

**NAME**

ffs, ffs1, ffsll - find first bit set in a word

**SYNOPSIS**

```
#include <strings.h>
```

```
int ffs(int i);
```

```
#include <string.h>
```

```
int ffs1(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

**ffs1()**, **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 **ffs1()** 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()**, **ffs1()**, and **ffsll()** functions are thread-safe.

**CONFORMING TO**

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

The **ffs1()** 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/>.