

**TC39 Chairman's Report to:****Written on:****CC Meeting on:****Coordinating Committee****1 April 2005****25-26 May 2005****1 Officers**

Chairman: Joel Marcey (Intel Corporation)

Vice-Chairman: Andrew Clinick (Microsoft Corporation)

For reference, the most recent chairman's report to the CC, prior to this, is contained in Ecma/TC39/2004/42.

**2 Meetings**

The following 32 technical meetings of TC39 Task Groups and one TC39 meeting have occurred since the most recent report.

Task Group meetings:

- TG1 28 October 2004 (F2F) Redmond, WA, USA, hosted by Microsoft
- TG1 9 December 2005 (F2F) San Francisco, CA, USA hosted by Macromedia
- TG1 20 January 2005 (F2F) San Francisco, CA, USA hosted by Macromedia
- TG1 17 February 2005 (F2F) San Francisco, CA, USA hosted by Macromedia
- TG2 January 2005 (F2F) Redmond, WA, USA, hosted by Microsoft Corporation
  
- TG2 March 2005 (F2F) Kamuela, HI, USA, hosted by Plum Hall
- TG3 30 September 2004 (Phone conference)
- TG3 12 October 2004 (Phone conference)
- TG3 19-21 October 2004 (F2F) Redmond, WA, USA, hosted by Microsoft Corporation
- TG3 28 October 2004 (Phone conference)
- TG3 11 November 2004 (Phone conference)
- TG3 22 November 2004 (Phone conference)
- TG3 6 December 2004 (Phone conference)
- TG3 20 December 2004 (Phone conference)
- TG3 24-27 January 2005 (F2F) Redmond, WA, USA, hosted by Microsoft Corporation
- TG3 16 February 2005 (Phone conference)
- TG3 8-9,11 March 2005 (F2F) Kamuela, HI, USA, hosted by Plum Hall
- TG4 27-29 September 2004 (F2F) Zurich, Switzerland, hosted by ETH
- TG4 9-11 December 2004 (F2F) Orinda, CA, USA, hosted by Axa Rosenberg
- TG4 4-6 February 2005 (F2F) Zurich, Switzerland, hosted by ETH
- TG4 25-27 February 2005 (F2F) Goleta, CA, USA, hosted by Eiffel Software
- TG4 2 March 2005 (Phone Conference)
- TG4 3 March 2005 (Phone Conference)

- TG4 4 March 2005 (Phone Conference)
- TG4 5 March 2005 (Phone Conference)
- TG4 10 March 2005 (Phone Conference)
- TG5 22-23 October 2004 (F2F) Redmond, WA, USA, hosted by Microsoft
- TG5 20-21 January 2005 (F2F) Westfield, NJ, USA, hosted by EDG and Dinkumware
- TG5 3 February 2005 (Phone conference)
- TG5 10 February 2005 (Phone conference)
- TG5 17 February 2005 (Phone conference)
- TG5 7-8, 11 March 2005 (F2F) Kamuela, HI, USA, hosted by Plum Hall

TC39 meeting

- 11 March 2005, Kamuela, HI, USA, hosted by Plum Hall

### 3 Progress

See TC39/2005/013 for the latest, detailed TC39 status and progress report

It was a fine 6 months for the TC39, and have seen the task groups of the TC39 making progress on all fronts. The TG2, TG3, TG4 have all submitted drafts to the TC39 and, after agreement to minor edits in some cases, had their respective drafts approved for submission to the Coordinating Committee in April 2005 and General Assembly in June 2005. The TG1 has had their E4X specification approved in ISO as ISO/IEC 22537. The TG1 also continues to work on the 4<sup>th</sup> edition of their EcmaScript specification. The TG5 continues to work very hard to create a quality CLI Binding for C++ specification, and, while they hoped to have a draft ready for the TC39 in March 2005, plan to submit a draft in September 2005. Many meetings and phone conferences have been held within all task groups. See "Latest Status" for complete details.

The TG1 has had the E4X specification approved in ISO as ISO/IEC 22537. No concrete date for submission of the next edition of the EcmaScript specification has been set.

The TG2 submitted edition 3 of the C# specification in March 2005 to the TC39, and it was approved.

The TG3 submitted edition 3 of the CLI specification in March 2005 to the TC39, and it was approved.

The TG4 submitted edition 1 of the Eiffel specification in March 2005 to the TC39, and it was approved.

The TG5 plans to submit edition 1 of the CLI Binding for C++ specification in September 2005

## 4 Latest TC39/TG Status:

### 4.1 Task Group 1: ECMAScript (TG1/2005/003)

**Mr. Jeff Dyer** (Macromedia) presented the Convener report of **William Schulze** (Macromedia) to TC39.

TG1 is taking a fairly straight marketing approach to arrive at the next, i.e., 4<sup>th</sup> Edition of ECMA--262: ECMAScript. Some of the enhancements to be interpreted in the 4<sup>th</sup> Edition are classes, runtime type checking and the integration of the E4X language features. The current approach is first to have at least one implementation completed – to be used as a reference – before publication of the next Edition. Mozilla is finishing such an implementation.

The E4X standard ECMA-357 has been approved as ISO/IEC 22537, with one negative vote. TG1 is preparing the Disposition of Comments report and the final DIS text.

#### **4.2 Status report from Task Group 2: C# (TG2/2005/009)**

**Dr. Nigel Perry** (University of Canterbury, New Zealand) presented his Convener's report to TC39.

The 3<sup>rd</sup> Edition is complete. The standard has been changed substantially. The Standard contains several new core features: generics, nullable types, iterators, anonymous methods, partial types, static classes, #pragma, and an explicit namespace qualifier.

#### **4.3 Status report from Task Group 3: CLI (TG3/2005/022)**

**Mr. Joel Marcey** (Intel Corporation) presented his Convener's report to TC39.

After six months of hard work the new, i.e. 3<sup>rd</sup> Edition of the standard is complete. The current working draft of the specification is WD2.11, which means that eleven iterations of the specification have been edited and circulated since the 2<sup>nd</sup> Edition. Incorporated in this working draft are improvements/edits to the edition 2 specifications (including the libraries), the core of the generics technology, relaxed exception ordering and disablement of runtime checks – both of which allow for more performant CLI implementations, a methodology for exchanging debugging information across implementations, a parallel API to allow for easy programming of multithreaded applications, an alternative representation for generic types (as a TR), new library types to support generics, new CLS rules to support generics, new generic members on existing library types, removal or modification of existing CLS rules to match existing practice and/or allow for greater flexibility, and other technologies.

**Mr. Marcey** thanked **Mr. Jaeschke** for his meticulous editing efforts.

#### **4.4 Status report from Task Group 4: Eiffel (TG4/2005/003)**

**Mr. Manu Stapf** (Eiffel Software) presented his Convener's report to TC39.

TG4 uses ETL3 ("Eiffel the Language 3") as base document for the standard. The task group spent most of the last 6 months resolving remaining open issues in various proposals in order to finalize the text of the standard. At the last face-to-face meeting and at subsequent conference calls, the final text of the standard was reviewed. The 1<sup>st</sup> Edition is now complete.

#### **4.5 Status report from Task Group 5: CLI Binding for C++ (TG5/2005/013)**

**Dr. Tom Plum** (Plum Hall) presented his Convener's report to TC39.

The current working draft of the specification is WD1.8, which means that eight iterations of the specification have been edited and circulated since the start of TG5. The goal of TG5 is to complete and approve its Standard in December 2005. TG5 had hoped to complete the standard for June 2005 but a lot of recent comments have made this not feasible. C++ for CLI needs to be able to compile all existing C++ code, and to support all existing platforms. C++ has a 20-year trail history, and is very complex. Also the priority assigned to an implementation over the development of the standard is causing some delays. But TG5 does not see negative implementations of the half-year slip in the publication of the standard.

### **5 Election of Officers**

A special election occurred at the 19<sup>th</sup> TC39 meeting.

Andrew Clinick informed the TC39 he was to be stepping down as vice-chair of TC39, and, as such, an interim vice-chair needed to be elected until the regular elections that will occur at the 20<sup>th</sup> TC39 meeting. The TC39 named Kelvin Hoover of Microsoft as the interim vice-chair.

Thank you to Kelvin for his willingness to step into this position. And, a special thank you and gratitude to Andrew Clinick for his outstanding work as both chair and vice-chair in the TC39 for the past several years.

## **6 Drafts to be submitted to the GA for Adoption**

- TG2: Edition 3 of ECMA-334, C# Language Specification
- TG3: Edition 3 of ECMA-335, Common Language Infrastructure (CLI) Specification. Two associated Technical Reports: Edition 3 of ECMA TR/84, Technical Report on CLI: Information Derived from Partition IV XML File, and Edition 1 of the ECMA TR on Common Generics
- TG4: Edition 1 of Eiffel Analysis, Design and Programming Language

## **7 Recommendations**

The TC39 has unanimously approved the following specifications

- TG2: Edition 3 of ECMA-334, C# Language Specification
- TG3: Edition 3 of ECMA-335, Common Language Infrastructure (CLI) Specification. Two associated Technical Reports: Edition 3 of ECMA TR/84, Technical Report on CLI: Information Derived from Partition IV XML File, and Edition 1 of the ECMA TR on Common Generics
- TG4: Edition 1 of Eiffel Analysis, Design and Programming Language

and recommends approval of these specifications by the GA in June 2005, and for adoption by ISO/IEC JTC 1 under their fast-track procedure.

## **8 Future TC39 Meetings**

- Meeting 20: Redmond/WA-USA, 23<sup>rd</sup> of September 2005, starting at 13:00, on kind invitation by Microsoft
- Meeting 21: Tentative: No 21, Sacramento or Montreux, 24<sup>th</sup> March 2006 (venue and date to be confirmed)

Joel Marcey (Intel Corporation)  
Chairman TC39