-- --

IEEE P1003.2b Draft 2 − December 1991

4.7 chmod — Change file modes

⇒ **4.7.3 chmod Options.** *Add the following sentence to the end of the paragraph describing the* −R *option:*

When a symbolic link is encountered in the file hierarchy, chmod shall modify the file referenced by the link and shall continue with the other files in the directory containing the link, not attempting to follow the link to another portion of the file hierarchy.

⇒ **4.7.4 chmod Operands.** *Add the following sentence to the end of the paragraph describing the file operand:*

If *file* is a symbolic link, chmod shall change the mode of the file referenced by the symbolic link, not the symbolic link itself.

Editor's Note: The following rationale will be added to E.4.7, but is kept here with chmod *for this draft:*

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

When chmod is given a symbolic link as a *file* operand, it changes the file resolved from the link. Unlike the chgrp and chown descriptions, where this behavior is a consequence of the dependence on the *chown* () functionality, this must be explicitly stated for chmod. The POSIX.1 {8} *chmod* () function, on which many chmod implementations will be based, does not modify the link itself [and provides no *lchmod* () function that does that]. However, in traversing directories for the −R option, it does not follow links into other parts of the hierarchy. No known systems cause −R to follow symbolic links; this functionality is possible with

```
find ... -follow ... | xargs chmod ...
```

4.8 chown — Change file ownership

⇒ **4.8.3 chown Options.** *Add the following sentence to the end of the paragraph describing the* −R *option:*

When a symbolic link is encountered in the file hierarchy, chown shall modify the file referenced by the link and shall continue with the other files in the directory containing the link, not attempting to follow the link to another portion of the file hierarchy.

Editor's Note: The following rationale will be added to E.4.8, but is kept here with chown *for this draft:*

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

When chown is given a symbolic link as a *file* operand, it changes the file resolved from the link. This is a consequence of the dependence on the *chown* () functionality, per the Description. The POSIX.1 {8} *chown* () function does not modify the link itself [and provides no *lchown* () function that does that]. However, in traversing directories for the −R option, it does not follow links into other parts of the hierarchy. This is based on historical practice. Some systems provide a −h option that does modify the link itself and this is a valid extension, but it has been omitted from POSIX.2 because POSIX.1 {8} does not support it. No known systems cause −R to follow symbolic links; this functionality is possible with

```
find ... -follow ... | xargs chown ...
```