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***Rocky Enterprise Linux 9.2 Manual Pages on command 'posix\_openpt.3'***

**\$ man posix\_openpt.3**

POSIX\_OPENPT(3)                      Linux Programmer's Manual                      POSIX\_OPENPT(3)

**NAME**

posix\_openpt - open a pseudoterminal device

**SYNOPSIS**

```
#include <stdlib.h>
```

```
#include <fcntl.h>
```

```
int posix_openpt(int flags);
```

Feature Test Macro Requirements for glibc (see feature\_test\_macros(7)):

```
posix_openpt(): _XOPEN_SOURCE >= 600
```

**DESCRIPTION**

The `posix_openpt()` function opens an unused pseudoterminal master device, returning a file descriptor that can be used to refer to that device.

The `flags` argument is a bit mask that ORs together zero or more of the following flags:

`O_RDWR` Open the device for both reading and writing. It is usual to specify this flag.

`O_NOCTTY`

Do not make this device the controlling terminal for the process.

**RETURN VALUE**

On success, `posix_openpt()` returns a file descriptor (a nonnegative integer) which is the lowest numbered unused file descriptor. On failure, `-1` is returned, and `errno` is set to indicate the error.

**ERRORS**

See `open(2)`.

**VERSIONS**

Glibc support for `posix_openpt()` has been provided since version 2.2.1.

## ATTRIBUTES

For an explanation of the terms used in this section, see `attributes(7)`.

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?Interface ? Attribute ? Value ?

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?`posix_openpt()` ? Thread safety ? MT-Safe ?

??

## CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

`posix_openpt()` is part of the UNIX 98 pseudoterminal support (see `pts(4)`).

## NOTES

Some older UNIX implementations that support System V (aka UNIX 98) pseudoterminals don't have this function, but it can be easily implemented by opening the pseudoterminal multiplexor device:

```
int
posix_openpt(int flags)
{
    return open("/dev/ptmx", flags);
}
```

Calling `posix_openpt()` creates a pathname for the corresponding pseudoterminal slave device. The pathname of the slave device can be obtained using `ptsname(3)`. The slave device pathname exists only as long as the master device is open.

## SEE ALSO

`open(2)`, `getpt(3)`, `grantpt(3)`, `ptsname(3)`, `unlockpt(3)`, `pts(4)`, `pty(7)`

## COLOPHON

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