



Rocky Enterprise Linux 9.2 Manual Pages on command 'grantpt.3'

C:\>man grantpt.3

GRANTPT(3) Linux Programmer's Manual GRANTPT(3)

NAME

grantpt - grant access to the slave pseudoterminal

SYNOPSIS

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

```
int grantpt(int fd);
```

Feature Test Macro Requirements for glibc (see `feature_test_macros(7)`):

grantpt():

Since glibc 2.24:

```
_XOPEN_SOURCE >= 500 ||  
    (_XOPEN_SOURCE && _XOPEN_SOURCE_EXTENDED)
```

Glibc 2.23 and earlier:

```
_XOPEN_SOURCE
```

DESCRIPTION

The `grantpt()` function changes the mode and owner of the slave pseudoterminal device corresponding to the master pseudoterminal referred to by `fd`. The user ID of the slave is set to the real UID of the calling process. The group ID is set to an unspecified value (e.g., `tty`). The mode of the slave is set to `0620` (`crw--w----`). The behavior of `grantpt()` is unspecified if a signal handler is installed to catch `SIGCHLD` signals.

RETURN VALUE

When successful, `grantpt()` returns 0. Otherwise, it returns -1 and sets `errno` to

propriately.

ERRORS

EACCES The corresponding slave pseudoterminal could not be accessed.

EBADF The fd argument is not a valid open file descriptor.

EINVAL The fd argument is valid but not associated with a master pseudoterminal.

VERSIONS

grantpt() is provided in glibc since version 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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?grantpt() ? Thread safety ? MT-Safe locale ?

??

CONFORMING TO

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

NOTES

This is part of the UNIX 98 pseudoterminal support, see pts(4).

Many systems implement this function via a set-user-ID helper binary called "pt_chown". On Linux systems with a devpts filesystem (present since Linux 2.2), the kernel normally sets the correct ownership and permissions for the pseudoterminal slave when the master is opened (posix_openpt(3)), so that nothing must be done by grantpt(). Thus, no such helper binary is required (and indeed it is configured to be absent during the glibc build that is typical on many systems).

SEE ALSO

open(2), posix_openpt(3), ptsname(3), unlockpt(3), pts(4), pty(7)

COLOPHON

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