Glibc since 2.19: */ _DEFAULT_SOURCE
|| /* Glibc versions <= 2.19: */ _BSD_SOURCE || _SVID_SOURCE
Before glibc 2.12:
none

**ffsl**(), **ffsll**():
Since glibc 2.27:
_DEFAULT_SOURCE
Before glibc 2.27:
_GNU_SOURCE

## DESCRIPTION

The **ffs**() function returns the position of the first (least significant) bit set in the word *i*. The least significant bit is position 1 and the most significant position is, for example, 32 or 64. The functions **ffsll**() and **ffsl**() do the same but take arguments of possibly different size.

## RETURN VALUE

These functions return the position of the first bit set, or 0 if no bits are set in *i*.

## ATTRIBUTES

For an explanation of the terms used in this section, see **attributes**(7).

| Interface | Attribute | Value |
|---|---|---|
| **ffs**(), **ffsl**(), **ffsll**() | Thread safety | MT-Safe |

## CONFORMING TO

**ffs**(): POSIX.1-2001, POSIX.1-2008, 4.3BSD.

The **ffsl**() and **ffsll**() functions are glibc extensions.

## NOTES

BSD systems have a prototype in *<string.h>*.

## SEE ALSO

**memchr**(3)

## COLOPHON

This page is part of release 5.05 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/.