

fdopen-Associate a Stream with an Open File Descriptor

This function associates a stream with an open file descriptor.

Format

```
#define _POSIX_SOURCE
#include <stdio.h>
FILE *fdopen(int fildes, const char *mode);
```

fildes

The open file descriptor on which to open a stream.

mode

The access mode for the stream.

This function associates a stream with an open file descriptor. A stream is a pointer to a FILE structure that contains information about a file. A stream permits user-controlled buffering and formatted input and output.

The specified **mode** must be permitted by the current mode of the file descriptor. For example, if the file descriptor is open-read-only (O_RDONLY), the corresponding stream cannot be opened for writing (w), for appending (a), or for update (+).

Mode

Description

r	Open for reading.
w	Open for writing.
a	Open for appending.
r+	Open for update (reading and writing).
w+	Open for update (reading and writing).
a+	Open for update at end-of-file (reading and writing).

All of these modes have the same behavior as the corresponding `fopen` **modes**, except that `w` and `w+` do not truncate the file.

The file position indicator of the new stream is the file offset associated with the file descriptor. The error indicator and end-of-file indicator for the stream are cleared.

Normal Return

If successful, the `fdopen` function returns a FILE pointer to the control block for the new stream.

Error Return

If unsuccessful, the `fdopen` function returns NULL and sets `errno` to one of the following:

EINVAL

The specified mode is incorrect or does not match the mode of the open file descriptor.

EBADF

`fdes` is not a valid open file descriptor.

Programming Considerations

None.

Examples

The example associates **stream** with file descriptor **fd**, which is open for the file `fdopen.file`. The association is made in write mode.