

IEEE Standards Interpretations for IEEE Std 1003.2™-1992 IEEE Standard for Information Technology--Portable Operating System Interfaces (POSIX®)-- Part 2: Shell and Utilities

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Interpretation Request #72

Topic: renice **Relevant Clauses:** 5.24

POSIX.2 subclause 5.24 specifies the semantics of the “renice” utility. During the development of a conformance test for POSIX.2 questions about this utility have arisen. In subclause 5.24.2 the utility’s behavior is described as follows: The renice utility shall request that the system scheduling priorities (see 2,2,2,177) of one or more running processes be changed. Further, in subclause 5.24.8 the exit status of renice is specified as 0 Successful completion >0

An error occurred Is it conforming for an implementation to return 0, meaning that the request is noted and is syntactically correct, but to ignore it or to honor it partially? That is, can a system return 0 but not change the specified process’s priority? Can a system return 0 and change the process’s priority, but not to the extent requested? Further, is there any guarantee that the priority schedule change, if honored, will persist for any period? For example, can a shell script rely on using a call such as ps -o nice -p to determine whether the scheduling priority of process has been changed in accordance with the request?

Interpretation Response

Question 1: yes Question 2: yes Question 3: yes, the standard clearly states this behaviour on page 594, lines 3796-3800. Question 4, Question 5: The standard does not speak to this issue, and as such no conformance distinction can be made between alternative implementations based on this. This is being referred to the sponsor.

Rationale for Interpretation

None.