INTERNATIONAL STANDARD

ISO/IEC
29124

Information technology — Programming languages, their environments and system software interfaces — Extensions to the C++ Library to support mathematical special functions

Technologies de l'information — Langages de programmation, leur environnement et interfaces des logiciels de systèmes — Extensions à la bibliothèque C++ pour supporter les fonctions mathématiques spéciales

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the Joint Technical Committee is to prepare International Standards. Draft International Standards adopted by the Joint Technical Committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

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ISO/IEC 29124 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*.

Introduction

This International Standard is divided into three major subdivisions:

— preliminary elements (Clauses 1–3),

— indicating conformance (Clause 4), and

— the library facilities (Clauses 5–6).

Footnotes are provided to emphasize consequences of the rules described in that subclause or elsewhere in this International Standard. References are used to refer to other related documents and subclauses. A bibliography lists documents that are non-normatively cited in this International Standard, or that were referred to during its preparation.

The provisions of this International Standard are based on 5.2 ("Mathematical special functions") of ISO/IEC TR 19768:2007 [2]. That subclause also served as a basis for a similar International Standard [3]. Because of their common origin, it is intended that both these International Standards specify substantially identical syntax and semantics to the extent permitted by each Standard's programming language.

Information technology — Programming languages, their environments and system software interfaces — Extensions to the C++ Library to support mathematical special functions

1   Scope   [scope]

1.1   Purpose and intent   [scope.purpose]

1   This International Standard specifies extensions to the *C++ standard library* as defined in the International Standard for the C++ programming language [ISO/IEC 14882:2003].

1.2   Relation to C++ Standard Library Introduction   [scope.libintro]

1   Unless otherwise specified, the whole of Clause 17 ("Library Introduction") of the ISO C++ Standard [ISO/IEC 14882:2003] is included into this International Standard by reference.

1.3   Categories of extensions   [scope.ext]

1   This International Standard specifies extensions to the C++ standard library to support mathematical special functions.

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2   Normative references   [norm]

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.

- ISO/IEC 2382-1:1993, *Information technology — Vocabulary — Part 1: Fundamental terms*
- ISO/IEC 9899:1999, *Programming languages — C*
- ISO/IEC 9899:1999/Cor 1:2001, *Programming languages — C — Technical Corrigendum 1*
- ISO/IEC 9899:1999/Cor 2:2004, *Programming languages — C — Technical Corrigendum 2*
- ISO/IEC 9899:1999/Cor 3:2007, *Programming languages — C — Technical Corrigendum 3*
- ISO/IEC 14882:2003, *Programming languages — C++*
- ISO 80000-2:2009, *Quantities and units — Part 2: Mathematical signs and symbols to be used in the natural sciences and technology*