

**NAME**

`fwide` – set and determine the orientation of a FILE stream

**SYNOPSIS**

```
#include <wchar.h>
```

```
int fwide(FILE *stream, int mode);
```

Feature Test Macro Requirements for glibc (see [feature\\_test\\_macros\(7\)](#)):

```
fwide():  
_XOPEN_SOURCE >= 500 || _ISOC99_SOURCE ||  
_POSIX_C_SOURCE >= 200112L
```

**DESCRIPTION**

When *mode* is zero, the `fwide()` function determines the current orientation of *stream*. It returns a positive value if *stream* is wide-character oriented, that is, if wide-character I/O is permitted but char I/O is disallowed. It returns a negative value if *stream* is byte oriented—that is, if char I/O is permitted but wide-character I/O is disallowed. It returns zero if *stream* has no orientation yet; in this case the next I/O operation might change the orientation (to byte oriented if it is a char I/O operation, or to wide-character oriented if it is a wide-character I/O operation).

Once a stream has an orientation, it cannot be changed and persists until the stream is closed.

When *mode* is nonzero, the `fwide()` function first attempts to set *stream*'s orientation (to wide-character oriented if *mode* is greater than 0, or to byte oriented if *mode* is less than 0). It then returns a value denoting the current orientation, as above.

**RETURN VALUE**

The `fwide()` function returns the stream's orientation, after possibly changing it. A positive return value means wide-character oriented. A negative return value means byte oriented. A return value of zero means undecided.

**CONFORMING TO**

POSIX.1-2001, POSIX.1-2008, C99.

**NOTES**

Wide-character output to a byte oriented stream can be performed through the [fprintf\(3\)](#) function with the `%lc` and `%ls` directives.

Char oriented output to a wide-character oriented stream can be performed through the [fwprintf\(3\)](#) function with the `%c` and `%s` directives.

**SEE ALSO**

[fprintf\(3\)](#), [fwprintf\(3\)](#)

**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/>.