

**Resolutions Prepared at the Sixteenth Plenary Meeting of
ISO/IEC JTC 1/SC 22
Oslo, Norway
2003-09-15/19**

Resolution 03-01: Authorization to Initiate NWI Ballot

JTC 1/SC 22 instructs its Secretariat to initiate New Work Item ballots on the following proposals, with JTC 1/SC 22 as the proposer:

- Type 2 Technical Report for Native COBOL Syntax for XML Support
- Type 2 Technical Report for COBOL Collection Classes

Unanimous

Resolution 03-02: SC 22 Value Proposition

JTC 1/SC 22 approves the following text as its Value Proposition:

Market Recognition

SC 22 is a prolific producer of programming language and Operating System environment standards and has produced many of the most widely known and successful standards in this area.

Truly International Standards

Standards developed by SC 22 are internationally recognized and the process used allows for the addressing of requirements of large and small businesses and of users, including government and educational institutions.

The SC 22 process encourages the participation of experts from any organization, including government and educational institutions.

SC 22 provides specifications that provide portability across multiple platforms.

SC 22 provides building blocks such as datatype and syntax definitions, to help other standards groups to develop their own standards.

SC 22 provides a sufficient commonality to facilitate cross programming language development.

SC 22 provides expertise in developing specifications for complex concepts and algorithms

SC 22 provides precise specifications of functionality allowing better support for multi-cultural and multi-linguistic issues.

SC 22 provides precise specifications in terminology that can be easily translated and published into different languages.

SC 22 standards developers keep in mind the end-user needs by providing software solutions and tools.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-03: Dissemination of SC 22 Value Proposition

JTC 1/SC 22 instructs its Secretariat to disseminate the SC 22 Value Proposition to JTC 1 and all JTC 1 Subcommittees with the request that they distribute it to their membership and organizations in liaison.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-04: Call for Contributions on SC 22 Value Proposition

JTC 1/SC 22 instructs its Chair to issue a call for contributions on the SC 22 Value Proposition to be written and submitted for publication to the following: ISO Bulletin, National Body publications, and web publications such as SlashDot.org.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-05: Call for Contributions on SC 22 Success Stories

JTC 1/SC 22 instructs its Secretariat to issue a call to SC 22 participants to identify success stories of SC 22 projects in order to develop case studies and examples of best practices for the acceleration of project development. It also instructs its Secretariat to publicize the results.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-06 Workshop on Education and IT Standardization

JTC 1/SC 22 instructs its Chair to consider suitable occasions (e.g., the annual Conference on Software Engineering Education and Training) for proposing informal workshops on the use of IT standards in education. Furthermore, the Chair is encouraged to appoint ad hoc groups to organize such workshops when opportunities are identified.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-07: Free Availability of JTC 1/SC 22 Standards - ISO/IEC 23270, ISO/IEC 23271, ISO/IEC TR 23272

JTC 1/ SC 22 instructs its Secretariat to send to JTC 1 for approval the request to make the following standards freely available:

- ISO/IEC 23270 – C# Language Specification
- ISO/IEC 23271 – Common Language Infrastructure
- ISO/IEC TR 23272 – Technical Report on CLI

Rationale: Identical standards to ISO/IEC 23270, ISO/IEC 23271, and ISO/IEC TR/23272 exist in ECMA International (Category A liaison), and are freely available on the World Wide Web, thus the ISO/IEC editions should be made freely available as well per 1998 JTC 1 Sendai Resolution 32.

Approval: 6 (France, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 0

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-08: Free Availability of JTC 1/SC 22 Standards - ISO/IEC 14977, ISO/IEC 13568

JTC 1/SC 22 instructs its Secretariat to send to JTC 1 for approval the request to make the following standards freely available:

- ISO/IEC 14977 - Syntactic Metalanguage - Extended BNF
- ISO/IEC 13568 - Z Notation

Rationale: The EBNF standard is a formal and precise metasyntax. Many standards and specifications need to specify syntax, but many standards practitioners prefer to use several internet RFCs as a reference definition of BNF notation. If the 14977 EBNF were freely available, it would have increasing use in references in standards and specifications, as is encouraged by section 10.4.2.1 of the ISO/IEC JTC 1 Directives. Just as ISO/IEC 11404, Language Independent Datatypes, ISO/IEC 13886, Language Independent Procedure Calling, and ISO/IEC 14369 Language Independent Service Specifications documents have been fundamental for other standards, EBNF could also be fundamental, too — and more widely used by industry.

To make it easier for SC 32 to reference major portions of Z in its “Common Logic” CL project, it would be better to have Z freely available. A side benefit of Z's free availability is that it might improve harmonization of OMG's OCL (object constraint language) with other non-procedural languages that SC 32 (and others) need to incorporate and integrate.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-09: Termination of Liaison

JTC 1/SC 22, noting that no further coordination needs exist between the two subcommittees, instructs its Secretariat to terminate the liaison with JTC 1/SC 7 and to inform the JTC 1/SC 7 Secretariat, JTC 1 and ITTF of this decision.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-10: Registration of NP Ballot and PDTR Registration

JTC 1/SC 22 authorizes concurrent NP balloting and PDTR registration balloting for the "Guide for the use of the Ada Ravenscar Profile in High-Integrity Systems" and requests the Secretariat to reissue SC 22 N 3645 accordingly.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-11: WG 3 APL

JTC 1/SC 22 instructs the SC 22/WG 3 convener to submit an updated WG 3 Report based upon the concerns raised in the JTC 1/SC 22 Plenary meeting. Specifically, the updated report shall

1. Contain a revised version of section 2.3 of his report to reflect activity since the 2002 SC 22 plenary.
2. Identify the national bodies and liaisons that have endorsed delegates or experts to participate in WG 3 activities since the 2002 SC 22 plenary.
3. Identify the editor for each project, and any editor vacancies.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-12: SC 22 Concerns in Relation to Transition to Live Link

Whereas the Live Link server has demonstrated slow performance during some periods of operation in the past, and whereas ANSI lacks the management authority to add capacity to Live Link in a manner that is responsive to increased load; SC 22 instructs its Secretariat to ask ANSI to implement a schedule whereby Secretariats would be moved individually and sequentially to Live Link and satisfactory performance would be verified after each individual one is moved.

Further, SC 22 asks its Secretariat to ensure that the site is not browser specific.

SC 22 asks its Secretariat to continue to send new document posting notifications of new documents via email.

SC 22 asks its Secretariat to copy all existing electronic documents to the Live Link site as time permits.

SC 22 asks its Secretariat to ensure that open documents are accessible without having to provide a user name and password.

SC 22 asks its Secretariat to ensure that open documents are searchable by general search engines.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-13: Endorsement of the Linux Study Group Recommendations

SC 22 endorses the recommendations made by the Linux Study Group at its May 2003 meeting in London as contained in document SC 22 N3588.

Approval: 6 (France, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 0

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-14: Revision of SC 22 N3588: Report-Study Group on LINUX

JTC 1/SC 22 instructs its Chair to make the following revisions to SC 22 N3588 and re-submit the document to JTC 1:

- As per Resolution SG-02-Free Standards Group PAS, the Free Standards Group submitted an application to be a PAS Submitter to JTC 1/SC 22. The application is now under ballot
- As per Resolution SG-03-Free Standards Group Liaison, the Free Standards Group submitted an application for the establishment of Category A liaison with SC 22. The application is now under ballot
- As per Resolution SG-04-Review and Comment for LSB 1.9, the Free Standards Group has begun public review of LSB 1.9 and distributed the text to participants of the Linux Study Group

- As per Resolution SG-05, POSIX and LSB Convergence, The UK National Body has submitted to a New Work Item Proposal to JTC 1. The NP Ballot is currently under way
- As per Resolution SG-08-Linux Project, the Canadian National Body has set up a mailing list for scope discussion. However, the discussion did not lead to a New Work Item Proposal

Approval: 6 (France, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 0

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-15: Creation of Linux Rapporteur Group

JTC 1/SC 22 establishes a Linux Rapporteur Group and instructs the LRG rapporteur to complete the following tasks and report the results as soon as possible, but no later than the next SC 22 Plenary Meeting:

- Identify technical requirements of JTC 1 National Bodies for “Linux Distribution,” as defined in Resolution SG-01-Definitions of the Linux Study Group
- Identify publicly available technologies, i.e. components of “Linux Distribution,” and the control bodies for those technologies. The control bodies may include development projects for the technologies, specification development bodies, de jure or defacto standardization bodies, and experts
- Recommend the scope of standardization for “Linux Distribution” within SC 22 or JTC 1
- Identify the issues and risks of standardization for “Linux Distribution” and recommend a possible mitigation plan for those risks
- Assess how the activities of the Free Standards Group and other organizations may be of interest with SC 22 mandate
- Assess which portions of the SC 22 Work Programme may be of interest to the Free Standards Group and other organizations
- Recommend the direction of standardization for “Linux Distribution,” including the standardization process, and the feasibility of standardization within a new or existing SC 22 WG for “Linux Distribution,” especially in identifying a relationship with other SC 22 standards including POSIX and C, and possible cooperation with external bodies of SC 22

The life time of the Linux Rapporteur Group is one year, but may be extended by resolution of SC 22. SC 22 allows the rapporteur of the LRG to hold multiple meetings as needed within its life time.

SC 22 appoints John Hill as initial rapporteur of the LRG and it instructs him to hold the first meeting 3-5 February 2004 in Tokyo, Japan.

The participants of the LRG are not necessarily limited to the members of SC 22. SC 22 directs the rapporteur of the LRG to accept nominations from JTC 1 National Bodies and other Subcommittees, as well as Conveners of SC 22 Working Groups, Liaison Organizations and JTC 1 Recognized PAS Submitters, or hold the meeting jointly with Linux or other open-source related non-profit organizations. SC 22 also instructs the rapporteur of the LRG to distribute the announcement of the first meeting at least one month prior to the meeting.

Approval: 6 (France, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 0

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-16: SC 22 Recommendations to JTC 1 on Liaison Relationships

JTC 1/SC 22 encourages JTC 1, in consultation with its appropriate SCs, to develop liaison relationships with W3C, OASIS and other privacy and security standards developing consortia.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-17: SC 22 Request for Clarification of the Directives

JTC 1/SC 22 requests that JTC 1 amend the Directives regarding editing groups for defect correction to take into account PAS Submitters.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-18: ISO/IEC 2382 (Vocabulary)

JTC 1/SC 22 gratefully accepts the offer of Roger Scowen to investigate and provide SC 22 with a report on ISO/IEC 2382 and its maintenance by July 2004.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-19: SC 22 Response to Liaison Statement From JTC 1/SC 32

JTC 1/SC 22 instructs its Chair to communicate the actions in Resolution 03-08, Free Availability of JTC 1/SC 22 Standards, ISO/IEC 14977 and ISO/IEC 13568 and Resolution 03-19, ISO/IEC 2382 (Vocabulary) via Frank Farance, the JTC 1/SC 32 Liaison to JTC 1/SC 22.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-20: SC 22 Statement on ISO/IEC Development Time Periods

JTC 1/SC 22 instructs its Chair to convey to JTC 1 the belief of SC 22 that shorter time limits for standards development will not cause standards to be developed any faster. Language standards are complex documents that take a long time to develop because extensive consultations with experts are needed and these consultations may require several iterations to reach consensus. Furthermore, SC 22 notes that its resources for standards development are subject to unpredictable variations, particularly as much of the work is done on a voluntary basis.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-21: Standards for 2004 Periodic Review

JTC 1/SC 22 recommends to JTC 1 that at the end of their 5-year review period:

The following standards be confirmed:

- ISO/IEC 1539-3:1999, Fortran-Part 3: Conditional Compilation
- ISO/IEC 15291:1999, Information Technology--Programming Languages--Ada Semantic Interface Specification (ASIS)
- ISO/IEC 18009:1999, Conformity Assessment of an Ada Language Processor
- ISO/IEC 9899: 1999, Programming Language C
- ISO/IEC 15897:1999, Procedures for the Registration of Cultural Elements
- ISO/IEC 11756:1999, Programming languages-M
- ISO/IEC 15851:1999, Communication protocol-Open MUMPS Interconnect
- ISO/IEC 15852:1999, Programming languages-M-Windowing API
- ISO/IEC 16509:1999, Year 2000 Terminology

SC 22 instructs its Secretariat to issue Letter Ballots on maintenance recommendations on the following standards:

- ISO/IEC 13210:1999, Requirements and Guidelines for Test Methods Specifications and Test Method Implementations for Measuring Conformance to POSIX Standards
- ISO/IEC 15068-2:1999, Portable Operating System Interface (POSIX) System Administration-Part 2: Software Administration

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

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-22: JTC 1/SC 22/WG 20 Liaison Officer Appointment to JTC 1/SC 2/WG 2

JTC 1/SC 22 approves Kyongsok Kim as liaison officer from JTC 1/SC 22/WG 20 to JTC 1/SC 2/WG 2.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-23: Appointment of Project Editors

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

- Lois Goldthwaite for ISO/IEC TR 18015 – Technical Report on C++ Performance
- Ann Bennett for ISO/IEC 1989-Programming language COBOL
- Lawrie Schonfelder for ISO/IEC 1539-2, Fortran-Part 2: Varying length character strings

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-24: Re-appointment of Working Group 9 Convener

JTC 1/SC 22 re-appoints Jim Moore as Convener of WG 9 – Ada.

Approval: 7 (France, Japan, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 0

Not Voting: 0

Not Present: 2 (Canada, Denmark)

Resolution 03-25: Re-appointment of Working Group 3 Convener

JTC 1/SC 22 re-appoints Lee Dickey as Convener of WG 3 – APL.

Approval: 6 (Japan, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 0

Not Present: 2 (Canada, Denmark)

Resolution 03-26: Appointment of Working Group 19 Convener

JTC 1/SC 22 re-appoints Roger Scowen as Convener of WG 19 – Formal Specification Languages.

Approval: 6 (Japan, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 0

Not Present: 2 (Canada, Denmark)

Resolution 03-27: Re-appointment of JTC 1/SC 22 Chairman

JTC 1/SC 22 endorses John Hill as Chairman of JTC 1/SC 22 for another 3-year term and instructs its Secretariat to send this endorsement to JTC 1 for confirmation of the re-appointment.

Approval: 5 (Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 1 (Japan)

Not Present: 2 (Canada, Denmark)

Resolution 03-28: JTC 1/SC 22 Plenary for 2004

JTC 1/SC 22 thanks the Republic of Korea for its generous offer to host the 2004 Plenary and is pleased to accept the offer. The Plenary is scheduled in Seoul for 6-10 September 2004.

Approval: 6 (Japan, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 0

Not Present: 2 (Canada, Denmark)

Resolution 03-29: Future JTC 1/SC 22 Plenaries

JTC 1/SC 22 thanks the National Bodies listed below for their tentative offers to host future SC 22 Plenaries and accepts the following tentative meeting schedule:

- 2005-09/29-10/2, Baddeck, Canada (near Halifax)
- 2006-UK

SC 22 encourages national bodies and liaison organizations to volunteer to host future SC 22 plenaries.

Approval: 6 (Japan, Rep. of Korea, The Netherlands, Norway, United Kingdom, United States)

Disapproval: 0

Abstention: 1 (France)

Not Voting: 0

Not Present: 2 (Canada, Denmark)

Resolution 03-30: Acknowledgements from the Ad Hoc on Marketing and Education

JTC 1/SC 22 thanks the following members for their participation in the Ad Hoc on Marketing and Education: Mike Ksar, Rex Jaeschke, Lee Dickey, Keld Simonsen, Nick Stoughton, Shizuo Gotou, Katsuhiko Kakehi, Toshiaki Kurokawa, Akio Kido, Willem Wakker, John Benito, John Reid and John Hill.

Acclamation

Resolution 03-31: Appreciation: Jim Moore

JTC 1/SC 22 expresses its gratitude and appreciation to Jim Moore for his years of service as Liaison Officer to JTC 1/SC 7 and congratulates him on a job very well done.

Acclamation

Resolution 03-32: Appreciation: Keld Simonsen and Alain LaBonté

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

Acclamation

Resolution 03-33: Appreciation: Keld Simonsen and DKUUG

JTC 1/SC 22 expresses its appreciation to DKUUG and to Keld Simonsen for their years of service in operating the web site for SC 22. SC 22 requests that Mr. Simonsen and DKUUG continue to provide that service by mirroring the official SC 22 web site during and following the transition to operation by ANSI.

Acclamation

Resolution 03-34: Appreciation: National Body of Japan

JTC 1/SC 22 expresses its appreciation to the Japanese National Body for their contribution to the quality of the English version of SC 22 standards that has resulted from their feedback on the problems they encountered when translating SC 22 standards into Japanese. This contribution includes the standards for C, C++, COBOL, Fortran, LISP, POSIX and Prolog. By translating these standards into Japanese, they have made them accessible to a whole new world of readers.

Acclamation

Resolution 03-35: Appreciation: Conveners of Ad Hoc Groups

JTC 1/SC 22 expresses its gratitude to its Plenary Ad Hoc Conveners; Françoise Bousquet (Education and Marketing), Akio Kido (Linux) and Jonathan Hodgson (JTC 1 Requests For Feed Back) for leading the ad hoc groups.

Acclamation

Resolution 03-36: 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:

- Ulf Leirstein, Knut Lindelien, Bjørnhild Sæterøy, of the Norwegian Technology Centre (NTS) for their excellent support in the planning, preparation and administration of the meeting, as well as hosting the excellent dinner;
- Frode Lund and the other Technical staff of NTS for providing network and Internet capabilities;
- Sun Microsystems for sponsoring the dinner;

- Keld Simonsen for providing a hyperlinked agenda;
- The resolutions drafting committee comprised of John Reid, Mike Ksar, Toshiaki Kurokawa, Keld Simonsen and Sally Seitz;
- Sally Seitz for her excellent work as the SC 22 Secretariat for the meeting;
- Matt Deane for his management of the JTC 1/SC 22 Programme of work as the SC 22 Secretariat; and
- John Hill for chairing this meeting and providing leadership to the subcommittee.

Acclamation