

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 #38

Topic: mutex **Relevant Clauses:** 2.2.2.68

Why does a mutex only allow multiple threads to serialize their access to “shared data”? A mutex may be used to provide mutual exclusion among threads trying to access any sort of shared resource. For example, several threads may occasionally need to utilize a single hardware co-processor, and may serialize access to that resource with a mutex even though it isn’t “shared data”. Suggested Correction: Change the phrase “shared data” to “shared resources”.

Interpretation Response

The part of the definition cited is informative in scope and does not require any restrictions on conforming applications. The proposed change may add some additional clarity and will be referred to the sponsor for consideration.

Rationale for Interpretation

The wording of the particular sentence is neither binding upon the application, nor is it constrained by the interface, and it is not testable by a conformance test. Changing ‘data’ to ‘resources’ may help someone inexperienced in this area but does not seem to make a significant improvement in the standard.