

February 2004

PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2007-05-07	Proposer: ISO/IEC JTC 1/SC 22/WG 21
Secretariat: National Body	ISO/IEC JTC 1 N 8582 ISO/IEC JTC 1/SC 22 N 4207

A proposal for a new work item shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

Presentation of the proposal - to be completed by the proposer. .

Title (subject to be covered and type of standard, e.g. terminology, method of test, performance requirements, etc.) Programming Language C++ — Special Mathematical Functions
Scope (and field of application) Specify a standard for special mathematical functions based on TR 19768 section 5.2.
Purpose and justification - attach a separate page as annex, if necessary Section 5.2 is the only part of TR 19768 not adopted into the next revision of ISO C++ (14882). There is strong desire for mathematical functions like those in 5.2 to be available in a de jure standard for government procurement and other normal reasons, but they are expensive to implement and test and only a small fraction of the market for C++ itself will be interested in these functions. Therefore, in order to avoid requiring all ISO C++ implementations to provide these functions, but to still have them available as an ISO international standard, WG21 has directed its convener to request a NWI for a separate standard for these functions. These functions also serve the purpose of providing a binding between ISO/IEC 14882 (C++) and ISO 31-11 (Quantities and Units).
Programme of work If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed? <input checked="" type="checkbox"/> X a single International Standard <input type="checkbox"/> more than one International Standard (expected number:) <input type="checkbox"/> a multi-part International Standard consisting of parts <input type="checkbox"/> an amendment or amendments to the following International Standard(s) <input type="checkbox"/> a technical report , type And which standard development track is recommended for the approved new work item? <input type="checkbox"/> a. Default Timeframe <input type="checkbox"/> b. Accelerated Timeframe <input checked="" type="checkbox"/> X c. Extended Timeframe
Relevant documents to be considered ISO/IEC 14882:2003(E) Programming languages — C++ ISO/IEC 19768 Technical Report on C++ Library Extensions ISO 31-11:1992 Quantities and units, Third edition
Co-operation and liaison ISO/IEC JTC1/SC22/WG21 (C++)
Preparatory work offered with target date(s)
Signature:

Will the service of a maintenance agency or registration authority be required?No.....
 - If yes, have you identified a potential candidate?
 - If yes, indicate name

Are there any known requirements for coding?No.....
 -If yes, please specify on a separate page

Does the proposed standard concern known patented items?No.....
 - If yes, please provide full information in an annex

Comments and recommendations of the JTC 1 or SC 22 Secretariat - attach a separate page as an annex, if necessary

Comments with respect to the proposal in general, and recommendations thereon:
 It is proposed to assign this new item to JTC1/SC22/WG21

Voting on the proposal - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

Date of circulation: 2007-05-11	Closing date for voting: 2007-08-11	Signature of Secretary: Sally Seitz
---	---	---

NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA		
Criterion	Validity	Explanation
A. Business Requirement		
A.1 Market Requirement	Essential ___ Desirable <u>X</u> Supportive ___	Government procurement requirements frequently need to be able to reference a normative standard, and frequently make use of both ISO/IEC 14882 (C++) and ISO 31-11 (Quantities and Units).
A.2 Regulatory Context	Essential ___ Desirable ___ Supportive ___ Not Relevant <u>X</u>	
B. Related Work		
B.1 Completion/Maintenance of current standards	Yes ___ No <u>X</u>	
B.2 Commitment to other organisation	Yes ___ No <u>X</u>	

B.3 Other Source of standards	Yes ___ No <u>X</u>	
C. Technical Status		
C.1 Mature Technology	Yes <u>X</u> No ___	ISO/IEC 19768 section 5.2 has been implemented and is a useful binding between two long-standing and popular standards, ISO/IEC 14882:1998/2003 and ISO 31-11:1992.
C.2 Prospective Technology	Yes ___ No <u>X</u>	The need is already well established and current.
C.3 Models/Tools	Yes ___ No <u>X</u>	
D. Conformity Assessment and Interoperability		
D.1 Conformity Assessment	Yes ___ No <u>X</u>	
D.2 Interoperability	Yes ___ No <u>X</u>	
E. Adaptability to Culture, Language, Human Functioning and Context of Use		
E.1 Cultural and Linguistic Adaptability	Yes _____ No <u>X</u> _____	
E.2 Adaptability to Human Functioning and Context of Use	Yes _____ No <u>X</u> _____	
F. Other Justification		

Notes to Proforma

A. Business Relevance. That which identifies market place relevance in terms of what problem is being solved and or need being addressed.

A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.

A.2 Technical Regulation. If a Regulatory requirement is deemed to exist - e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard - the proposer shall identify this here.

B. Related Work. Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.

B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.

B.2 External Commitment. Groups, bodies, or for external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.

B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.

C. Technical Status. The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.

C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.

C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.

C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

D. Conformity Assessment and Interoperability Any other aspects of background information justifying this NP shall be indicated here.

D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.

D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan

E. Adaptability to Culture, Language, Human Functioning and Context of Use

NOTE: The following criteria do not mandate any feature for adaptability to culture, language, human functioning or context of use. The following criteria require that if any features are provided for adapting to culture,

language, human functioning or context of use by the new Work Item proposal, then the proposer is required to identify these features.

E.1 Cultural and Linguistic Adaptability. Indicate here if cultural and natural language adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.

ISO/IEC TR 19764 (Guidelines, methodology, and reference criteria for cultural and linguistic adaptability in information technology products) now defines it in a simplified way:

“ability for a product, while keeping its portability and interoperability properties, to:

- be internationalized, that is, be adapted to the special characteristics of natural languages and the commonly accepted rules for their use, or of cultures in a given geographical region;
- take into account the usual needs of any category of users, with the exception of specific needs related to physical constraints”

Examples of characteristics of natural languages are: national characters and associated elements (such as hyphens, dashes, and punctuation marks), writing systems, correct transformation of characters, dates and measures, sorting and searching rules, coding of national entities (such as country and currency codes), presentation of telephone numbers and keyboard layouts. Related terms are localization, jurisdiction and multilingualism.

E.2 Adaptability to Human Functioning and Context of Use. Indicate here whether the proposed standard takes into account diverse human functioning and diverse contexts of use. If so, indicate how it is addressed in your project plan.

NOTE:

1. Human functioning is defined by the World Health Organization at <http://www3.who.int/icf/beginners/bg.pdf> as:
<<In ICF (*International Classification of Functioning, Disability and Health*), the term *functioning* refers to all body functions, activities and participation.>>
2. Content of use is defined in ISO 9241-11:1998 (*Ergonomic requirements for office work with visual display terminals (VDTs) – Part 11: Guidance on usability*) as:
<<Users, tasks, equipment (hardware, software and materials), and the physical and societal environments in which a product is used.>>
3. Guidance for Standard Developers to address the needs of older persons and persons with disabilities).

F. Other Justification Any other aspects of background information justifying this NP shall be indicated here.