

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

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Interpretation Request #33

Topic: `key_t` arithmetic type **Relevant Sections:** XBD <sys/types.h> `key_t`

In XBD <sys/types.h> we find the following the statment that `key_t` need not be an arithmetic type: 13068 All of the types shall be defined as arithmetic types of an appropriate length, with the following 13069 exceptions: 13070 XSI `key_t` But in the description of "Data Types" in XSH (Section 2.12), we find the following contradictory statement: 3363 `key_t` Arithmetic type used for XSI interprocess communication. Since `ftok()` returns `(key_t)-1` on error, if it is not an arithmetic type then the only other thing it could be is a pointer. Remove line 13070 "XSI `key_t`" from <sys/types.h>

Interpretation Response

The standard is inconsistent 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

The standard developers agreed that `key_t` should be an arithmetic type.

