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4.6 chgrp — Change file group ownership

4.6.1 Synopsis

```
chgrp [-R] group file ...
```

4.6.2 Description

The chgrp utility shall set the group ID of the file named by each *file* operand to the group ID specified by the *group* operand.

For each *file* operand, it shall perform actions equivalent to the POSIX.1 {8} *chown* () function, called with the following arguments:

(1) The *file* operand shall be used as the *path* argument.

(2) The user ID of the file shall be used as the *owner* argument.

(3) The specified *group ID* shall be used as the *group* argument.

4.6.3 Options

The chgrp utility shall conform to the utility argument syntax guidelines described in 2.10.2.

The following option shall be supported by the implementation:

-R Recursively change file group IDs. For each *file* operand that names a directory, chgrp shall change the group of the directory and all files in the file hierarchy below it.

4.6.4 Operands

The following operands shall be supported by the implementation:

group A group name from the group database or a numeric group ID. Either specifies a group ID to be given to each file named by one of the *file* operands. If a numeric *group* operand exists in the group database as a group name, the group ID number associated with that group name is used as the group ID.

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

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2461 ### 4.6.5 External Influences

2462 #### 4.6.5.1 Standard Input

2463 None.

2464 #### 4.6.5.2 Input Files

2465 None.

2466 #### 4.6.5.3 Environment Variables

2467 The following environment variables shall affect the execution of `chgrp`:

2468 **LANG** This variable shall determine the locale to use for the
2469 locale categories when both **LC_ALL** and the correspond-
2470 ing environment variable (beginning with **LC_**) do not
2471 specify a locale. See 2.6.

2472 **LC_ALL** This variable shall determine the locale to be used to over-
2473 ride any values for locale categories specified by the set-
2474 tings of **LANG** or any environment variables beginning
2475 with **LC_**.

2476 **LC_CTYPE** This variable shall determine the locale for the interpreta-
2477 tion of sequences of bytes of text data as characters (e.g.,
2478 single- versus multibyte characters in arguments).

2479 **LC_MESSAGES** This variable shall determine the language in which mes-
2480 sages should be written.

2481 #### 4.6.5.4 Asynchronous Events

2482 Default.

2483 ### 4.6.6 External Effects

2484 #### 4.6.6.1 Standard Output

2485 None.

2486 #### 4.6.6.2 Standard Error

2487 Used only for diagnostic messages.

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4.6.6.3 Output Files

None.

4.6.7 Extended Description

None.

4.6.8 Exit Status

The `chgrp` utility shall exit with one of the following values:

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

>0 An error occurred.

4.6.9 Consequences of Errors

If, when invoked with the –R option, `chgrp` attempts but fails to change the group ID of a particular file in a specified file hierarchy, it shall continue to process the remaining files in the hierarchy. If `chgrp` cannot read or search a directory within a hierarchy, it shall continue to process the other parts of the hierarchy that are accessible.

4.6.10 Rationale. *(This subclause is not a part of P1003.2)*

Examples, Usage

The System V and BSD versions use different exit status codes. Some implementations 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 value. The working group chose to mask these by specifying only 0 and >0 as exit values.

History of Decisions Made

The functionality of `chgrp` is described substantially through references to functions in POSIX.1 {8}. In this way, there is no duplication of effort required for describing the interactions of permissions, multiple groups, etc.

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2512 ## 4.7 chmod — Change file modes

2513 ### 4.7.1 Synopsis

2514 `chmod [-R] mode file ...`

2515 ### 4.7.2 Description

2516 The `chmod` utility shall change any or all of the file mode bits of the file named by
2517 each *file* operand in the way specified by the *mode* operand.

2518 It is implementation defined whether and how the `chmod` utility affects any alter-
2519 nate or additional file access control mechanism (see *file access permissions* in
2520 2.2.2.55) being used for the specified file.

2521 Only a process whose effective user ID matches the user ID of the file, or a process
2522 with the appropriate privileges, shall be permitted to change the file mode bits of
2523 a file.

2524 ### 4.7.3 Options

2525 The `chmod` utility shall conform to the utility argument syntax guidelines
2526 described in 2.10.2.

2527 The following option shall be supported by the implementation:

2528 `-R` Recursively change file mode bits. For each *file* operand that
2529 names a directory, `chmod` shall change the file mode bits of the
2530 directory and all files in the file hierarchy below it.

2531 ### 4.7.4 Operands

2532 The following operands shall be supported by the implementation:

2533 *mode* Represents the change to be made to the file mode bits of each file
2534 named by one of the *file* operands, as described in 4.7.7.

2535 *file* A pathname of a file whose file mode bits are to be modified.

2536 ### 4.7.5 External Influences

2537 #### 4.7.5.1 Standard Input

2538 None.

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