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TECHNICAL SPECIFICATION

ISO/IEC TS 19216

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Programming Languages — C++ Extensions for Networking

Langages de programmation — Extensions C++ pour mise en réseau



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*.

1 Scope

[scope]

- ¹ This document describes extensions to the C++ Standard Library. This document specifies requirements for implementations of an interface that computer programs written in the C++ programming language may use to perform operations related to networking, such as operations involving sockets, timers, buffer management, host name resolution and internet protocols. This document is applicable to information technology systems that can perform network operations, such as those with operating systems that conform to the POSIX interface. This document is applicable only to vendors who wish to provide the interface it describes.

2 Normative references [references]

¹ The following referenced documents are 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.

- (1.1) — ISO/IEC 14882:2014, *Programming languages — C++*
- (1.2) — ISO/IEC TS 19568:2015, *C++ Extensions for Library Fundamentals*
- (1.3) — ISO/IEC 9945:2009, *Information Technology — Portable Operating System Interface (POSIX)*
- (1.4) — ISO/IEC 2382-1:1993, *Information technology — Vocabulary*

² The programming language and library described in ISO/IEC 14882 is herein called the C++ Standard. References to clauses within the C++ Standard are written as “C++ 2014, Clause 17”. The operating system interface described in ISO/IEC 9945 is herein called POSIX.

³ This document mentions commercially available operating systems for purposes of exposition. POSIX® is a registered trademark of The IEEE. Windows® is a registered trademark of Microsoft Corporation. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO or IEC of these products.

⁴ Unless otherwise specified, the whole of the C++ Standard’s Library introduction (C++ 2014, Clause 17) is included into this document by reference.