

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

Copyright © 2006 by the Institute of Electrical and Electronics Engineers, Inc. 3 Park Avenue New York, New York 10016-5997 USA All Rights Reserved.

Interpretations are issued to explain and clarify the intent of a standard and **do not** constitute an alteration to the original standard. In addition, interpretations are not intended to supply consulting information. Permission is hereby granted to download and print one copy of this document. Individuals seeking permission to reproduce and/or distribute this document in its entirety or portions of this document must contact the IEEE Standards Department for the appropriate license. Use of the information contained in this document is at your own risk.

IEEE Standards Department Copyrights and Permissions 445 Hoes Lane, Piscataway, New Jersey 08855-1331, USA

### Interpretation Request #68

**Topic:** XSH 2.2.2 , SEEK\_\* namespace **Relevant Sections:** XSH 2.2.2 Page: 18 Line: 668

The standard specifies that the SEEK\_CUR, SEEK\_END, and SEEK\_SET macros shall be defined in (XBD, P223, L7843-7844, XSI shaded), (XBD, P325, L11562-11564, unshaded), and in (XBD, P412, L14546-14548, unshaded) for use in various functions including fcntl(), fseek(), and lseek().

Some implementations are adding extensions to POSIX conforming systems allowing applications to use fcntl() and the \*seek() functions to skip some holes in files when copying a file or when moving a file across file system boundaries. The obvious choice for macros specifying these new capabilities start with SEEK\_. At least one implementation provides the macros SEEK\_DATA and SEEK\_HOLE as well as the standard SEEK\_CUR, SEEK\_END, and SEEK\_SET, but the standard doesn't currently allow implementations to make these macros visible to conforming applications using extensions unless a new feature test macro is added to make them visible. This seems like overkill.

I therefore request an interpretation asking for the standard to allow implementations to define additional macros starting with SEEK\_ in , , and .

I also request that the suggested changes below be considered for inclusion in the next revision of the standard. These changes add SEEK\_ to the list of Reserved Prefix strings that implementations are allowed to provide but that applications can #undef and use as they choose after the last standard header has been included.

Change:

F\_, O\_, S\_ on P18, L668 to:  
F\_, O\_, S\_, SEEK\_ with XSI shading on SEEK\_.

Add: SEEK\_ with the entire line having CX shading after P18, L6784.

Add: SEEK\_ unshaded after P18, L699.

### **Interpretation Response #68**

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

### **Rationale for Interpretation**

There was concern about extending the namespace. For this reason this interpretation recognizes that such an extension to the namespace for the current standard is nonconforming. However it was felt that reservation of the SEEK\_ namespace should be considered in a future revision, and concerns are being forwarded to the sponsor.