Slay Some Earthly Demons XIV

Document: n3418 Author: Martin Uecker Date: 2024-12-14

Undefined Behavior: Token concatenation produces the syntax of a universal character name.

Analysis: There is implementation divergence, but no real use case.

Godbolt

Recommendation: Make it a constraint violation.

Wording

5.2.1.2 Translation phases

4. Preprocessing directives are executed, macro invocations are expanded, and _Pragma unary operator expressions are executed. ~~If a character sequence that matches the syntax of a univer- sal character name is produced by token concatenation (6.10.5.4), the behavior is undefined.~~ A #include preprocessing directive causes the named header or source file to be processed from phase 1 through phase 4, recursively. All preprocessing directives are then deleted.

6.10.5.4 The ## operator

Constraints

1 A ## preprocessing token shall not occur at the beginning or at the end of a replacement list for either form of macro definition

2 A character sequence that matches the syntax of a universal character name shall not be produced by token concatenation.