

**NAME**

`dirfd` - get directory stream file descriptor

**SYNOPSIS**

```
#include <sys/types.h>
#include <dirent.h>

int dirfd(DIR *dirp);
```

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

```
dirfd():
    _BSD_SOURCE || _SVID_SOURCE
    || /* Since glibc 2.10: */
    (_POSIX_C_SOURCE >= 200809L || _XOPEN_SOURCE >= 700)
```

**DESCRIPTION**

The function `dirfd()` returns the file descriptor associated with the directory stream *dirp*.

This descriptor is the one used internally by the directory stream. As a result, it is useful only for functions which do not depend on or alter the file position, such as [fstat\(2\)](#) and [fchdir\(2\)](#). It will be automatically closed when [closedir\(3\)](#) is called.

**RETURN VALUE**

On success, a nonnegative file descriptor is returned. On error, -1 is returned, and *errno* is set to indicate the cause of the error.

**ERRORS**

POSIX.1-2008 specifies two errors, neither of which is returned by the current implementation.

**EINVAL**

*dirp* does not refer to a valid directory stream.

**ENOTSUP**

The implementation does not support the association of a file descriptor with a directory.

**ATTRIBUTES**

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

The `dirfd()` function is thread-safe.

**CONFORMING TO**

POSIX.1-2008. This function was a BSD extension, present in 4.3BSD-Reno, not in 4.2BSD.

**NOTES**

The prototype for `dirfd()` is available only if `_BSD_SOURCE` or `_SVID_SOURCE` is defined.

**SEE ALSO**

[open\(2\)](#), [closedir\(3\)](#), [opendir\(3\)](#), [readdir\(3\)](#), [rewinddir\(3\)](#), [scandir\(3\)](#), [seekdir\(3\)](#), [telldir\(3\)](#)

**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/>.