opendir(3) - Linux man page

Name

opendir, fdopendir - open a directory

Synopsis

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

DIR *opendir(const char *name);
DIR *fdopendir(int fd);
```

Feature Test Macro Requirements for glibc (see **feature_test_macros**(7)):

fdopendir():
    Since glibc 2.10:
    _XOPEN_SOURCE >= 700 || _POSIX_C_SOURCE >= 200809L
    Before glibc 2.10:
    _GNU_SOURCE

Description

The **opendir**() function opens a directory stream corresponding to the directory *name*, and returns a pointer to the directory stream. The stream is positioned at the first entry in the directory.

The **fdopendir**() function is like **opendir**(), but returns a directory stream for the directory referred to by the open file descriptor *fd*. After a successful call to **fdopendir**(), *fd* is used internally by the implementation, and should not otherwise be used by the application.

Return Value

The **opendir**() and **fdopendir**() functions return a pointer to the directory stream. On error, NULL is returned, and *errno* is set appropriately.

Errors

EACCES

Permission denied.

EBADF

fd is not a valid file descriptor opened for reading.

EMFILE

Too many file descriptors in use by process.

ENFILE

Too many files are currently open in the system.

ENOENT

Directory does not exist, or *name* is an empty string.

ENOMEM

Insufficient memory to complete the operation.

ENOTDIR
name is not a directory.

Versions

fdopendir() is available in glibc since version 2.4.

Conforming To

opendir() is present on SVr4, 4.3BSD, and specified in POSIX.1-2001. **fdopendir**() is specified in POSIX.1-2008.

Notes

The underlying file descriptor of the directory stream can be obtained using **dirfd**(3).

The **opendir**() function sets the close-on-exec flag for the file descriptor underlying the *DIR **. The **fdopendir**() function leaves the setting of the close-on-exec flag unchanged for the file descriptor, *fd*. POSIX.1-200x leaves it unspecified whether a successful call to **fdopendir**() will set the close-on-exec flag for the file descriptor, *fd*.

See Also

open(2), **closedir**(3), **dirfd**(3), **readdir**(3), **rewinddir**(3), **scandir**(3), **seekdir**(3), **telldir**(3)

Referenced By

execve(2), **explain**(1), **explain**(3), **explain_opendir**(3), **explain_opendir_or_die**(3), **fork**(2), **fts**(3), **getdirentries**(3), **gethugepagesizes**(3), **getpagesizes**(3), **glob**(3)