

European Multi-Stakeholder Platform on ICT Standardization

Meeting: 7 February 2013

Title document: Submission of ECMA- ECMAScript

Document for:

Information	
Decision	
Discussion	X

The Platform is invited to discuss this document and to establish an evaluation group.

Email: ec-ict-std-platform@ec.europa.eu

Identification of ICT Specifications

Submission form

Part I: Information

I. i (To be provided by the submitter): Information on the submitter:

1	Name, First name	Sindelar, Martina
2	Organisation	European Commission
3	Position / Role	Project officer
4	Contact information: - Address - Phone number - e-Mail	ENTR/E4 Avenue d'Auderghem 45; B-1049 Brussels/Belgium +32 2 29 50917 entr-ict-standardisation@ec.europa.eu
5	Date of submission	07/01/2013

I. ii (To be provided by the submitter): Information on the submission:

6	Title of the specification (including precise version number)	1) ECMA-402 (Edition 1) ECMAScript Internationalization API Specification (December 2012) 2) ECMA TR/104 ECMA-262 Test Suite (December 2011)
7	Address where the version of the specification can be obtained/downloaded	1) ECMA-402: http://www.ecma-international.org/publications/standards/Ecma-402.htm 2) ECMA TR/104: http://www.ecma-international.org/publications/techreports/E-TR-104.htm
8	Name, identifier and website of the originating organisation	Ecma International, Rue du Rhône 114, CH-1204 Geneva, Switzerland http://www.ecma-international.org/default.htm

<p>9 Describe the reason for the submission, the need and intended use for the specification</p>	<p>ECMAScript is the formal (normative) standard for Javascript, one of the main programming languages for the WWW. The main ECMAScript standard is ECMA-262 (Edition 5) ECMAScript Language Specification, 5.1 edition (June 2011). ECMA-262 has been submitted for "Fast Track" to ISO/IEC JTC1, where it has been approved and published as ISO/IEC 16262. As such it does not need to be "identified" by this policy.</p> <p>The two additional components of the ECMAScript standard that are proposed here are Ecma-only standards / technical reports that are complementary specifications needed</p> <ul style="list-style-type: none"> a) To extend the ECMAScript standard (ECMA-262) with "internationalization" capabilities, such as automatic adaptation to different language environments (like proper language presentation of dates and numbers) (ECMA-402); b) to ensure the effective and testable implementation of the International Standard (TR/104). <p>In more details:</p> <p>The ECMA-402 Standard defines the application programming interface for ECMAScript objects that support programs that need to adapt to the linguistic and cultural conventions used by different human languages and countries.</p> <p>Internationalization of software means designing it so that it supports, or can be easily adapted to support, the needs of users speaking different languages and having different cultural expectations, and enables worldwide communication between them. Localization then is the actual adaptation to a specific language and culture. Globalization of software is commonly understood to be the combination of internationalization and localization. Globalization starts at the lowest level by using a text represen-</p>
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tation that supports all languages in the world, and using standard identifiers to identify languages, countries, time zones, and other relevant parameters. It continues with using a user interface language and data presentation that the user understands, and finally often requires product-specific adaptations to the user's language, culture, and environment.

The ECMAScript Language Specification lays the foundation by using Unicode for text representation and by providing a few language-sensitive functions, but gives applications little control over the behaviour of these functions. The ECMAScript Internationalization API builds on this by providing a set of customizable language-sensitive functionality. The API is useful even for applications that themselves are not internationalized, as even applications targeting only one language and one region need to properly support that one language and region. However, the API also enables applications that support multiple languages and regions, even concurrently, as may be needed in server environments.

An example that shows how an ECMAScript program (that itself is agnostic to the language of the web page) performs better with ECMA-402 (Internationalization) in an international setting:

Date without 402 (Chrome, French locale): Wednesday, October 03, 2012

Date with 402 (Chrome, French locale): mercredi 12 décembre 2012

Currency with 402 (Chrome, Serbian locale): 12.345,12 US\$, 12.345,12 USD or 12.345,12 америчких долара

It is believed that such internationalization of the ECMAScript standard is very important in an international setting, such as the EU.

This Edition of ECMA-402 is not going to be “fast-tracked” to ISO/IEC JTC1.

ECMA-402 is a type of standard where its functionality is enhanced in a compatible way from Edition to Edition. In that spirit Ecma TC39 (which is developing the standard) has already started to develop a backwards compatible Edition 2. The work will take about 2 years. Then after Ecma approval it will be decided if that Edition will be fast-tracked to ISO/IEC JTC1.

ECMA TR/104 ECMA-262 Test Suite (December 2011) “Test262” is a project of Ecma International’s Technical Committee 39 that has a goal to make a test suite widely available that can be used by ECMAScript implementers to improve their adherence to the Ecma-262 specification. As a “Technical Report” , this document and program code it is only of an “informative” character, but it is a useful tool for developers and users. The test suite consists of individual software tests (more than 12000 software modules) that have been contributed by Ecma TC39 members. The test262 test suite is publicly available and is designed to be executable by any modern web browser, simply by loading the web page at <http://test262.ecmascript.org>. As such it is mainly a software code-based standard - under the regime of the Experimental Ecma TC39 Software Copyright Policy. The policy is “experimental” as Ecma (like many other SDOs) has no permanent software copyright policy yet. Therefore this policy is strictly bound to this Ecma deliverables, and experiences gained may influence a possible future Ecma software Copyright Policy. This tool has also not been submitted as a “fast-track” proposal to ISO/IEC JTC1 and will not be fast-tracked (also because ISO and IEC have also no software copyright policies at present).

9a	Are you aware of any other specifications or standards covering the same technical area and if so which specifications or standards are these	No.
9b	If the response to 9a is “yes” , please give information on the specific need for the specification submitted, especially taking into account the aspect of interoperability	

I.iii (To be provided by the platform secretariat): Information on the specification and the organisation

N°	Question	Response	Relevance for Assessment
10	<p>Contact information/contact person (should include email addresses and phone information)</p> <p>4.1 for the organisation (mandatory)</p> <p>4.2 for the specification in question (optional)</p>	<p>Dr. Istvan Sebestyen Secretary General Ecma International Rue du Rhône 114, CH-1204 Geneva, Switzerland Tel: +41 22 849 6000 Email: istvan@ecma-international.org</p>	
11	<p>State whether the submission concerns:</p> <p>A) Identification of an ICT specification ¹</p> <p>B) a revision of an already identified ICT specification T standard</p> <p>C) a proposed withdrawal of identification from an ICT specification</p>	A)	Maintenance

¹ The term “ICT specification d” is currently used in the Regulation), Article 9, for specifications in the field of ICT that have been identified following the process of assessment against the Requirements and criteria laid down in Annex II to the draft Regulation.

11a	If 11, Case B, applies: please provide information on backward and forward compatibility with the version already approved.		Maintenance, Quality
11b	If 11, Case C applies: explain why the ICT specification no longer complies with the requirements for identification		Maintenance, Quality
12	In addition to the information provided by the submitter in Part I, question 9a, are you aware of any other specifications or standards covering the same technical area and if so which specifications or standards.	No.	Relevance, Neutrality and Stability, Quality
12a	If the responses to questions 9a and 12 is "Yes", have the other specifications already been submitted via this process; if so, which ones?		Relevance, Neutrality and Stability, Quality
13	If any International or European Standard is identified in responses 9a or 12, are you aware of any relevant information pub-		Market Ac- ceptance, Relevance, Neutrality

	licly available regarding the interoperability between corresponding implementations.		and Stability, Quality
14	Are you aware of any plans to transpose the specification into a deliverable from a European or International Standards Organisation	At present no such plans. For TR/104 this will stay so. For ECMA-402 the issue will be looked at after the 2 nd Edition is completed (so a possible “fast-track” not before 2015)	Availability Maintenance
15	Is the submission: A) a first submission for the organisation B) a submission concerning an organisation whose specifications have previously been identified and which has undergone the same development and approval processes in the organisation (go to 17 unless there are any material changes)	A)	Relevance
16	Is the information on the organisation, its policies, directives, procedures and membership A) Publicly available (e.g. on the organisation’s website) B) Available on request	A)	Openness, Consensus, Transparency

	C) Unavailable		
16a	<p>Please provide information (links or electronic documents) on the following topics (including possible summary versions):</p> <p>A) Financing of the organisation</p> <p>B) Membership and participation arrangements</p> <p>C) Development and maintenance processes</p> <p>Consensus-building processes</p>	<p>The Ecma procedures consist of a set of By-laws, Rules and a Code of Conduct in Patent Matters and the associated Patent Statement and Licencing Declaration Form (available in WORD format and PDF format).</p> <p>For the patent policy of Ecma standards approved before December 3, 2009, you may also consult the Historical Code of Conduct in Patent Matters.</p> <p>On June 17, 2010 the Ecma General Assembly approved an experimental software copyright policy. This policy is being applied by Ecma TC39.</p> <p>Major links to the policies: http://www.ecma-international.org/memento/index.html</p> <p>A) Ecma International is a Not for Profit Organization registered in Switzerland. As such no revenues from products (such as sales of standards - all is free). The entire financing is based on yearly membership fees (see By-laws), its sum is determined each year by the Ecma General Assembly.</p> <p>B) See By-laws. Different types of membership apply depending on the size of the member organization and decision of the member if they want to participate only in the Technical work or also at the political, managerial level.</p> <p>C) See By-laws. Basically a two step process. First consensus and voting on the Technical Committee level (Consensus is the target, when voting simply majority</p>	<p>Openness, Consensus, Transparency</p>

		decides). Every organization has the same rights. After Technical Committee Approval at the “political level” at the Ecma General Assembly. Also consensus is the target, most votes are by simple majority, except if the By-laws define 2/3 majority - e.g. for new standards.	
16b	If 16, Case C, applies, please ask the submitter to justify why the specification is needed, how it contributes to interoperability and give an assessment of the risks related to the specification’s use given the unavailability of information on the organisation and its policies, directives, procedures and membership.	If applicable, please give justification from the submitter:	Openness, Consensus, Transparency
17	Is the specification A) Available for everyone for free (e.g. download from the web) B) Available for everyone for purchase C) Other (please describe)	A	Availability
18	Which IPR policy applies to the specification? If there are dif-	On both specifications the IPR policies of Ecma International apply.	Intellectual Property

	<p>ferent options in the organisation's IPR policy please specify which option applies. Provide information (e.g. via a website link) to the organisation's IPR policy and, if available, associated IPR databases.</p>	<p>For both deliverables "no", RF or RAND no patent statements (neither RAND, nor RF) have been received by Ecma International.</p> <p>For both deliverables the Text Copyright holder is Ecma International.</p> <p>TR/104 consist about 12.000 software moduls, for which Ecma International has the copyrights, and the licensing of the software follows the well-known BSD licensing terms.</p> <p>For the term "ECMAScript" Ecma International holds trademarks in Switzerland, EU, USA, Japan.</p>	<p>Rights</p>
19	<p>If no information is provided by the submitter, is information publicly available regarding implementations of the specification:</p> <p>A) The specification has been implemented in two or more competitive products on the market or in independent implementations</p> <p>B) There is just one implementation available for the specification.</p> <p>C) The specification has not yet been implemented.</p> <p>D) There is no information available whether the speci-</p>	<p>On ECMA-402 "A" .</p> <p>On ECMA TR/104 TC39 runs one testing site (the URL is given above). It is not known if anybody else is running further sites internally in their companies. Probably yes.</p>	<p>Market Acceptance, Relevance, Neutrality and Stability, Quality</p>

	<p>fication has been implemented and to what extend.</p>		
19a	<p>If 19, cases B, C or D, apply please add relevant information why the specification is needed and to what extend it contributes to interoperability (it is likely to be required to check with the submitter on this).</p>	<p>On ECMA TR/104 it is just a useful (though informal) testing tool to help that the implementation is correct.</p>	<p>Relevance, Neutrality and Stability, Quality</p>
20	<p>Are you aware of public references of the respective specification by public authorities (especially in policies or in procurement)</p>	<p>Probably “yes” to “ECMAScript” as a whole “suite” . Probably “no” to these two concrete components of the “suite” .</p>	<p>Market Acceptance, Relevance, Neutrality and Stability, Quality</p>

Part II: (To be provided by the ICT platform): Statement of Advice from the ICT Platform

The ICT Platform has assessed the above specification against the set of Requirements for the Recognition of Technical Specifications in the Field of ICT laid down in the Regulation on European Standardisation 2025/2012 , Annex II, and gives the following statement of advice:

Statement of advice:

[The detailed process of how the assessment will be carried out, what the consensus rules are, etc. will be laid down by the ICT Platform once it is in place.]

Date:

Annex: Requirements for the Identification of Technical Specifications in the Field of ICT – copy from the Regulation on European Standardisation Regulation 2025/2012 Annex II:

1. The technical specifications have market acceptance and their implementations do not hamper interoperability with the implementations of existing European or international standards. Market acceptance can be demonstrated by operational examples of compliant implementations from different vendors.
2. The technical specifications are coherent as they do not conflict with European standards, that is to say they cover domains where the adoption of new European standards is not foreseen within a reasonable period, where existing standards have not gained market uptake or where these standards have become obsolete, and where the transposition of the technical specifications into European standardisation deliverables is not foreseen within a reasonable period.
3. The technical specifications were developed by a non-profit making organisation which is a professional society, industry or trade association or any other membership organisation that within its area of expertise develops standards in the field of information and communication technologies and which is not a European, national or international standardisation body, through processes which fulfil the following criteria:

a	Openness: the technical specifications were developed on the basis of open decision-making accessible to all interested operators in the market or markets affected by the standard.
b	Consensus: the standardisation process was collaborative and consensus based and did not favour any particular stakeholder. Consensus means a general agreement, characterised by the absence of sustained opposition to substantial issues by any important part of the concerned interests and

	by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. Consensus does not imply unanimity.
c	Transparency: (i) all information concerning technical discussions and decision making was archived and identified. (ii) information on (new) standardisation activities was widely announced through suitable and accessible means. (iii) participation of all interested categories of interested stakeholders was sought with a view to achieving balance. (iv) consideration and response were given to comments by interested parties.

3. the technical specifications reflect the following requirements:

a	Maintenance: Ongoing support and maintenance of published specifications are guaranteed over a long period.
b	Availability: Specifications are publicly available for implementation and use on reasonable terms (including for a reasonable fee or free of charge).
c	Intellectual Property Rights essential to the implementation of specifications are licensed to applicants on a (fair) reasonable and non-discriminatory basis ((F)RAND), which includes, at the discretion of the intellectual property rightholder, licensing essential intellectual property without compensation.
d	Relevance: (i) the specifications are effective and relevant; (ii) specifications need to respond to market needs and regulatory requirements.
e	Neutrality and stability: (i) specifications whenever possible are performance oriented rather than based on design or descriptive characteristics;

	<ul style="list-style-type: none"> (ii) specifications do not distort the market or limit the possibilities for implementers to develop competition and innovation based upon them; (iii) specifications are based on advanced scientific and technological developments.
f	<p>Quality:</p> <ul style="list-style-type: none"> (i) the quality and level of detail are sufficient to permit the development of a variety of competing implementations of interoperable products and services; (ii) standardised interfaces are not hidden or controlled by anyone other than the organisations that adopted the technical specifications.