

IEEE Standards Interpretation for IEEE Std 1003.1™-1990 IEEE Standard for Information Technology--Portable Operating System Interfaces (POSIX®)

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Interpretation Request #114

Topic: granularity vs resolution **Relevant Sections:** P310 L63 PASC

The phrase “maximum allowable resolution” here is potentially ambiguous. Is it the largest value of `_POSIX_CLOCKRES_MIN`, or the largest value of `1/_POSIX_CLOCKRES_MIN` (which have completely opposite senses) what is intended? “Maximum allowable resolution” can be read as “the maximally finest grained resolution permitted” or “the maximally most granular resolution permitted”. Intuitively (which doesn’t count) the intent is that the “the worst (most granular) acceptable resolution is...”. (If you have trouble seeing the first interpretation of the words, consider a situation where the standard wished to prohibit something from getting too fine grained (say because it would overload the system). “The maximum allowable resolution of the system timer interrupt is 1 microsecond, because any smaller value cannot be serviced before the next timer interrupt occurs.”)

Change “maximum” to either “poorest” or “largest allowable granularity”.

Interpretation Response

(note this is a dup of #99 which is also open) The standard is clear, there is a good definition already. No change is required.

Rationale for Interpretation

None. Forwarded to Interpretations group: 19 June 2000 Proposed resolution: 25 July 2000 Finalized interpretation: 29 August 2000