

Proposal for C23
WG14 N2617

Title: Fix for decimal SNAN prefixes
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Proposal category: Editorial
Reference: N2476, N2602, N2573

In (SC22WG14.18460) Decimal macros in float.h, Joseph Myers wrote:

Why are the decimal signaling NaN macros `D32_SNAN`, `D64_SNAN`, `D128_SNAN` when all the other decimal macros in float.h use prefixes `DEC32_`, `DEC64_`, `DEC128_` (as, indeed, do the `DECN_SNAN` and `DECNX_SNAN` macros in the latest version of TS3 as Annex)? That's what N2476 had, but it's clearly inconsistent with the other macros.

Moving the macros from `<math.h>` to `<float.h>` was intended to include moving to the prefix scheme in `<float.h>`. though this change was missing in the relevant proposals N2476 and N2602. So, yes, the prefixes should be `DECN_` instead of `DN_`. The following suggested changes give the intended prefixes.

Suggested changes:

1. Change all instances of `D32_SNAN`, `D64_SNAN`, and `D128_SNAN` to `DEC32_SNAN`, `DEC64_SNAN`, and `DEC128_SNAN`, respectively.
2. Change one instance of `DN_SNAN` to `DECN_SNAN`.