Minutes of the:	*20th meeting of Ecma TC39*
held in:	*Redmond, WA, USA*
on:	*22 September 2005*

Chairman (by phone):	J. Marcey (Intel)
Vice-Chairman:	Vacancy
Secretary:	Mr. J. van den Beld (SG Ecma International)
Attending:	Mr. B. Bray (Microsoft), Mr. J. Dyer (Macromedia), Mr. B. Eich (Mozilla Foundation), Mr. R. Jaeschke (Microsoft), Mr. J. Miller (Microsoft), Mr. N. Perry (University of Canterbury), Mr. T. Plum (Plum Hall), Mr. P. Sestoft (University of Copenhagen), Mr. E. Smith (Macromedia), Mr. E. Stapf (teleconf. only), Mr. Torgersen (Microsoft).
Excused:	Mr. B. Kadhim (Fujitsu), Mr. W. Schulze (Macromedia)

1 Opening, welcome and roll call

Mr. Marcey, Chairman of TC39, opened the meeting. A roll call was held.

2 Adoption of the agenda (2005/029)

The agenda was adopted.

3 Approval of the minutes of the 19th meeting (2005/013)

The minutes of the 19th meeting were approved.

4 Matters arising from the minutes not covered elsewhere

None.

5 Reports/actions from TC39 Task Groups

The reports have been attached to the pdf version of these minutes

5.1 Status report from Task Group 1: Dynamic Scripting Language

Mr. Jeff Dyer, acting Convenor of TG1, presented the TG1 report and status: see TG1/2005/005 or TC39/2005/035.

TG1 has been strongly focusing on the completion of ISO/IEC 22537, the international version of ECMA-357. The comments from Japan have been resolved, and the Japanese vote has been changed from NO to YES. So, ISO/IEC 22537 has now been approved unanimously. TG1 will now prepare the second Edition of ECMA-357 to keep this standard fully aligned with the international standard. The second Edition is submitted for approval by the GA in December 2005.

TG1 will from now on prepare the next, i.e., 4th Edition of ECMA-262: ECMAScript. Its completion is scheduled for December 2006. E4X as specified in ECMA-357 will be fully integrated in the new Edition of the ECMAScript standard.

Mr. Bill Schulze has resigned from the Convenorship of TG1. TC39 expresses its high appreciation for his work and endeavours in TG1 that is now revitalised to do its important work for the global scripting community.

The new Convenor of TG1 is Mr. Brendan Eich.

5.2 Status report from Task Group 2: C#

Mr. Nigel Perry, Convenor of TG2, presented the TG2 report and status: see TG2/2005/015 or TC39/2005/030.

The 3rd Edition of ECMA-334 is now under fast-track in JTC 1 as the 2nd Edition of ISO/IEC 23270 till 2006-01-26. TG2 has got 22 comments on the standard mainly caused by the introduction of 'Nullable Types' in CLI.

5.3 Status report from Task Group 3: Common Language Infrastructure

Mr. Joel Marcey, Convenor of TG3, presented the TG3 report and status: see TG3/2005/039 or TC39/2005/031.

The 3rd Edition of ECMA-335 is now under fast-track in JTC 1 as the 2nd Edition of ISO/IEC 23271 till 2006-01-26.

The 3rd Edition of ECMA TR/84 is now under fast-track in JTC 1 as the 2nd Edition of ISO/IEC TR23272 till 2005-12-07.

ECMA TR/89 is now under fast-track in JTC 1 as ISO/IEC TR25438 till 2005-12-07.

5.4 Status report from Task Group 4: Eiffel

Mr. Manu Stapf, Convenor of TG4, presented the TG4 report: see TG4/2005/007 or TC39/2005/032. ECMA-367 is now under fast-track in JTC 1 as ISO/IEC 25436 till 2006-02-06. Very recently a press release about the first Eiffel standard has been issued.

5.5 Status report from Task Group 5: CLI Binding for C^{++}

Mr. Tom Plum, Convenor of TG5, presented the TG5 report and status: see TG5/2005/025 or TC39/2005/033.

TG5 has completed its Standard and has submitted it for approval by the GA in December 2005. The draft standard is an impressive document, of high quality. It has already raised interest in the C^{++} community, e.g., probably to take over some extensions into the C^{++} standard. There is also still a long 'wish list'. There is already an implementation coming in Visual Studio 2005.

An unusual liaison effort towards JTC 1/SC22 has been made: in particular **Mr. Herb Sutter**, the C^{++} WG Convenor in JTC 1/SC22 has played an important role in that effort.

6 Presentation and discussion of Final Drafts for next GA

6.1 TG1: Dynamic Scripting Language, 2nd Edition of ECMA-357

TC39 unanimously approved the Final Draft of the 2nd Edition of ECMA-357, E4X, for approval by the GA in December 2005.

6.2 TG5: CLI Binding for C^{++}

TC39 unanimously approved the Final Draft of the standard for the CLI Binding for C^{++}, for approval by the GA in December 2005, and for adoption by ISO/IEC JTC 1 under their fast-track procedure.

7   Election of Officers

Mr. K. Hoover has moved to another job and is, therefore, not available for the position of Vice-Chairman of TC39. Fortunately, **Mr. J. Miller** is prepared to become Vice-Chairman. TC39 unanimously elected **Mr. Miller** as Vice-Chairman for 2006. **Mr. J. Marcey** is reconfirmed as Chairman of TC 39 for 2006.

8   Any other business

None.

9   Date and place of next meeting

No 21, Geneva or Montreux, 11th or 12th April 2006 (venue and date to be confirmed).

No 22, Portland, OR, USA, 20th and 21st(!) of October 2006 (venue and date to be confirmed).

The 22nd TC39 meeting will very likely be combined with the ballot resolution meeting, if any, for the CLI Binding for C++.

10   Closure

Mr. Marcey, Chairman of TC39, thanked Microsoft for the excellent logistics, hospitality and meeting facilities, and Ecma for a well-attended pleasant social event.

The meeting was then closed.

TG1 Convener's Report to TC39
22 September 2005

Officers

Convener: Mr. Bill Schulze, Macromedia, Inc.

Editor: Mr. Jeff Dyer, Macromedia, Inc.

Meetings

April 21, 2005 – Face-to-face hosted by Google, Mountain View, CA

April 28, 2005 – Phone conference

September 22, 2005 – Face-to-face

Attendees

The meetings were attended by representatives from member companies Mozilla Foundation, IBM, Microsoft, and Macromedia

Progress

After we addressed their concerns with ISO/IEC 22537, the Japan National Body has agreed to change its vote on from NO to YES with comments. The final draft of the E4X DIS and Disposition of Comments Report will by completed by September 30, 2005.

Latest Status:

Mr. Bill Schulze has resigned as Convener. We thank him for his service to TG1. Mr. Brendan Eich of Mozilla Foundation has been nominated and agreed to be a next Convener of the TG1.

The final draft of the ISO/IEC 22537 DIS and Disposition of Comments Report are scheduled to be been forwarded to the ITTF by October 3, 2006.

The working group has tentative agreement on a feature set and schedule for Ecma-262 edition 4. During the next six months we plan to hold monthly face-to-face meetings hosted by Mozilla Foundation, Microsoft and Macromedia, and weekly phone conferences hosted by Macromedia. Our goals are to reach functional agreement by March 2006 and complete a draft of Ecma-262 edition 4 for approval by the GA by September 2006.

Drafts to be submitted to TC for adoption

Ecma-357 edition 2, Ecmascript for XML

Recommendations

TG1 recommends that TC39 approve Ecma-357 edition 2, the ISO/IEC 22537 Ecmascript for XML specification reformatted as an Ecma standard.

Jeff Dyer

(Acting) Convener TG1

TG2 Convener's Report to TC39
22 September 2005

Officers

Convener: Dr. Nigel Perry, New Zealand

Editor: Mr. Rex Jaeschke, Microsoft Corporation

Meetings

TG2 has had one teleconference, on 4th April 2005, since the March 2005 report.

TG2 will be meeting 22-23 September 2005, around this TC39 meeting, in Redmond, WA, USA, hosted graciously by Microsoft

The next upcoming face-to-face meeting will be in early 2006, most likely in January or April.

Attendees

The teleconference was attended by representatives from members: IT University of Copenhagen (Denmark), Jaggersoft (UK), Microsoft, Plum Hall and University of Christchurch (New Zealand).

Representatives of these same members along with Novell have indicated they will attend the current meeting.

Progress

Over the last 6 months, the TG2 has had one phone conference and will be in the middle of a F2F meeting as this report is being given.

Good news! Edition 3 of the ECMA 334 $C^\#$ Specification was approved by TC39, the Coordinating Committee (CC), and subsequently, in June 2005, the General Assembly (GA).

The ECMA standard has been forwarded on to ISO for fast-tracking processing. The comment period has started and is scheduled to end in December 2005. Rex Jaeschke will be the liaison between ECMA and ISO/JTC 1 for this effort.

Latest Status

TG2 is in the midst of the ISO fast-track process for $C^\#$ Edition 3.

TG2 has currently proposed 22 comments on $C^\#$ edition 3 for the ISO process. TG2 will review and resolve these comments at their September meeting currently in progress around this TC39 meeting. In addition, any early comments that are provided by the ISO delegation will also be examined.

TG2 is looking forward to resolving all ISO comments in an expedient manner in order to produce the next ISO standard.

The convener and immediate past convener Mr. Jon Jagger, who chaired the start this round, would like to thank the task group for all of their hard work during the last few years in preparing the third edition of the $C^\#$ Standard.

Drafts to be submitted to TC for adoption

None

Recommendations

None

Nigel Perry

Convener TG2

TG3 Convener's Report to TC39
22 September 2005

Officers

Convener: Mr. Joel Marcey, Intel Corporation

Editor: Mr. Rex Jaeschke, Microsoft Corporation

Meetings

The following meetings and phone conferences have occurred since the March 2005 report:

29 March 2005   Phone conference

31 March 2005   Phone conference

5 April 2005   Phone conference

Current meeting:

21-22 September 2005 Face-to-Face, Redmond, WA, USA, hosted graciously by Microsoft

The next upcoming face-to-face meeting is:

Specific dates unknown, but most likely some time in January 2006.

Attendees

The meetings (excluding current meeting) were attended by representatives from member companies Intel Corporation, Fujitsu, Microsoft Corporation, University of Canterbury New Zealand, IT University of Copenhagen, and Plum Hall.

Progress

Over the last 6 months, the TG3 has had 3 phone conferences and will have just finished a F2F meeting as this report is being given.

Good news! Edition 3 of the CLI Specification was approved by TC39, the Coordinating Committee (CC), and subsequently, in June 2005, the General Assembly (GA). Here are the edition 3 details:

- ECMA 335 – 6 partitions specifying the virtual machine, XML-structured class library

- ECMA TR/84 – XML-structured class library rendering tool, Word/PDF class library documents

- ECMA TR/89 – Additional Generics Library

The ECMA standard and TRs have been forwarded on to ISO for fast-tracking processing. The comment period has started and is scheduled to end in December 2005. Rex Jaeschke will be the liaison between ECMA and ISO/JTC 1 for this effort.

Latest Status

The TG3 is in the midst of the ISO fast-track process for CLI Edition 3.

The TG3 has currently proposed 13 comments on CLI edition 3 for the ISO process. The TG3 will review and resolve these comments at their September meeting. In addition, any early comments that are provided by the ISO delegation will also be examined.

The convener would like to thank the task group for all of their hard work during the last 3+ years to enable the third edition of the CLI. The convener is looking forward to resolving all ISO comments in an expedient manner in order to produce another ISO standard.

Drafts to be submitted to TC for adoption

None

Recommendations

None

Joel Marcey

Convener TG3

TG4 Convener's Report to TC39

1st September 2005

Officers

Convener: Emmanuel Stapf

Editor: Prof. Bertrand Meyer

Meetings

There have been no face-to-face meetings of TG4 since the March 2005 TC39 Meeting. We had weekly calls in March and April 2005 to finalize the final draft of the Eiffel standard.

We are planning on having a meeting in December 2005 to discuss the ISO comments.

Attendees

The meetings were attended by representatives from member companies Axa Rosenberg, Eiffel Software, Enea Business Software, ETH Zurich, LORIA, EMC.

Progress

The past six months we worked diligently to complete the final draft of the Eiffel Standard which was accepted by the General Assembly in June 2005 under the name:

ECMA-367: Eiffel analysis, design and programming Language

The convener would like to thank all the hard-work from the committee members and special thanks to the editor for resolving all the formatting issues.

The standard has been submitted to ISO/IEC JTC 1 for adoption under the fast-track procedure.

Latest Status

None for now. The convener will collect all issues raised by committee members in the TC39-TG4 reflector since the final draft of the standard. They will be discussed/resolved during our next face-to-face meeting, and possibly turn them into ISO comments.

Drafts to be submitted to TC for adoption

None.

Recommendations

None.

Emmanuel Stapf

Convener TG4

TG5 Convener's Report to TC39
21 September 2005

Officers

Convener: Dr. Thomas Plum, Plum Hall Inc

Editor: Mr. Rex Jaeschke, Microsoft Corporation

Meetings

The following meetings and phone conferences have occurred since the March 2005 report:

5 May 2005	Phone conference
9 June 2005	Phone conference
7 July 2005	Phone conference
21 July 2005	Phone conference
4 August 2005	Phone conference
18 August 2005	Phone conference

The current face-to-face meeting is:

19, 20, 22 September 2005   Face-to-Face, Redmond, WA, USA, hosted by Microsoft

Attendees

The meetings were attended by representatives from member companies Borland, Dinkumware Ltd, Edison Design Group, IBM, Microsoft, and Plum Hall.

Progress

Over the last 6 months, the TG5 has had 0 face-to-face meetings and 6 phone conferences.

Latest Status:

The first Edition is now complete (WD 1.15). , TG5 is now pleased to present edition 1 of the C++/CLI specification for approval by TC39. TG5 plans to meet in Spring 2006 to determine if any submission to the ISO/IEC JTC 1 fast track process is required, and in Fall 2006 if required to address public comments to ISO. The convener would like to thank the task group members for all of their hard work during the last six months.

Drafts to be submitted to TC for adoption

Working draft 1.15 of edition 1 of the C++/CLI specification.

Recommendations

TG5 recommends that WD 1.15 be adopted, and submitted to the GA for approval as a Standard.

Thomas Plum

Convener TG5