P1003.1

Submitter Email: ajosey@opengroup.org
Type of Project: Revision to IEEE Standard 1003.1-2008
PAR Request Date: 19-Apr-2017
PAR Approval Date: 15-Jun-2017
PAR Expiration Date: 31-Dec-2021
Status: PAR for a Revision to an existing IEEE Standard
Root Project: 1003.1-2008

1.1 Project Number: P1003.1
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Information Technology - Portable Operating System Interface (POSIX(R))

Changes in title: ~~IEEE~~ Standard for Information Technology - Portable Operating System Interface (POSIX(R))

3.1 Working Group: Austin Joint Working Group (C/PA/POSIX)
Contact Information for Working Group Chair
  Name: Andrew Josey
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Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Computer Society/Portable Applications (C/PA)
Contact Information for Sponsor Chair
  Name: Joseph Gwinn
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Contact Information for Standards Representative
None

4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 07/2017
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 100

5.2 Scope: IEEE Std 1003.1-201x defines a standard operating system interface and
environment, including a command interpreter (or "shell"), and common
utility programs to support applications portability at the source code level. It is intended to be used by both applications developers and system implementors.

IEEE Std 1003.1-201x comprises four major components (each in an associated volume):

1. General terms, concepts, and interfaces common to all volumes of IEEE Std 1003.1-201x, including utility conventions and C-language header definitions, are included in the Base Definitions volume of IEEE Std 1003.1-201x.
2. Definitions for system service functions and subroutines, language-specific system services for the C programming language, function issues, including portability, error handling, and error recovery, are included in the System

Changes in scope: IEEE Std 1003.1-~~200x~~201x defines a standard operating system interface and environment, including a command interpreter (or "shell"), and common utility programs to support applications portability at the source code level. It is intended to be used by both applications developers and system implementors. IEEE Std 1003.1-~~200x~~201x comprises four major components (each in an associated volume): 1. General terms, concepts, and interfaces common to all volumes of IEEE Std 1003.1-~~200x~~201x, including utility conventions and C-language header definitions, are included in the Base Definitions volume of IEEE Std 1003.1-~~200x~~201x. 2. Definitions for system service functions and subroutines, language-specific system services for the C programming language, function issues, including portability, error handling, and error recovery, are included in the System Interfaces volume of IEEE Std 1003.1-~~200x~~201x. 3. Definitions for a standard source code-level interface to command interpretation services (a "shell") and common utility programs for application programs are included in the Shell and Utilities volume of IEEE Std 1003.1-~~200x~~201x. 4. Extended rationale that did not fit well into the rest of the document structure, containing

Interfaces volume of IEEE Std 1003.1-201x.

3. Definitions for a standard source code-level interface to command interpretation services (a "shell") and common utility programs for application programs are included in the Shell and Utilities volume of IEEE Std 1003.1-201x.

4. Extended rationale that did not fit well into the rest of the document structure, containing historical information concerning the contents of IEEE Std 1003.1-201x and why features were included or discarded by the standard developers, is included in the Rationale (Informative) volume of IEEE Std 1003.1-201x.

The following areas are outside of the scope of IEEE Std 1003.1-200x:
* Graphics interfaces
* Database management system interfaces
* Record I/O considerations
* Object or binary code portability
* System configuration and resource availability

IEEE Std 1003.1-200x describes the external characteristics and facilities that are of importance to applications developers, rather than the internal construction techniques employed to achieve these capabilities. Special emphasis is placed on those functions and facilities that are needed in a wide variety of commercial applications.

historical information concerning the contents of IEEE Std 1003.1-~~200x~~201x and why features were included or discarded by the standard developers, is included in the Rationale (Informative) volume of IEEE Std 1003.1-~~200x~~201x. The following areas are outside of the scope of IEEE Std 1003.1-200x: * Graphics interfaces * Database management system interfaces * Record I/O considerations * Object or binary code portability * System configuration and resource availability IEEE Std 1003.1-200x describes the external characteristics and facilities that are of importance to applications developers, rather than the internal construction techniques employed to achieve these capabilities. Special emphasis is placed on those functions and facilities that are needed in a wide variety of commercial applications. ~~The facilities provided in IEEE Std 1003.1-200x are drawn from the following base documents: * IEEE Std 1003.1(TM), 2004 Edition (POSIX-1) (incorporating IEEE Stds 1003.1(TM)-2001, 1003.1(TM)-2001/Cor 1-2002 and 1003.1(TM)-2001/Cor 2-2004) * Open Group Technical Standard, 2006, Extended API Set Part 1 * Open Group Technical Standard, 2006, Extended API Set Part 2 * Open Group Technical Standard, 2006, Extended API Set Part 3 * Open Group Technical Standard, 2006, Extended API Set Part 4 * ISO/IEC 9899:1999, Programming Languages—C.~~

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: The purpose is to promote portability of application programs across UNIX system environments by developing a clear, consistent, and unambiguous standard for the interface specification of a portable operating system based on the UNIX system documentation. The POSIX.1 standard codifies the common, existing definition of the UNIX system.

Changes in purpose: The ~~basic~~purpose ~~goal~~is ~~was~~ to promote portability of application programs across UNIX system environments by developing a clear, consistent, and unambiguous standard for the interface specification of a portable operating system based on the UNIX system documentation. The POSIX.1 ~~2008~~ standard codifies the common, existing definition of the UNIX system.

5.5 Need for the Project: This document is supported widely in the industry. It is now approaching 10 years since the last major revision, so this revision is needed to ensure the standard remains current for another period.

5.6 Stakeholders for the Standard: The stakeholders are the IT industry at large, as these are foundation standards for many operating systems.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: Yes

If yes please explain: This is a joint copyright document with IEEE and The Open Group (as per all editions since 2001)

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

  Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes: This is a revision to the 1003.1-2008 standard to rollup the standard including its two technical corrigenda (as-is), so as to avoid the standard timing out in 2018.

This rollup edition is intended to be technically identical to the 2008 standard including its two technical corrigenda.

The committee will also be starting another revision after this that is not expected to complete until 2020 at the earliest.