Copyright © 1991 by the
Institute of Electrical and Electronics Engineers, Inc.
345 East 47th Street
New York, NY 10017, USA
All rights reserved as an unpublished work.

This is an unapproved and unpublished IEEE Standards Draft, subject to change. The publication, distribution, or copying of this draft, as well as all derivative works based on this draft, is expressly prohibited except as set forth below.

Permission is hereby granted for IEEE Standards Committee participants to reproduce this document for purposes of IEEE standardization activities only, and subject to the restrictions contained herein.

Permission is hereby also granted for member bodies and technical committees of ISO and IEC to reproduce this document for purposes of developing a national position, subject to the restrictions contained herein.

Permission is hereby also granted to the preceding entities to make limited copies of this document in an electronic form only for the stated activities.

The following restrictions apply to reproducing or transmitting the document in any form: 1) all copies or portions thereof must identify the document's IEEE project number and draft number, and must be accompanied by this entire notice in a prominent location; 2) no portion of this document may be redistributed in any modified or abridged form without the prior approval of the IEEE Standards Department.

Other entities seeking permission to reproduce this document, or any portion thereof, for standardization or other activities, must contact the IEEE Standards Department for the appropriate license.

Use of information contained in this unapproved draft is at your own risk.

IEEE Standards Department
Copyright and Permissions
445 Hoes Lane, P.O. Box 1331
Piscataway, NJ 08855-1331, USA
+1 (908) 562-3800
+1 (908) 562-1571 [FAX]

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 ...
```

Copyright © 1992 IEEE. All rights reserved.
This is an unapproved IEEE Standards Draft, subject to change.

4.13 `cp` — Copy files

⇒ **4.13.2 `cp` Description.** *Add the following sentence to the end of the first sentence of the seventh paragraph (beginning* 'In the following description, source_file refers *...'):*

When *source_file* is a symbolic link, `cp` shall take actions based on the file or directory referenced by the link, not the contents of the link itself. In traversing the file hierachy with `-R` or `-r`, it also shall follow symbolic links to other parts of the hierarchy.

Editor's Note: Question for working group: Should the language about infinite loop detection be copied from `find` *and* `pax`*?*

Editor's Note: The following rationale will be added to E.4.13, but is kept here with `cp` *for this draft:*

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

When `cp` encounters a symbolic link to be copied, it copies the contents of the file resolved from the link. Unlike many of the other utilities, such as `chown` or the default case of `find`, `cp -r` and `-R` do traverse directories by following links into other parts of the hierarchy. This allows the data in a file hierarchy to be duplicated at another place, such as for backup purposes.

Copyright © 1992 IEEE. All rights reserved.
This is an unapproved IEEE Standards Draft, subject to change.