

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:

```
_SVID_SOURCE || _BSD_SOURCE || _POSIX_C_SOURCE >= 200809L ||  
_XOPEN_SOURCE >= 700 ||
```

Before glibc 2.12:

none

`ffsl()`, `ffsll()`:

```
_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

Multithreading (see [pthreads\(7\)](#))

The `ffs()`, `ffsl()`, and `ffsll()` functions are thread-safe.

CONFORMING TO

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

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 3.74 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 <http://www.kernel.org/doc/man-pages/>.