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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'lchown.3p' command

\$ man lchown.3p

LCHOWN(3P) POSIX Programmer's Manual LCHOWN(3P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

lchown ? change the owner and group of a symbolic link

SYNOPSIS

```
#include <unistd.h>

int lchown(const char *path, uid_t owner, gid_t group);
```

DESCRIPTION

The lchown() function shall be equivalent to chown(), except in the case where the named file is a symbolic link. In this case, lchown() shall change the ownership of the symbolic link file itself, while chown() changes the ownership of the file or directory to which the symbolic link refers.

RETURN VALUE

Upon successful completion, lchown() shall return 0. Otherwise, it shall return -1 and set errno to indicate an error.

ERRORS

The lchown() function shall fail if:

EACCES Search permission is denied on a component of the path prefix of

path.

EINVAL The owner or group ID is not a value supported by the implementation.

ELOOP A loop exists in symbolic links encountered during resolution of the path argument.

ENAMETOOLONG

The length of a component of a pathname is longer than {NAME_MAX}.

ENOENT A component of path does not name an existing file or path is an empty string.

ENOTDIR

A component of the path prefix names an existing file that is neither a directory nor a symbolic link to a directory, or the path argument contains at least one non-`<slash>` character and ends with one or more trailing `<slash>` characters and the last pathname component names an existing file that is neither a directory nor a symbolic link to a directory.

EPERM The effective user ID does not match the owner of the file and the process does not have appropriate privileges.

EROFS The file resides on a read-only file system.

The `lchown()` function may fail if:

EIO An I/O error occurred while reading or writing to the file system.

EINTR A signal was caught during execution of the function.

ELOOP More than {SYMLOOP_MAX} symbolic links were encountered during resolution of the path argument.

ENAMETOOLONG

The length of a pathname exceeds {PATH_MAX}, or pathname resolution of a symbolic link produced an intermediate result with a length that exceeds {PATH_MAX}.

The following sections are informative.

EXAMPLES

Changing the Current Owner of a File

The following example shows how to change the ownership of the symbolic link named /modules/pass1 to the user ID associated with "jones" and the group ID associated with "cnd".

The numeric value for the user ID is obtained by using the getpwnam() function. The numeric value for the group ID is obtained by using the getgrnam() function.

```
#include <sys/types.h>
#include <unistd.h>
#include <pwd.h>
#include <grp.h>
struct passwd *pwd;
struct group *grp;
char *path = "/modules/pass1";
...
pwd = getpwnam("jones");
grp = getgrnam("cnd");
lchown(path, pwd->pw_uid, grp->gr_gid);
```

APPLICATION USAGE

On implementations which support symbolic links as directory entries rather than files, lchown() may fail.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

chown(), symlink()

The Base Definitions volume of POSIX.1-2017, <unistd.h>

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