ECMA International

Standardizing Information and Communication Systems

TC39 Chairman's Report to the Co-ordinating Committee
13-14 May 2003

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/TC39/2002/18

2   Meetings

The following 12 technical meetings of TC39 Task Groups and one TC39 meeting have occurred since the most recent report. There are 4 scheduled TG3 phone conferences to occur, as of this writing, before the meeting of the CC.

Task Group meetings

- TG1 21-22 November 2002, Mountain View, CA, USA, hosted by Netscape
- TG1 15-16 January 2003, Redmond, WA, USA, hosted by Microsoft
- TG1 27-28 March 2003, Mountain View, CA, USA, hosted by Netscape
- TG2 30-31 January 2003, Redmond, WA, USA, hosted by Microsoft Corporation
- TG2 25-26 March 2003, Cupertino, CA, USA, hosted by Hewlett-Packard Company
- TG3 28-29 January 2003, Redmond, WA, USA, hosted by Microsoft Corporation
- TG3 6 February 2003, Phone conference
- TG3 27 February 2003, Phone conference
- TG3 7 March 2003, Phone conference
- TG3 27-28 March 2003, Cupertino, CA, USA, hosted by Hewlett-Packard
- TG3 10 April 2003, Phone Conference (scheduled)
- TG3 23 April 2003, Phone Conference (scheduled)
- TG3 2 May 2003, Phone Conference (scheduled)
- TG 10 May 2003, Phone Conference (scheduled)
- TG4 16-18 November 2002, Zurich, Switzerland, hosted by ETH
- TG4 21-23 February 2003, Orinda, USA, hosted by Axa Rosenberg

TC39 meeting

- 26 March 2003, Cupertino, CA, USA, hosted by Hewlett-Packard

3   Future meetings

The TG1 plans to meet one time every six weeks in face to face, and various phone conferences, before the next TC39 meeting. The meeting frequencies are increasing due to the desire to finish both the edition 4 ECMAScript and the ECMAScript for XML specifications before the next TC39 meeting.

The TG2 plans to meet twice (June, September) before the next TC39 meeting.

The TG3 plans to meet twice (June, September) before the next TC39 meeting. The TG3 also plans to utilize as needed phone conferences between the two meetings in order to ensure a stable edition 3 specification.

The TG4 plans to meet twice (June, September) before the next TC39 meeting.

TC39 Meeting

- 02 October 2003, Dillington House, Somerset, United Kingdom (JSL)

4   Progress

The task groups of the TC39 are making substantial progress on all fronts.

The TG1 efforts of ECMAScript and ECMAScript for XML continue to make progress, although there is a risk around finalizing both standards before the December 2003 GA meeting. The task group is deciding on the best course of action to minimize this risk.

Edition 2 of ECMA-334 and ECMA-335 was approved by the ECMA General Assembly in December 2002. Edition 2 of these specifications have been fast-tracked into ISO and are now official ISO standards. The TG2 and TG3 have finalized the work items for edition 3 of the C# and Common Language Infrastructure specifications, respectively. Detailed technical discussions have already begun on these work items and the plan is for both of these specifications to be finalized by March 2004.

The TG4 has begun the review of the ETL3 documentation, which forms the basis for the initial version of the standard. A "Compiler conformance subcommittee" was established to resolve all low-level compiler differences not directly connected to the language definition. The task group anticipates submitting edition 1 of the standard for GA approval during 2004.

5   Latest Status:

5.1   Task Group 1: ECMAScript

Mr. Peter Torr (Microsoft) presented his Convener's report to TC39.

Both ECMAScript Edition 4 and the ECMAScript for XML efforts continue to move forward, although there is considerable risk around finalizing both standards this year. The committee is currently debating the best course of action to enable completion of one or both of these standards by September.

The algorithms for the core language are mostly complete, with some work remaining in object instance construction and type coercions. There has been good progress made on the E4X standard, with the initial draft being written in Edition 3 notation.

The committee has been aggressive at cutting features from E4 to meet the September deadline.

Mr. Torr (Microsoft) announced his resignation as convener of TG1. The TC39 Chairman rendered thanks and appreciation to **Mr. Torr** (Microsoft) for his excellent work as Convenor of TG1. The new Convenor of TG1 is **Mr. Rok Yu** (Microsoft).

5.2 Status report from Task Group 2: C# (2003/07)
Ms. Carol Thompson (HP) presented her Convener's report to TC39.

Edition 2 of ECMA-334 was approved by the ECMA General Assembly in December 2002. Edition 2 has been fast-tracked into ISO and is now an official ISO standard.

The task group is currently working on edition 3. This edition is expected to include new features, as well as resolution of some issues and comments that have been identified in edition 2.

The current work item list for edition 3 includes the following items: Generics, Indirect member function calling, Anonymous methods and anonymous delegates, Iterators, Partial types (aka extensible types), Static classes, Separate property accessibility, Explicit namespace qualifier, Fixed size buffers, Keywords, Pragma, Assembly disambiguation, Volatile ref/out, Miscellaneous comments/issues (tracked via spreadsheet)

The task group anticipates submitting edition 3 of ECMA-334 for GA approval during the March 2004 TC39 meeting.

Ms. Thompson (HP) announced her resignation as convener of TG2. The TC39 Chairman rendered thanks and appreciation to **Ms. Thompson** (HP) for her excellent work as Convenor of TG2. The new Convenor of TG2 is **Mr. Jon Jagger** (Microsoft).

5.3 Status report from Task Group 3: CLI (2003/05)
Mr. Joel Marcey presented his Convener's report to TC39.

Edition 2 of ECMA-335 was approved by the ECMA General Assembly in December 2002. Edition 2 has been fast-tracked into ISO and is now an official ISO standard.

Mr. Jaeschke has officially transitioned into the editor role for the task group. The convener would like to thank **Mr. Jim Miller** for his previous editorial work. **Mr. Jaeschke** has also officially transitioned into the owner of the CLI comments spreadsheet maintenance.

The task group spent the past six months primarily preparing for work on edition 3 of the CLI specification (ECMA-335). Member companies prepared submissions for consideration as edition 3 work items.

The current work item list for edition 3 includes: Generics, Extensible Metadata, Extended Threading API, Runtime Check Disablement / Exception Re-Ordering, Serialization API, Debugging Format, Resolving the current CLI comments, with the caveat that some items may be postponed/withdrawn.

The task group has a goal to submit edition 3 of ECMA-335 for GA approval during the March 2004 TC39 meeting.

5.4   Status report from Task Group 4: Eiffel (2003/06)

Ms. Christine Mingins (Monash University) presented her Convener's report to TC39.

It has been agreed that only language modifications that are already implemented by an Eiffel compiler can be considered for standardization. There are currently 3 Eiffel compiler implementations that were used to form the basis of standardization.

A call for proposals resulted in a number of sponsored proposals being submitted to the committee. In parallel, the committee began a review of 'Eiffel the Language 3' (ETL3). This document forms the draft ECMA standard. A "Compiler conformance subcommittee" was established to resolve all low-level compiler differences not directly connected to the language definition.

Current proposals under consideration and their status are:

1. Assignment attempt on expanded types [AABT]: acknowledged

2. Remove validity constraint on equality [OPV]: acknowledged

3. Type conversion mechanism: pre-approved

4. Specifying reference / expanded as constraints on types [TCONST]: pre-approved

5. Explicit reference / expanded Formal_generic_name [LER]: pre-approved

6. Indexing clauses on features {ICF]: acknowledged

7. System validity [CAT]: pre-approved

8. Assertions on attributes [AOA]: pre-approved

9. Remote assignment on attributes [ASSIGN]: pre-approved

10. Array manipulation syntax [AMS]: pre-approved and [SPECOP]: rejected

11. Once creation procedures [CRONCE]: acknowledged

12. Reverse type inheritance [ADOPT]: acknowledged

13. Ternary operators [TERNOP]: withdrawn

14. Extend loop variants with any comparable [LVAR]: pre-approved

15. Inline agents [INLA]: pre-approved

16. Addition of the keyword 'only' [ONLY]: acknowledged

The task group anticipates submitting edition 1 of the standard for GA approval in December 2004 and there has been informal discussion re: submitting the standard to ISO, with positive thoughts in this regard.

6   Election of Officers

Election of officers for TC39 will occur at the October 2003 meeting

Drafts to be submitted to the GA for adoption

The TC39 currently has no drafts to be submitted to the GA for adoption

7   Recommendations
The TC39 currently has no recommendations

Joel Marcey (Intel Corporation)

Chairman TC39