ISO/IEC JTC1/SC22/WG9 N 663

Draft Minutes

Meeting #91 of ISO/IEC JTC 1/SC 22/WG 9

Wednesday, 8 October 2025

Meeting #91 of WG 9 was held Wednesday, 8 October 2025. The meeting was virtual. The meeting started at 15:05 UTC and ended at 16:15 UTC.

AGENDA

Opening Orders

Introductions and Reports

Liaison Reports and Introductions

- Ada Europe: Dirk Craeynest
- SIGPLAN HILT: Tucker Taft and Alok Srivastava
- WG 23:   Erhard Plödereder
- Fortran: Van Snyder

Convenor's Report

Project Editor Reports (as needed)

- IS 8652:   Randy Brukardt
- IS 15291:   Bill Thomas and Greg Gicca
- TR 15942:   ???
- TS 24718:   Alan Burns and Tullio Vardanega
- IS 18009:   Erhard Plödereder
- TR 24772-2:   Joyce Tokar
- TR 24772-6:   Stephen Michell, Erhard Plödereder, Tullio Vardanega

Rapporteur Group Reports (as needed)

- Report of Ada Rapporteur Group: Steve Baird, Chair
- Report of Annex H Rapporteur Group: Joyce Tokar, Chair

Review of Open Action Items and Unimplemented Resolutions

Committee as a Whole

Unfinished Business

New Business

Recess

Opening Orders

Call to Order

Appointment of Meeting Secretary

ISO Code of Conduct (CoC) review

https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100011.pdf

Welcome and Administrative Arrangements

Approval of the [Agenda](#)

Approval of Meeting #90 Minutes [N658](#).

Introductions and Reports

Austria – Johann Blieberger (HoD)

Canada – Brad Moore (HoD)

Finland – Niklas Holsti (HoD)

Italy – Tullio Vardanega (HoD)

Portugal – Luis Miguel Pinho (HoD)

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 Liaison Report to WG9 for meeting #91
Ada-Europe Liaison Representative, Dirk Craeynest

Ada-Europe would like to inform the WG9 convener that its liaison delegation to Meeting #88, held in virtual mode on Wednesday 8 October 2025, will consist of Dirk Craeynest and Erhard Ploedereder.

Last June, the Ada-Europe conference (AEiC 2025) [1] was organized in Paris, in collaboration with Ada-France. It was hosted by the Mines Paris university, and was successful in terms of attendance and core program, as well as satellite and social events.

The final day offered a choice of 3 workshops, including a second edition of the Ada Developers Workshop [2]. That full-day workshop was packed with 8 mostly longer technical presentations on various Ada-related topics, given by 10 authors from 5 countries, and sparked healthy discussions during and after the workshop. It was once more held in hybrid mode, and had almost 30 in-person and 10-15 online participants.

[1] www.ada-europe.org/conference2025
[2] www.ada-europe.org/conference2025/workshop_adadev.html

As announced in Paris, the next Ada-Europe conference (AEiC 2026) [3], will return to Sweden, 14 years after Ada-Europe 2012 [4] was held in Stockholm. It is organized in collaboration with and will be held at Mälardalen University (MDU) in Västerås, from 9 to 12 June, 2026. The Call for Contributions was distributed. For more information and updates check the conference website.

As usual, we reconfirm our hospitality agreement for WG9, ARG, HRG, and WG23, to co-locate their meetings at our conference.

Investigations continue for future Ada-Europe conferences: current plans focus on Germany for 2027. We remain interested in hosting proposals for future events.

[3] www.ada-europe.org/conference2026
[4] www.ada-europe.org/conference2012

Production of the Ada User Journal (AUJ) [5] continues as planned. We are working hard to reduce the large delays due to the busy schedule of the all-volunteer Editorial Board and the late delivery of some promised articles.

There is no news to report yet concerning the merger between the AUJ and Ada Letters. In the mean-time, the contents of the AUJ is still being republished in Ada Letters, giving increased visibility to the authors' work.

[5] www.ada-europe.org/auj

As mentioned in June, we changed our plans for the publication of the Ada 2022 RM in Springer's LNCS series. Shortly after the meeting, the manuscript for the "Consolidated Ada 2022 Reference Manual" has been provided to Springer. Their latest prediction was they will publish the volumes in print form by mid-November 2025. As soon as we've seen the print proofs of covers and s.c. "front matter", we'll finalize the group order for Ada-Europe's interested members.

SIGPLAN HILT – Tucker Taft and Alok Srivastava

It took a long time to get formal approval from SIGPLAN for the invitation letter, but now that it is out we're getting little response.

WG 23 – Erhard Plödereder

WG23 meetings continue on a three-week schedule for producing the Java and C++. Parts of IS-24227.

Java is basically ready for submission, but WG23 keeps on polishing.

C++ work is slow going.

For a summary status of other available Parts see the minutes of the 87th WG9 meeting.

Contact with the Rust community has been established in the hope to recruit WG23 participation and to start work on a Rust-Part.

Since the last meeting, the Fortran Part has been submitted to ISO as a DIS.

A complication in ISO submission arose recently: ISO now enforces the requirement that at least five ISO member countries (exact details of membership are presently not available to me) must have participated in the production of the submitted document. This requirement is not met by most Parts produced by WG23; administrative work is needed to remedy the situation.

The free availability of the Parts of IS-24227 remains unclear. The submitted Fortran Part will be a trial case.

Fortran, INCITS/PL22.3 – ~~Van Snyder~~ (apologies)
[See Convenor's Report below, point #3.]

AGENDA

Convenor's Report
Activities Since the Last Session

1.   Status of Corrigendum submitted to ISO/CS; resulting actions at SC 22 Plenary.

The WG 9 letter ballot to approve the draft corrigendum passed, but ISO/CS rejected the corrigendum. ISO recommended we submit an amendment document instead.

Therefore, at the SC 22 Plenary I requested approval for a new work item for the amendment. SC 22 approved our request in SC 22 Resolution 25-05 with the following parameters:

Project Editor: Randy Brukardt (US)
Project plan: 36 months
DIS ballot target: 2027-08-01
Target publication date: 2028-08-01 (default timeframe)

I noted in the meeting that we expect to supply the proposed document well before the DIS ballot date.

Likewise, as per WG 9 Resolution 90-4, I requested a new work item for the next edition of the Ada standard. SC 22 approved our request in SC 22 Resolution 25-04 with the following parameters:

Project Editor: Randy Brukardt (US)
Project plan: 36 months
CD Target date: 2026-12-01
DIS ballot target: 2027-08-01
Target publication date: 2028-08-01 (the default timeframe)

As noted, these timelines are the default intervals. WG 9 can request extensions as needed.

2. New WG 9 Convenor approved

In Resolution 25-08, SC 22 approved Tullio as the new Convenor for a 3-year term. Congratulations Tullio!

3. Fortran Liaison to WG 9

Van Snyder contacted me to say that he has retired and therefore can no longer serve as liaison. Van suggested I contact the current chair of SC 22 / WG 5, Steve Lionel (steve@stevelionel.com) to see if he can help find a replacement. In July, Steve promised to look for an interested party, and said he might do it himself if the duties are light. To be followed up.

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Project Editor Reports (as needed)

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

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

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

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

No comments received; no actions needed.

TS 24718 (Guide for the Use of the Ravenscar Profile in High Integrity Systems) (Alan Burns, Tullio Vardanega)

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

TR 24772-6: (SPARK Part of Programming Language Vulnerabilities) (Stephen Michell, Erhard Plödereder, Tullio Vardanega)

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Rapporteur Group Reports (as needed)

Rapporteur Report ARG

Since the last report (June 2025), the ARG has met (electronically) twice (Jul 2025, Oct 2025). The ARG-approved AIs intended for review at this WG 9 meeting were listed in a message Randy sent to the WG 9 mailing list on Aug 25 and are repeated here:

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ARG-approved AIs for WG 9 approval:

AI22-0022-1/09 2025-08-24 -- Difficult example issues from WG 9 review
AI22-0113-1/06 2025-04-24 -- Usage Advice (part 3)
AI22-0117-1/06 2025-08-18 -- More Terms and Definitions
AI22-0124-1/08 2025-08-24 -- Aggregates and capacity of bounded containers
AI22-0133-1/04 2025-08-15 -- Make 10646 non-normative
AI22-0134-1/03 2025-08-15 -- Allow Both Add_Named and Add_Unnamed in Aggregate aspect
AI22-0136-1/04 2025-08-15 -- Allow Indexing Aspects on Untagged Types
AI22-0137-1/04 2025-08-15 -- Renaming-as-body with a parameter of an incomplete type
AI22-0138-1/03 2025-08-15 -- Inheritance and conformance
AI22-0139-1/02 2025-07-30 -- Aggregates and Build-in-place

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The AIs can be found at
  http://www.ada-auth.org/AI22-SUMMARY.HTML

On August 11, Tuck sent a message to the WG 9 mailing list regarding possible themes for post-Ada2022 ARG work.

ISO has informed us that the recently-completed set of changes to the standard must be an Amendment, not a Corrigendum. Randy is dealing with the consequences of this.

Respectfully,

  Steve Baird
  ARG Rapporteur

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-81-3: Pat to get the WG 9 documents transferred to the ISO Documents facility, pending resolution of retaining public free access to the documents in the official ISO document system.

Status: Open. Does not look good for free access to anything other than documents that are specific to a draft.

AI-89-1: Randy B. to get an alternate document generation installation set up by end of September 2025.

Status: Open. Randy indicates that a more realistic date is September 2026. Tucker has volunteered to help.

AI-90-1: Pat to submit a request to SC 22 for a New Work Item to develop a new edition to the Ada standard.

Status: Done. The request was granted, as described elsewhere.

AI-90-2: Pat to submit the Corrigenda and Defect Reports to SC 22 (with a "justifying" cover letter) to SC 22 when finalized.

Status: Done. Note the corrigenda was rejected, as described elsewhere.

AI-90-3: Randy to provide updated versions of the Corrigendum and Defect Reports documents incorporating corrections to the issues identified during the meeting.

Status: Done.

AI-90-4: Pat to make the updated Corrigendum and Defect Reports documents available to WG 9 for review once Randy has them ready.

Status: Done.

AI-90-5: Pat to send a Letter Ballot for the approval of the Corrigendum and Defect Reports.

Status: Done. The resolution in the ballot passed.

AI-90-6: Tucker to instantiate a small group that will refine the community inputs into focus areas for the next revision to the language.

Status: Done. To be discussed in the Committee as a Whole section.

AI-90-7: Pat to send a note to Joyce regarding the HRG, inquiring whether she wants to remain as the Chair, and what the HRG wants to do in the future. (For example, would it want to take on the effort of revising TR 15942?)

Status: Open.

AI-90-8: Tucker to post the need for an editor to take on the revision of TR 15942, given Alejandro's release from the effort.

Status: Done.

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Committee as a Whole

As explained previously, prior to the development of a new edition of the language standard, WG 9 presents to the ARG a directive containing a list of general areas to focus upon, essentially a "shopping list" of capabilities the new edition should address. Tucker had an action item to form a small working group intended to produce the list of these areas of interest, taking the input received from the community into account. The result is ready and is located here:

https://docs.google.com/document/d/1w2fbtFeBqWxOelhY_4iYvRCgLjrt3S7cpmZjelwWv2A/edit?usp=sharing

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Unfinished Business

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New Business

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Scheduling of Future Meetings

Per meeting #90, the June 2026 meeting will be hybrid, in conjunction with the Ada Europe 2026 Conference, on Monday the 8th, 1600 UTC, with location to be determined.

The October 2026 meeting will be held at a date/time to be determined during the June meeting.

AGENDA

Review of New Action Items

AI-91-1: Dirk to post editor position invitation for TR-15942 on comp.lang.ada

AI-91-2: Tucker to make the minor editing requested by Randy to the ARG Instructions document. (Tullio will then assign it an N-document number and place it into the WG 9 repository.)

AGENDA

Final Consideration of Resolutions

Resolution 91-1: The meeting minutes of meeting #90 are approved.

Resolution 91-2: WG 9 approves the AI-22 AIs previously approved by the ARG in the recent ARG report.

Resolution 91-3: WG 9 approves the draft Instructions to the ARG for the next edition of the Ada standard, with minor editing, as specified by the document located here:

https://docs.google.com/document/d/1w2fbtFeBqWxOelhY_4iYvRCgLjrt3S7cpmZjelwWv2A/edit?usp=sharing

The Google document will be recreated as an N-document and inserted into the WG 9 repository.

Resolution 91-4:

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, Stephen Michell, Brad Moore, Miguel Pinho, Erhard Plödereder, 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 91-5:

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, Christoph Grein, Niklas Holsti, Pascal Leroy, Brad Moore, Alejandro Mosteo, Jean-Pierre Rosen, 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.

Appreciation 91-6: ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to Niklas Holsti for acting as secretary for Meeting #91.

Appreciation 91-7: ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to Pat Rogers, WG 9 Convenor, for managing the WG 9 meetings.

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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.