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**Information technology — Document  
description and processing languages —  
Office Open XML File Formats —**

**Part 3:  
Markup Compatibility and Extensibility**

*Technologies de l'information — Description des documents et  
langages de traitement — Formats de fichier "Office Open XML" —*

*Partie 3: Compatibilité et extensibilité du balisage*

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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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 29500 was prepared by Ecma International (as ECMA-376:2006) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by the national bodies of ISO and IEC.

ISO/IEC 29500 consists of the following parts, under the general title *Information technology — Document description and processing languages — Office Open XML File Formats*:

- *Part 1: Fundamentals and Markup Language Reference*
- *Part 2: Open Packaging Conventions*
- *Part 3: Markup Compatibility and Extensibility*
- *Part 4: Transitional Migration Features*

Annexes A and B are for information only.

# Introduction

ISO/IEC 29500 specifies a family of XML schemas, collectively called *Office Open XML*, which define the XML vocabularies for word-processing, spreadsheet, and presentation documents, as well as the packaging of documents that conform to these schemas.

The goal is to enable the implementation of the Office Open XML formats by the widest set of tools and platforms, fostering interoperability across office productivity applications and line-of-business systems, as well as to support and strengthen document archival and preservation, all in a way that is fully compatible with the existing corpus of Microsoft Office documents.

The following organizations have participated in the creation of ISO/IEC 29500 and their contributions are gratefully acknowledged:

Apple, Barclays Capital, BP, The British Library, Essilor, Intel, Microsoft, NextPage, Novell, Statoil, Toshiba, and the United States Library of Congress

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# Information technology — Document description and processing languages — Office Open XML File Formats

## Part 3:

## Markup Compatibility and Extensibility

### 1. Scope

This Part of ISO/IEC 29500 describes a set of conventions that are used by Office Open XML documents to clearly mark elements and attributes introduced by future versions or extensions of Office Open XML documents, while providing a method by which consumers can obtain a baseline version of the Office Open XML document (a version without extensions) for interoperability.

## 2. Conformance

The text in this Part of ISO/IEC 29500 is divided into *normative* and *informative* categories. Unless documented otherwise, any feature shall be implemented as specified by the normative text describing that feature in this Part of ISO/IEC 29500. Text marked informative (using the mechanisms described in §7) is for information purposes only. Unless stated otherwise, all text is normative.

Use of the word “shall” indicates required behavior.

Any behavior that is not explicitly specified by this Part of ISO/IEC 29500 is implicitly unspecified (Part 1, §4).

Each Part of this multi-part standard has its own conformance clause. The term *conformance class* is used to disambiguate conformance within different Parts of this multi-part standard. This Part of ISO/IEC 29500 has only one conformance class, *MCE* (that is, Markup Compatibility and Extensibility). As such, conformance to that class implies conformance to the whole Part.

### 2.1 Document Conformance

A document has conformance class MCE if it satisfies the syntax constraints on elements and attributes defined in this Part of ISO/IEC 29500. Document conformance to this Part of ISO/IEC 29500 is purely syntactic.

### 2.2 Application Conformance

An application implementing this Part of ISO/IEC 29500 has conformance class MCE if any one of the following is true:

- The application is a markup consumer that does not reject any documents of conformance class MCE; or
- The application is a markup producer that is able to produce documents of conformance class MCE; or
- The application is a markup editor that does not reject any documents of conformance class MCE, and is able to produce documents of conformance class MCE.

Application conformance to this Part of ISO/IEC 29500 is purely syntactic.

[Note: Application conformance to this Part of ISO/IEC 29500 cannot be based on semantics, since the semantics depend on the choice of application-defined extension elements. *end note*]



### 3. Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 2382-1:1993, *Information technology — Vocabulary — Part 1: Fundamental terms*.

ISO/IEC 10646:2003, *Information technology — Universal Multiple-Octet Coded Character Set (UCS)*.

ISO/IEC 19757-4:2006, *Information technology — Document Schema Definition Languages (DSDL) — Part 4: Namespace-based Validation Dispatching Language (NVDL)*.

RFC 3986 *Uniform Resource Identifier (URI): Generic Syntax*, The Internet Society, Berners-Lee, T., R. Fielding, and L. Masinter, 2005, <http://www.ietf.org/rfc/rfc3986.txt>.

RFC 4234 *Augmented BNF for Syntax Specifications: ABNF*, The Internet Society, Crocker, D., P. Overell, 2005, <http://www.ietf.org/rfc/rfc4234.txt>

*The Unicode Standard*, 5th edition, The Unicode Consortium, Addison-Wesley Professional, ISBN 0321480910, <http://www.unicode.org/unicode/standard>.

XML, Tim Bray, Eve Maler, Jean Paoli, C. M. Sperberg-McQueen, John Cowan, and François Yergeau (editors). *Extensible Markup Language (XML) 1.1*, Third Edition. World Wide Web Consortium. 2004. <http://www.w3.org/TR/2004/REC-xml11-20040204/>

XML Base, Marsh, Jonathan. *XML Base*. World Wide Web Consortium. 2001. <http://www.w3.org/TR/2001/REC-xmlbase-20010627/>

XML Namespaces, Tim Bray, Dave Hollander, Andrew Layman, and Richard Tobin (editors). *Namespaces in XML 1.1 (Second Edition)*. World Wide Web Consortium. 2006. <http://www.w3.org/TR/2006/REC-xml-names11-20060816/>

*XML Schema Part 0: Primer (Second Edition)*, W3C Recommendation 28 October 2004, <http://www.w3.org/TR/xmlschema-0/>

*XML Schema Part 1: Structures (Second Edition)*, W3C Recommendation 28 October 2004, <http://www.w3.org/TR/xmlschema-1/>

*XML Schema Part 2: Datatypes (Second Edition)*, W3C Recommendation 28 October 2004, <http://www.w3.org/TR/xmlschema-2/>