HIGHLIGHTS of 3 December 1996 ASISWG/ASISRG Meeting

On Tuesday, 3 December 1996, the **Ada Semantic Interface Specification Working Group (ASISWG)** and the **Ada Semantic Interface Specification Rapporteur Group (ASISRG)** met at Philadelphia, Pennsylvania in conjunction with Tri-Ada'96. An ASIS Birds-Of-a-Feather (BOF) was included on Wednesday evening as part of the conference. On Saturday, 7 December 1996 the ASIS Working Draft was presented to ISO/IEC JTC1/SC22 WG9 with the request to commence a 60-day ballot. Highlights from these meetings include =>

1. **Status of ASIS Working Draft:** Since the previous meeting, ASIS has evolved from Version 2.0.E to Version 2.0.K. The more significant changes include:

- Reorganization of the interfaces so that all packages are child packages of ASIS.
- Positioning of important ASIS types into the root package ASIS.
- Clearer specification of Asis.Ids and change from an optional package to a required package.
- Clearer introduction for the ASIS concept.
- Clearer direction for handling inconsistent units.
- Implementation permissions based on CORBA IDL.
- More precise glossary of terms (Annex A).
- Two extra examples (There are now 3 examples in Annex B).
- Incorporation of a Rationale (Annex D).
- Incorporation of all issues from June ASISWG/ASISRG meeting and June WG9 meeting.

The ASIS Working Draft consists of 3 Microsoft Word files:

ASIS_CD1.DOC - contains the Table of Contents, Forward, General, and ASIS Technical Concepts
ASIS_CD2.DOC - contains the compilable ASIS Interface (Sections 3-23)
ASIS_CD3.DOC - contains Glossary, ASIS Usage Examples, I/O & IDL Examples and Rationale.

Version 2.0.k will be posted to the ASIS Home Page in word, postscript, and ASCII versions. This version is denoted ASIS Version 2.0.k, dated 7 December 1996. The ASIS Home page URL is =>

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

2. **ASIS for Ada 95 Implementations:** Several ASIS implementations for Ada 95 are emerging. These include:

- DDC-I (to ASIS version 2.0.e (1 June 1996), rather complete). A code browser based on ASIS 95 was demonstrated at the Tri-Ada'96 exhibition hall. Of interest, this powerful browser was built in less than a week.
- ASIS for GNAT (to ASIS version 2.0.j (1 November 1996) syntactic queries only; semantic queries in near future - TLD can leverage the ASIS for GNAT implementation).
- Rational (hybrid of ASIS 83 and ASIS 95; Rational will migrate to ASIS 95 interfaces in near future.)
- Aonix (in process of developing ASIS interface; should be available in spring or early summer - Intermetrics and Green Hills can leverage the Aonix ASIS interface).
- Concurrent (including the recently acquired Real-Time Division of the former Harris Computer Systems Corporation) has placed ASIS 95 plans on hold until their Ada 95 compiler is developed.
- R&R Software, OC Systems, and Irvine Compiler Corporation have no immediate plans for ASIS implementations.

3. **ASIS Portability Milestone:** ASIS was designed to provide a rather portable interface across various compilation environments. A significant milestone was achieved as the first example in the ASIS Working Draft was executable in both the ASIS for GNAT and the DDC-I environment without any code changes due to the drastic differences in their compilation environments. Albeit the example was small and simple, however, this capability was never achieved for ASIS for Ada 87.

4. **AJPO Participates in ASIS Review:** The AJPO has commenced an in-depth technical review of the ASIS Working Draft, through two separate contractors: CACI and EDS. A portion of the CACI review was complete and resulted in a better introduction of ASIS in the ASIS Technical Concept (Section 2).

5. **ASIS BOF:** An ASIS BOF was held on 4 December 1996. It included presentations by: Mr. Currie Colket (U.S. Navy) - An overview of ASIS; Dr. Joyce Tokar (DDC-I) - Technical aspects of ASIS; Mr. Dan Ehrenfried (LittleTree Consulting) - Approaches to building tools using ASIS; and Dr. Sergey Rybin (Moscow State University) - Presentation/demonstration on ASIS for GNAT. These presentations were well received and will be made available on the ASIS Home Page in the near future.

6. **Request Commencement of WG9 60-day Ballot:** A decision was made at the ASIS Meeting to submit the resulting ASIS Working Draft to ISO/IEC JTC 1/SC 22 WG9, requesting the commencement of the 60-day ballot (per 10 June 1996 WG9 meeting). A successful ballot will result in ASIS becoming a Committee Draft and submission to SC22. Before ASIS becomes an International Standard, it must go up the ISO chain as a Committee Draft (CD) and again as a Draft International Standard (DIS). The 60-day balloting period will commence on 1 January 1997 ending on 1 March 1997. This should provide ample time to familiarize the ASISWG/ASISRG with their issues prior to our next meeting at the end of March. At the WG9 Meeting, Dr. Strohmeier leads a discussion on 3 issues related to ASIS:

- *Positive and negative impacts of a standard* - ASIS was viewed as a positive interface in that as a tool to support code analysis, it was highly complementary to Ada 95 for the safety-critical, mission-critical software domains. A standardized interface could be valuable to the Ada community by encouraging the development of high-quality 3rd party tools which support a variety of code analysis requirements.
- *Timeliness* - It was viewed that the best way to achieve a viable ASIS interface was to press on with the ASIS standardization effort.
- *ISO standard or industry standard* - WG9 agreed that ASIS should be an ISO standard.

7. **Opportunity to Comment:** For those who would like to comment on the ASIS specification, the fastest way to find it on the ASIS Home page is to follow the link called: "ISO Standardization of ASIS: The ASIS draft Working Draft document." Items you would like to be turned into formal issues should be sent to: ASIS-Comment@sw-eng.falls-church.va.us using the format described in the section titled: "Instructions for Comment Submission." Other comments can be sent to ASIS-Technical@sw-eng.falls-church.va.us for discussion.

I would like to thank everyone who made Tri-Ada'96 very successful for ASIS activities. There was much appreciated hard work by those who attended the meeting and those who could only participate by email and phone. A very special thanks to the ASIS BOF speakers who all did a superb job. Also a very special thanks to Mr. Clyde Roby who has done wonders with all the updates to the ASIS Working Draft and making it available through the ASIS Home Page! The next ASISWG/ASISRG meeting will be hosted by DDC-I in Phoenix, Arizona (U.S.A.) from 25-26 March 1997 (Between Palm Sunday and Easter).

v/r
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