

## IEEE Standards Interpretations for IEEE Std 1003.2™-1992 IEEE Standard for Information Technology--Portable Operating System Interfaces (POSIX®)-- Part 2: Shell and Utilities

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### Interpretation Request #132

**Topic:** patch **Relevant Sections:** 5.22.3

1003.2-1992, section 5.22.3 (patch), page 585, lines 3483- 3489 says “-o outfile Instead of modifying the files (specified by the file operand or the diff listings) directly, write a copy of the file referenced by each patch, with the appropriate differences applied, to outfile. Multiple patches for a single file shall be applied to the intermediate versions of the file created by any previous patches and shall result in multiple, concatenated versions of the file being written to outfile.” This does not describe historical practice.

Historical practice has been to override just the first occurrence of the first file in the patch file. The rationale for patch contains a number of changes that were made from historical practice but this is not mentioned. Moreover, the change is significant, unintuitive and likely to cause problems for people expecting the historical behaviour. Was this change from historical practice intentional?

### Interpretation Response

The standard clearly states the requirements for patch -o and conforming implementations must conform to this. It is true that historical versions of patch only wrote the changes that would be made by the first chunk of a patch file to the file specified by the -o outfile option. The working group believed that you could have a security issue of overwriting files unintentionally when a patch file contained multiple chunks, and the historic documentation never indicated that this only applied to the first chunk. This was thus an intentional change. Issues concerning the wording of the rationale have been forwarded to the sponsor, but these would not result in a normative change.

**Rationale for Interpretation:** None.

