

ISO/IEC JTC1/SC 22/WG 9 N624

Draft Minutes

Meeting #82 of ISO/IEC JTC 1/SC 22/WG 9

Monday, 20 September 2021 (virtual only)

Meeting #82 of WG 9 was held Monday, 20 September 2021. Per ISO guidance, the meeting was strictly virtual due to the COVID-19 pandemic. The meeting started at 16:00 UTC.

The detailed agenda was distributed as [N617](#).

Remote access to the conference was available via WebEx.

AGENDA

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- [IS 15291](#): Bill Thomas and Greg Gicca
- [TR 15942](#): Alejandro Mosteo
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Recess

Opening Orders

Call to Order

Appointment of Meeting Secretary

Welcome and Administrative Arrangements

Code of Conduct

Approval of the [Agenda](#)

Approval of [N617](#) : Meeting #81 Minutes.

Reports and Introductions

Austria – Johann Blieberger (HoD)

Canada – Brad Moore (HoD)

Finland – Niklas Holsti (HoD)

Italy – Tullio Vardanega (HoD)

Portugal – Luis Miguel Pinho (HoD)

Work is ongoing, but limited effort, in the integration of Ada and OpenMP, as well as HRG review of the WG23 document.

Spain – Alejandro Mosteo (HoD)

Switzerland – Nicholas Kaethner (HoD)

UK – Jeff Cousins (HoD)

USA – Tucker Taft (HoD)

Guests – ?

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Liaison Reports and Introductions

Ada Europe – Dirk Craeynest

Ada-Europe would like to inform the WG9 convener that its liaison delegation to Meeting #82, held online, on Monday 20 September 2021, will consist of Dirk Craeynest.

We want to inform everyone that the next Ada-Europe conference (AEiC 2022), will take place in the heart of the city of Ghent, Belgium, a half-hour train ride north-west of Brussels. The event is currently planned from 14 to 17 June 2022 in dual mode, hence with in-presence activities and support for remote participation.

The conference schedule comprises a journal track, an industrial track, a work-in-progress track, a vendor exhibition, parallel tutorials, and satellite workshops. A Call for Contributions is available on the conference web site [1] and will be widely distributed shortly.

[1] <http://www.ada-europe.org/conference2022>

Ada-Europe is happy to report a continued healthy situation with the Ada User Journal (AUJ) [2]. Four issues are produced each year.

The backlog in the production and publication of printed copies, due to the COVID-19 pandemic, long closures of printing and distribution facilities, and us being forced to move printing from Valencia to Lisbon, is steadily being eliminated. In the mean-time, full issues have been made available in the AUJ online archive immediately upon publication.

[2] <http://www.ada-europe.org/auj>

At Ada-Europe's latest General Assembly, we invited members to suggest items of interest that might be proposed to WG9 as new post Ada 202X work items. Ada-Europe will collect and combine suggestions we might receive and forward them to WG9.

SIGAda – Tucker Taft

WG 23 – Erhard Plödereder

Since the last virtual WG9 meeting in June 2021, WG23 has continued its work on the Python and C++ Parts of TR/IS 24772 in approximately biweekly meetings.

The Ada and Spark Parts are presently in the hands of WG9 for review and editing. The envisaged meeting with Oracle regarding their input on the Java Part has not yet taken place; the e-mail conversations were mostly managerial not technical.

No response has as yet been received from ISO regarding the status of Part 1.

Fortran, INCITS/PL22.3 – Van Snyder

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Convenor's Report Activities since the Last Session

At the Plenary this past August, SC 22, the ISO parent body for WG 9, formally approved the project to replace the Ada standard with our new revision. That means that the revision is now in the hands of SC 22. They will handle the balloting and movement through the project life-cycle phases toward publication.

SC 22 approved our request for the quickest development project possible, with an additional shortcut of starting at a later stage (the Draft International Standard stage).

The process will require 20 weeks in the ideal case, resulting in publication in mid-January of next year. However, we have been advised to expect the ISO editorial staff to require extensive layout changes, as the ARG report has mentioned. We need to decide how to address these requested changes, if and when they arrive.

Note that part of "going as planned" is that there are no requests for technical changes during the SC 22 balloting. Any such requests will extend the project completion time significantly.

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Project Editor Reports (as needed)

IS 8652 (Information Technology--Programming Languages - Ada) (Randy Brukardt, Steve Baird)

At the recent ARG meeting, we discussed contingency plans for the ISO Standard should ISO require adherence to some or all of the rules in the appropriate drafting Standard. (The detailed explanation used for the ARG meeting is found below, with the ARG decisions added.)

The one-sentence summary of the decision is that we will only make changes to the RM if they are an improvement from the current state of the RM; changes that harm the usability and/or understandability of the RM will not be made. This means that the ISO Standard will look more different from the RM than it currently is. (Note that the ISO version already differs in page layout, lack of paragraph numbers, and lack of some subclauses; it never has been exactly the same as the RM.) We don't think this poses a problem in practice as approximately no one uses the actual ISO Standard (no one on the ARG even admitted to having a copy of any version of the ISO Standard).

As much as possible, changes to the ISO Standard will be made via the existing tools (for instance, those for the organization and format of the Standard), so the actual words will remain

the same (unless, of course, ISO makes arbitrary changes to them; SC 22 says that has happened to other language Standards).

Hopefully, WG 9 agrees with this approach. I thought it was important to bring this to the attention of WG 9, as I don't want it to be a surprise if the DIS presented for voting looks nothing like the RM.

IS 15291 (ASIS) (Bill Thomas, Greg Gicca)

TR 15942 (Guidance for the Use of Ada in High Integrity Systems) (Alejandro Mosteo)

Work on the update is progressing slowly and will begin to be shared with WG9 in due course.

IS 18009 (Conformity Assessment of an Ada Language Processor) (Erhard Plödereder)

No comments received and no activities to be reported.

TR 24718 (Guide for the Use of the Ravenscar Profile in High Integrity Systems) (Alan Burns)

TR 24772-2 (Guidance to avoiding vulnerabilities in programming languages – Vulnerability descriptions for the programming language Ada) (Joyce Tokar)

TR 24772-6 Review of the SPARK Part by WG 9 subgroup (Steve Baird)

Pursuant to AI-80-2, work has begun on reviewing the SPARK annex for the programming language vulnerabilities document. At least one reviewer has reviewed every part of the current version of the annex. The resulting feedback has been consolidated into a single document. Work is in progress to transform this into a version that is suitable for WG 9 to vote on.

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Rapporteur Group Reports (as needed)

Rapporteur Report ARG (Steve Baird)

Since the last report (June 2021), the ARG has met (electronically) once.

Unlike most ARG meetings, this first post-Ada2022 meeting did not focus on technical language issues. Instead, there was discussion of broader issues such as the ARG process for dealing with AIs, interfacing with the Ada user community, future ACATS test development, and possible responses to expected ISO objections to the formatting of the proposed Ada 2022 standard.

At this point, the ARG is bringing only one of these topics to the attention of WG 9: the possible interactions with ISO. Should ISO have any objections to the formatting of the proposed standard, this would presumably be dealt with at the WG 9 level. However, the ARG can assist with this by describing available alternatives and recommending a course of action.

Randy has communicated the consensus of the ARG on this topic in a separate message to the WG 9 mailing list (sent Sept 10).

Rapporteur Report HRG

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Open Action Items and Unimplemented Resolutions

This is the "To Do" list for WG 9. Some are informal action items assigned to various participants. Some are formal resolutions, which are not yet implemented. Some items are simply in suspense awaiting action by other groups.

AI-78-3: WG 9 members should individually prepare to discuss WG 9 work items after delivery of Ada 202x. Examples could include: additional activities for the HRG along reliability and security lines; co-joining efforts with the real-time workshops in order to produce standards-related documents; adoption of SPARK and its environments into the WG9 scope.

To be discussed at the upcoming September meeting.

Status: Open

AI-80-2: All WG 9 members to review the SPARK Part after the Ada RM informal review completes. Steve Baird to initiate the effort. Report by September meeting. Tucker and Pat volunteer.

Status: Done

AI-81-1: Pat to update N612 to reflect latest process for creating/submitting the Ada DIS.

Status: Done

AI-81-2: Pat to request the new project approval at the SC 22 Plenary.

Status: Done

AI-81-3: Pat to get the WG 9 documents transferred to the ISO Documents facility.

Status: Open

AI-81-4: Steve to stand up the SPARK Part review team, with a report by the September meeting.

Status: Done

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Committee as a Whole

1. Review of options regarding ISO formatting changes

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Unfinished Business

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New Business

[AGENDA](#)

Scheduling of Future Meetings

Virtual/in-person meetings, Friday 17 June 2022 with Ada Europe (Ghent), and November (?) 2022 with HILT (Ann Arbor).

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Review of New Action Items

AI-82-1: Steve to submit the final SPARK Part document to WG 9 to vote on.

AI-82-2: Alejandro to submit sections of TR 15942 to WG 9 as they become available.

AI-82-3: Tucker to determine specific date for HILT.

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Final Consideration of Resolutions

Resolution 82-1: The meeting minutes of meeting #81 are approved.

Resolution 82-2: The next two meetings of WG 9 will be Friday 17 June 2022 with Ada Europe (Ghent), and November (?) 2022 with HILT (Ann Arbor).

Resolution 82-3:

ISO/IEC JTC 1/SC 22/WG 9 continues its Annex H Rapporteur Group (HRG) until the next plenary meeting and expresses its grateful appreciation to the Rapporteur and the members for their continuing service.

Joyce Tokar is continued as Rapporteur.

The membership of the HRG is designated to be: Steve Baird, John Barnes, Ben Brosgol, Alan Burns, Rod Chapman, Gary Dismukes, Bob Duff, Michael Gonzalez Harbour, Stephen Michell, Brad Moore, Miguel Pinho, Erhard Plödereder, Juan Antonio de la Puente, George Romanski, Jean-Pierre Rosen, S. Tucker Taft, Joyce Tokar, and Tullio Vardanega.

The Convenor of WG 9 is authorized to act for WG 9 between meetings in appointing additional members of the HRG. In doing so, he shall consult with the Rapporteur and the National Body or Liaison Organization nominating the member.

Rapporteurs are permitted to allow other individuals to observe the deliberations of the Rapporteur Group. The admission of observers and the extent of participation permitted to observers are at the discretion of the Rapporteur with the concurrence of the membership of the Rapporteur Group.

Resolution 82-4:

ISO/IEC JTC 1/SC 22/WG 9 continues its Ada Issues Rapporteur Group (ARG) until the next plenary meeting and expresses its grateful appreciation to the Rapporteur and the members for their continuing service.

Steve Baird is continued as Rapporteur.

The membership of the ARG is designated to be: Raphaël Amiard, Steve Baird, John Barnes, Randy Brukardt, Alan Burns, Arnaud Charlet, Jeff Cousins, Gary Dismukes, Claire Dross, Robert Duff, Edward Fish, Pascal Leroy, Brad Moore, Jean-Pierre Rosen, Ed Schonberg, Justin Squirek, Tucker Taft, Tullio Vardanega, and Richard Wai.

The Convenor of WG 9 is authorized to act for WG 9 between meetings in appointing additional members of the ARG. In doing so, he shall consult with the Rapporteur and the National Body or Liaison Organization nominating the member.

Rapporteurs are permitted to allow other individuals to observe the deliberations of the Rapporteur Group. The admission of observers and the extent of participation permitted to observers are at the discretion of the Rapporteur with the concurrence of the membership of the Rapporteur Group.

Resolution 82-5: ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to Alok Srivastava for acting as secretary for Meeting #82.

Resolution 82-6: ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to the Convenor, Pat Rogers, for his work in identifying and documenting the proper process for submitting the draft standard to ISO in order to maintain Ada's long-standing availability.

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References

See <http://www.open-std.org/jtc1/sc22/wg9/documents.htm> for the WG 9 Document Log, including the ability to download the documents.