

IEEE Standards Interpretation for IEEE Std 1003.1™-1990 IEEE Standard for Information Technology--Portable Operating System Interfaces (POSIX®)

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Interpretation Request #43

Topic: `creat()` "as if" l.193-198 **Relevant Sections:** 8.2 **Classification:** No Change required

Chapter 8 of POSIX.1 lists the functions required from the C Standard, required as part of POSIX.1 with the C Language Binding. Section 8.1 lines 25-29 specify the particular input/output functions required. Section 8.2 lines 193-198 state that functions from the C standard which "`creat[e]` a file shall do so as if they called the `creat()` function" with specified flags. Section 8.2.3 lines 341-345 describe that each function operating on a stream has "underlying functions" which "share certain traits with the underlying functions, but [do] not require that there be any relation between the implementations of the stream function and its underlying functions."

In lines 193-198, what does "as if" mean from a standards perspective? Does it mean that it must behave EXACTLY in the same manner as the specified `creat()` call? Specifically, if an additional standard (such as POSIX.6) imposes additional restrictions on `open()`, are they automatically imposed on the file creation functions, by virtue of this requirement?

(Jeremy Epstein)

Interpretation Response

If an additional standard (such as POSIX.6) means to specify that the basic semantics of file access are to be different depending on which interface is used, the additional standard must specify the intended differences.

Rationale for Interpretation

None.