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ECMA
International

Standardizing Information and
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Web Leaders agree to add Native XML to ECMAScript

New ECMA International standard, ECMAScript for XML (E4X), to unlock the power of XML for web developers

Geneva, 28 March 2003: ECMA International (ECMA) is completing extensions to the widely used ECMAScript standard, currently being updated to its 4th Edition. The enhancements known as E4X (ECMAScript for XML) standardize the syntax and semantics of a general-purpose, cross-platform, vendor-neutral set of programming language extensions adding native XML support in ECMAScript.

E4X will make it easier for Web developers to use the power of XML structured data, allowing them to leverage their existing skills and knowledge, and reuse familiar concepts, operators and syntax. E4X will also reduce code complexity, time to market and revision cycles, decrease current XML footprint requirements and enable looser coupling between code and external data.

Given the rising popularity of XML and the near universal usage of ECMAScript on the World Wide Web, the Web development community will welcome a simple, familiar, general purpose programming model for XML allowing them to harness the power and flexibility of XML immediately with little or no additional training.

In July 2002, recognizing the need for Native XML support in ECMAScript, a group of companies led by ECMA member, BEA Systems, Inc. (Nasdaq: BEAS), lobbied the ECMA Technical Committee (TC39) responsible for ECMAScript. Consensus was reached in the Programming Languages Technical Committee of ECMA (TC39) and ECMA formed a specialist group to draft the specification.

Jan van den Beld, Secretary General of ECMA International said: "The network effects of an open standard are more valuable than a proprietary approach. We congratulate BEA systems and its cosponsors for starting this activity and commend the collaborative work of our members who are making this high-quality, high-value standard possible in so short a time."

"Its fantastic to see leading application server, browser and mobile device vendors collaborating to make E4X a reality," said **Adam Bosworth**, chief architect and senior vice president of Advanced Development at BEA Systems. "We want developers to be able to leverage E4X everywhere they find XML."

As part of the standardization process, BEA plans a publicly available implementation of E4X, to provide an opportunity to solicit feedback from the development community and assist the standardization process.

Brendan Eich of Mozilla.org, creator of JavaScript, said: "We welcome E4X as a timely, simple, and powerful extension to ECMAScript. As more script authors encounter XML data, they will want exactly what E4X provides. This is a useful and innovative extension for developers across the Web."

David Yach, Vice President, Software at Research In Motion (RIM), makers of the popular Blackberry™ wireless device, said "XML technologies will play an important ongoing role in the evolution of mobile devices and the wireless enterprise and we are pleased to help sponsor the development of the E4X language that will provide powerful capabilities for XML based applications."

John Montgomery, director for the Developer and Platform Evangelism Division at Microsoft Corp., said "We're encouraged to see this evolution of the ECMAscript standard occurring in ECMA. XML and Web services are clearly growing in importance in our customers' software solutions, and enabling this popular language to better integrate with XML is critical for its continued success."

About ECMA International

Since its inception in 1961, ECMA International (ECMA) has developed standards for information and communication technology (ICT). ECMA is a not-for-profit industry association of technology developers, vendors and users. Industry and other experts work together in ECMA to complete standards. ECMA then submits the approved work for approval as ISO, ISO/IEC and ETSI standards. ECMA offers industry a "fast track" into these organizations' standardization procedures, through which high quality standards are rapidly made available for implementation.

Main areas of standardization include: Scripting and programming languages; Optical and Magnetic storage; High speed interconnects; Safety, Environmental, Acoustical and Electromagnetic product attributes; Enterprise and Proximity Communication and Networking; and File and Volume structures. Publications can be downloaded free of charge from http://www.ecma-international.org.

About ECMAScript

The ECMAScript (ECMA-262 or ISO/IEC 16262) Language Specification 3rd Edition, December 1999, is the foundation for Web pages that do something more than displaying text and images. It is estimated that nearly 70% of all web pages contain instances of ECMAScript. In February 2003, popular search engine Google found 10 million references to "JavaScript", 400,000 references to "JScript" and 40,000 references to "ECMAScript".

The international standardization of the language was originally driven by ECMA members Netscape and Microsoft, whose browser- or server-specific implementations include Netscape/AOL's JavaScript and Microsoft's JScript, which offer supersets of this full-featured programming language.

ECMA is in the process of harmonizing the various diverging extensions of ECMAScript. The full second version of the language is scheduled for publication as ECMA-262 Edition 4 in Q1 2004. This will update the standard with respect to the language and the various differing implementations.

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