# ISO/IEC JTC1/SC22/WG9 N 538

### Detailed Draft Agenda

### Meeting #65 of ISO/IEC JTC1/SC22/WG9

**Friday 15 November 2013 in Pittsburgh, PA, USA**

In accordance with Resolution 64-5, the next meeting, meeting #65 will be conducted in conjunction with the [High Integrity Language Technology 2012 (HILT 2013)](http://www.sigada.org/conf/hilt2012), Friday morning 15 November 2013 in Pittsburgh, USA, 9:00AM-12:00.

A special session with Ada Vendors is scheduled to begin at 11:00 to discuss Ada 2012 and beyond.

The announcement and preliminary agenda for this meeting were circulated as [N537](#N537).

### AGENDA

[Opening Orders](#Opening)

[National Body Reports and Introductions](#_National_Body_Reports)

[Liaison Reports and Introductions](#LiasonReports)

* [Ada Europe](#AdaEurope): Dirk Craeynest
* [SIGAda](#SIGAda): David Cook
* WG 23: 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](#ARG): Jeff Cousins, Chair
* [Report of Annex H Rapporteur Group](#HRG): Alan Burns, Chair

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

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### Opening Orders, Joyce Tokar, Meeting Convenor

* Call to Order
* Appointment of Meeting Secretary
* Approval of [Agenda](#Agenda)
* Welcome and Administrative Arrangements
* Approval of [N535](#N535): Meeting #64 Minutes – Resolution [65-1](#r1)

[AGENDA](#A1)

### National Body Reports

##### National Body Representatives:

|  |  |  |
| --- | --- | --- |
| Canada  | Brad Moore (HOD), Stephen Michell | [Report](#Canada) |
| France | Jean-Pierre Rosen (HOD) (unable to attend) | [Report](#FRANCE) |
| Germany | *TBA* (HOD)  | Report |
| Italy | Tullio Vardanega (HOD) (unable to attend) | [Report](#ITALY) |
| Portugal | Miguel Pinho (HOD) | [Report](#PORTUGAL) |
| Spain | Juan Antonio de la Puente (HOD) (virtual) | [Report](#SPAIN) |
| Switzerland | Patrick Gautschi (HOD)  | No Report |
| UK | Jeff Cousins (HOD), John Barnes | [Report](#UK) |
| USA | S Tucker Taft (HOD), Randy Brukardt | [Report](#USA) |

**Canada**

In Canada's previous national body report to WG9, it was proposed that Canada would initiate a request to SC22 at its September plenary to form a study group to determine the feasibility of creating a parallelism model that could be shared between programming languages. Such a model ideally would allow for optimal use of the system processing resources and avoid over-subscription of parallelism.

The request was made at the plenary, but SC22 declined to create such a study group, and instead encouraged other languages to participate in CPLEX.

Canada's previous national body report also proposed that a teleconference be scheduled to discuss this issue between WG9 members, however since the CPLEX meets by teleconference every 2 weeks, the need for a WG9 specific teleconference no longer seems necessary at this time.

Canada and Portugal in particular have been following the CPLEX discussions, and have contributed to the discussion.

On the topic of ASIS, Canada believes that ASIS is a useful specification, but it comes into question whether it makes sense to continue work on the standard at this time, if there is only one vendor that implements the specification. Canada would like to hear if there are other vendors that would be interested in implementing an updated specification, if such an update were to be made available.

### FranceThe Ada group of AFNOR met on 2013-10-23.AFNOR is reinforcing the view that working groups should be not only financially viable, but also representative of the industry. Some of our industrial members have expressed the desire to experiment with Ada 2012 first, before being able to contribute actively to the group. This means that there is a risk that the group may entered a dormant state in 2014.AFNOR would be happy to host a WG9 meeting in June 2014, provided the Ada group is still active next year.The group reviewed the AIs and expressed no objection to their approval.AFNOR will not be represented at the upcoming WG9 meeting, since no member is able to go to the SIGAda conference.

**Italy**Nowadays, WG9-related business is conducted primarily upward, towards the SC22 level, by sending out recommendations on issues that matter the operation of WG9. Very little energy is available for networking downward, mostly because of the lack of commitment toward WG9 issues from industrial concerns in Italy.

As a HoD for Italy I did perform work for ARG and WG23 subsequent to the respective meetings in Berlin.

As for the WG9 meeting at the HILT, owing to heavy teaching duty back at home, I won't be able to attend in person and there won't be any substitute too.

**Portugal**

There is no new information concerning the restructuring of the standardization activities in Portugal. Therefore National work related to WG9 continues to be in direct connection with the NB.

The delegation for this meeting of WG9 is Luís Miguel Pinho (HOD), attending in person.

**Spain**

5 November, 2013

Ada Spain will distribute the Ada 2012 Rationale to all its members, and will offer them the possibility of buying the Standard at a reduced price.

The Spanish delegation for this meeting of WG 9 is Juan de la Puente (HOD). He will participate via teleconference.

### 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 9. Alan Burns regrets that he is unable to attend and sends his apologies.

John Barnes completed the Ada 2012 Rationale. Jeff Cousins reviewed it and suggested changes, which were made. The Rationale is now with the publisher.

**USA**

The US has nothing special to report.

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### Liaison Reports

**Ada-Europe Liaison Report:**

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

Ada-Europe would like to inform the WG9 convener that it will send a 2 person Ada-Europe liaison delegation to Meeting #65 in Pittsburgh, PA, USA, on Friday 15 November 2013.

The delegation consists of:
- Erhard Ploedereder
- Dirk Craeynest (presenter)

As mentioned in earlier meetings, the next Ada-Europe conference will be held on June 23-27, 2014, in Paris, France, and we reconfirm our usual hospitality agreement for WG9, ARG and HRG, as well as for WG23.

Although no firm decisions have been taken yet, we are expecting the 2015 conference to be organized by Ada-Spain in the Madrid area.

Ada-Europe regrets that John Benito had to resign from WG23, and we are worried about the future of the work of WG23.

Ada-Europe reconfirms its commitment to support the Ada standardization related activities.  As in previous years, Ada-Europe is committed to continue supporting the WG9 convener, hopefully together with SIGAda and the ARA.

Furthermore, Ada-Europe co-sponsored the Ada 2012 work, by supporting the RM editor of the new language standard, and, after publishing the Rationale chapters in its Ada User Journal, has now produced together with the ARA and AdaCore the book version of the Rationale.

On the occasion of HILT 2013 its free availability for downloading is announced, as well as its commercial publication in Springer's LNCS series (volume 8338).  At least 750 copies of the Ada 2012 Rationale LNCS 8338 are going to printed, and because of the large order we were able to considerably reduce the cost of production. Several national organizations (Spain, Belgium and Switzerland) bought a copy for each of their members, in other countries direct and indirect members decide on an individual basis.

The plans for the near future include also publishing the Reference Manual in Springer's LNCS series (volume 8339).  Both publications have been self-financed, i.e. at no cost to Ada-Europe.

**SIGAda Liaison Report:**

**SIGAda Liaison Representative, David Cook (Chair, SIGAda)**

##### Background

SIGAda is a Category C Liaison to WG 9 (See N414)

**Report**

The next SIGAda meeting is planned for the Portland, Oregon area in the fall of 2014. Michael Feldman (George Washington University, Retired) has agreed to be the conference chair and Tucker Taft has agreed to be the Program Chair. In addition, Jeff Boleng has agreed to be Conference Treasurer. We are planning on co-locating this conference in conjunction with SPLASH (Conference on **Systems, Programming, Languages and Applications: Software for Humanity**), sponsored by SIGPLAN.

In summer 2013, SIGAda held elections, and the new officers are: David A. Cook (Chair), Tucker Taft (Vice Chair), Clyde Roby (Secretary/Treasurer), and Dirk Craeynest (International Representative). Completing the Executive Committee are Ricky Sward (Past Chair) and Alok Srivastava (Editor of ACM Ada Letters).

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

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

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

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### Convenor's Report

### Activities since the Last Session

JTC 1/SC 22 accepted the US National Body has endorsed of Dr. Joyce Tokar as the US candidate for Convenor of JTC 1/SC 22.WG 9 – Ada at the JTC 1/SC 22 Plenary in Japan.

**Welcome**

#### Goals for this Meeting

The major objectives for this meeting are:

1. Ada Conformance Assessment
2. Update to the Appendices to the WG 23 Technical Report on Vulnerabilities – discussion during the Committee as a Whole session
3. Discussion on the ASIS standard
4. Special session with Ada Vendors to discuss Ada 2012 and beyond.

[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)

[AGENDA](#A5)

### Rapporteur Reports

**Rapporteur Report ARG:**

The Ada 2012 standard has already generated 79 Ada issues. The ARG meeting in Berlin during June 2013 discussed all of the High and Medium priority AIs, all of the Low priority Easy difficulty AIs and half of the Low priority Medium difficulty AIs. Most achieved some form or other of interim approval.

As there is not yet a work item for a further amendment, only the most promising amendment AI (Index parameters in array aggregates) was discussed. It was greeted with relative enthusiasm.

As of 25 Oct 2013, 11 AIs have been approved by WG 9, 19 by the ARG but not yet by WG 9 and 38 are work in progress. 24 of the 38 are candidate amendments.

A number of AI's have completed editorial review and are ready for approval by WG 9. The list follows. As usual, 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 8 Oct 2013):

AI12-0001-1/06 2013-08-27 -- Independence and Representation clauses for atomic objects

AI12-0030-1/06 2013-07-19 -- Formal derived types and stream attribute availability

AI12-0032-1/07 2013-07-17 -- Questions on 'Old

AI12-0033-1/08 2013-10-07 -- Sets of CPUs when defining dispatching domains

AI12-0034-1/05 2013-10-07 -- Remote stream attribute calls

AI12-0035-1/05 2013-10-07 -- Accessibility checks for indefinite elements of containers

AI12-0044-1/05 2013-10-07 -- Calling visible functions from type invariant expressions

AI12-0050-1/04 2013-07-17 -- Conformance of quantified expressions

AI12-0054-2/05 2013-10-07 -- Aspect Predicate\_Failure

AI12-0056-1/05 2013-07-03 -- Presentation errors in Ada 2012

AI12-0062-1/02 2013-07-03 -- Raise exception with failing string function

AI12-0067-1/02 2013-10-07 -- Accessibility level of explicitly aliased parameters of procedures and entries

AI12-0069-1/02 2013-10-07 -- Inconsistency in Tree container definition

AI12-0070-1/03 2013-10-07 -- 9.3(2) does not work for anonymous access types

AI12-0072-1/05 2013-10-07 -- Missing rules for Discard\_Names aspect

AI12-0073-1/02 2013-07-05 -- Synchronous Barriers are not allowed with Ravenscar

AI12-0076-1/04 2013-10-07 -- Variable state in pure packages

AI12-0077-1/02 2013-10-07 -- Has\_Same\_Storage on objects of size zero

AI12-0078-1/01 2013-06-14 -- Definition of node for tree container is confusing

Work on the ASIS standard continues to be more-or-less non-existent, apart from a useful matrix from Jean-Pierre Rosen listing which AIs are likely to have impacted ASIS. The editor has no funding for work on ASIS, which is a contributing factor to the lack of progress.

Future meetings are scheduled for 15-17 November 2013 in Pittsburgh, Pennsylvania, U.S.A., in conjunction with the HILT (formerly SIGAda) 2013 conference, and provisionally for 27-29 June 2014 in Paris, France, in conjunction with the Ada-Europe 2014 conference.

Continuation of the ARG: Resolution [65-2](#r2).

**Rapporteur Report HRG:**

The HRG is tasked with responding to the new version of the Language Vulnerabilities Report within the context of the new version of Ada (2012). Both of these updates will require modifications to the Ada (and Spark) annex.

An initial meeting of the HRG is planned to take place on the 13th November 2013. A further meeting will occur during Ada Europe 2014.

Membership of HRG remains unchanged.

Continuation of the HRG: Resolution [65-3](#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 #65.

[AGENDA](#AA)

### Committee as a Whole

* Issues from the ISO/IEC JTC 1 Pleneray (Michell)

Report to ISO/IEC/JTC 1/SC 22/WG 9 from the 2013 JTC 1 Plenary (4-10 Nov 2013) Stephen Michell

I attended the JTC 1 Plenary as a Canadian delegate. I would like to bring to WG 9's attention some developments that can be important to WG 9.

JTC 1 is still working through the process of aligning its supplement with the ISO/IEC combined directives.

One of the issues that JTC 1 has had to deal with is the slippage of ISO and IEC getting their directives out. This year the first JTC 1 saw of the combined directives was June 2012, well after our March meeting, which caused the JTC 1 supplement update to slip to Jan 1 2014.

ISO and IEC are exerting considerable pressure for JTC 1 to better align its processes with their processes. One example of this the use of “delegates” or “experts” to WG meetings. Our parents believe that WG membership is for experts, and that decisions made should be by consensus of experts, not NB delegates. JTC 1 wording stating that technical experts should work within their NB position has been removed. The affect on WG 9 is that WG 9 may be directed in future to conduct Working Drafts of its products exclusively by consensus and to not use NB positions as a basis for decisions.

Another area that these changes can affect WG 9 is in the use of TR's and TS's. At a SWG Directives meeting, the ISO ITTF representative pointed out to me that the way that SC WG's are producing TR's is wrong. His claim is that the documents that we call TR's should have been standards. In the ISO and IEC view of their products, Technical Reports are only collections of data put together by the experts without the weight of an official Project, and passed and published in a single level of balloting (CD level). JTC 1 currently has an ad hoc group looking at the TR and the TS processes. It is probable that this work will result in the elimination of the JTC 1-specific wording on these products.

The result for WG 9 is that WG 9 may be told in the near future to seriously consider the status of TR's for which it is responsible, with the possible expectation that such documents be reclassified as standards instead of being kept as Technical Reports. Another effect would be that WG 9 could not submit NP ballots for TR development.

Under ISO/IEC rules, Technical Specifications, they would continued to be used as near-standards, i.e. failed standards or documents that are expected to become standards within a few years of publication as a TS. Balloting of TS's would require a 2/3 majority of SC P-members in a subcommittee-level ballot (and no TC level ballot). Currently WG 9 has no documents that rate the status of TS.

* Future of ASIS
	+ There has been a stream of discussion on the ARG mailing list regarding how to handle updating the ASIS standard or if we should update the ASIS standard. This session will enable members of the WG 9 to comment on their preferences.
* Modified process for changes to the language
	+ As stated in an email from the Convenor on 17 Sep 2013, the FORTRAN WG corrects 'glitches' in their standard using yearly corrigenda. Some of the National Bodies have indicated that it is desirable to get corrections to the standard out to the public more frequently than the 5+ year cycle of the revision to the standard.
* Update to Ada Annex and SPARK Annex to the WG 23 Technical Report on Vulnerabilities (Tokar)
* Special Session with Vendors

Unfinished Business

**New Business**

Scheduling of Future Meetings

The next meeting of WG-9 will be held in conjunction with the [19th International Conference on Reliable Software Technologies Ada-Europe 2014](http://www.ada-europe.org/conference2013), Friday morning 27 June 2014 in Paris, France.

The following meeting will be held in conjunction with [High Integrity Language Technology 2014 (HILT 2014)](http://www.sigada.org/conf/hilt2014), TBD in Portland OR, USA.

Resolution [65-4](#r4)

[AGENDA](#AC)

**Administrative Actions**

##### Resolution 65-1:

The minutes of Meeting #64 contained in document [N535](#N535) are approved.

##### Resolution 65-2:

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.

Jeff Cousins (UK) is continued as Rapporteur.

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

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 65-3:

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.

Alan Burns (UK) is continued as Rapporteur.

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

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 65-4:

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

Meeting #66 in conjunction with the [19th International Conference on Reliable Software Technologies Ada-Europe 2014](http://www.ada-europe.org/conference2014), Friday morning 29 June 2013 in Paris, France.

Meeting #67, in conjunction with [High Integrity Language Technology 2014 (HILT 2014)](http://www.sigada.org/conf/hilt2014), <TBD> in Portland OR, USA

[AGENDA](#AD)

#### Review of New Action Items

[AGENDA](#AD)

### ****Review of New Resolutions****

##### Resolution 65-x:

*TBD*

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### Final Consideration of Resolutions

#### Appreciation

**Resolution 65-8:**

ISO/IEC JTC 1/SC 22/W 9 expresses its grateful appreciation to SIGAda for their gracious accommodations in hosting Meeting #65.

**Resolution 65-9:**

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 65-10:

ISO/IEC JTC 1/SC 22/W 9 expresses its grateful appreciation to <TBD> for acting as secretary for Meeting #65.

##### Resolution 65-11:

ISO/IEC JTC 1/SC 22/WG 9 expresses its grateful appreciation to Joyce Tokar for convening Meeting #65.

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**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 8652:1995](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

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