1 Introduction

Streams have been the oldest part of the C++ standard library and especially strstreams that can use pre-allocated buffers have been deprecated for a long time now, waiting for a replacement. p0407, p0408 and p0448 provide together a modern complete replacement for strstream. This paper provides wording for actually removing it from appendix D and referring to its removal in appendix C. If p0408 (that includes p0407) and p0448 are accepted for C++20 then this paper can either be applied for C++20 or as some propose applied for C++23. I personally believe time is ripe for C++20, but I let LEWG or the full committee decide.

2 Impact on the standard

This section is relative to n4791 which is current at the time of the writing.

2.1 provide wording for difference in Appendix C

Depending on approval standard add the following paragraph to section [diff.cpp17.depr] (or [diff.cpp20.depr] when that exists). The editorial guidance now is relative to n4791.

Add a new paragraph in [diff.cpp17.depr] before p.7 as follows:

1 Change: Remove deprecated char * streams
Rationale: The introduction of span streams [span.streams] and the provisioning of efficient access to the underlying buffer of string streams [string.streams] provide better alternatives for the use cases of char * streams. The latter have been deprecated in all revisions of this international standard.
Effect on original feature: A valid C++ 2017 program that relies on the deprecated char * stream classes may fail to compile. In cases where the underlying strstreambuf is allows writing
and its \texttt{strstate} bitmask has \texttt{allocated} or \texttt{dynamic} set, classes from [\texttt{string.streams}] should be used instead. In other cases either classes from [\texttt{span.streams}] or [\texttt{string.streams}] can be used to achieve its functionality with equivalent performance.

### 2.2 Remove deprecated \texttt{char * streams} from Appendix D

Remove all of Appendix D.8 [depr.str.strstreams]