

**NAME**

**fd, stdin, stdout, stderr** - file descriptor files

**DESCRIPTION**

The files */dev/fd/0* through */dev/fd/#* refer to file descriptors which can be accessed through the file system. If the file descriptor is open and the mode the file is being opened with is a subset of the mode of the existing descriptor, the call:

```
fd = open("/dev/fd/0", mode);
```

and the call:

```
fd = fcntl(0, F_DUPFD, 0);
```

are equivalent.

Opening the files */dev/stdin*, */dev/stdout* and */dev/stderr* is equivalent to the following calls:

```
fd = fcntl(STDIN_FILENO, F_DUPFD, 0);  
fd = fcntl(STDOUT_FILENO, F_DUPFD, 0);  
fd = fcntl(STDERR_FILENO, F_DUPFD, 0);
```

Flags to the `open(2)` call other than `O_RDONLY`, `O_WRONLY` and `O_RDWR` are ignored.

**IMPLEMENTATION NOTES**

By default, */dev/fd* is provided by `devfs(5)`, which provides nodes for the first three file descriptors. Some sites may require nodes for additional file descriptors; these can be made available by mounting `fdescfs(5)` on */dev/fd*.

**FILES**

*/dev/fd/#*  
*/dev/stdin*  
*/dev/stdout*  
*/dev/stderr*

**SEE ALSO**

`tty(4)`, `devfs(5)`, `fdescfs(5)`