

IEEE Standards Interpretations for IEEE Std 1003.1b™-1993 IEEE Standard for Information Technology - Portable Operating System Interfaces (POSIX(R)) - Part 1: System Application Program Interface (API) - Amendment 1: Realtime Extension [C language]

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Interpretation Request #2

Topic: action on synchronous signal acceptance **Relevant Sections:** 3.3.1.3 Classification: Ambiguous

The circumstance under which these actions are to be taken is termed delivery in 3.3.1.2. Also, in 3.3.1.2, the statement is made that signals can be blocked from delivery, and remain pending until either unblocked or the action is set to ignore. No mention is made of synchronous acceptance, as specified by `sigwaitinfo()` and `sigtimedwait()` (3.3.8). When a signal is synchronously accepted. 1) Is an implementation required to take the associated action when a signal is accepted synchronously? 2) Is an implementation permitted to take the associated action when a signal is accepted synchronously? 3) Is an implementation forbidden to take the associated action when a signal is accepted synchronously?

Interpretation Response

The standard is not clear in this area. It is ambiguous as to whether the synchronous selection of a signal by `sigwaitinfo` constitutes delivery or not. The interpretation is that an implementation is permitted to take the associated action when a signal is accepted synchronously: neither required nor forbidden. The lack of clarity is being referred to the sponsor for consideration. The interpretations committee suggests that an application would prefer to only receive each signal once and that implementations might wish to implement the facility in this manner (which is allowed but not required). The answers to the requestor's 3 questions are thus: no, yes, no.

Rationale for Interpretation

None.

