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NAMING IMPLEMENTATION-DEFINED SIMD_ABI TAG TYPES

ABSTRACT

This paper aims to allow implementations to use less scary names for implementation-defined ABI tag types.

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1

INTRODUCTION

[P0214R8] specifies that implementations may (actually should) add implementation-defined ABI tag types to the `simd_abi` namespace. Since there is no additional exemption for naming, the usual rules apply and an implementation has to use double underscores or underscore plus uppercase prefixes for these names. This was not my intent. These implementation-defined names are meant to be used directly in user code (though hopefully only in special cases).

2

CHOICES

DO NOTHING Give the users a proper scare so that they better use the available aliases instead.

ALLOW ANYTHING This effectively closes the `simd_abi` namespace for further extensions in the specification.

ALLOW UPPERCASE Reserves the lowercase namespace for the standard and opens the uppercase namespace for implementations.

I prefer the last choice.

3

WORDING

I recommend to apply the change to the Parallelism TS 2 before finalization.

_____ modify §8.2.1 p5

- ⁵ An implementation may define additional ABI tag types in the `simd_abi` namespace, to support other forms of data-parallel computation. [Implementation-defined ABI tags may use names starting with an uppercase letter.](#)

A

BIBLIOGRAPHY

[P0214R8] Matthias Kretz. *P0214R8: Data-Parallel Vector Types & Operations*. ISO/IEC C++ Standards Committee Paper. 2018. URL: <https://wg21.link/p0214r8>.