

P1003.1-2008/Cor 2

Submitter Email: ajosey@opengroup.org

Type of Project: Corrigendum to IEEE Standard 1003.1-2008

PAR Request Date: 24-Mar-2015

PAR Approval Date: 11-Jun-2015

PAR Expiration Date: 31-Dec-2019

Status: PAR for a Corrigendum to an existing IEEE Standard

Root Project: 1003.1-2008

1.1 Project Number: P1003.1-2008/Cor 2

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)) - Corrigendum 2

3.1 Working Group: Austin Joint Working Group (C/PA/POSIX)

Contact Information for Working Group Chair

Name: Andrew Josey

Email Address: ajosey@opengroup.org

Phone: +441189508311

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

Email Address: gwinn@raytheon.com

Phone: 781-235-5434

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: 06/2015

4.3 Projected Completion Date for Submittal to RevCom: 10/2015

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

5.2.a. Scope of the complete standard: IEEE Std 1003.1-2008 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 1003.1-2008 comprises four major components (each in an associated volume):

1. General terms, concepts, and interfaces common to all volumes of IEEE Std 1003.1-2008, including utility conventions and C-language header definitions, are included in the Base Definitions volume of IEEE Std 1003.1-2008.
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 1003.1-2008.
3. Definitions for a standard source code-level interface to

Changes in scope: IEEE Std 1003.1-~~200*~~2008 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-~~200*~~2008 comprises four major components (each in an associated volume): 1. General terms, concepts, and interfaces common to all volumes of IEEE Std 1003.1-~~200*~~2008, including utility conventions and C-language header definitions, are included in the Base Definitions volume of IEEE Std 1003.1-~~200*~~2008. 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-~~200*~~2008. 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-~~200*~~2008. 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-~~200*~~2008 and why features were included or discarded by the

command interpretation services (a "shell") and common utility programs for application programs are included in the Shell and Utilities volume of IEEE Std 1003.1-2008.

4. Extended rationale that did not fit well into the rest of the document structure, containing historical information concerning the contents of IEEE Std 1003.1-2008 and why features were included or discarded by the standard developers, is included in the Rationale (Informative) volume of IEEE Std 1003.1-2008.

The following areas are outside of the scope of IEEE Std 1003.1-2008:

- * Graphics interfaces
- * Database management system interfaces
- * Record I/O considerations
- * Object or binary code portability
- * System configuration and resource availability

IEEE Std 1003.1-2008 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 1003.1-2008 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.

5.2.b. Scope of the Proposed changes: This corrigendum corrects technical and other non-editorial errors made during the preparation of IEEE Std 1003.1TM-2008 and IEEE Std 1003.1TM-2008/Cor 1-2013. This corrigendum includes the corrections made in the errata.

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

5.4 Purpose: The basic goal 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. POSIX.1-2008 codifies the common,existing definition of the UNIX system.

5.5 Need for the Project: There is significant evidence that application developers have widely accepted IEEE Std 1003.1-2008. A number of defect reports continue to be raised against the revised standard, the production of technical corrections will further add value to the standard and further the interests of the users of the standard.

5.6 Stakeholders for the Standard: Computer industry, open source developers, operating system users.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

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

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?: Yes

standard developers, is included in the Rationale (Informative) volume of IEEE Std 1003.1-~~200*~~2008. The following areas are outside of the scope of IEEE Std 1003.1-~~200*~~2008: * Graphics interfaces * Database management system interfaces * Record I/O considerations * Object or binary code portability * System configuration and resource availability IEEE Std 1003.1-~~200*~~2008 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-~~200*~~2008 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.

Organization: The Austin Group Joint Working Group

Technical Committee Name: Austin Group

Technical Committee Number: AG1

Contact Name: Andrew Josey

Phone: +441189508311

Email: ajosey@opengroup.org

8.1 Additional Explanatory Notes (Item Number and Explanation): 5.2b: This project is producing the second technical corrigendum for IEEE Std 1003.1-2008 which is based on existing standards with widespread existing industry experience; the project excludes new material and limits its scope to needed corrections.

7.2: The 1003.1 standard is a document with copyright shared jointly by IEEE and The Open Group. This technical corrigendum will be as per the joint copyright agreement between the two organizations.

7.2 The Austin Group was formed in 1998, and has produced the 2001 edition of 1003.1, two technical corrigenda to 1003.1-2001, and more recently the 2008 edition of 1003.1 and the first technical corrigendum to that in 2013.

The three parties represented at the Austin Group are IEEE PASC, The Open Group and ISO/IEC JTC1 SC22. It is an open technical working group established to develop and maintain develop and maintain the core open systems interfaces that are the POSIX(R) 1003.1 (and former 1003.2) standards, ISO/IEC 9945, and the core of the Single UNIX Specification.

The approach to specification development is "write once, adopt everywhere", with the deliverables being a set of specifications that carry simultaneously the IEEE POSIX designation, The Open Group's Technical Standard designation, and the ISO/IEC designation. The output of the technical working group, is then reviewed and balloted by each organization according to their own procedures.

The Open Group provides the secretariat to the Austin Group (chair and editors) and hosts the web site - see <http://www.opengroup.org/austin>. There are three organizational representatives who represent the IEEE PASC, The Open Group and ISO/IEC JTC 1 SC22 in the committee as per the procedures for operation of the group (http://www.opengroup.org/austin/docs/austin_14r2.pdf). The chair of the Austin Group is also the ISO/IEC 9945 project editor and works with JTC1 SC22.