



BSI Standards Publication

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

National foreword

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The UK participation in its preparation was entrusted to Technical Committee IST/5, Programming languages, their environments and system software interfaces.

A list of organizations represented on this committee can be obtained on request to its secretary.

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© The British Standards Institution 2018
Published by BSI Standards Limited 2018

ISBN 978 0 539 00604 9

ICS 35.060

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This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 November 2018.

Amendments/corrigenda issued since publication

Date	Text affected
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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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Published in Switzerland

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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.