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Information technology — ECMAScript for XML (E4X) specification

Technologies de l'information — ECMAScript pour spécification XML (E4X)

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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ISO/IEC 22537 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 22, *Programming languages, their environments and system software interfaces*, and was adopted (as Ecma-357), under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Introduction

On 13 June 2002, a group of companies led by BEA Systems proposed a set of programming language extensions adding native XML support to ECMAScript (ISO/IEC 16262). The programming language extensions were designed to provide a simple, familiar, general purpose XML programming model that flattens the XML learning curve by leveraging the existing skills and knowledge of one of the largest developer communities worldwide. The benefits of this XML programming model include reduced code complexity, tighter revision cycles, faster time to market, decreased XML footprint requirements and looser coupling between code and XML data.

The ECMAScript group (Ecma TC39-TG1) unanimously agreed to the proposal and established a sub-group to standardize the syntax and semantics of a general purpose, cross platform, vendor neutral set of programming language extensions called ECMAScript for XML (E4X). The development of this International Standard started on 8 August 2002. This Standard was developed as an extension to ECMAScript Edition 3, but may be applied to other versions of ECMAScript as well.

This International Standard adds native XML datatypes to the ECMAScript language, extends the semantics of familiar ECMAScript operators for manipulating XML data and adds a small set of new operators for common XML operations, such as searching and filtering. It also adds support for XML literals, namespaces, qualified names and other mechanisms to facilitate XML processing.

This International Standard will be integrated into future editions of ISO/IEC 16262 (ECMAScript). The ECMAScript group is working on significant enhancements for future editions of the ECMAScript language, including mechanisms for defining XML types using the XML Schema language and support for classes.