ISO/IEC JTC 1/SC 22/WG 9 N669

Convenor's Report, 2025-2026, ISO/IEC JTC 1/SC 22/WG 9 (Ada)

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Business Plan for JTC 1/SC 22/WG 9 (Ada)

Period Covered:

1 July 2025 - 24 July 2026

Submitted By:

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1 MANAGEMENT SUMMARY

The focus of WG 9 has steadily concentrated on the following work items, listed in order of decreasing priority:

1. Respond to Defect Reports submitted by users or implementors on ISO/IEC 8652.
2. Develop a Technical Corrigendum for ISO/IEC 8652:2023
3. Develop Technical Reports or Standards improving the Ada libraries.
4. Determine long-term plans for the WG.
5. Promote the technical documents output of WG work to official ISO Documents.

1.1 JTC 1/SC 22/WG 9 Statement of Scope

JTC 1/SC 22 WG 9 is responsible for the development and coordination of ISO standards, Technical Reports and Technical Specifications that concern the Programming Language Ada.

1.2 Project Report

1.2.1 Completed Projects

None in this reporting period.

1.2.2 Projects Underway

ISO/IEC 8652:2023/CD Amd 1, Information technology — Programming languages — Ada — Amendment 1
This document passed CD ballot with 100% approval, on 8 July 2026, and will continue to run its course through DIS registration and beyond.

Update to TR 15942:2000 Guidance for the use of the Ada Programming Language in High Integrity Systems

The update project finally lifted off, passing CIB ballot with 100% approval on 10 November 2025. Niklas Holsti, committee member of WG 9, was appointed Project Editor. The project is well under way at the time of this writing.

1.2.3 Projects Withdrawn

None in this period.

1.2.4 Standards and Technical Reports Withdrawn

None in this period.

1.2.5 Cooperation and Competition

A new professional society, named the Ada User Society, https://www.ada-user.org/, was created at the end of 2024 and became fully operational by mid-2025, with the mission to provide worldwide communitarian support to the preservation of Programming Language Ada as an open international standard. The present chair of the Ada User Society is the current convenor of WG 9, which maximally facilitates the dialogue between the official ISO bodies and the base technical constituency of the language.

Ada-Europe, the historical professional society based in Europe, with prime interest in Ada, continues to be a Category C liaison with WG 9. As part of Ada-Europe's support for WG 9, one of the annual meetings of WG 9 is scheduled to coincide with the yearly international conference of Ada-Europe. Officials of Ada-Europe actively contribute to the work of WG 9.

The other historical professional society, based in the US, named the Special Interest Group on Ada (SIGAda) of the Association for Computing Machinery (ACM) then subsequently converted into a subgroup of ACM SIGPLAN, denominated SIGPLAN-HILT while retaining the status of Category C liaison with WG 9, has in the meanwhile shut down, with most of its membership opting to join the Ada User Society.

WG 9 also continues to have a liaison to SC 22/WG 23, designed in Erhard Plödereder, former president of Ada-Europe. Work permitting, said liaison take part in WG 9 meetings and reports on the activities of WG 23.

One major vendor consortium, the Ada Resource Association (ARA), continues to exist, although with constantly decreasing energy. Informal liaison with the ARA is maintained via the US TAG.

For many years, WG 9 has had a liaison with INCITS/Fortran (formerly INCITS PL/22.3). The person serving that liaison retired in 2025. WG 9 is seeking dialogue with WG 5 to identify a replacement. Facilitation from SC 22 in establishing contact would be most welcome.

2 PERIOD REVIEW

2.1 Market Requirements

Ada is the language of choice for important parts of the real-time, embedded systems community as well as aerospace and defense segments. For example, Ada is used extensively in commercial airplanes and regional airspace control. Ada is also being used in other market segments, such as railway and banking. It is interesting to note in this regard that on 26 February 2024, the US presidency has directed government contractors to use "memory safe" languages, which of course include Ada. Since inception, WG 9 has continued to evolve the language

specification to address the needs of the current market, looking especially at strengthening or adding features that increase Ada's attractiveness where safeness matters.

2.2 Achievements

1) Continued work on Ada Defect Reports.
2) Submitted Amendment 1 to ISO/IEC 8652:2023 (Ada).
3) Launched the update to TR 15942:2000 Guidance for the use of the Ada Programming Language in High Integrity Systems.
4) Resolved to develop the next edition of ISO/IEC 8652, and
5) Collected community inputs for high-level technical directions for the next edition of ISO/IEC 8652, the Ada standard.

2.3 Resources

Given the guidance provided in the ISO directives, National Bodies designate experts to participate in WG 9. WG 9 has active representatives from Canada, Finland, Italy, Spain, Switzerland, Portugal, UK, and US.

Direct support from the language constituency outside of National Bodies is channeled via the Ada User Society, which was created for that purpose specifically, and with the continuation of Category C Liaisons with Ada-Europe

All suggestions for new work items continue to be screened by the requirement for active support from five national bodies. This provision works well and affords a healthy base of explicit commitments from National Bodies when support is sought for new projects.

WG 9 continues to use Rapporteur Groups to perform the drafting of its technical documents. The principal RG is the Ada Rapporteur Group, tasked to carry out explorative work on "Ada issues" that emanate, from the top, from WG 9 directives, and from the bottom, from language implementors and language users. This arrangement allows WG 9 to meet only twice per year, predominantly in remote-video mode, for approximately a half-day at each meeting.

To this end, WG 9 uses ISO-provided web conferencing platforms to provide access to its meetings to those members that are unable to attend in person.

2.4 Environmental Issues

(Not applicable.)

2.5 Participation Metrics

Seven to eight national bodies regularly designate experts to participate in the work of WG 9; most of them regularly attend WG 9 meetings. Each of those experts cast their vote at WG 9 level. Those of them who are from P-members submit timely recommendations to their SC 22 correspondents.

3 FOCUS OF NEXT WORK PERIOD

3.1 Deliverables

The following deliverables are anticipated during the next 12 months:

- Resolutions to Ada Defect Reports, as they are received.
- Progress of Amendment 1 through DIS registration and beyond.
- First draft version of revision of TR 15942:2000 Guidance for the use of the Ada Programming Language in High Integrity Systems
- Progressive move of WG 9 internal documents to the ISO Documents online repository, while striving to preserve their public availability.

3.2 Strategies

WG 9 delegates technical (specification, prototyping, and evaluation) work to the Rapporteur Groups. WG 9 entertains continuous dialogue with professional societies with interest in Ada. WG 9 seeks full consensus within Rapporteur Groups prior to initiating formal balloting at its own level.

3.2.1 Risks

- Unexpected technical comment at the SC 22 level has the potential to delay the work of WG 9. WG 9 mitigates this risk by providing mechanisms for full treatment of NB technical concerns at the RG and WG level. Although we observe all requirements of the directives, we view SC 22 and JTC1 level balloting as approval of documents that have already been completed.
- Funding is an inevitable source of continued concern, which severely limits travel and caps the availability of labor hours by working members of WG 9 and the Rapporteur Groups. To mitigate this problem, since 2025, the Ada User Society has positioned itself as a direct financial supporter of the work of WG 9, in particular the Ada language standard's Project Editor, the associated utilities, and, should the need arise, also the time and the travel costs of the WG 9 convenor.

3.2.2 Opportunities

With the increased interest and concern with software and systems safety, WG 9 intends to continue working with WG 23 on the development of guidance for the prevention of software vulnerabilities when new vulnerabilities are identified.

3.3 Work Program Priorities

- (Highest) Address Ada Defect Reports.
- Develop Technical Reports or Standards improving the Ada libraries.
- Improve or develop additional language features that strengthen the position and reputation of Ada in business areas where safeness is important.

4 Other Items

4.1 Possible SC 22 Plenary Actions Related to WG 9

SC 22 help would be most welcome to facilitate contact with WG 5 to find a willing candidate for reestablishing liaison with WG 9.

4.2 Convenorship

The current convenor was formally appointed with SC 22 N6042 Resolution 25-08. His term will extend through the next reporting period.

5 ADMINISTRATIVE INFORMATION

5.1 Project Editors

5.1.1 IS 8652 (Information Technology--Programming Languages—Ada)

Randy Brukardt

5.1.2 IS 15291 (ASIS Standard)

Bill Thomas and Greg Gicca

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

Niklas Holsti.

5.1.4 ISO/IEC 18009 (Conformity Assessment of an Ada Language Processor)

Erhard Plödereder

5.1.5 TS 24718 (Guide for the Use of the Ravenscar Profile in High Integrity Systems)

Alan Burns and Tullio Vardanega

5.1.6 ISO/IEC TR 24772-2:201X(E) (Information Technology — Programming languages — Guidance to avoiding vulnerabilities in programming languages – Vulnerability descriptions for the programming language Ada)

Joyce Tokar

5.2 WG 9 Liaisons

5.2.1 Category C Liaison with Ada-Europe

Ada-Europe is an international organization, based in Europe, set up to promote the use and knowledge of Ada, and to promote its introduction into industrial, academic, and research establishments. It aims to spread the use and the knowledge of Ada and to promote its

introduction into academic and research establishments. Above all, Ada-Europe intends to represent European interests in Ada and Ada-related matters.

In its current form, Ada-Europe was established in 1988. Because there is no European legal framework to govern such organizations, it was established according to Belgian Law.

The best-known of Ada-Europe's activities is its annual conference, first held in 1994, which provides an international forum for researchers and users of Ada and other technologies geared towards reliable systems (see: http://www.ada-europe.org/conf/ae). Ada-Europe publishes the Ada User Journal quarterly magazine to keep its members and others abreast of the latest developments related to Ada.

5.2.2 Liaison with WG 23

The main work of WG 23 is to identify vulnerabilities in programming languages. For language addressed, the WG focuses on how those vulnerabilities are to be handled specifically for that language. WG 9 maintains a liaison relationship with WG 23 to stay appraised of the findings of WG 23 and how they apply to Ada.

5.3 Meetings of WG 9

5.3.1 Future Meetings

- Meeting #93 will be held on 1 December 2026 in video-remote (virtual) mode.
- Meeting #94 will be held on 8 June 2027, in conjunction with the Ada-Europe 2027 conference in Berlin, Germany, in video-remote (virtual) mode.

5.3.2 Recent Meetings

- Meeting #92 was held on 8 June 2026, in conjunction with the Ada-Europe 2026 conference in Västerås, Sweden, in hybrid mode.
- Meeting #91 was held on 8 October 2025, in video-remote (virtual) mode.

Previous meetings were listed in the convenor’s report for the 2024-2025 period.