

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 #1

Topic: async IO **Relevant Sections:** 6.7.4.2

1. Does the `sigev_notify` field need to be filled in the `sig` argument to `lio_listio`? The generic section on the `aio_cb` (6.7.1.1) talks about the use of the `sigev_notify` field, however the section on `lio_listio` described different requirements using the same structure.
 - 1b. If not, can it be filled in, and what is the behavior if for example the `sigev_filed` was set to `SIGEV_NONE` and the `sigev_signo` is non zero?
2. If a user puts valid values in the `sigev_notify` and `sigev_signo` fields in members of the `aio_cb` list in a call to `lio_listio()` what happens? Are they ignored, do that happen as well as/instead of the event that is described by `*sig` argument.

Interpretation Response

1. The standard is clear that `SIGEV_NOTIFY` is ignored and a signal shall be sent. Conforming implementations must conform to this. This is different from the definition in section 3.3.1.2 and which the interpretation committee views as a defect in the standard. This fact is being referred to the sponsor for consideration. The interpretation committee suggests that applications might wish to consistently set `SIGEV_NOFTIFY` and `SIGEV_SIGNO` so that the application would continue to work correctly if the standard is changed.
2. The standard is clear that in the case raised, that a signal is generated at the completion of each i/o operation where `sigev_signo` is non-zero and one is also generated when the entire set of operations is completed. Conforming implementations must conform to this.

Rationale for Interpretation: None.