

## Contents

- 1 **Module Fd : This module implements miscellaneous functions related to UNIX file descriptors.** 1

## 1 **Module Fd : This module implements miscellaneous functions related to UNIX file descriptors.**

Currently, the functions listed below are implemented.

- **Fd.send\_fd[1]** and **Fd.recv\_fd[1]**, which are respectively used to send and receive descriptors. Typically, this functionality is used to allow a process to perform all the actions needed to acquire a descriptor, which is then sent to another process, which will then handle the data transfer operations on that descriptor.
- **Fd.fexecve[1]**, which is used to execute a program specified via a file descriptor.

**exception Fd\_error of string**

This exception is raised by **Fd.send\_fd[1]** and **Fd.recv\_fd[1]** when an error is encountered. The string contains the error message.

**val send\_fd : conn:Unix.file\_descr -> fd:Unix.file\_descr -> unit**

This function sends a descriptor over a Unix socket whose peer may be another process. The peer must receive the file descriptor with the function **Fd.recv\_fd[1]** defined in this module.

The descriptor is sent as a sized message, so the user application may use the connection to other communication needs.

**Raises Fd\_error** This exception is raised on error.

**val recv\_fd : conn:Unix.file\_descr -> Unix.file\_descr**

This function receives a descriptor sent by **Fd.send\_fd[1]**.

**Raises Fd\_error** This exception is raised on error.

**Returns** The received file descriptor.

**val fexecve :**

**fd:Unix.file\_descr -> args:string array -> env:string array -> 'a**

This function works like **Unix.execve**, but the program to be executed, its first parameter, is specified via a file descriptor. As is the case with the **Unix.execv\*** functions, **Fd.fexecve[1]** never returns. If the call succeeds, the current process is substituted by the new one.

**Raises Fd\_error** This exception is raised on error.

**val read\_cred : fd:Unix.file\_descr -> int \* int \* int**

This function reads sender credentials from a descriptor. The descriptor must be associated to a UNIX socket. Currently only Linux is supported.

**Raises** `Fd_error` This exception is raised on error.

**Returns** A tuple of integers containing the sender PID, UID and GID.