ASIS Report for WG9 Meeting on 14 November 1997
St. Louis, Missouri, United States

This report covers the ASIS activities since the last ISO/IEC JTC1/SC22 WG9 meeting on 2 June 1997 in London, England.

I. Background

At the WG9 meeting on 2 June 1997, WG9 unanimously approved the following 3 Resolutions by the nations present: Canada, France, Germany, Japan, Sweden, Switzerland, United Kingdom, United States:

- RESOLUTION: The disposition of comments on the ASIS Working Draft ballot is approved by WG9 and the Project Editor of project 15291 is authorized to forward Version 2.0.N of the draft to the SC22 secretariat for CD registration. [Passed: 8 Affirmative; 0 Abstain; 0 Negative].

- RESOLUTION: WG9 authorizes Convener, in his judgment, to combine CD registration and CD ballot. [Passed: 8 Affirmative; 0 Abstain; 0 Negative].

- RESOLUTION: WG9 authorizes Convener, in his judgment, to combine CD registration and CD ballot and Final CD ballot. [Passed: 7 Affirmative; 0 Abstain; 1 Negative].

II. Risk Assessment for CD Final Ballot

To assess risk for the combined CD registration, CD Ballot, and Final CD Ballot, the ASIS Working Draft was submitted to ISO in July to identify possible formatting problems that might prevent a successful Final CD Ballot. A number of such formatting problems were identified and corrected by Mr. Clyde Roby. Mr. Jim Moore then made available to SC22 representatives this corrected ASIS Working Draft as an advance copy. This resulted in only positive comments. We concluded that a combined CD registration, CD ballot and Final CD ballot would be of low risk.

III. ASIS Resolution at SC22 Meeting

At the SC22 meeting from 18-22 August 1997 in Ottawa, Canada, Mr. Jim Moore, Convener of WG9, made the official request of SC22 to concurrently conduct the CD registration Ballot for ASIS and the Final CD Ballot for ASIS. This was approved unanimously by SC22.

- RESOLUTION 97-21: Concurrent Letter Ballots for Ada ASIS

    ISO/IEC JTC 1/SC22 authorizes the Secretariat to conduct concurrent CD registration and Final CD letter ballots for project JTC 1.22.15291 - Ada Semantic Interface Specification (ASIS).

IV. SC22 Concurrent Balloting of ASIS

Version 20P was hand delivered to Mr. Bill Rinehuls, the SC22 Secretariat, on 12 September 1997. He has commenced the SC22 Balloting process for concurrent registration of ASIS as an ISO Committee Draft (CD) and the CD Final Ballot.

The Ballots are due on 9 March 1998 (4 months for balloting and 45 days for shipping and handling).

V. Differences between ASIS 20N and ASIS 20P

The differences between ASIS 20N and 20P are very minor, but very important. This version is called 20p instead of 20O as the letter "O" is too easily confused with a zero.

These differences are:

1. Changes based on ISO Review [Comment #091] - Mr. Jim Moore, Convenor of WG9, arranged for ISO to review the ASIS Specification to mitigate our risk in requesting a CD Final Ballot. These changes are mostly cosmetic, but needed and include:

- Removal of miscellaneous stuff on cover page (specially an offensive Algerian Font).
- Space for copyright notice on page ii.
- Reformatting of some index items.
- Different numbering system for figures.
- Only a Forward and Introduction prior to Page 1 (most other stuff folded into Introduction).
- Correct referencing of ASIS as Standard.
- Repagination for proper headers and footers.
- Minor rewordings.

2. Useable Index [Comment #092] - The Index had been generated automatically by using the Ada 95 syntactic terms and the ASIS interface terms. There is a major flaw in the automatic indexing capability of the word processor in that only about 1/2 of the terms are automatically indexed. A second problem is that a terms such as: A_Tagged_Record_Type_Definition would be indexed under A_Tagged_Record_Type_Definition, record_type_definition, Type_Definition, and Definition. This was not useful. The ASIS specification has now been manually indexed where extraneous indexed fields have been removed. Every ASIS interface is now indexed, including parameters, and expected result kinds. This brought the size of the ASIS specification from almost 1.9 MBytes to 1.6 MBytes.

3. Ada Wide_Character and Wide_String [Issue #064] - Based on considerable discussion of Wide_String issues, the following was done:

Commentary in Section 3 was changed to read:

> *"The ASIS interface uses string parameters for many procedure and function calls. Wide_String is used to convey ASIS environment information. Program_Text, a subtype of Wide_String is used to convey program text. The type String is not used in the ASIS interface. Neither the Ada types Character nor Wide_Character are used in the ASIS interface."*

A new subtype was added in clause 3.14: subtype Program_Text is Wide_String;

All the overloading between the previous String and Wide_String subprograms has been eliminated.

4. Missed returned kind for Result Profile [Issue #080] - An_Attribute_Reference added to returned Expression_Kinds list for Clause 15.20 for function Result Profile.

5. Recursive Calls of Generic Subprograms [Issue #081] - A_Generic_Function_Declaration was added as a returned Declaration_Kinds to Clause 17.29 Corresponding_Called_Function. A_Generic_Procedure_Declaration was added to the returned Declaration_Kinds to Clause 18.25 Corresponding_Called_Entity.

These last 3 technical changes were done after consultation with the Convenor of WG9 as long as we were making changes from the ISO review. We believe it is to our advantage to incorporate these in the version presented for CD balloting as the Wide_String issue might certainly cause a stir. Also ASIS Version 20p might be the last version we will be able to distribute electronically on the ASIS Home Page. Current ISO policy allows evolving versions of ISO documents to be made available electronically up to the CD. However, this is a one year trial policy which might expire circa December 1997. ISO is in the process of formulating better policies to deal with electronic distribution of standards. We do not know what the policy might be next year.

VI. Potential ASIS Issues

ASIS Version 20p incorporates all known issues presented asis-technical/asis-comment by 25 August 1997. There are several additional issues recently raised which might take the form of national comments during the SC22 balloting process. These are:

Issue #082	Categorization Pragmas
Issue #083	Normalized Generic Association Question
Issue #084	Formal Package Parameter Seen as Instantiation
Issue #085	Is_Defaulted_Association Expected Kinds List

VII. ASIS Activities at Tri-Ada'97

- Monday Morning, 10 November; Half Day Tutorial

Building Development Tools for Use with GNAT.
Sergey I. Rybin, Moscow State University
Cyrille Comar, ACT

- Tuesday Afternoon, 11 November; 4:00-5:30 P.M.; ASIS Panel

ASIS Panel: Roll Your Own Analysis Tools

Chair:	Mr. Currie Colket, Chairman ASISWG/ASISRG
Panelists:	Dr. Joyce, Tokar, DDC-I
	Technical Presentation on ASIS 95 Interface
	Dr. Bill Thomas, MITRE
	Rolling Your Own Tools using ASIS
	Dr. Herm Fischer, MARK V
	Roll Your Own Tools from ObjectMaker Experience
	Mr. Bob Kitzberger, Rational
	Roll Your Own Tools from TestMate Experience
	Mr. Clyde Roby, IDA
	ASIS 95 Artifacts on the Internet

- Wednesday Afternoon, 12 November; 4:00-5:30 P.M. Development Tools II Session:

ASIStint: An Interactive ASIS Interpreter
Mr. Vasiliy Fofanov, Moscow State University,
Dr. Sergey Rybin, Moscow State University,
Professor Alfred Strohmeier, Swiss Federal Institute of Technology

- Wednesday Evening, 12 November; 7:30-9:30 Joint BOF

Joint Safety & Security Working Group [SAFEWG] and ASISWG BOF
Mr. George Romanski, Chair SAFEWG
Mr. Currie Colket, Chair ASISWG/ASISRG
Dr. Bill Thomas, MITRE

These presentations will be available on the ASIS Home Page shortly after Tri-Ada'97.

VIII. ISO Standardization Schedule

CD Final Ballots are due on 9 March 1998. If this is successful, then to become an ISO standard, only one more ballot is required: at the ISO DIS Final level. That ballot is for 2 months and will be a thumbs up or thumbs down ballot - no comments will be allowed. Assuming an additional 2 months to resolve comments prior to the ISO DIS Final ballot, and the standard 45 days for shipping and handling, we could have an ASIS ISO Standard by September 1998. This would be a very nice thing to have available for Tri-Ada'98!

Please check out the ASIS Home Page. Besides having the ASIS 20p, there is also a new section containing ASIS 95 tutorials. Please also follow the link to the ISO Working Draft and the link thanking many volunteer people and organizations who helped make ASIS a reality. The ASIS Home Page is at =>

http://www.acm.org/sigada/wg/asiswg

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Currie Colket Chair ASISWG/Chair ASISRG	Clyde Roby Technical Editor ASISRG