

**Minutes for the:**  
**to be held in:**  
**on:**

**14<sup>th</sup> meeting of Ecma TC39**  
**Mountain View, CA, USA**  
**27- 28 January 2010**

## **1 Opening, welcome and roll call**

### **1.1 Opening of the meeting (Mr. Neumann)**

The meeting was opened by **Mr. Neumann** at approximately 10:15 AM on 27<sup>th</sup> January 2010.

### **1.2 Introduction of attendees**

The meeting participants introduced themselves.

#### **1.2.1 Ecma participants present at the TC39 meeting**

John Neumann – Ecma, Chair TC39

Istvan Sebestyen – Ecma, Secretary TC39

Dr. Waldemar Horwat – Google

Dr. Tom van Cutsem - Google

Douglas Crockford – Yahoo!

Kam Kasravi – Yahoo!

Jeff Dyer - Adobe

Mark Miller – Google

Allen Wirfs-Brock – Microsoft

Cormac Flanagan – UCSC

Brendan Eich – Mozilla

Rob Sayre – Mozilla

Oliver Hurt - Apple

Dave Herman – Mozilla

Sam-Tobin Hochstadt – Northeastern University

John Mitchell – Stanford University

Ihab Awad – Google

Eric Arcvidsson - Google

Kris Kowal – FastSoft (invited)

### **1.3 Host facilities, local logistics**

Information on the local logistics and the Social event has been provided.

## **2 Adoption of the agenda (2010/002)**

The agenda was accepted with minor additions. Under 5.3 discussion on the language of the next Edition will take place, under 5.6 further collaboration with W3C.

### 3 Approval of minutes from November ([2009/054](#))

The minutes of the November 2009 TC39 meeting have been approved unanimously without any changes.

### 4 Discussion of Licensing/Copyright/Trademark/Membership

**Under TC39 membership** several items have been discussed. It was mentioned that Opera has sent an email to the Ecma Secretariat that due to financial difficulties they want to withdraw from Ecma. Also for this reason the planned Oslo meeting of TC39 will not be hosted there. Mr. Sebestyén said that the Opera withdrawal is formally not yet correct, and that according to the Ecma rules Opera will have to stay Ecma member until the end of the year, and that Opera has the obligation to pay the 2010 membership fee.

Then the status of invited people like **Kris Kowal, David-Sarah Hopwood** was discussed. It was pointed out that invitations to TC39 meetings to non-Ecma members can be done as exception for one-two occasions but then some formal basis for further co-operation had to be looked for, such as the invited guest is “adopted” by an Ecma member – on behalf he operates. It was mentioned that FastSoft is not in a position to become Ecma member at present. So, e.g. **Kris Kowal** must be adopted by an Ecma member. Who that member will be we will see in future TC39 meetings.

On the **Trademark** of ECMAScript there were no new developments reported.

On **Software Copyrights** it was reported about the discussion on this subject in the December GA. It was pointed out that the GA has requested to specify to the CC more clearly its requirements on Software Copyrights, and the appropriate License text. The CC needs this urgently to the upcoming CC discussions on software copyrights. Such discussions will start per conference call in February 2010 and the hope is to finish this early enough to send the software copyright policy text to the Leaders and Ecma membership for comments and for approval by letter ballot. It was mentioned that the GA has given green lights to such letter ballot if the new text is agreed to by the major players in the group. It is not predictable at this point in time how long the development of an Ecma Software Copyright policy would take. However, it was pointed out that the GA has recognized the importance of the issue and the GA has assured TC39 that it will handle this subject with great understanding and will not delay with this the development process.

### 5 Report from the Secretariat (December GA, etc) – mixed with some technical items

#### 5.1 Status of ES5 (fast-track status)

**Mr. Sebestyén** has reported about the fast-track status of ECMA-262 Edition 5. The Ecma document was sent to ISO immediately after the GA. By a mistake the ISO/IEC JTC 1 Secretariat has forwarded the standard to SC 6 Secretariat first who did not know how to handle that fast-track. Now the JTC 1 Secretariat has finally allocated the fast-track to SC 22 – where it belongs. Currently, until mid-February the 1 month “contradiction” period is on (see also [Ecma/TC39/2010/005](#) “30 Day review for fast-track ballot of ECMA-262 5<sup>th</sup> edition”) It is expected that no “contradiction” will be found with the standard. The next phase then will be a 5 months period, where NBs may cast their vote and provide comments. It is planned that also Ecma TC39 will provide comments to the standard, though it may not vote. The 5 months technical comment period will end most likely by August 1, 2010. Depending on the comments received there might be a BRM for the standard in form of a BRM meeting, or if the comments are trivial then just the Editor will make the changes and publication of the standard will go ahead. Since Ecma has already identified several comments to the standard, it might be possible that others will too and a BRM will be set up.

## 5.2 Statistics for ES Standards

Mr Sebestyen presented [GA/2010/005](#). This contains download statistics of all Ecma Standards and Technical Reports in 2009. As can be seen TC39 standards have been top-downloads among all Ecma standards. ECMA-262 3<sup>rd</sup> and 5<sup>th</sup> Editions count for 34% of all downloads. It was also pointed out that on the first day of the Edition 5 posting about 1,800 downloads of the standards were registered, clearly as a download peak. It was explained that the peak was probably result of a twitter message among members of the ECMAScript community. Anyway, the official Ecma PR - with quotes from the TC39 Chair and the Ecma SG - a few days later has not had that impact on the download. TC39 Members were encouraged to launch further Press Releases under the banner of their own organizations.

## 5.3 ES 5 Definitional Interpreter

This is a sort of validation tool for the grammar. The purpose to have this tool available for ES Harmony. But actually ES5 (as a stable specification) is used as the test case for it.

## 5.4 ES5 Erratum

Allen Wirfs-Brock has explained that further errata to the 5<sup>th</sup> edition of ECMA-262 have been found. Most of them are of editorial nature. [Ecma/TC39/2010/006](#) "Erratum for ECMA-262 5<sup>th</sup> edition, 27 January 2010" was distributed at the meeting and also published on the Ecma private website. Mr. Sebestyen pointed out that actually TC39 should use the official ISO template to collect the errata, publish it both on the Ecma website and send it to SC 22 in time for advance information. He has provided to Allen Wirfs-Brock the ISO template, and as a transposal of [Ecma/TC39/2010/006](#) [Ecma/TC39/2010/009](#) "Ecma technical comments on fast-tracked ECMA-262 5<sup>th</sup> edition, 1<sup>st</sup> of February 2010" was published.

It is expected that in the next months (until the fast-track ballot closes) the ES5 Errata list will grow. The list will be taken into account by the ISO Editor (and maybe at the BRM – if there will be one) for incorporation into the standard. If so, then TC39 must harmonize the current 5<sup>th</sup> Edition with the then to be approved ISO version. This would result in a new Edition of ECMA-262 probably to be approved by the December 2010 GA.

## 5.5 ECMA-357 (E4X) update or revision

There was a lengthy discussion on the faith of ECMA-357. It was pointed out that also this TC39 Standard still enjoys a great popularity among users; it is the 4<sup>th</sup> most downloaded Ecma standard. It was, however, also pointed out that it uses the replaced 3<sup>rd</sup> Edition of ECMAScript, and not the 5<sup>th</sup> Edition. TC39 agreed on the point that this standard should be updated and brought into line with the latest editions of ECMAScript. However, this is a big task, which is not going to happen soon (probably it will be only the ES Harmony). Actually **Jeff Dyer**, Adobe, has suggested that the ECMA-357 update should be deferred until ES Harmony is not defined. Finally it was agreed for the time being that the current edition of ECMA-357 should still remain in force, but that the Ecma website should point out that this Edition is built on the withdrawn ECMAScript Edition 3. It was also agreed that members should think about the future of ECMA-357 and come back to this topic at the March TC39 meeting. It was also pointed out that until then the topic would also be discussed on the informal ECMAScript forum on the web.

## 5.6 W3C discussion

There was a lengthy discussion on the further collaboration with W3C. Everybody agreed that the joint meeting in November 2009 was very useful, and that we should aim for further joint meetings with W3C.

It was mentioned that the W3C may have a meeting in April-May in the Silicon Valley area that may be organized back-to-back with a TC39 meeting. **Mr. Neumann** has volunteered to find out the details of this and if so, propose date for the new joint meeting. TC39 would be willing to adjust its schedule to have such a joint meeting again – if needed.

In the discussions it was brought up that common area of interest is the Web IDL group of W3C (Web IDL is intended to specify in detail the interface definition language used by W3C

specifications to define interfaces, and to provide precise conformance requirements for ECMAScript and Java bindings of such interfaces.). However, according to some Tc39 members, the progress of work in the Web IDL has not been great recently, as among others there is a change in the editor of the group.

Then there was a discussion if it was useful for Ecma to take over the control over some of their work, such as the Javascript (ECMAScript) bindings. **Brendan Eich** volunteered to talk to **Sam Ruby** about the current status of work and how best to proceed. It was decided that **Mark Miller** and **Allan Wirfs-Brock** would work on a document listing all possible work scenarios.

## 6 Discussion of ES harmony

### 6.1 Modules

[Ecma/TC39/2010/003](#) Module Primordials, Man of Straw, by **Kris Kowal**

[Ecma/TC39/2010/004](#) EMaker style modules for ECMAScript by **Ihab Awad**

### 6.2 Proxies (alternative catchalls)

[Ecma/TC39/2010/007](#) Proxies strawman proposal by **T. Van Cutsem** and **M.S. Miller**

It was mentioned that the proposal will be also moved to the harmony section of the wiki.

### 6.3 Weak Pointers & Ephemeron Tables

[Ecma/TC39/2010/008](#) Weak Pointers and Ephemeron Tables for ECMAScript Harmony by **M. S. Miller**

### 6.4 SES Status & Discussion

There was a short discussion about the status of the SES work. SES will be incorporated into ES Harmony, as part of it. Mark Miller has volunteered to drive this work. He suggested that TC39 should promote the “strawman” proposal into a real “proposal” stage.

## 7 Any other Business (decimal)

It was reported in the meeting that since the November TC39 meeting no progress on “decimal” has been made. **Sam Ruby** and **Mark Miller** should have been working on the issue if decimal could be better linked into ECMAScript via “Library approach” (but not special case), but unfortunately no progress was made. This might be due to the winter vacation time. Unfortunately Sam Ruby could not come to the present meeting to progress the work. It was decided that at each TC39 meeting at least the status of the “decimal” work should be clarified.

## 8 Date and place of the next meeting(s)

March 24 - 25, 2010 Location Silicon Valley, host is probably Apple (actually Apple has indicated since the meeting that they can host the next TC39 meeting).

May 26 – 27, 2010 Location TBD. Here the time and place is still uncertain. It will depend if there will be a joint meeting again with the W3C and when and where that takes place. The idea is to have back-to-back meeting with them.

## 9 Closure

**Mr. Neumann** closed the meeting at 16:15. He thanked the delegates for their hard work, Mozilla for their kind hospitality and Ecma International for the Social Event on Wednesday evening.