

**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
<b>ffs()</b> , <b>ffsl()</b> , <b>ffsll()</b>	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**

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