

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 #58

Topic: posix_memalign , alignment **Relevant Sections:** XSH posix_memalign Page: 885 Line: 28831

This wording in the description of posix_memalign() is ambiguous:

“The value of alignment shall be a multiple of sizeof(void *), that is also a power of two.”

It can be interpreted as meaning that the value of alignment must be a power of two, but presumably what it really means is that the multiple must be a power of two, as implied by the wording of the EINVAL error:

“The value of the alignment parameter is not a power of two multiple of sizeof(void *).”

It would not make any sense to require that the value of alignment must be a power of two and must also be a multiple of sizeof(void *), as that would be impossible if sizeof(void *) is not a power of two.

on page 885 line 28831 change “shall be a multiple of sizeof(void *), that is also a power of two” to “shall be a power of two multiple of sizeof(void *)”.

Interpretation Response #58

The standard is unclear on this issue, and no conformance distinction can be made between alternative implementations based on this. This is being referred to the sponsor.

Rationale for Interpretation

None.