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TECHNICAL SPECIFICATION

TS 19570

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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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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO/IEC TS 19570 was prepared by Joint Technical Committee ISO/IEC JTC 1, Information technology, Subcommittee SC 22, Programming Janguages, their environments and system software interfaces.

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1 General

[parallel.general]

1.1 Scope

[parallel.general.scope]

- ¹ This Technical Specification describes requirements for implementations of an interface that computer programs written in the C++ programming language may use to invoke algorithms with parallel execution. The algorithms described by this Technical Specification are realizable across a broad class of computer architectures.
- ² This Technical Specification is non-normative. Some of the functionality described by this Technical Specification may be considered for standardization in a future version of C++, but it is not currently part of any C++ standard. Some of the functionality in this Technical Specification may never be standardized, and other functionality may be standardized in a substantially changed form.
- ³ The goal of this Technical Specification is to build widespread existing practice for parallelism in the C++ standard algorithms library. It gives advice on extensions to those vendors who wish to provide them.

1.2 Normative references

[parallel.general.references]

- The following referenced document is indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.
 - ISO/IEC 14882: $-^1$, Programming Languages C++
- ² ISO/IEC 14882:— is herein called the *C++ Standard*. The library described in ISO/IEC 14882:— clauses 17-30 is herein called the *C++ Standard Library*. The C++ Standard Library components described in ISO/IEC 14882:— clauses 25, 26.7 and 20.7.2 are herein called the *C++ Standard Algorithms Library*.
- Unless otherwise specified, the whole of the C++ Standard's Library introduction (C++14 §17) is included into this Technical Specification by reference.