

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 #7

Topic: sigaction **Relevant Sections:** 3.3.4.2. Page 72 lines 915-923

IEEE Std 1003.1b-1993 Section 3.3.4.2. Page 72 lines 915-923 describes what happens if a signal is pending that is dispatched at a time when a signal handler was in place expecting three arguments. This section does not describe what happens to the second and third arguments of a signal handler that catches a signal that was dispatched when a signal handler expecting one argument was installed. What is the conformant behaviour in this case?

Interpretation Response

The question as asked has some ambiguity and would have different answers based up which question is meant. If a signal is generated during a time that SA_SIGINFO is set in sa_flags, sigqueue can pass a si_value and the signal has an associated si_code. If sigaction is called with sa_flags clear, then the standard is clear that 'the signal-catching function shall be invoked with only a single argument' (pg 72 line 917): the signo is delivered. If a signal is generated during a time that SA_SIGINFO is cleared in sa_flags, sigqueue still has a si_value and the associated si_code. If sigaction is then called before delivery with sa_flags set, then the standard is clear that 'The application specified value shall be passed to the signal- catching function...' (pg 72 line 922-923).

Rationale for Interpretation

None.