

## Ecma International External Liaison Report for 2013–2014

### Prepared for the ISO/IEC JTC 1/SC 22 Plenary in Madrid, Spain

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#### Recommendation to SC 22 regarding the Portable Common Tool Environment (PCTE) Standards

The draft agenda for the 2014 Plenary of SC 22 lists the following standards as being up for Periodic Review:

- ISO/IEC 13719-1:1998 Information technology -- Portable Common Tool Environment (PCTE) – Part 1: Abstract specification
- ISO/IEC 13719-2:1998 Information technology -- Portable Common Tool Environment (PCTE) – Part 2: C programming language binding
- ISO/IEC 13719-3:1998 Information technology -- Portable common tool environment (PCTE) – Part 3: Ada programming language binding
- ISO/IEC 13719-4:1998 Information technology -- Portable Common Tool Environment (PCTE) – Part 4: IDL binding (Interface Definition Language)

These standards were developed and published by Ecma, and then Fast-Tracked to JTC 1. No work has been done on them since and there is no longer a Technical Committee for PCTE. As such, **Ecma recommends that SC 22 stabilize these standards.**

Ecma ([www.ecma-international.org](http://www.ecma-international.org)) currently has two Technical Committees, TC39 and TC49 (the latter having multiple Task Groups), with SC 22-related projects, as follows:

1. TC39 (ECMAScript language): ECMAScript 5<sup>th</sup> edition was adopted by the Ecma General Assembly in December 2009, and then published as [ISO/IEC 16262:2011](http://www.iso.org/iso/iec/16262:2011) (which [ECMA-262 edition 5.1](http://www.ecma-international.org/ECMA-262-edition-5.1) now matches). The editor of record for the standard is Allen Wirfs-Brock. An adjunct standard, ECMAScript for XML (E4X), is ECMA-357, 2nd Edition – December 2005, which was published as [ISO/IEC 22537:2006, 1st Edition](http://www.iso.org/iso/iec/22537:2006_1stEdition).

A Test Suite for ECMAScript has been published as [Ecma TR-104](http://www.ecma-international.org/ECMA-TR-104).

An Internationalization API specification for ECMAScript ([ECMA-402](#), Edition 1) was approved by Ecma in December 2012. Work continues on Edition 2.

ECMAScript 6<sup>th</sup> Edition has been delayed, and is expected to be submitted to the ECMA General Assembly for approval in June 2015. It will then be Fast-Tracked to JTC 1.

No Defect Reports have been received in the past year.

In the future, it is expected that all ECMAScript work will be done such that new standards and TRs from that group are Royalty Free.

TC39 completed a joint project with IETF for the JSON (JavaScript Object Notation) standard, for a lightweight data-interchange format. This was published as [ECMA-404](#), “The JSON Data Interchange Format”. It will not be Fast-Tracked to JTC 1.

2. TC49/TG2 (C# language): The current standard is ECMA-334, 4<sup>th</sup> Edition – June 2006, which was published as [ISO/IEC 23270:2006, 2<sup>nd</sup> Edition](#). The editor of record is Rex Jaeschke.

No Defect Reports have been received in the past year.

In January 2014, TG2 started work on a new edition, to bring the standard into line with industry practice. A timeline for completion and subsequent submission to JTC 1 has not yet been established.

3. TC49/TG3 (Common Language Infrastructure): The current standard is Ecma-335, 6<sup>th</sup> Edition – June 2012, based upon the successful February 2012 publishing of [ISO/IEC 23271:2012, 3<sup>rd</sup> Edition](#). A companion Technical Report is Ecma TR/84, 6<sup>th</sup> Edition – June 2012 (also fast-tracked, as [ISO/IEC TR 23272:2011, 3<sup>rd</sup> Edition](#)). The editor of record for the standard and TR is Joel Marcey.

TG3 is in recess.

No Defect Reports have been received in the past year.

4. TC49/TG4 (Eiffel Language): The current standard is ECMA-367, 2nd Edition – June 2006, which was published as [ISO/IEC 25436:2006, 1st edition](#). The editor of record is Prof. Bertrand Meyer.

TG4 is working on a revision.

No Defect Reports have been received in the past year.

Ecma created a new Technical Committee, [TC52](#), to define the syntax and semantics of the [Dart programming language](#). It does not specify the APIs of the Dart libraries except where those library elements are essential to the correct functioning of the language itself.

In June 2014, [ECMA-408](#), “Dart Programming Language Specification”, was published. There are no plans to Fast-Track this to JTC 1. Work on a second edition has begun.