Full credit is given to the above companies including the OS that this PDF file was generated!

Red Hat Enterprise Linux Release 9.2 Manual Pages on 'chown.1p' command

$ man chown.1p

CHOWN(1P) POSIX Programmer's Manual CHOWN(1P)

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

chown ? change the file ownership

SYNOPSIS

chown [-h] owner[:group] file...

chown -R [-H|-L|-P] owner[:group] file...

DESCRIPTION

The chown utility shall set the user ID of the file named by each file operand to the user ID specified by the owner operand.

For each file operand, or, if the -R option is used, each file encoun? tered while walking the directory trees specified by the file operands, the chown utility shall perform actions equivalent to the chown() func? tion defined in the System Interfaces volume of POSIX.1?2017, called with the following arguments:

1. The file operand shall be used as the path argument.
2. The user ID indicated by the owner portion of the first operand shall be used as the owner argument.
3. If the group portion of the first operand is given, the group ID

indicated by it shall be used as the group argument; otherwise, the group ownership shall not be changed.

Unless chown is invoked by a process with appropriate privileges, the set-user-ID and set-group-ID bits of a regular file shall be cleared upon successful completion; the set-user-ID and set-group-ID bits of other file types may be cleared.

OPTIONS

The chown utility shall conform to the Base Definitions volume of POSIX.1?2017, Section 12.2, Utility Syntax Guidelines.

The following options shall be supported by the implementation:

-h For each file operand that names a file of type symbolic link, chown shall attempt to set the user ID of the symbolic link. If a group ID was specified, for each file operand that names a file of type symbolic link, chown shall attempt to set the group ID of the symbolic link.

-H If the -R option is specified and a symbolic link referencing a file of type directory is specified on the command line, chown shall change the user ID (and group ID, if specified) of the directory referenced by the symbolic link and all files in the file hierarchy below it.

-L If the -R option is specified and a symbolic link referencing a file of type directory is specified on the command line or encountered during the traversal of a file hierarchy, chown shall change the user ID (and group ID, if specified) of the directory referenced by the symbolic link and all files in the file hierarchy below it.

-P If the -R option is specified and a symbolic link is speci? fied on the command line or encountered during the traversal of a file hierarchy, chown shall change the owner ID (and group ID, if specified) of the symbolic link. The chown util? ity shall not follow the symbolic link to any other part of the file hierarchy.

-R Recursively change file user and group IDs. For each file op?

erand that names a directory, chown shall change the user ID (and group ID, if specified) of the directory and all files in the file hierarchy below it. Unless a -H, -L, or -P option is specified, it is unspecified which of these options will be used as the default.

Specifying more than one of the mutually-exclusive options -H, -L, and -P shall not be considered an error. The last option specified shall determine the behavior of the utility.

OPERANDS

The following operands shall be supported:

owner[:group]

A user ID and optional group ID to be assigned to file. The owner portion of this operand shall be a user name from the user database or a numeric user ID. Either specifies a user ID which shall be given to each file named by one of the file operands. If a numeric owner operand exists in the user data? base as a user name, the user ID number associated with that user name shall be used as the user ID. Similarly, if the group portion of this operand is present, it shall be a group name from the group database or a numeric group ID. Either specifies a group ID which shall be given to each file. If a numeric group operand exists in the group database as a group name, the group ID number associated with that group name shall be used as the group ID.

file A pathname of a file whose user ID is to be modified.

STDIN

Not used.

INPUT FILES

None.

ENVIRONMENT VARIABLES

The following environment variables shall affect the execution of chown:

LANG Provide a default value for the internationalization vari?

ables that are unset or null. (See the Base Definitions vol?
ume of POSIX.1?2017, Section 8.2, Internationalization Vari?
ables for the precedence of internationalization variables
used to determine the values of locale categories.)

LC_ALL If set to a non-empty string value, override the values of all the other internationalization variables.

LC_CTYPE Determine the locale for the interpretation of sequences of bytes of text data as characters (for example, single-byte as opposed to multi-byte characters in arguments).

LC_MESSAGES
Determine the locale that should be used to affect the format and contents of diagnostic messages written to standard er?
ror.

NLSPATH Determine the location of message catalogs for the processing of LC_MESSAGES.

ASYNCHRONOUS EVENTS

Default.

STDOUT

Not used.

STDERR

The standard error shall be used only for diagnostic messages.

OUTPUT FILES

None.

EXTENDED DESCRIPTION

None.

EXIT STATUS

The following exit values shall be returned:

0 The utility executed successfully and all requested changes were made.

>0 An error occurred.

CONSEQUENCES OF ERRORS

Default.

The following sections are informative.

APPLICATION USAGE

Only the owner of a file or the user with appropriate privileges may change the owner or group of a file.

Some implementations restrict the use of chown to a user with appropri? ate privileges.

EXAMPLES

None.

RATIONALE

The System V and BSD versions use different exit status codes. Some im? plementations used the exit status as a count of the number of errors that occurred; this practice is unworkable since it can overflow the range of valid exit status values. These are masked by specifying only 0 and >0 as exit values.

The functionality of chown is described substantially through refer? ences to functions in the System Interfaces volume of POSIX.1?2017. In this way, there is no duplication of effort required for describing the interactions of permissions, multiple groups, and so on.

The 4.3 BSD method of specifying both owner and group was included in this volume of POSIX.1?2017 because:

* There are cases where the desired end condition could not be achieved using the chgrp and chown (that only changed the user ID) utilities. (If the current owner is not a member of the desired group and the desired owner is not a member of the current group, the chown() function could fail unless both owner and group are changed at the same time.)
* Even if they could be changed independently, in cases where both are being changed, there is a 100% performance penalty caused by being forced to invoke both utilities.

The BSD syntax user[.group] was changed to user[:group] in this volume of POSIX.1?2017 because the <period> is a valid character in login names (as specified by the Base Definitions volume of POSIX.1?2017, lo? gin names consist of characters in the portable filename character set). The <colon> character was chosen as the replacement for the <pe?

riod> character because it would never be allowed as a character in a user name or group name on historical implementations.

The -R option is considered by some observers as an undesirable depar? ture from the historical UNIX system tools approach; since a tool, find, already exists to recurse over directories, there seemed to be no good reason to require other tools to have to duplicate that function? ality. However, the -R option was deemed an important user conve? nience, is far more efficient than forking a separate process for each element of the directory hierarchy, and is in widespread historical use.

FUTURE DIRECTIONS

None.

SEE ALSO

chgrp, chmod

The Base Definitions volume of POSIX.1?2017, Chapter 8, Environment Variables, Section 12.2, Utility Syntax Guidelines

The System Interfaces volume of POSIX.1?2017, chown()

COPYRIGHT