

Twentieth Plenary Meeting of JTC 1/SC 22
FINAL RESOLUTIONS
25-28 September 2007

Resolution 07-01: Authorization for Concurrent CD Registration and CD Ballot

JTC 1/SC 22 authorizes its Secretariat to conduct a concurrent ballot for CD registration and CD approval for the following:

- Revision of ISO/IEC 1989:2002, Information technology - Programming languages - COBOL

upon receipt of the text from the Project Editor.

Unanimous approval
Korea not present

Resolution 07-02: Changes to the JTC 1/SC 22 Programme of Work

JTC 1/SC 22 agrees to the following changes to the JTC 1/SC 22 Programme of Work:

- Revision of ISO/IEC 10967-1:1994, Information technology – Language independent arithmetic – Part 1: Integer and floating point arithmetic
- Revision of ISO/IEC 10967-2:2001, Information technology – Language independent arithmetic – Part 2: Elementary numerical functions
- Revision of ISO/IEC 10967-3:2006, Information technology – Language independent arithmetic – Part 3: Complex integer and floating point arithmetic and complex elementary numerical functions

JTC 1/SC 22 instructs its Chair to notify JTC 1 of this request at the October 2007 JTC 1 Plenary.

Unanimous approval
Korea not present

Resolution 07-03: Revision of ISO/IEC 23360-1-8:2006, Linux Standard Base (LSB) core specification 3.1

JTC 1/SC 22 instructs its Secretariat, upon receipt of the text from the Project Editor, to modify the JTC 1/SC 22 Programme of Work to indicate the revision of:

- ISO/IEC 23360-1-8:2006, Linux Standard Base (LSB) core specification 3.1

JTC 1/SC 22 instructs its Secretariat to notify JTC 1 and ITTF of this change when it occurs.

JTC 1/SC 22 further authorizes its Secretariat to conduct a concurrent CD registration and FCD approval ballot of this standard upon receipt.

Unanimous approval
Korea not present

Resolution 07-04: Authorization for Concurrent CD Registration and FCD Ballots

JTC 1/SC 22 authorizes its Secretariat to conduct a concurrent ballot for CD registration and FCD approval for the following:

- ISO/IEC 10967-2, Information technology – Language independent arithmetic – Part 2: Elementary numerical functions
- ISO/IEC 10967-3, Information technology – Language independent arithmetic – Part 3: Complex integer and floating point arithmetic and complex elementary numerical functions

upon receipt of the text from the Project Editor.

Unanimous approval

Korea not present

Resolution 07-05: Extension for the Revision of ISO/IEC 1539-1:2004, Information technology – Programming languages – Fortran – Part 1: Base language

JTC 1/SC 22, noting the schedule detailed in SC 22/WG 5 N1693, instructs its Chair, at the October 2007 JTC 1 Plenary, to request an extension of one year to the development timeframe for the revision of ISO/IEC 1539-1.

Unanimous approval

Korea not present

Resolution 07-06: Minor Revision of ISO/IEC TR 18037: 2004, Information technology – Programming languages - C - Extensions to support embedded processors

JTC 1/SC 22, noting that ISO/IEC TR 18037:2004 contains minor, but important technical errors, approves a minor revision of the document. The Project Editor, Mr. Willem Wakker, is instructed to modify the text with the necessary corrections and send it (with the changes indicated) to the JTC 1/SC 22 Secretariat. Upon receipt of the text, the JTC 1/SC 22 Secretariat will circulate this text to JTC 1/SC 22 members for a 60-day review of the changes. If no JTC 1/SC 22 members object to the changes, this text will be submitted to ITTF for publication.

Unanimous approval

Korea not present

Resolution 07-07: Withdrawal of ISO/IEC 15580:2001, Information technology – Programming languages – Fortran – Floating-point exception handling TR (Type 2) - Second Edition and ISO/IEC 15581:2001, Information technology – Programming languages – Fortran - Enhanced data type facilities TR (Type 2) - Second Edition

JTC 1/SC 22, noting that:

- ISO/IEC TR 15580:2001, Information technology – Programming languages - Fortran – Floating-point exception handling TR (Type 2) – Second Edition
- ISO/IEC TR 15581:2001, Information technology – Programming languages– Fortran - Enhanced data type facilities TR (Type 2) – Second Edition

have been incorporated into ISO/IEC 1539-1:2004, Information technology - Programming languages – Fortran - Part 1: Base language, requests that these Technical

Reports be withdrawn. JTC 1/SC 22 instructs its Secretariat to take the necessary administrative steps to have these Technical Reports withdrawn.

Unanimous approval

Korea not present

Resolution 07-08: Withdrawal of ISO/IEC TR 14652:2004, Information technology – Specification method for cultural conventions

Noting that the three-year review of TR 14652 is now overdue, JTC 1/SC 22 recommends to JTC 1 that TR 14652 be withdrawn, and requests the JTC 1 Secretariat to prepare a letter ballot to this effect. Upon withdrawal JTC 1/SC 22:

- instructs its Secretariat to cancel administratively project 22.30.02.03, and
- instructs the Project Editor of this project to provide a copy of all documents relevant to the canceled project (including any drafts) to Mr. Keld Simonsen for archiving.

Noting JTC 1/SC 35's resolution 12, JTC 1/SC 22 sees value in much of the material currently in TR 14652, and anticipates that JTC 1/SC 35 can use successfully the material from this TR to produce a document that reaches IS status.

JTC 1/SC 22 instructs its Secretariat to notify the JTC 1/SC 35 Secretariat of these actions, and to pass the contents of this resolution to JTC 1/SC 35.

Resolution approved

Approval (Japan, Netherlands, United Kingdom, United States)

Disapproval (Canada, Denmark)

Abstention (0)

Korea not present

Resolution 07-09: Other Working Group on Vulnerabilities (OWG: Vulnerabilities)

JTC 1/SC 22 re-establishes the OWG: Vulnerabilities until the next Plenary meeting of JTC 1/SC 22, in accordance with sub-clause 2.6.2 of the JTC 1 Directives, with the following terms of reference:

- Definition of the task: Continue to develop ISO/IEC TR 24772, Guidance to Avoiding Vulnerabilities in Programming Languages through Language Selection and Use.
- Time frame: Report on progress and provide a draft document by the next Plenary meeting of JTC 1/SC 22.
- Membership: Open to all JTC 1/SC 22 P and O members, liaison organizations, and subgroup representatives.
- Convener: John Benito (US).
- Administrative Support/Secretariat: The MITRE Corporation, James W. Moore (US).
- Meetings: Continued operation by email and website collaboration pending invitations by Working Groups to co-locate meetings.

JTC 1/SC 22 instructs its Working Groups to cooperate with OWG: Vulnerabilities to provide liaison and to consider co-location of meetings when possible.

Unanimous approval
Korea not present

Resolution 07-10: Registration of ISO/IEC PDTR 24772, Guidance to Avoiding Vulnerabilities in Programming Languages through Language Selection and Use

JTC 1/SC 22, noting the text contained in SC 22 N4260, approves the registration of ISO/IEC PDTR 24772.

Unanimous approval
Korea not present

Resolution 07-11: JTC 1/SC 22 Projects for Registration as Preliminary Work Items

JTC 1/SC 22 agrees that the following projects be registered as preliminary work items:

- ISO/IEC NP 15291, Information technology – Programming languages – Ada Semantic Interface Specification (ASIS) (revision of ISO/IEC 15291:1999)
- ISO/IEC PDTR 24732, Information technology – Programming languages – Extensions for the Programming language C to support decimal floating point arithmetic
- ISO/IEC NP 24737, Information technology – Programming languages – C++ Library Extensions (based on ISO/IEC 14882)
- ISO/IEC NP 29113, Information technology – Programming languages – Fortran – Further interoperability with C, TR Type 2
- ISO/IEC NP 29117, Information technology – Programming languages - C++ - Modules

JTC 1/SC 22 instructs its Chair to notify JTC 1 of this request at the October 2007 JTC 1 Plenary.

Unanimous approval
Korea not present

Resolution 07-12: Transition to Live Link

JTC 1/SC 22 notes that the transition of the committee's website and documents to Live Link is progressing; however, some members have expressed concern about access by JTC 1/SC 22 and subgroup members to all of the work products that they need.

Therefore, JTC 1/SC 22 requests its Webmaster, Mr. Keld Simonsen, to continue to maintain the current JTC 1/SC 22 website and document repository, mirroring all documents appropriate to the subcommittee until the next Plenary meeting of JTC 1/SC 22.

Unanimous approval
Korea not present

Resolution 07-13: Encouragement of Subgroups to Use Live Link for Archival

Purposes

JTC 1/SC 22 notes that although its subgroups are not required to use Live Link unless they so desire, ISO has been asked to provide archival services for all JTC 1 work products and Live Link is a viable way to do this. JTC 1/SC 22 therefore encourages its subgroups to consider using Live Link for their archival purposes.

Unanimous approval

Korea not present

Resolution 07-14: Live Link Access for the JTC 1/SC 22 Webmaster

JTC 1/SC 22 notes that its Webmaster, Mr. Keld Simonsen, cannot be effective without direct access to JTC 1/SC 22 documentation on Live Link. JTC 1/SC 22 therefore instructs its Secretariat to take all possible steps to ensure that the Webmaster is given sufficient access to Live Link.

Unanimous approval

Korea not present

Resolution 07-15: Standards for 2008 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 9945-1: 2003, Information technology – Portable Operating System Interface (POSIX) – Part 1: Base Definitions
- ISO/IEC 9945-2: 2003, Information technology – Portable Operating System Interface (POSIX) – Part 2: System Interfaces
- ISO/IEC 9945-3: 2003, Information technology – Portable Operating System Interface (POSIX) – Part 3: Shell and Utilities
- ISO/IEC 9945-4: 2003, Information technology – Portable Operating System Interface (POSIX) – Part 4: Rationale
- ISO/IEC 14882: 2003, Information technology – Programming languages – C ++

JTC 1/SC 22 recommends to JTC 1 that, at the end of its 5-year review period, the following standard be withdrawn, as its content has been incorporated into the recently approved amendment to ISO/IEC 8652:1995/Amd: 1:2007, Information technology – Programming languages – Ada:

- ISO/IEC 13813: 1998, Information technology – Programming languages – Generic packages of real and complex type declarations and basic operations for Ada (including vector and matrix types)

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

- ISO/IEC 13719-1: 1998, Information technology – Portable Common Tool Environment (PCTE) – Part 1: Abstract specification

- ISO/IEC 13719-2: 1998, Information technology – Portable Common Tool Environment (PCTE) – Part 2: C programming language binding
- ISO/IEC 13719-3: 1998, Information technology – Portable Common Tool Environment (PCTE) – Part 3: Ada programming language binding
- ISO/IEC 13719-4: 1998, Information technology – Portable Common Tool Environment (PCTE) – Part 4: IDL binding (Interface Definition Language)
- ISO/IEC 10514-2: 1998, Information technology – Programming languages - Part 2: Generics Modula-2
- ISO/IEC 10514-3: 1998, Information technology – Programming languages - Part 3: Object Oriented Modula-2

Unanimous approval
Korea not present

Resolution 07-16: JTC 1 IIT-RG

JTC 1/SC 22 supports the positions stated in JTC 1 N8642 (SC 22 N4236).

JTC 1/SC 22 notes with gratitude that its suggestion from resolution 06-32 on Open Document Format has been considered. ODF (ISO/IEC 26300:2006, Information technology - Open Document Format for Office Applications (OpenDocument) v1.0) has been partially added to the reviewed annex H, in JTC 1 N8762, although the edits appear incomplete (for example the relevant table column disappears at page 14). JTC 1/SC 22 also encourages JTC 1 to make ODF a highly recommended rather than possible/plausible format in this table for "ISO/IEC Standard in preparation" and "Joint ISO/IEC and ITU-T Standard/Recommendation in Preparation".

JTC 1/SC 22 also believes that ODF should be added to the JTC 1 Directives Annex H, section 4.1, before Microsoft Word.

Unanimous approval
Korea not present

Resolution 07-17: JTC 1 Effectiveness and Efficiency

JTC 1/SC 22 instructs its Chair to attend the break-out session where cooperation will be discussed during the October 2007 JTC 1 Plenary, and to raise the points on cooperation described in JTC 1/SC 22 N4284.

Unanimous approval
Korea not present

Resolution 07-18: Extension of JTC 1/SC Chair Term Limits

JTC 1/SC 22 instructs its Secretariat to express the distress of JTC 1/SC 22 to JTC 1 regarding the recent enforcement of SC chair terms while those rules are still under review and may be subject to further change.

JTC 1/SC 22 fully supports the nomination from the US National Body of Mr. Rex Jaeschke, but regrets the manner in which this change was forced upon JTC 1/SC 22. JTC 1/SC 22 urges JTC 1 to consult with its subcommittees to understand the impact of such changes before unilaterally imposing them.

Resolution Approved

Approval (Denmark, Canada, Japan, United Kingdom)

Disapproval (O)

Abstention (United States)

Korea not present

Resolution 07-19: Technology Watch

JTC 1/SC 22 encourages its members and external liaison organizations to include a "Technology Watch" item in their written reports. JTC 1/SC 22 further requests JTC 1 to make available copies of JTC 1 SWG - Technology Watch reports and presentations for dissemination to its subgroups.

Unanimous approval

Korea not present

Resolution 07-20: Cooperative Development Paradigms

JTC 1/SC 22 encourages JTC 1 to consider development paradigms for new standards that include joint development with other organizations, such as the methods currently successfully used within JTC 1/SC 22 with INCITS, Ecma International, the Austin Group and the Linux Foundation.

Unanimous approval

Korea not present

Resolution 07-21: Reconfirmation of POSIX Advisory Group Convener

JTC 1/SC 22 reconfirms Mr. Stephen Walli (US) as Convener of the POSIX Advisory Group.

Unanimous approval

Korea not present

Resolution 07-22: JTC 1/SC 22 Representative to the JTC 1 SWG - Directives

JTC 1/SC 22 appoints Mr. John Hill as its representative to the JTC 1 SWG - Directives.

Unanimous approval

Korea not present

Resolution 07-23: JTC 1/SC 22 Representative to the JTC 1 Ad Hoc on Effectiveness and Efficiency of JTC 1

JTC 1/SC 22 appoints Mr. John Hill as its representative to the JTC 1 Ad Hoc on Effectiveness and Efficiency of JTC 1.

Unanimous approval
Korea not present

Resolution 07-24: Reconfirmation of External Liaison – Ecma International

JTC 1/SC 22 reconfirms Ecma International as an external liaison. JTC 1/SC 22 further reconfirms Mr. Rex Jaeschke as its liaison representative to Ecma International.

JTC 1/SC 22 instructs its Secretariat to inform JTC 1, ITTF and Ecma International of this decision.

Unanimous approval
Korea not present

Resolution 07-25: Confirmation of External Liaison – Linux Foundation

JTC 1/SC 22 confirms the Linux Foundation as an external liaison. JTC 1/SC 22 further confirms Mr. Nick Stoughton as its liaison representative to the Linux Foundation.

JTC 1/SC 22 instructs its Secretariat to inform JTC 1, ITTF and the Linux Foundation of this decision.

Unanimous approval
Korea not present

Resolution 07-26: Reconfirmation of Organizational Representatives to the Austin Joint Working Group

JTC 1/SC 22 reconfirms Mr. Nick Stoughton as its organizational representative to the Austin Joint Working Group. JTC 1/SC 22 further reconfirms Mr. Keld Simonsen as its alternate organizational representative.

JTC 1/SC 22 instructs its Secretariat to inform the Chair of the Austin Joint Working Group of this decision.

Unanimous approval
Korea not present

Resolution 07-27: Reconfirmation of Internal Liaison – ISO TC 37, Terminology and other language and content resources

JTC 1/SC 22 reconfirms ISO TC 37 as an internal liaison. JTC 1/SC 22 further reconfirms Mr. Keld Simonsen as its liaison representative to ISO TC 37.

JTC 1/SC 22 instructs its Secretariat to inform JTC 1, ITTF and ISO TC 37 of this decision.

Unanimous approval
Korea not present

Resolution 07-28: Reconfirmation of Internal Liaison – JTC 1/SC 2, Coded Character Sets

JTC 1/SC 22 reconfirms JTC 1/SC 2 as an internal liaison. JTC 1/SC 22 further reconfirms Mr. Mike Ksar as its liaison representative to JTC 1/SC 2.

JTC 1/SC 22 instructs its Secretariat to inform JTC 1, ITTF and JTC 1/SC 2 of this decision.

Unanimous approval
Korea not present

Resolution 07-29: Reconfirmation of Internal Liaison – JTC 1/SC 7, Software and Systems Engineering

JTC 1/SC 22 reconfirms JTC 1/SC 7 as an internal liaison. JTC 1/SC 22 further reconfirms Mr. James W. Moore and appoints Dr. Kiyoshi Ogawa (subject to his acceptance) as its liaison representatives to JTC 1/SC 7.

JTC 1/SC 22 instructs its Secretariat to inform JTC 1, ITTF and JTC 1/SC 7 of this decision.

Unanimous approval
Korea not present

Resolution 07-30: Approval of Project Editors

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

- Mr. Bill Long (US) for ISO/IEC NP 29113, Information technology – Programming languages – Fortran - Further Interoperability with C (Technical Report Type 2)
- Mr. Nick Stoughton (US) for ISO/IEC TR 24731-2, Information technology – Programming languages – Extensions to the C library – Part 2: Dynamic allocation functions (Technical Report Type 2)

Unanimous approval
Korea not present

Resolution 07-31: Officer Appointments and Re-Appointments

JTC 1/SC 22 approves the following Working Group Convener appointment:

- Dr. Joyce Tokar (US), WG 9 – Ada

Unanimous approval

Korea not present

Resolution 07-32: Endorsement of JTC 1/SC 22 Chair

JTC 1/SC 22 endorses Mr. Rex Jaeschke (US) as the Chair of JTC 1/SC 22 and instructs its Secretariat to send this endorsement to JTC 1 for confirmation.

Unanimous approval

Korea not present

Resolution 07-33: JTC 1/SC 22 Plenary for 2008

JTC 1/SC 22 thanks Italy for its generous offer to host the 2008 Plenary and is pleased to accept the offer. The Plenary is scheduled for 22-25 September 2008 in Milan.

Unanimous approval

Korea not present

Resolution 07-34: JTC 1/SC 22 Plenary for 2009

JTC 1/SC 22 thanks the Netherlands for its generous offer to host the 2009 Plenary and is pleased to accept the offer. The dates and location of the Plenary will be announced at a later time.

Unanimous approval

Korea not present

Resolution 07-35: Hosting of Future JTC 1/SC 22 Plenaries

JTC 1/SC 22 invites national bodies and liaison organizations to volunteer to host future JTC 1/SC 22 Plenaries.

Unanimous approval

Korea not present

Resolution 07-36: Appreciation: Translation of ISO/IEC Standards

JTC 1/SC 22 recognizes that the translation of its standards into a natural language other than English has led to substantial improvements in the standards themselves. JTC 1/SC 22 particularly wishes to thank Japan, Canada and France for their significant contributions in this respect.

JTC 1/SC 22 instructs its Chair to report this to the October 2007 JTC 1 Plenary.

Unanimous approval

Korea not present

Resolution 07-37: Appreciation: ITTF

JTC 1/SC 22 expresses its gratitude to Mr. Keith Brannon, ITTF, for his extremely helpful assistance and guidance during the meeting and would be pleased to have him attend future meetings.

Unanimous approval
Korea not present

Resolution 07-38: Appreciation: Convener of JTC 1/SC 22/WG 9 – Ada

JTC 1/SC 22 expresses its gratitude to the convener of JTC 1/SC 22/WG 9, Mr. James W. Moore, for his many years of leadership in WG 9 and support to JTC 1/SC 22. Mr. Moore led this group through a Technical Corrigendum, an Amendment, the production of TR 15942 Guide for the use of the Ada programming language in high integrity systems, the production of TR 24718 Guide for the use of the Ada Ravenscar Profile in high integrity systems, and the standardization of ISO/IEC 18009:1999 Ada: Conformity assessment of a language processor. He leaves behind a productive and well organized working group.

Unanimous approval
Korea not present

Resolution 07-39: Appreciation: Convener and Scribe of the Break-out Session

JTC 1/SC 22 expresses its appreciation to the convener of the break-out session, Dr. Jonathan Hodgson, for his leadership of the group. JTC 1/SC 22 further expresses its appreciation to the scribe of the break-out session, Mr. Nick Stoughton, for his preparation of the report of the group.

Unanimous approval
Korea not present

Resolution 07-40: Appreciation: Webmaster

JTC 1/SC 22 expresses its gratitude to Mr. Keld Simonsen and the Engineering College of Copenhagen for providing on-going web and email support for JTC 1/SC 22 and several of its subgroups. Without this support, JTC 1/SC 22 and those subgroups would have more difficulty in the advancement of their work.

Unanimous approval
Korea not present

Resolution 07-41: Appreciation: Secretary

JTC 1/SC 22 expresses its gratitude to Ms. Sally Seitz, our efficient and effective Secretary, who keeps us on track at the Plenary and throughout the year.

Unanimous approval
Korea not present

Resolution 07-42: Acclamation: Meeting Host

JTC 1/SC 22 expresses its gratitude to SPRING for hosting this meeting and providing excellent meeting facilities, and especially to Ms. Buaey Qui Ho and Ms. Thay Yean Lan for all of their assistance.

JTC 1/SC 22 also expresses its gratitude to Singapore's Information Technology Standards Committee, especially Mr. Robert Chew, for hosting a wonderful Night Safari and dinner.

Unanimous acclamation

Resolution 07-43: Acclamation: Outgoing JTC 1/SC 22 Chair

JTC 1/SC 22 expresses its gratitude to its outgoing Chair, Mr. John Hill, whose dedicated leadership has enabled this Subcommittee to produce some of the most relevant and widely used specifications in the JTC 1 arena.

He has led this cast of characters since 2000

- in good times and in bad,
- through typhoons and national catastrophes,
- while reindeer baiting and bacon eating

His appalling taste in humor, videos and slides have left us wondering how any future Chair can compare.

We want him to know from everyone that he's a Lumberjack and he's OK. JTC 1/SC 22 wishes him a happy birthday, as usual.

John will be welcome back to this group in any future role that he may assume.

Unanimous acclamation

Resolution 07-44: Acclamation: Drafting Committee

JTC 1/SC 22 expresses its gratitude to the Drafting Committee, Dr. Kiyoshi Ishihata, Mr. Nick Stoughton, Mr. Keld Simonsen, Mr. Stephen Michell, Mr. John Reid, and Ms. Sally Seitz for their diligent work in the preparation of the meeting resolutions.

Unanimous acclamation

Resolution 07-45: Acclamation: JTC 1/SC 22 Presenters

JTC 1/SC 22 expresses its gratitude to the panel of presenters, Mr. John Reid, Dr. Jonathan Hodgson, Mr. Nick Stoughton, Mr. Rex Jaeschke and Mr. John Benito for the excellent job they did presenting the work of JTC 1/SC 22 to the distinguished IT professionals of Singapore at the "Code::XtremeApps::" Prize Presentation and Programming Language Seminar.

Unanimous acclamation

Resolution 07-46: Acknowledgement: Participants in the Break-out Session

JTC 1/SC 22 thanks the following members for their participation in the break-out session: Dr. Kiyoshi Ishihata, Mr. Shizuo Goto, Mr. Nick Stoughton, Mr. Keld Simonsen,

Mr. Roger Scowen, Mr. Stephen Michell, Mr. Rod Grealish, Mr. John Benito, Mr. Rex Jaeschke and Dr. Jonathan Hodgson.

Unanimous acclamation