

**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:

```
_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

**ffs1(), 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 **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**

For an explanation of the terms used in this section, see [attributes\(7\)](#).

Interface	Attribute	Value
<b>ffs()</b> , <b>ffs1()</b> , <b>ffsll()</b>	Thread safety	MT-Safe

**CONFORMING TO**

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

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 4.16 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/>.