
Programming Languages — Technical Specification for C++ Extensions for Parallelism

*Langages de programmation — Spécification technique pour les
extensions C++ relatives au parallélisme*





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Contents

Foreword	iv
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
4 General	4
4.1 Namespaces and headers	4
4.2 Feature-testing recommendations	4
5 Parallel exceptions	5
5.1 Header <code><experimental/exception_list></code> synopsis	5
6 Execution policies	6
6.1 Header <code><experimental/execution></code> synopsis	6
6.2 Unsequenced execution policy	6
6.3 Vector execution policy	6
6.4 Execution policy objects	7
7 Parallel algorithms	8
7.1 Wavefront Application	8
7.2 Non-Numeric Parallel Algorithms	9
8 Task Block	16
8.1 Header <code><experimental/task_block></code> synopsis	16
8.2 Class <code>task_cancelled_exception</code>	16
8.3 Class <code>task_block</code>	16
8.4 Function template <code>define_task_block</code>	18
8.5 Exception Handling	19
9 Data-Parallel Types	20
9.1 General	20
9.2 Header <code><experimental/simd></code> synopsis	20
9.3 <code>simd</code> ABI tags	24
9.4 <code>simd</code> type traits	26
9.5 Where expression class templates	27
9.6 Class template <code>simd</code>	30
9.7 <code>simd</code> non-member operations	37
9.8 Class template <code>simd_mask</code>	42
9.9 Non-member operations	46

Foreword

[parallel.foreword]

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- ⁶ This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*.
- ⁷ This second edition cancels and replaces the first edition (ISO/IEC 19570:2015) which has been technically revised.
- ⁸ The main changes compared to the previous edition are as follows:
 - (8.1) — Eliminate previously standardized functionality.
 - (8.2) — Introduce task block.
 - (8.3) — Introduce vector and wavefront policies.
 - (8.4) — Introduce a template library for parallel for loops.
 - (8.5) — Introduce data-parallel vector types.

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Programming Languages — Technical Specification for C++ Extensions for Parallelism

1 Scope

[parallel.scope]

- ¹ This document describes requirements for implementations of an interface that computer programs written in the C++ programming language can use to invoke algorithms with parallel execution. The algorithms described by this document are realizable across a broad class of computer architectures.
- ² There is a possibility of a subset of the functionality described by this document being standardized in a future version of C++, but it is not currently part of any C++ standard. There is a possibility of some of the functionality in this document never being standardized, or of it being standardized in a substantially changed form.
- ³ The goal of this document is to build widespread existing practice for parallelism in the C++ programming language. It gives advice on extensions to those vendors who wish to provide them.