

ISO C Proposed Defect Report

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1 Statement of the Problem

ANSI X3.159-1989, section 4.9.5.6 says:

"The `setvbuf` function may be used only after the stream [...] has been associated with an open file and before any other operation is performed on the stream."

There are two related questions associated with this statement.

1. What does "performed" mean?
 - (a) Does it include attempts that failed? (`fread` on output file, etc)
 - (b) In particular, does it include a failed attempt to `setvbuf`?
 - (c) What about `fprintf (f, "");` ?
2. What does "other operation" mean?
 - (a) Does it include `setvbuf` itself?
 - (b) Are `ferror` and `feof` operations?
 - (c) What about `clearerr`?

1.1 Reason for asking

It would seem reasonable to try to get a very large buffer in some applications by attempting to do a `setvbuf` with, say, 1MB of buffer space. If that fails, try again with 0.5MB, etc. Is this allowed?

2 Comments

My *guess* as to the interpretation is as follows:

1. An operation is "performed" even if it fails for whatever reason.

2. All functions defined in section 4.9 (`stdio.h`) are to be treated as "operations".

This is unsatisfactory, as the above approach of attempting to find a good buffer size would fail.

In the rationale, it states "The general principle is to provide portable code with a means of requesting the most appropriate popular buffering style, but not to *require* an implementation to support these styles." [My emphasis]

I interpret that as saying that `setvbuf` is an advisory call and need not be acted on. However, my questions above still stand as there seems to be no way of negotiating an agreement on good acceptable buffer sizes.

I believe that a clarification is required.

3 Contact details

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