# ISO/IEC JTC1/SC22/WG9 N547

### Detailed Agenda

*Revision 1 14 October 2014*

### Meeting #67 of ISO/IEC JTC1/SC22/WG9

**Monday 20 October 2014**

In accordance with Resolution 66-4, the next meeting, meeting #67, will be held in conjunction with [High Integrity Language Technology 2014 (HILT 2014)](http://www.sigada.org/conf/hilt2014), on the morning of 20 Oct 2014 (07:00-12:00 PDT) in Portland OR, USA. The meeting will be held in the Laurelhurst room. We will break from 09:00-10:30 for meeting attendees to join the HILT 2014 Keynote session.

The announcement and preliminary agenda for this meeting were circulated as [N546](#N546).

### AGENDA

[Opening Orders](#Opening)

[Introductions](#_National_Body_Reports)

[Liaison Reports and Introductions](#LiasonReports)

* Ada Europe: Dirk Craeynest
* SIGAda: Rick Sward
* SC 23/OWGV: Erhard Ploedereder
* Fortran, INCITS/PL22.3: Van Snyder

[Convener's Report](#Convener)

[Project Editor Reports (as needed)](#PrjEd)

* IS 8652: Ed Schonberg and Randy Brukardt
* IS 15291: Bill Thomas and Greg Gicca
* TR 15942: Brian Wichmann
* IS 18009: Erhard Ploedereder
* TR 24718: Alan Burns

[Rapporteur Group Reports (as needed)](#RapRpt)

* Report of Ada Rapporteur Group: Jeff Cousins, Chair
* Report of Annex H Rapporteur Group: Alan Burns, Chair

[Review of Open Action Items and Unimplemented Resolutions](#OpenAIs)

[Committee as a Whole](#CAAW)

[Unfinished Business](#UBiz)

[New Business](#NBiz)

[Scheduling of Future Meetings](#NextMeet)

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[Review of New Action Items](#NewActions)

[Review of New Resolutions](#NewResolutions)

[Final Consideration of Resolutions](#final)

[Recess](#recess)

### Opening Orders, Joyce Tokar, Meeting Convenor

* Call to Order
* Appointment of Meeting Secretary
* Change of Meeting Protocol

At our last meeting, we briefly discussed the new direction from ISO regarding the membership and organization of Working Groups. According to ISO anyone participating in an official WG meeting should be designated by an O- or P-member of SC 22, a liaison, or a 1/2/few-time guests of the convener. As such, WG 9 will conduct our business as a group of experts who have been designated by a National Body or Liaison Organization. National Body comments and concerns regarding the business of WG 9 may be raised by a designated expert during the Introductions and put on the agenda to be discussed during the Committee as a Whole session.

Also, under the new JTC 1 rules for WG participation effective 1 January 2014:   
  
"Working Groups are comprised of INDIVIDUAL EXPERTS appointed by National Bodies and Liaison Organizations. These experts MUST be entered into Global Directory to be considered a member of the WG and to receive documents. National Bodies are responsible for ensuring that their expert appointments are up to date; Liaison Organizations work via ITTF to maintain their expert members. If the expert is NOT in Global Directory, he/she will not receive documents and will NOT be considered a member of the WG."   
  
Please ensure that this is done ASAP or your experts will not be be allowed to attend if they are not registered experts.

* Welcome and Administrative Arrangements
* Approval of the [Agenda](#Agenda)
* Approval of [N544](#N544): Meeting #66 Minutes. Resolution [67-1](#r1).

[AGENDA](#A1)

**Introductions**

### Canada

Brad Moore

### Italy

Tullio Vardenaga may join by telecom.

**Portugal**

**Spain**

### UK

The UK panel now conducts its business by e-mail.

The UK delegation is Jeff Cousins (HOD) and John Barnes for this meeting of WG.

John Barnes’ Programming in Ada 2012 has been published.

**USA**

**Liaisons**

**Guests**

**Liaison Reports**

**Ada-Europe Liaison Report:**

**Ada-Europe Liaison Representative, Dirk Craeynest**

**SIGAda Liaison Report:**

**SIGAda Liaison Representative, David Cook**

**WG 23 Liaison Report:  
WG 23 Liaison Representative, Erhard Ploedereder**

**FORTRAN, INCITS/PL22.3 Liaison Report:**

**FORTRAN, INCITS/PL22.3 Liaison Representative, Van Snyder**

[AGENDA](#A3)

### Convener's Report

### Activities since the Last Session

Resolution 30A of last year’s JTC1 meeting changes the participants in WGs from NB-endorsed to individual participation. The format and conduct of this meeting is an attempt to conform to this resolution. As mentioned earlier, all participants also need to ensure that you are registered in ISO’s Global Directory as that is the mechanism that we are being encouraged to use for document distribution.

In 2012, the ISO Technical Management Board (TMB) adopted TMB Resolution 64/2012 which made the use of Livelink mandatory for engaging in ISO technical work. By default in JTC 1, the LiveLink documents of a WG will be visible to the world.  Documents will only be protected if the WG specifically chooses a particular document to protect.  For example, even after moving to LiveLink, WG 9 and WG 23 will be able to see each other's documents, and outsiders will be able to see those documents as well. I will be working on uploading current documents over the next few months.

WG 9’s concern about the dissolution of WG 23 was shared by members of SC 22. As a result of the strong position by most of the National Bodies attending the SC 22 meeting, WG 23 will continue its work on Software Vulnerabilities. The US is relinquishing its role as convenor of WG 23. Mr. Stephen Michell (Canada) is the acting convenor.  
  
Goals for this Meeting

The major objectives for this meeting are:

1. Ada Issues
2. Update to the Ada and SPARK Annexes to the WG 23 Technical Report on Vulnerabilities
3. Approach to developing Ada 202x
4. Develop Technical Reports or Standards improving the Ada libraries
5. Consider proposals for extending the language

[AGENDA](#A4)

### Project Editor Reports

### ISO/IEC 15291 (ASIS)

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

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

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

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

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### Rapporteur Reports

**Rapporteur Report ARG:**

**Rapporteur Report ARG:**

The Ada 2012 standard has already generated 128 Ada Issues (AIs). The ARG meeting in Paris during June 2014 discussed all but the two lowest priority “regular” (i.e. on the current standard, not the potential Ada 2020 amendment) AIs on the agenda. (The agenda excluded a few AIs still awaiting input).

Six amendment AIs were also discussed.

Most AIs achieved some form or other of interim approval; a few were designated “keep alive” for further investigation and reporting back.

It is intended to produce a Corrigendum in 2015. As of 01 October 2014, 44 AIs have been approved by WG 9, 20 by the ARG but not yet by WG 9, and 45 are work items for discussion at the ARG. Of the 45, 14 are binding interpretations and thus candidates for the Corrigendum 2015 (1 previously ARG approved but re-opened, 1 new and to be discussed for the first time), and 31 are candidates for the potential Ada 2020 amendment (6 new and to be discussed for the first time).

A number of AI's have completed editorial review and are ready for approval by WG 9. The list follows. As usual, the full text of the AI's can be found at [www.ada-auth.org/ais.html](http://www.ada-auth.org/ais.html). (This list was distributed to the ARG on 30 July 2014 and to WG 9 on 2 Sept 2014. Note that the versions of most AIs have incremented since then as a result of the editorial review):

AI12-0042-1/11 2014-09-29 -- Type invariant checking rules

AI12-0055-1/06 2014-09-29 -- All properties of a usage profile are defined by pragmas

AI12-0068-1/02 2014-07-22 -- Predicates and the current instance of a subtype

AI12-0074-1/06 2014-09-29 -- View conversions and out parameters passed by copy

AI12-0080-1/08 2014-09-29 -- More presentation errors in Ada 2012

AI12-0095-1/03 2014-09-29 -- Generic formal types and constrained partial views

AI12-0096-1/02 2014-09-29 -- The exception raised when a subtype conversion fails a predicate check

AI12-0097-1/02 2014-07-15 -- Tag of the return object of a simple return expression

AI12-0098-1/02 2014-09-29 -- Problematic examples for ATC

AI12-0099-1/03 2014-09-29 -- Wording problems with predicates

AI12-0100-1/02 2014-07-14 -- A qualified expression makes a predicate check

AI12-0101-1/03 2014-09-29 -- Incompatibility of hidden untagged record equality

AI12-0102-1/02 2014-10-02 -- Stream\_IO.File\_Type has Preelaborable\_Initialization

AI12-0104-1/02 2014-10-02 -- Overriding an aspect is undefined

AI12-0105-1/03 2014-10-02 -- Pre and Post are not allowed on any subprogram completion

AI12-0107-1/03 2014-10-02 -- A prefixed view of a By\_Protected\_Procedure interface has convention protected

AI12-0110-1/02 2014-07-23 -- Tampering checks are performed first

AI12-0114-1/03 2014-10-02 -- Overlapping objects designated by access parameters are not thread-safe

AI12-0116-1/03 2014-10-02 -- Private types and predicates

AI12-0120-1/04 2014-10-02 -- Legality and exceptions of generalized loop Iteration

Work on the ASIS standard remains paused.

Future meetings are scheduled for 18-19 October 2014 in Portland, Oregon, U.S.A., in conjunction with the HILT (formerly SIGAda) 2014 conference, and provisionally for late June 2014 in Madrid, Spain, in conjunction with the Ada-Europe 2015 conference.

Continuation of the ARG: Resolution [67-2](#r2).

Approval of AIs: Resolution 67-5.

**Rapporteur Report HRG:**

The HRG has restarted its work on the Ada and Spark annexes for the Vulnerabilities report. Currently the Ada Annex is being updated to respond to the changes to Ada and to the new vulnerabilities that have been introduced in the latest version of the report.

Continuation of the HRG: Resolution [67-3](#r3).

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### Open Action Items and Unimplemented Resolutions

This is the "To Do" list for WG9. 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.

#### Action Item 50-1:

Investigate the possibility that ANSI might be willing to sell the revised ASIS standard ISO/IEC 15291:200x inexpensively, i.e. at a price similar to that of programming language standards -- $18.

*Status:* Open. *It has been surprisingly difficult to obtain the appropriate contact information.* Bill Thomas will look into this further and get back to us at the next meeting (#54).

ANSI does not set the prices. If they get a standard from ISO, then ISO sets the price and ANSI must conform to the prices set by ISO. ANSI could designate another organization to sell an ISO standard, but the ISO price must still be satisfied.

Is there an alternative to investigate here to distribute non-standard materials? Also look into the steps that John Benito has taken to distribute the C standard.

Bill Thomas will investigate further and report back at meeting #63.

Stephen Michell will investigate further and report back at meeting #67.

**Action 63-3**

Determine if the IRTAW group is willing to update the ISO/IEC 15942 standard to be in alignment with Ada 2012. (Tullio Vardanega)

*Status: Open*

*Discussion:* Tullio has talked with Alan Burns but no further action has been taken at this time. Revisit at the next meeting.

[AGENDA](#AA)

### Committee as a Whole

* Country Designations on Rapporteur Group Membership (Tokar)

We conducted an email ballot after the last meeting of WG 9 to determine if we should continue including the country designation on the members of the Rapporteur Groups (RGs). The few responses received were split. However, given the need to include participants in the RGs that are not necessarily experts designated by a country, it is my recommendation that we do not continue to include the country designation on the RG members.

Unfinished Business

**New Business**

Scheduling of Future Meetings

The next meeting of WG9 will be held in conjunction with the [20th International Conference on Reliable Software Technologies Ada-Europe 2015](http://www.ada-europe.org/conference2015), in the morning of Friday 26 Jun3 2015 in Madrid, Spain.

The next meeting of WG9 will be held in conjunction with [High Integrity Language Technology 2015 (HILT 2015)](http://www.sigada.org/conf/hilt2015), <TBD> in <TBD>.

Resolution.

[AGENDA](#AC)

**Administrative Actions**

#### Resolution 67-1:

The minutes of Meeting #66 contained in document [N544](#N544) are approved.

##### Resolution 67-2:

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

Jeff Cousins is appointed as Rapporteur.

The membership of the ARG is designated to be: Steve Baird, John Barnes, Geert Bosch, Randy Brukardt, Alan Burns, Jeff Cousins, Robert Dewar, Gary Dismukes, Robert Duff, Pascal Leroy, Brad Moore, Erhard Ploedereder, Jean-Pierre Rosen, Ed Schonberg, Tucker Taft, and Tullio Vardanega.

The Convenor of WG 9 is authorized to act for WG 9 between meetings in appointing additional members of the ARG. In doing so, she 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 67-3:

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

Alan Burns is continued as Rapporteur.

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

The Convenor of WG 9 is authorized to act for WG 9 between meetings in appointing additional members of the HRG. In doing so, she 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 67-4:

ISO/IEC JTC 1/SC 22/WG 9 schedules future meetings as follows:

Meeting #68, in conjunction with the [20th International Conference on Reliable Software Technologies Ada-Europe 2015](http://www.ada-europe.org/conference2015), Friday morning 26 June 2015 in Madrid Spain.

Meeting #69, in conjunction with [High Integrity Language Technology 2015 (HILT 2015)](http://www.sigada.org/conf/hilt2015), <TBD> in <TBD>.

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#### Review of New Action Items

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### Review of New Resolutions

**Resolution 67-5:**

AI12-0042-1/11 2014-09-29 -- Type invariant checking rules

AI12-0055-1/06 2014-09-29 -- All properties of a usage profile are defined by pragmas

AI12-0068-1/02 2014-07-22 -- Predicates and the current instance of a subtype

AI12-0074-1/06 2014-09-29 -- View conversions and out parameters passed by copy

AI12-0080-1/08 2014-09-29 -- More presentation errors in Ada 2012

AI12-0095-1/03 2014-09-29 -- Generic formal types and constrained partial views

AI12-0096-1/02 2014-09-29 -- The exception raised when a subtype conversion fails a predicate check

AI12-0097-1/02 2014-07-15 -- Tag of the return object of a simple return expression

AI12-0098-1/02 2014-09-29 -- Problematic examples for ATC

AI12-0099-1/03 2014-09-29 -- Wording problems with predicates

AI12-0100-1/02 2014-07-14 -- A qualified expression makes a predicate check

AI12-0101-1/03 2014-09-29 -- Incompatibility of hidden untagged record equality

AI12-0102-1/02 2014-10-02 -- Stream\_IO.File\_Type has Preelaborable\_Initialization

AI12-0104-1/02 2014-10-02 -- Overriding an aspect is undefined

AI12-0105-1/03 2014-10-02 -- Pre and Post are not allowed on any subprogram completion

AI12-0107-1/03 2014-10-02 -- A prefixed view of a By\_Protected\_Procedure interface has convention protected

AI12-0110-1/02 2014-07-23 -- Tampering checks are performed first

AI12-0114-1/03 2014-10-02 -- Overlapping objects designated by access parameters are not thread-safe

AI12-0116-1/03 2014-10-02 -- Private types and predicates

AI12-0120-1/04 2014-10-02 -- Legality and exceptions of generalized loop Iteration

These AIs are hereby approved by WG9.

**Resolution 67-6:**

*TBD*

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### Final Consideration of Resolutions

#### Appreciation

**Resolution 67-8:**

ISO/IEC JTC 1/SC 22/W 9 expresses its grateful appreciation to HILT for their gracious accommodations for Meeting #67.

**Resolution 67-9:**

ISO/IEC JTC 1/SC 22/W 9 expresses its grateful appreciation to Clyde Roby for his continuing service in maintaining the WG 9 Web Page.

##### Resolution 67-10:

ISO/IEC JTC 1/SC 22/W 9 expresses its grateful appreciation to <TBD> for acting as secretary for Meeting #67.

##### Resolution 67-11:

ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to Joyce Tokar for convening Meeting #67.

[AGENDA](#AF)

Recess –

The meeting ended at <TBD>. The Convenor recessed the meeting subject to her call. HODs may anticipate email ballots to be conducted during the months between this meeting and the next one.

[AGENDA](#AG)

## REFERENCES

### Relevant WG9 Documents

[ISO/IEC 8652:2012](http://www.iso.org/iso/home/store/catalogue_ics/catalogue_detail_ics.htm?csnumber=61507) Information Technology--Programming Languages—Ada

[ISO/IEC 8652:1995](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=22983) Information Technology--Programming Languages—Ada

[ISO/IEC 8652:1995/COR.1:2001](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=35451), Technical Corrigendum to Information Technology--Programming Languages—Ada

[ISO/IEC 8652:1995/AMD.1:2007](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=45001), Amendment to Information Technology--Programming Languages—Ada

[N388](http://www.open-std.org/jtc1/sc22/wg9/n388.htm), Request for Subdivision of Project ISO/IEC 8652:1995

[N406](http://www.open-std.org/jtc1/sc22/wg9/n406.pdf), Procedures of the Ada Rapporteur Group

[N412](http://www.open-std.org/jtc1/sc22/wg9/n412.pdf), Instructions to the Ada Rapporteur Group from SC22/WG9 for Preparation of the Amendment to ISO/IEC 8652, 10 October 2002

[N414](http://www.open-std.org/jtc1/sc22/wg9/n414.pdf), Notification of Approval of Category C Liaisons between SC22/WG9 and Ada-Europe and SIGAda

[N416](http://www.open-std.org/jtc1/sc22/wg9/n416.htm), Charter of the Annex H Rapporteur Group (HRG)

[N417](http://www.open-std.org/jtc1/sc22/wg9/n417.htm), Charter of the ASIS Rapporteur Group (ASISRG)

[N423](http://www.open-std.org/jtc1/sc22/wg9/n423.pdf), Convener's Comments on Instructions to the Ada Rapporteur Group from SC22/WG9 for Preparation of the Amendment to ISO/IEC 8652, December 2002

[N437](http://www.open-std.org/jtc1/sc22/wg9/n437.pdf), ARG Rapporteur's Proposal for Defining Scope of Amendment to ISO/IEC 8652:1995, 9 April 2004

[N456](http://www.open-std.org/jtc1/sc22/wg9/N456.pdf), Convener Proposal for the Revision of the ASIS Standard, ISO/IEC 15291

[N457](http://www.open-std.org/jtc1/sc22/wg9/n457.pdf), Approved Plan for the Revision of the ASIS Standard, ISO/IEC 15291

[N459](http://www.open-std.org/jtc1/sc22/wg9/n459.txt), Disposition of Informal Comments Received on Editor's Draft of Amendment, 23 March 2006

[N460](http://www.open-std.org/jtc1/sc22/wg9/n460.pdf), Editor's Draft, Amendment 1 to ISO/IEC 8652, March 2006

[N462](http://www.open-std.org/jtc1/sc22/wg9/n462.pdf), JTC1 Directives, 5th edition, Version 2, April 2006 (JTC001-N-8122)

[N463](http://www.open-std.org/jtc1/sc22/wg9/n463.pdf), ISO/IEC Directives, Part 2, Rules for the structure and drafting of International Standards

[N464r](http://www.open-std.org/jtc1/sc22/wg9/n464r.pdf), 2nd Preliminary draft New Work Item Proposal for the Revision of ISO/IEC 15291, ASIS

[N465](http://www.open-std.org/jtc1/sc22/wg9/N465.pdf), Response of ISO/IEC JTC1/SC22/WG9 to SC22 Resolution 5-15

[N467](http://www.open-std.org/jtc1/sc22/wg9/n467.pdf), Submission of ISO/IEC 8652:1995/FPDAM 1 to SC22 for FPDAM ballot

[N468](http://www.open-std.org/jtc1/sc22/wg9/n468.pdf), Example approach for structuring the revised ASIS Standard

[N472](http://www.open-std.org/jtc1/sc22/wg9/n472.pdf), Proposal to Revise ISO/IEC 15291, Information technology - Programming languages - Ada Semantic Interface Specification (ASIS)

[N477](http://www.open-std.org/jtc1/sc22/wg9/n477.pdf), Canadian Contribution, Initial Work Scope Summary for updating Ada POSIX Bindings IS 14519:2001 to POSIX Draft IS 9945:2008 and Ada 2005.

[N479](http://www.open-std.org/jtc1/sc22/wg9/n479.pdf), SIGAda contribution, Clyde Roby, Notes of Birds-of-a-Feather session on POSIX-Ada Binding, conducted at SIGAda 2006, November 15, 2006, Albuquerque, NM, USA.

[N489](http://www.open-std.org/jtc1/sc22/wg9/n489.ppt), OWGV Summary 2008

[N490](http://www.open-std.org/jtc1/sc22/wg9/n490.htm), Minutes, Meeting #54 of ISO/IEC JTC1/SC22/WG9, Friday, 20 June 2008, Venice, Italy

[N491](http://www.open-std.org/jtc1/sc22/wg9/n491.htm), Convener's Report, 2008, ISO/IEC JTC 1/SC 22/WG 9 (Ada)

[N492](http://www.open-std.org/jtc1/sc22/wg9/n492.rtf), Announcement and Draft Agenda, Meeting #55 of ISO/IEC JTC 1/SC 22/WG 9, Thursday, 30 October 2008, Portland, Oregon, USA

[N493](http://www.open-std.org/jtc1/sc22/wg9/n493.htm), Detailed Draft Agenda, Meeting #55 of ISO/IEC JTC 1/SC 22/WG 9, Friday, 30 October 2008, Portland, Oregon, USA

[N494](http://www.open-std.org/jtc1/sc22/wg9/n494.htm), Draft Meeting Minutes, Meeting #55 of ISO/IEC JTC1/SC22/WG9, Thursday, 30 October 2008, Portland, Oregon, USA

[N495](http://www.open-std.org/jtc1/sc22/wg9/n495.htm), Draft Agenda, Meeting #56 of ISO/IEC JTC 1/SC 22/WG 9, Friday, 12 June 2009, Brest, France

[N496](http://www.open-std.org/jtc1/sc22/wg9/n496.doc), Detailed Agenda, Meeting #56 of ISO/IEC JTC 1/SC 22/WG 9, Friday, 12 June 2009, Brest, France

[N497](http://www.open-std.org/jtc1/sc22/wg9/n497.doc), Meeting Minutes, Meeting #56 of ISO/IEC JTC-1/SC-22/WG 9, Friday, 12 June 2009, Brest France

[N498](http://www.open-std.org/jtc1/sc22/wg9/n498.pdf), Instructions to the Ada Rapporteur Group from SC 22/WG 9 for Preparation of Amendment 2 to ISO/IEC 8652

[N499](http://www.open-std.org/jtc1/sc22/wg9/n499.doc), Announcement and Draft Agenda, Meeting #57 of ISO/IEC JTC1/SC22/WG9, Thursday, 5 November 2009, Tampa Bay, Florida

[N500](http://www.open-std.org/jtc1/sc22/wg9/n500.doc), Convener's Report, 2009, ISO/IEC JTC 1/SC 22/WG 9 (Ada)

[N501](http://www.open-std.org/jtc1/sc22/wg9/n501.doc), Detailed Agenda, Meeting #57 of ISO/IEC JTC1/SC22/WG9, Thursday, 5 November 2009, Tampa Bay, Florida

[N502](http://www.open-std.org/jtc1/sc22/wg9/n502.doc), Meeting Minutes, Meeting #57 of ISO/IEC JTC-1/SC-22/WG 9, Thursday 5 Nov 2009 in Tampa Bay, Florida.

[N503](http://www.open-std.org/jtc1/sc22/wg9/n503.doc), Announcement and Draft Agenda, Meeting #58 of ISO/IEC JTC1/SC22/WG9, Friday, 18 June 2010

[N504](http://www.open-std.org/jtc1/sc22/wg9/n504.doc), Detailed Agenda, Meeting #58 of of ISO/IEC JTC1/SC22/WG9, Friday, 18 June 2010

[N505](http://www.open-std.org/jtc1/sc22/wg9/n505.doc), ARG Rapporteur’s Proposal for Defining Scope of Amendment 2 to ISO/IEC 8652:1995, 4 June 2010

[N506](http://www.open-std.org/jtc1/sc22/wg9/n506.doc), Draft Letter to the Community

[N507](http://www.open-std.org/jtc1/sc22/wg9/n507.doc), Annex Ada to ISO/IEC JTC 1/SC 22/WG 23 N0238, Guidance to Avoiding Vulnerabilities in Programming Languages through Language Selection and Use, Draft 1, 20 June 2010

[N508](http://www.open-std.org/jtc1/sc22/wg9/documents.htm), Draft Minutes, Meeting #58 of ISO-IEC JTC-1 SC-22-WG 9, Friday, 18 June 2010, Valencia, Spain

[N509](http://www.open-std.org/jtc1/sc22/wg9/documents.htm), Convener's Report, 2009, ISO/IEC JTC 1/SC 22/WG 9

N510, Request for Subdivision of Project ISO/IEC 8652:1995

[N511](http://www.open-std.org/jtc1/sc22/wg9/documents.htm), Announcement and Draft Agenda, Meeting #59 of ISO/IEC JTC 1/SC 22/WG 9, Thursday afternoon, 28 October 2010, Fairfax, VA, USA

[N512,](http://www.open-std.org/jtc1/sc22/wg9/n512.doc) Ada Annex for the WG23 Technical Report on Software Vulnerabilities, Draft 2.

[N513](http://www.open-std.org/jtc1/sc22/wg9/n513.doc), Draft Detailed Agenda, Meeting #59 of ISO-IEC JTC-1 SC-22-WG 9, Thursday, 28 October 2010, Fairfax, VA

[N514](http://www.open-std.org/jtc1/sc22/wg9/n514.doc), Draft Minutes, Meeting #59 of ISO-IEC JTC-1 SC-22-WG 9, Thursday, 28 October 2010, Fairfax, Virginia, USA

[N515](http://www.open-std.org/jtc1/sc22/wg9/n515.doc), Announcement and Draft Agenda, Meeting #60 of ISO/IEC JTC 1/SC 22/WG 9, Friday morning 24 June 2011, Edinburgh, UK.

[N516](http://www.open-std.org/jtc1/sc22/wg9/n516.doc), ISO/IEC JTC 1/SC 22/WG 23 N0296 – Ada Annex to WG23 TR on Software Vulnerabilities.

[N517](http://www.open-std.org/jtc1/sc22/wg9/n517.doc), ISO/IEC JTC 1/SC 22/WG 23 N0275 – SPARK Annex to WG23 TR on Software Vulnerabilities.

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