

**Resolutions Prepared at the Seventeenth Plenary Meeting of ISO/IEC JTC 1/SC 22,  
6-10 September 2004, Jeju Republic of Korea**

**Resolution 04-01: Establishment of an Ad Hoc Group on Terminology**

JTC 1/SC 22 instructs all SC 22 WG conveners to send the SC 22 document N3784 "Terminology in ISO/IEC 2382 and some SC 22 standards" to their project editors for review.

Project editors, upon their review of the text, are instructed to send no later than 7 March 2005 all comments and the text (in text format) of any definition clauses that their Standard contains to Roger Scowen (email: roger.scowen@npl.co.uk) for inclusion in an updated version of N3784.

*Unanimous*

**Resolution 04-02: Redirection of JTC 1/SC 22 Web Site**

SC 22 instructs its Chair to request that DKUUG redirect the web site for SC 22 to the new web site, maintained by Keld Simonsen, at <http://www.open-std.org/jtc1/sc22>.

*Unanimous*

**Resolution 04-03: Discontinuation of Cooperative Agreement Between JTC 1/SC 22 and CEN/TC 304**

JTC 1/SC 22, noting that no need for further coordination exists between the two committees, instructs the Secretariat to terminate the cooperative agreement with CEN TC 304 and to inform CEN TC 304, JTC 1, and ITTF of this decision.

*Unanimous*

**Resolution 04-04: Rapid Final Processing of Standards**

ISO has made it clear that time is of the essence in standards development and SC 22 has made every effort to expedite its work. In this context, it finds the delay in starting the DIS ballot for ISO/IEC 1539-1, Fortran 2003, unacceptable. The document was submitted to ITTF by the SC 22 Secretariat on 17 May 2004, but the ballot did not commence until 12 July 2004.

Any delay in starting a ballot or in publishing the resulting document is undesirable and very discouraging to any WG that has done its work in a timely manner. SC 22 instructs its Chair to raise this matter at the JTC 1 Plenary.

*Unanimous*

#### **Resolution 04-05: Standards for 2005 Periodic Review**

JTC 1/SC 22 recommends to JTC 1 that at the end of their 5-year review period, the following standards and technical report be confirmed:

- ISO/IEC 1539-2:2000, Fortran-Part 2: Varying length character strings
- ISO 8485: 1989-Programming languages-APL
- ISO/IEC 10967-1: 1994, Information technology-Language independent arithmetic-Part 1: Integer and floating point arithmetic
- ISO/IEC 13211-2: 2000, Information technology-Programming languages-Prolog-Part 2: Modules
- ISO/IEC TR 15942: 2000, Guidance for the use of Ada Programming Language in High-Integrity Systems

SC 22 instructs its Secretariat to issue letter ballots on maintenance recommendations for the following standards:

- ISO/IEC 14515-1: 2000, Information technology-Portable Operating System Interface (POSIX) –Test methods for measuring conformance to POSIX-Part 1: System interfaces
- ISO/IEC ISP 15287-2: 2000, Information technology-Standardized Application Environment Profile-Part 2: POSIX Realtime Application Support (AEP)

SC 22 instructs its Secretariat to inform JTC 1 and ITTF of these recommendations.

*Unanimous*

#### **Resolution 04-06: Authorization to Initiate NP Ballot for C Mathematical Special Functions**

JTC 1/SC 22 instructs its Secretariat to initiate a New Work Item Proposal ballot on the following proposal, with JTC 1/SC 22 as the proposer:

- Type 2 Technical Report Extensions for the standard library of the programming language C to support Mathematical Special Functions

*Unanimous*

#### **Resolution 04-07: Authorization for Concurrent CD Registration and CD Ballot for ISLISP**

JTC 1/SC 22 authorizes its Secretariat to conduct a concurrent ballot for CD registration and CD approval for the revision of ISO/IEC 13816:1997 Programming language ISLISP.

*Unanimous*

**Resolution 04-08: Authorization for Concurrent PDTR Registration and PDTR Ballot for COBOL Syntax for XML Support and COBOL Collection Classes**

JTC 1/SC 22 authorizes its Secretariat to conduct a concurrent ballot for PDTR registration and PDTR approval of PDTR 24716 Technical Report on Native COBOL Syntax for XML Support and PDTR 24717 Technical Report on COBOL Collection Classes.

*Unanimous*

**Resolution 04-09: Further Promotion of Freely Available Specifications**

JTC 1/SC 22 appreciates JTC 1's support for making standards freely available on the Web, and plans on continuing to utilize this capability. However, SC 22 is concerned that the mechanism for obtaining electronic versions of such standards free of charge is hidden from the public at large, which is the very group that SC 22 wishes to reach.

Specifically, a search for a freely available standard by number using the most common web search engine does not turn up the "Freely available JTC 1 documents" page of the JTC 1-endorsed home, [www.jtc1.org](http://www.jtc1.org). However, it does lead the searcher to the ISO On-Line Store page, which allows the searcher to purchase these documents. No statement is made at that site that these documents are actually available electronically without charge.

In order to accurately inform the public at large of the free availability of such standards, SC 22 instructs its Chair to request that the web page on the ISO On-Line Store site describing each of these standards clearly state that there is no charge for electronically downloadable versions.

*Unanimous*

**Resolution 04-10: Appointment of Project Editors**

JTC 1/SC 22 approves the following appointments as SC 22 Project Editors:

- Pete Becker (US) for ISO/IEC 14882 Programming language C++
- Matt Austern (US) for ISO/IEC TR 19768 Technical Report on C++ Library Extensions
- Randy Meyers (US) for ISO/IEC 24731 Specification for Secure C Library Functions
- P.J. Plauger (US) for ISO/IEC 24732 Extensions for the programming language C to support decimal floating-point arithmetic and ISO/IEC 24733 Extensions for the programming language C++ to support decimal floating-point arithmetic
- Greg Gicca (US) for ISO/IEC 15291 Ada Semantic Interface Specification

*Unanimous*

### **Resolution 04-11: SC 22 Representative to JTC 1 Vocabulary Group**

JTC 1/SC 22 appoints Roger Scowen as its representative to the JTC 1 Ad Hoc on JTC 1 Vocabulary.

*Unanimous*

### **Resolution 04-12: Methods to Increase Coordination and Cooperation of SC 22**

Noting JTC 1 Resolution 11 of 2003 in SC N3684 (JTC 1 N7301), JTC 1/SC 22 requests its Chair to report to JTC 1 the following models that have been (and continue to be) used to increase participation and to improve coordination:

#### 1. Cooperative model

A joint group is established consisting of members from multiple organizations who work to produce a single specification that can be adopted simultaneously by all the participants. ISO/IEC 9945:2001 POSIX (plus technical corrigenda in 2003 and 2004) is a good example of this.

#### 2. Delegation to a National Body (NB)

A separate entity is delegated to undertake technical development of a particular standard or set of standards. For example, some versions of POSIX, Fortran, Ada, and COBOL specifications have been developed by delegation.

#### 3. Liaison

Category A or C liaisons with other standards groups, such as the Open Group and Free Standards Group, are used to maximize coordination. Liaison relationships permit the direct submission of standards for balloting. Additionally, such organizations are encouraged to use the PAS process as appropriate. Linux standards are currently being developed by this mechanism.

#### 4. Fast Track Preview

The practice of Fast Track Preview consists of an NB submitting a draft of a national standard to SC 22 in advance of submission to JTC 1 for approval to Fast Track. This helps SC 22 and member NBs to gather experts for review, and budget time and resources. Examples are M and Extended BNF.

*Unanimous*

### **Resolution 04-13: Ad Hoc on the Future Directions for SC 22**

JTC 1/SC 22 resolves that the Ad Hoc on the Future Directions for SC 22 be continued for a period of one year with Jonathan Hodgson as convener.

The Ad Hoc is charged to explore the following four areas agreed upon at the Ad Hoc Meeting on the Future of SC 22 held on 6 September 2004:

- Support for High Integrity Applications
- Libraries

- Industrial Consortia
- Standards Education

SC 22 instructs the convener to organize a meeting of the Ad Hoc in March 2005 to report on and prepare recommendations for the 18th SC 22 plenary, on future work directions for SC 22. SC 22 instructs that agenda time at the March meeting is to be given only to those items for which a written contribution is submitted by 15 January 2005. Should no written contributions be submitted for this meeting, the meeting shall be canceled.

*Unanimous*

#### **Resolution 04-14: JTC 1 Questionnaire**

In response to JTC 1 Resolution 14 of 2003 in SC 22 N 3690 (JTC 1 N7301), JTC 1/SC 22 recommends the following packaging of standards:

- POSIX Package
  - ISO/IEC 9945-1: 2003 Information technology-POSIX-Part 1: Base Definitions
  - ISO/IEC 9945-2:2003 Information technology-POSIX-Part 2: System Interfaces
  - ISO/IEC 9945-3:2003 Information technology-POSIX-Part 3: Shell and Utilities
  - ISO/IEC 9454-4:2003 Information technology-POSIX-Part 4: Rationale
- COBOL Package
  - ISO/IEC 1989:2002 Programming languages – COBOL
  - ISO/IEC TR 19755:2003 Object Finalization for Programming Language COBOL

SC 22 requests that WG conveners consider at their meetings additional standards packages that can be recommended to JTC 1.

*Unanimous*

#### **Resolution 04-15: Coded Character Sets**

JTC 1/SC 22 agrees that the proposed implementation of coded character set support described in document N 3758 agrees with the principles for coded character set support previously adopted by SC 22, notably resolution 02-24. JTC 1/SC 22 instructs WG 9 to consider referencing ISO/IEC TR 10176 Annex A in the revision of the Ada language standard.

*Approval: 4 (Canada, Korea, Japan, United States)*

*Disapproval: 0*

*Abstention: 1 (United Kingdom)*

*Not Voting: 1 (Netherlands)*

**Resolution 04-16: ISO/IEC TR 24715 Technical Report on the Conflicts between the ISO/IEC 9945 (POSIX) Standard and the Linux Standard Base Specification (LSB)**

JTC 1/SC 22 instructs the project editor for the Technical Report on conflicts between POSIX and LSB to make available a draft of the report based on LSB 2.0.1 before the commencement of the PAS Transposition Ballot on the LSB-Core document.

*Unanimous*

**Resolution 04-17: PAS Submission from the Free Standards Group**

Noting that the Free Standards Group expects to submit its first PAS document very shortly and noting its request that this item be handled by JTC 1/SC 22, SC 22 requests its Secretariat to work closely with the Secretariat of JTC 1 to ensure a timely commencement of the PAS Transposition Ballot for the document from the Free Standards Group.

SC 22 instructs its Secretariat to coordinate with the JTC 1 Secretariat in order to ensure that the ballot process, including ballot resolution, is complete by the 2005 SC 22 plenary.

*Unanimous*

**Resolution 04-18: Clarification of the JTC 1 Directives**

Noting that the PAS Transposition procedures outlined in JTC 1 N 5746 (section 7.1) provides for "one, or more, organizational entities within the JTC 1 infrastructure that review and process a candidate PAS for consideration as an international standard", and further noting that the JTC 1 Directives forbid discussion of an item currently the subject of a ballot, JTC 1/SC 22 instructs its Chair to seek clarification on what such an organizational entity is permitted to do, and when in the process they may do it. Specifically, is SC 22 permitted to:

- Organize meetings to discuss substantive issues related to the ballot submission
- Have JTC 1 delay the commencement of ballot until such meetings have been held

*Unanimous*

**Resolution 04-19: JTC 1/SC 22 Involvement in the Free Standards Group (FSG)**

JTC 1/SC 22 notes that there are individuals from many separate nations involved in the FSG's LSB workgroup, and further notes that these individuals may be helpful to NBs in preparing a national position. SC 22 therefore requests NBs to forward appropriate

contact information for the NB subgroup that handles the PAS Transposition Ballot from the FSG to the FSG liaison officer (Nick Stoughton: nick@freestandards.org). The purpose of this is so that these individuals involved in the LSB workgroup may make contact with their appropriate NB organization for the purpose of assisting preparation of that NB's position. SC 22 further directs its FSG liaison officer to request that FSG forward such contact information to its membership.

*Unanimous*

#### **Resolution 04-20: Creation of SC 22 Advisory Group for POSIX**

Whereas maintenance and revision of POSIX-related work now takes place in the Austin Group, and no technical work has occurred directly within JTC 1/SC 22/WG 15 for at least four years, and whereas the JTC 1 Directives allow for assignment of project maintenance responsibilities to the project editor, SC 22 takes the following actions:

1. Disbands SC 22/WG 15 (POSIX)
2. Assigns all of SC 22/WG 15's responsibilities and remaining projects to SC 22 for completion or cancellation under the guidance of the respective project editors.
3. Creates a POSIX Advisory Group within SC 22 to monitor POSIX-related activities
4. SC 22 directs the POSIX Advisory Group to make recommendations to SC 22 how:
  - SC 22 can be involved in POSIX-related activities
  - organizational representation within the Austin Group should be handled
  - such representation will report to SC 22 on Austin Group activitiesInitial recommendations shall be made to SC 22 in time for action at the 2005 SC 22 Plenary.
5. SC 22 appoints Nick Stoughton as the Interim Organizational Representative to the Austin Group and Keld Simonsen as the Alternate Interim Organizational Representative until SC 22 acts on the recommendations.
6. Directs the Chair of SC 22 to appoint a leader of this Advisory Group, with such leader serving at the Chair's pleasure. Such leader shall report periodically, but at least at each SC 22 plenary, to SC 22 on the progress of the Advisory Group and recommendations for SC 22 action.
7. Membership of the POSIX Advisory Group shall be as per clause 2.5.4 of the JTC 1 Directives. SC 22 instructs the POSIX Advisory Group to invite liaisons from the Free Standards Group, the Open Group, and the IEEE to the first meeting of the group.

*Unanimous*

#### **Resolution 04-21: Creation of Internationalization Rapporteur Group (I18NRG)**

Whereas JTC 1/SC 22 notes that the current progression of Internationalization (i18n) issues within SC 22 have failed to meet expectations

and whereas SC 22 notes that its WGs have not been effectively using the expertise available within its current structures on Internationalization issues,

SC 22 takes the following actions:

1. Disbands SC 22/WG 20;
2. Assigns all of WG 20's responsibilities, including liaisons and remaining projects, to SC 22 under the guidance of the respective project editors;
3. Directs the SC 22 Chair to ensure that i18n issues are explicitly addressed during each plenary meeting;
4. Establishes an Internationalization Rapporteur Group (IRG) and, in light of JTC1 Directives and Resolutions on i18n, instructs it to:
  - Review the existing SC 22 i18n-related projects
  - Canvass SC 22 WGs and SC 22 National Bodies to determine their current and future i18n requirements
  - Research extra-SC 22 activities related to i18n
  - Recommend to SC 22
    - How non-project activities related to i18n should be managed within SC 22, specifically recommending the organizational changes required to ensure good coordination and progress in i18n issues
    - How existing WG 20 development projects and maintenance activities should be managed
    - Identify any new i18n projects needed, and how i18n requirements can be achieved within SC 22 or by SC 22 in conjunction with other standards bodies and JTC1 subcommittees;
5. Directs the SC 22 Chair to appoint a lead rapporteur for the I18NRG;
6. Directs the lead rapporteur to schedule the first meeting of the I18NRG (note invitation from Canada, Denmark and Japan); and
7. SC 22 reminds the lead rapporteur of section 7.7.1 of the JTC 1 Directives regarding attendance at meetings. The lead rapporteur is instructed to consider and accept, at his discretion, requests from other interested parties inside and outside the JTC 1 organization in order to create a balance of interests.

*Unanimous*

**Resolution 04-22: JTC 1/SC 22 Plenary for 2005**



JTC 1/SC 22 thanks Canada for its generous offer to host the 2005 Plenary and is pleased to accept the offer. The Plenary is scheduled in Mt. Tremblant, Quebec for 29 September-3 October 2005.

*Unanimous*

**Resolution 04-23: Future JTC 1/SC 22 Plenaries**

JTC 1/SC 22 thanks the UK for its offer to host the 2006 SC 22 Plenary and is pleased to accept the offer. SC 22 encourages national bodies and liaison organizations to volunteer to host future SC 22 plenaries.

*Unanimous*

**Resolution 04-24: Acknowledgements from the Ad Hoc on Future Directions of SC 22**

JTC 1/SC 22 thanks the following members for their participation in the Ad Hoc on Future Directions of SC 22: Toshi Kurokawa, Akio Kido, Shizuo Goto, Katsuhiko Kakehi, Dave Anglin, Lee Dickey, Stephen Michell, G. Matthew Rice, Keld Simonsen, John Benito, Rex Jaeschke, Jon Diamond, Nick Stoughton, Kwanghae Oh, and John Hill.

*Acclamation*

**Resolution 04-25: Acknowledgements from the Ad Hoc on the Future of SC 22/WG 15 and SC 22/WG 20**

JTC 1/SC 22 thanks the following members for their participation in the Ad Hoc on the Future of SC 22/WG 15 and SC 22/WG 20: Rex Jaeschke, Jon Diamond, Nick Stoughton, Keld Simonsen, Matthew Rice, Stephen Michell, Dave Anglin, Katsuhiko Kakehi, Toshi Kurokawa, Kwanghae Oh, Shizuo Goto, Kiyoshi Ishihata, Jonathan Hodgson, and Don Schricker.

*Acclamation*

**Resolution 04-26: Acknowledgments from the Ad Hoc on Linux**

JTC 1/SC 22 thanks the following members for their participation in the Ad Hoc on Linux: John Benito, Rex Jaeschke, Jon Diamond, Nick Stoughton, Keld Simonsen, Matthew Rice, Stephen Michell, Dave Anglin, Katsuhiko Kakehi, Toshi Kurokawa, Kwanghae Oh, Shizuo Goto, and Kiyoshi Ishihata.

*Acclamation*

**Resolution 04-27: Appreciation: Conveners and Recording Secretary of Ad Hoc Groups**

JTC 1/SC 22 expresses its gratitude to its Plenary Ad Hoc Conveners: Jonathan Hodgson (Future Directions of SC 22), John Benito (The Future of WG 15 and WG 20), and Akio Kido (Linux) for a job well done. SC 22 also expresses its gratitude to its Recording Secretary for the Ad Hoc on the Future Directions of SC 22, Sally Seitz.

*Acclamation*

**Resolution 04-28: Appreciation: Convener of Linux Rapporteur Group**

JTC 1/SC 22 expresses its gratitude to the Convener of the Linux Rapporteur Group, John Hill for his leadership of the group.

*Acclamation*

**Resolution 04-29: Appreciation: Current and past members of SC 22/WG 15 (POSIX)**

JTC 1/SC 22 expresses its gratitude to all current and past members of SC 22/WG 15 for their contributions towards the success of standardization of POSIX.

*Acclamation*

**Resolution 04-30: Appreciation: Current and past members of SC 22/WG 20 (Internationalization)**

JTC 1/SC 22 expresses its gratitude to all current and past members of SC 22/WG 20 for their contributions towards the success of internationalization-related standards and technical reports.

*Acclamation*

**Resolution 04-31: Appreciation: Katsuhiko Kakehi**

JTC 1/SC 22 expresses its gratitude to Katsuhiko Kakehi for his years of service and numerous contributions to SC 22 as head of the Japanese delegation.

*Acclamation*

**Resolution 04-32: Appreciation: ISO/IEC 2382 (Vocabulary)**

JTC 1/SC 22 expresses its gratitude to Roger Scowen for his work in investigating and reporting (SC 22 N 3784) to JTC 1/SC 22 on ISO/IEC 2382 (Vocabulary) and its maintenance.

*Acclamation*

**Resolution 04-33: Appreciation: Web Site Maintenance**

JTC 1/SC 22 expresses its appreciation to DKUUG and Keld Simonsen for their years of service in operating the web site for JTC 1/SC 22.

SC 22 kindly requests that Keld Simonsen and Copenhagen University College of Engineering continue to provide that service in cooperation with the SC 22 Secretariat by mirroring the new official SC 22 web site until the 2005 SC 22 Plenary.

*Acclamation*

**Resolution 03-34: Appreciation: CEN/TC 304**

JTC 1/SC 22 expresses its gratitude and appreciation to Keld Simonsen and Alain LaBonté for their years of service as cooperative agreement officers to CEN/TC 304 and congratulates them on a job very well done.

*Acclamation*

**Resolution 04-35: Appreciations: General**

JTC 1/SC 22 expresses its appreciation to all those who have assisted in the work of this meeting, and in particular to:

- Tae-Su Han, Kwanghae Oh, and Moonkyung Shin of the Korean Agency for Technology and Standards (KATS), and Ju-Young Seok of the Korean Standards Association (KSA) for their excellent support in the planning, preparation and administration of the meeting, as well as hosting an excellent dinner
- Myung Ho Kim of Microsoft Korea for providing delegates with an ever-useful memory stick
- Yousu Jang of IBM Korea for sponsoring the dinner
- Keld Simonsen for providing a hyperlinked agenda
- The resolutions drafting committee comprised of John Reid, Akio Kido, Rex Jaeschke, Kiyoshi Ishihata, Stephen Michell and Sally Seitz
- John Hill for chairing this meeting and providing leadership to the subcommittee

*Acclamation*