Contents

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. Tipically, 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 paramenter, 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.