

IEEE Standards Interpretation for IEEE Std 1003.1™-2001 IEEE Standard Standard for Information Technology -- Portable Operating System Interface (POSIX®)

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Interpretation Request #60

Topic: waitid() , flags usage **Relevant Sections:** XSH waitid() Page: 1615 Line: 50182,50190

1. In the 2nd sentence of DESCRIPTION it states: "It records the current state of a child in the structure pointed to by infop." This text is vague -- it does not explain what fields should be filled in by waitid().

2. The text states the following about the flags used for the options parameter of waitid(): "The options argument is used to specify which state changes waitid() shall wait for. It is formed by OR ing together one or more of the following flags:

WEXITED Wait for processes that have exited.

WSTOPPED Status shall be returned for any child that has stopped upon receipt of a signal.

WCONTINUED Status shall be returned for any child that was stopped and has been continued.

WNOHANG Return immediately if there are no children to wait for.

WNOWAIT Keep the process whose status is returned in infop in a waitable state. This shall not affect the state of the process; the process may be waited for again after this call completes."

The problem is the introducing sentence. The current wording would allow calls like

waitid(..., ..., ..., WNOHANG)
and
waitid(..., ..., ..., WNOWAIT)

Both calls make no sense since it is not specified what has to be waited on. Instead it should be required that at least one of the first three flags must be set since those three specify what the function is supposed to do.

1. After the quoted sentence, add the following: "The fields of the structure pointed to by infop are filled in as described for the SIGCHLD signal in the XBD signal.h page." Add signal.h to the SEE ALSO line.

2. Replace line 50190f with The options argument is used to specify which state changes waitid() shall wait for. It is formed by OR ing together the following flags.

Add after line 50199 (or alternatively after line 50195): At least one of the flags WEXITED, WSTOPPED, or WCONTINUED must be set in /options/.

Interpretation Response #60

The standards states the requirements for flags usage, and conforming implementations must conform to this. However, concerns have been raised about this which are being referred to the sponsor.

Rationale for Interpretation

The working group considered issue 1 to be editorial but agreed to recommend to add wording to clarify in a future revision.