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Business Plan for ISO/IEC JTC 1/SC 22

For the Period 2008-10 to 2009-09

Produced and Submitted by

Rex Jaeschke, Chair

(rex@RexJaeschke.com)

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1. Management Summary

1.1 Chairman's Remarks

SC 22 continues to operate very well. While some WGs' membership and marketplace relevance are in decline, others are on the increase. All are operating in a manner appropriate to their needs.

SC 22 currently has 18 "P" Members (AT, CA, CH, CN, DE, DK, ES, FR, GB, IT, JP, KR, KZ, NL, RO, RS, UA, and US) and 23 "O" Members (AR, BE, BG, CU, CZ, EG, FI, GR, HU, ID, IN, IR, IS, KE, KP, MY, NO, PL, SE, SG, SI, TH, and YU).

SC 22 holds its 3-day plenary on an annual basis, five to six weeks prior to the JTC 1 plenary. Between plenaries, formal business is carried out via letter ballots, and informal business is carried out via an email list. All committee documents are posted on Live Link. At most, one WG meets in conjunction with the plenary.

After acting in that capacity for a year, at the JTC 1 Plenary in 2008, Mr. Rex Jaeschke (US) was approved as the chair of SC 22. The Secretariat remains with ANSI (US), which provides excellent service under the direction of Ms. Sally Seitz.

1.2 Statement of Scope

SC 22 is responsible for the standardization of programming languages (such as COBOL, Fortran, Ada, C, C++, Lisp and Prolog) and their environments (such as POSIX). SC 22 also produces common language-independent specifications to facilitate standardized bindings between programming languages and system services, as well as greater interaction between programs written in different languages.

The most recently created WG has a project to document the vulnerabilities of various programming languages.

Program portability between different implementations of the same language is a key goal.

1.3 Project Report

Full details of SC 22's operation can be found in the SC 22 Secretary's Report (document SC 22 N 4477).

1.4 Cooperation and Competition

SC 22 maintains external liaisons with the following:

- Ecma International (which has Fast-Tracked a number of specifications, including ECMAScript, C#, Common Language Interface, and Eiffel)
- Linux Foundation (a PAS submitter)

SC 22 maintains internal liaisons with the following:

- ISO TC 37, Terminology and other language and content resources

- JTC 1/SC 2, Coded Character Sets
- JTC 1/SC 7, Software and Systems Engineering
- JTC 1/SC 32, Data Management and Interchange

SC 22 participates in the work of the Austin Joint Working Group, which maintains the portable operating system POSIX specification.

2. Period Review

2.1 Market Requirements

The classic programming languages, for which SC 22 is well known, remain popular with major development work going on in COBOL, Fortran, C, C++ and Ada. However, in several cases, implementers have been slow to catch up with new revisions. There is considerable interest in the WG documenting vulnerabilities of various programming languages.

2.2 Achievements

In the past year, SC 22 has

- Actively worked on maintenance
- Seen the continuation of a number of major revisions
- Made considerable progress on a TR on programming language vulnerabilities

2.3 Resources

The C and C++ language WGs continue to have high participation, both in the number of members and NBs. The same is true for the WG documenting vulnerabilities of various programming languages. Participation in the other WGs ranges from adequate to good.

2.4 Environmental Issues

Not applicable.

2.5 Participation Metrics

The SC 22 plenary continues to attract up to 20 delegates from between five and eight NBs.

Active WGs report a solid attendance from their core members.

Neither SC 22 nor its WGs have had problems getting the necessary participation in letter ballots.

3. Focus Next Work Period

3.1 Deliverables

1. WG4 (Cobol)

   a. DCOR 3 of ISO/IEC 1989:2002.
   b. FCD of the revision of ISO/IEC 1989 (early 2010)

2. WG5 (Fortran)

   a. CD for the revision of Part 1 will be submitted for ballot in September 2009.
   b. Publication of the TR on Further Interoperability of Fortran with C is planned for March 2011.

3. WG9 (Ada)

   a. NP 15291: respond to comments on the CD.
   b. IS 8652:1995: develop an Amendment.

4. WG11 (Binding Techniques)

   a. Revision of all parts of ISO/IEC 10967.

5. WG14 (C)

   a. Updated version of TR 18037
   b. TR 24731 Part I
   c. TR 24732
   d. IS 24747
   e. PDTR 24731 Part II
   f. A revision of JTC 1.22.9899 is underway, with a Concurrent ballot scheduled for June of 2010
   g. MISRA C has requested a Category C liaison with WG 14

6. WG16 (Lisp) — none
7. WG17 (Prolog) — none
8. WG19 (Formal Specification Languages) — none
9. WG21 (C++)

   a. A major revision of JTC 1.22.14882 is underway, with a second CD late in 2009.
   b. DTR for Extensions for the programming language C++ to support decimal floating-point arithmetic (based on ISO/IEC 14882) late in 2009.
   c. FCD on Programming Language C++ - Special Math Functions.

10. WG23 (Programming Language Vulnerabilities)

    a. PDTR document for its TR

    b. PDTR.2 is current in ballot

3.2 Strategies

As all groups have operated satisfactorily this past year, they plan to keep doing what they are already doing well.

3.2.1 Risks

A further decline in participation in the COBOL work.

3.2.2 Opportunities

At its 2008 Plenary, SC 22 was given a presentation by a group considering standardizing the Ruby programming language and environment. SC 22 expects a follow-up report on this idea at its 2009 Plenary.

3.3 Work Program Priorities

Perform maintenance on existing standards and TRs, and, for some WGs, to start or continue work on revisions. Basically, it's "business as usual".

3.3.1 Archival Policy

Each WG is responsible for maintaining an archive of its own documents.

As its 2008 Plenary, SC 22 passed the following resolutions on archiving:

Resolution 08-01: Call for National Body Contributions on Document Archiving
JTC 1/SC 22 notes the importance of archiving JTC 1/SC 22 and Working Group documents and email discussions for the purpose of preserving the history of programming language standardization.

Therefore, JTC 1/SC 22 requests its National Bodies and Working Groups to submit contributions to the 2009 Plenary on:
- ways to accomplish the preservation of programming language standardization history,
- ways to recover early records (especially paper), and
- any national activities in this area.

JTC 1/SC 22 notes that many historic documents are currently archived on the Open-Std website maintained by Mr. Keld Simonsen. JTC 1/SC 22 requests Mr. Simonsen to maintain this archive on his website through the 2009 Plenary.

Resolution 08-02: JTC 1/SC 22 Appointment of Representative to JTC 1 Special Working Group on Archival and Retrieval Mechanisms (SWG-ARM)
JTC 1/SC 22 appoints Mr. Keld Simonsen (DK) as its representative to the JTC 1 SWG-ARM.