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IEEE P1003.2b Draft 2 − December 1991

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

P1003.1a now includes symbolic links in pathname resolution and a number of concepts are automatically inherited in POSIX.2 by this inclusion. The large majority of standard utilities resolve pathnames and operate on files without special arrangements for symbolic links. Because of the global POSIX.1 {8} inheritance, this entails very few modifications to utility descriptions.

2.11.3 Operands

⇒ **2.11.4 Operands (POSIX.1: Def)** *Add a new paragraph at the end of the subclause:*

> All of the standard utilities shall be consistent in their processing of symbolic links specified directly on the command line versus those found elsewhere in the file hierarchy as a consequence of their operation.

Editor's Note: The following rationale will be added to E.2.11.4, but is kept here for this draft:

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

In most cases, the standard utilities follow symbolic links to access individual files, but when they traverse file hierarchies, they stop descending when they reach a symbolic link. (The developers of the standard use the informal term ''physical walk'' to describe this case.) There are stated exceptions to this (''logical walks''), such as `cp` and `du`. However, none of the utilities treat their command-line arguments any differently than their encountered files. For example, `find` does not follow symbolic links by default. In the following example:

```
find /foo -print
```

if `/foo` is a symbolic link, no output will result, because `find` treats its arguments consistently with files found during its hierarchy traversal. When modified to:

```
find /foo -follow -print
```

the output would include `/foo` from the command line and all of the files below it, including those found in traversing symbolic links. Not all historical practice is as consistent as the POSIX.2 standard utilities in this regard.

2.13.3 Pathname Variable Values