

**TC39 Chairman's Report to:**

**Co-ordinating Committee**

**Written on:**

**30 September 2004**

**CC Meeting on:**

**13-14 October 2004**

## 1 Officers

Chairman: Joel Marcey (Intel Corporation)

Vice-Chairman: Andrew Clinick (Microsoft Corporation)

For reference, the most recent chairman's report is contained in Ecma/TC39/2004/18.

## 2 Meetings

The following 28 technical meetings of TC39 Task Groups and one TC39 meeting have occurred since the most recent report.

Task Group meetings:

- TG1 14 June 2004 Face-to-Face, San Francisco, CA, USA, hosted by Macromedia
- TG2 June 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG2 16-17 March 2004 Face-to-Face, Melbourne, Victoria, Australia, hosted by Monash University
- TG3 13 April 2004 Phone conference
- TG3 26 April 2004 Phone conference
- TG3 11 May 2004 Phone conference
- TG3 21 May 2004 Phone conference
- TG3 4 June 2004 Phone conference
- TG3 16-17 June 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG3 12 July 2004 Phone conference
- TG3 26 July 2004 Phone conference
- TG3 19 February 2004 Phone conference
- TG3 4-6 August 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG3 24 August 2004 Phone conference
- TG3 15 September 2004 Phone conference
- TG3 23-24 September 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG3 30 September 2004 Phone conference
- TG4 1-3 April 2004 Zurich, Switzerland, hosted by ETH
- TG4 17-19 June 2004 Orinda, USA, hosted by Axa Rosenberg
- TG4 28-30 August 2004 Goleta, USA, hosted by Eiffel Software

- TG4 27-29 September 2004 Zurich, Switzerland, hosted by ETH Zurich
- TG5 3-4 May 2004 Face-to-Face, Westfield NJ, USA, hosted by EDG and Dinkumware
- TG5 14-15 June 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG5 29 June 2004 Phone conference
- TG5 13 July 2004 Phone conference
- TG5 27 July 2004 Phone conference
- TG5 2-3 August 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft
- TG5 20-21 September 2004 Face-to-Face, Redmond, WA, USA, hosted by Microsoft

TC39 meeting

- 24 September 2004, Redmond, WA, USA, hosted by Microsoft Corporation

### 3 Future meetings

All task groups plan to meet at least once through face-to-face or via the telephone mechanisms before the next TC39 meeting.

The TG1 plans to meet at least 1 time before the next TC39 meeting

The TG2 plans to meet at least 2 times before the next TC39 meeting (January, March)

The TG3 plans to meet at least 3 times before the next TC39 meeting (October, January, March) as well as have various phone conferences.

The TG4 plans to meet at least 1 time before the next TC39 meeting

The TG5 plans to meet at least 2 times before the next TC39 meeting (October, March)

TC39 Meeting

- 11 March 2005, Kona, Big Island, Hawaii, USA (Plum Hall)

### 4 Progress

The task groups of the TC39 are making progress on all fronts. All task groups are continuing work on their respective specification editions. The TG1 has had their E4X specification approved for ISO fast track processing. The TG2, TG3 and TG5 are continuing to refine the new features and technologies that are being added to their specifications for an edition 3 specification. The aforementioned have decided to push the submission of their specifications to March 2005. The TG4 is continuing to work on a first edition of their specification, and is close to complete for a first TC39 submission. Many meetings and phone conferences have been held within all task groups. See "Latest Status" for complete details.

The TG1 has had their E4X specification approved for ISO fast track processing. No concrete date for submission of the next edition of the ECMAScript specification has been set.

The TG2 expects to submit the next edition of the C# specification in March 2005.

The TG3 expects to submit the next edition of the CLI specification in March 2005.

The TG4 plans to submit the first edition of the Eiffel specification in March 2005.

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

The March 2005 TC39 meeting looks to be a busy one with a possible 4 specification submissions.

## 5 Latest Status:

### 5.1 Task Group 1: ECMAScript (2004/011)

**Mr. William Schulze** (Macromedia) presented his Convener's report to TC39.

Since March's meeting, the working group revised one draft, for accuracy, of the ECMAScript for XML specification. There was no material change to the consensus by all members on all technical issues of the last and final draft submitted for approval to the GA. E4X was approved for fast-track status to ISO through the JTC process.

Mr. Rex Jaeschke, in his capacity in support of INCITS/CT22, points out that he will require his US committee to submit any comments they have by the end of Oct 2004. Then he'll run a 30-day ballot on all the comments as a group, forwarding the result early Dec 2004.

His position will be recommending a "Yes" vote. If there is a call for a NO vote, any country voting NO must send a representative to the ballot resolution meeting.

Kurokawa-san, Chair of CLI JIS committee (Japanese SC 22) has formed an ad-hoc group to review E4X for Fast Track Proposal to ISO/IEC JTC1. Kurokawa-san had requested of Macromedia assistance from a local Macromedia Japanese representative to participate in this ad-hoc group. Unfortunately, the Japanese office of Macromedia does not have on staff an individual sufficiently technical to assist in the review or recommendations of E4X.

During the June face-to-face meeting active members were joined by Brendan Eich, CTO of Mozilla foundation. This was in advance of Mozilla Foundation being approved for admission to ECMA as a Not For Profit (NFP) member. This approval was granted at the GA meeting in June. TG1 is excited to have Mr. Eich participation as he was the original inventor of JavaScript, one of the key language definitions upon which ECMA 262 is based.

It was voted and unanimously decided by TG1 members to have Mr. William Schulze (Macromedia) assume Convener responsibilities from Mr. Rok Yu (Microsoft). The TG1 would like to sincerely thank Mr. Rok Yu for his dedication and thoroughness as Convener to the group. His contributions have been significant.

John Schneider of Agiledata on behalf of BEA has demonstrated strong commitment and attention to detail as editor of the E4X specification. TG1 desires to have Mr. Schneider continue in that role as we address the modifications necessary to create Edition 4 of 262. The totality of changes to Edition 4 are estimated to be significant. TG1 has requested that Jeff Dyer of Macromedia join Mr. Schneider as the co-editor of the Edition 4 262.

TG1 made a general decision that it would not attempt to fully implement the current draft proposal of Edition 4, currently titled "JavaScript 2.0 Draft" The group believes that a more incremental approach can be taken while making sure to incorporate the most necessary new features to continue to evolve 262 into a world-class scripting language. Some of the areas of enhancement expected to be integrated are new advanced features such as packages, namespaces, conditional attributes, runtime type checking, and support for E4X (ECMA 357). It is also a goal of the group that Edition 4 present a robust, consistent programming model which developers from the .NET and Java development communities will immediately find familiar and easy to work with. Mr. Dyer has agreed to take the primary initiative in drafting some of these key changes and will present his efforts to TG1 during the upcoming October meeting.

### 5.2 Status report from Task Group 2: C# (2004/012)

**Mr. Jon Jagger** (Jagger Software) presented his Convener's report to TC39.

The current working draft of the specification is WD2.8 (as of the September meeting), which means that eight iterations of the specification have been edited and circulated since edition 2.

As reported in the previous TG2 convenors report, Edition 3 contains several new core features: generics, iterators, anonymous methods, partial types, static classes, #pragma, explicit namespace qualifier.

**Mr. Nigel Perry** (University of New Zealand) has assumed convener responsibilities from **Mr. Jon Jagger** (Jagger Software). The TG2 would like to sincerely thank **Mr. Jon Jagger** for all his hard work and dedication to the TG2.

TG2 has decided to follow TG3 and push the finalization of edition 3 from September 2004 to March 2005.

### 5.3 Status report from Task Group 3: CLI (2004/013)

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

The current working draft of the specification is WD2.8 (as of the September meeting), which means that eight iterations of the specification have been edited and circulated since edition 2. 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, parallel API (as an optional library), alternative representation for generic types (as a TR after editorial changes), new library types to support generics.

The TG made the tough decision to push the finalization of edition 3 from September 2004 to March 2005. The decision was made primarily because of quality and scope/amount of work concerns, specifically around the area of generics collections, generics and the CLS and the amount of action items/comments needing resolution. The TG did not want to rush a specification that was not ready and it did not want to cut key technologies from the specification. Also, the push allows for a better alignment with key implementations of the CLI specification.

Given the push to March 2005, a prioritization of work was created by the convener. The top priority items include CLS and Generics, re-visiting the generics collections types and re-selecting those that will be included as part of edition 3 (based on criteria such as confidence in design, etc.), solidify generics reflection, reduction of action items and comments from editions 1,2 and 3 (separated into high and low priority).

As of 30 September 2004, there are 43 outstanding action items, 14 of which have been assigned to the editor. There are 48 comments, 18 of which have been assigned to the editor.

There are about 100 new types for consideration or existing types which need to be reviewed again. 13 new types have been added to edition 3, primarily around generics. There are 19 other new types for consideration. A total of 32 types (including edition 2 ones that have changed) have been completely reviewed and are in the standard.

### 5.4 Status report from Task Group 4: Eiffel (2004/014)

**Mr. Joel Marcey** (Intel Corporation) presented convener **Mr. Manu Stempf's** (Eiffel Software) report to TC39.

The committee has completed the initial review of 'Eiffel the Language 3' (ETL3). This document forms the draft ECMA standard.

The next meeting will be dedicated to reviewing our latest draft and will possibly result in the addition of a few meetings to finish and submit the draft to the TC for adoption.

The TG4 plans to submit a specification to TC39 for approval in March 2005.

### 5.5 Status report from Task Group 5: CLI Binding for C++ (2004/015)

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

The current working draft of the specification is WD1.7 (as of the September meeting). The TG agreed to push the finalization of edition 1 from September 2004 to March 2005. The TG did not want to rush a specification that was not ready. Also, the push allows for a better alignment with key implementations of the CLI specification. As of 18 September 2004, there are 94 outstanding technical action items, and 9 editorial action items, some of which just need an official re-visit to resolve.

## **6 Election of Officers**

Elections occurred at the 18<sup>th</sup> TC39 meeting.

Joel Marcey was unanimously elected to continue his role as chair of TC39

Andrew Clinick was unanimously elected to continue his role as vice-chair of TC39

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

None

## **8 Recommendations**

None

Joel Marcey (Intel Corporation)

Chairman TC39