

IEEE Standards Interpretations for IEEE Std 1003.1c™-1995 IEEE Standard for Information Technology--Portable Operating System Interface (POSIX(R)) - System Application Program Interface (API) Amendment 2: Threads Extension (C Language)

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Interpretation Request #10

Topic: cancellation points **Relevant Clauses:** 18.1.2

Clause 18.1.2 has the wording: "A cancellation point may also occur when a thread is executing the following functions" This is incorrect and doesn't explain the intent of this section. According to the current wording, an implementation is not required to support cancellation. The definition of "may" according to this document is "..., the feature or behavior is optional." This means that an implementation is allowed to disable cancellability within these functions. The actual intent of POSIX is to say that these functions are cancellation points if they happen to block during the course of the function call. For all functions listed, sometimes they may block, sometimes they may not. The wording as stated is incorrect and allows for incorrectly coded implementations.

An interpretation is requested to clarify the intended behavior of these interfaces with respect to cancellation. We believe the following change is the intent. Change the wording: "A cancellation point may also occur when a thread is executing the following functions:" To: "A cancellation point will also occur in the following functions if the function causes the thread to block:"

Interpretation Response

The "intent" is that the functions listed in ISO/IEC 9945-1: 1996 following line 56 in 18.1.2 are allowed to be cancellation points, just in case they are implemented using other routines specified to be cancellation points. Were it not for this language, these routines cannot use routines which are cancellation points in their implementation be-

cause the standard says that no POSIX routines other than those specified are cancellation points.

Rationale for Interpretation

None.