

# SVENSK STANDARD

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**Informationsteknik – Document Description and processing  
languages – Office Open XML File Formats –  
Part 4: Transitional Migration Features  
(ISO/IEC 29500-4:2008, IDT)**

**Information technology – Document description and processing  
languages – Office Open XML File Formats –  
Part 4: Transitional Migration Features  
(ISO/IEC 29500-4:2008, IDT)**

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The International Standard ISO/IEC 29500-4:2008 has the status of a Swedish Standard. This document contains the official English version of ISO/IEC 29500-4:2008.

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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.

Some important differences between ISO/IEC 29500 and ECMA-376:2006 are given in Annex D.

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*

Annex A forms a normative part of this Part of ISO/IEC 29500. Annexes B, C, and D are for information only.

This Part of ISO/IEC 29500 includes two annexes (Annex A and Annex B) that refer to data files provided in electronic form.

## SS-ISO/IEC 29500-4:2009 (E)

# 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

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

## Part 4:

## Transitional Migration Features

### 1. Scope

ISO/IEC 29500 defines a set of XML vocabularies for representing word-processing documents, spreadsheets and presentations. On the one hand, the goal of ISO/IEC 29500 is to represent faithfully the existing corpus of word-processing documents, spreadsheets and presentations that have been produced by Microsoft Office applications (from Microsoft Office 97 to Microsoft Office 2008, inclusive). It also specifies requirements for Office Open XML consumers and producers. On the other hand, the goal is to facilitate extensibility and interoperability by enabling implementations by multiple vendors and on multiple platforms.

This Part of ISO/IEC 29500 defines features for backward-compatibility and that are useful for high-quality migration of existing binary documents to ISO/IEC 29500. These features shall only be used by documents of conformance class WML Transitional, SML Transitional, or PML Transitional.

## 2. Conformance

### 2.1 Document Conformance

Document conformance is purely syntactic.

- A conforming document shall conform to the transitional W3C XML Schema, and any additional syntax constraints.
- The document shall be of category Wordprocessing, Spreadsheet, or Presentation (see Part 1, §4).
- The document character set shall conform to the Unicode Standard and ISO/IEC 10646:2003, with either the UTF-8 or UTF-16 encoding form, as required by the XML 1.0 standard.
- Any XML element or attribute not explicitly included in ISO/IEC 29500 shall use the extensibility mechanisms described by ISO/IEC 29500-1 and ISO/IEC 29500-3.

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 defines the following document conformance classes:

- *WML Transitional*, if the document is a conforming document of category Wordprocessing that conforms to the transitional schema.
- *SML Transitional*, if the document is a conforming document of category Spreadsheet that conforms to the transitional schema.
- *PML Transitional*, if the document is a conforming document of category Presentation that conforms to the transitional schema.

[Note: Other document conformance classes could be defined in the future. *end note*]

[Note: A document cannot be of more than one of the above conformance classes. *end note*]

### 2.2 Application Conformance

Application conformance incorporates both syntax and semantics.

- A conforming consumer shall not reject any conforming documents of at least one document conformance class.
- A conforming producer shall be able to produce conforming documents of at least one document conformance class.
- A conforming application shall treat the information in Office Open XML documents in a manner consistent with the semantic definitions given in ISO/IEC 29500. An application's intended behavior need not require that application to process all of the information in an Office Open XML document. However, the information that it does process shall be processed in a manner that is consistent with the semantic definitions given in ISO/IEC 29500.

[*Note*: This note illustrates the third bullet above. Conforming applications might serve various functions. Examples include a viewer, an editor, and a back-end processor. Here is an illustration of how the third bullet applies to each of those examples:

- If a conforming viewer supports a given feature, then when it displays information using that feature, it respects the semantics of that feature as described in the Standard.
- If a conforming editor supports a given feature, then when it provides its user with an interface for manipulating information using that feature, it respects the semantics of that feature as described in the Standard.
- If a conforming back-end processor supports a given feature, then when that processor transforms or assembles information involving that feature, that processor respects the semantics of that feature as described in the Standard.

*end note*]

This Part of ISO/IEC 29500 defines the following application conformance classes:

- *WML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class WML Transitional.
- *SML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class SML Transitional.
- *PML Transitional*, if the application is a conforming application that is a consumer or producer of documents having conformance class PML Transitional.

## SS-ISO/IEC 29500-4:2009 (E)

### 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.

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## 4. Terms and Definitions

For the purposes of this document, the following terms and definitions apply. Other terms are defined where they appear in *italic* typeface, on the left side of a syntax rule, or within subclauses of language-specific grammars. Terms explicitly defined in this Part of ISO/IEC 29500 are not to be presumed to refer implicitly to similar terms defined elsewhere. [*Note*: This part uses OPC-related terms, which are defined in ISO/IEC 29500-2. *end note*]

**application** — A consumer or producer.

**behavior** — External appearance or action.

**behavior, implementation-defined** — Unspecified behavior where each implementation is expected to document that behavior, which would thereby promote predictability and reproducibility within any given implementation. (This term is sometimes called “application-defined behavior”.)

**behavior, locale-specific** — Behavior that depends on local conventions of nationality, culture, and language.

**behavior, unspecified** — Behavior where ISO/IEC 29500 makes no recommendations. [*Note*: To add an extension, an implementer must use the extensibility mechanisms described by ISO/IEC 29500 rather than trying to do so by giving meaning to otherwise unspecified behavior. *end note*]

**comment** — A note that an author or reviewer attaches to content in a document. Although a consumer might choose to display comments, they are not considered part of the body of the document. A comment might include the text of the note, the comment author's name and initials, and date of creation, among other things.

**consumer** — A piece of software or a device that reads packages through a package implementer. A consumer is often designed to consume packages only for a specific physical package format.

**content type** — Describes the content stored in a part. Content types define a media type, a subtype, and an optional set of parameters, as defined in RFC 2616.

**document category** — One of the three categories of Office Open XML documents: Wordprocessing, Spreadsheet, and Presentation, defined as follows:

- A document whose package-relationship item contains a relationship to a Main Document part (Part 1, §11.3.10) is a document of category Wordprocessing.
- A document whose package-relationship item contains a relationship to a Workbook part (Part 1, §12.3.23) is a document of category Spreadsheet.

- A document whose package-relationship item contains a relationship to a Presentation part (Part 1, §13.3.6) is a document of category Presentation.

An Office Open XML document can contain one or more embedded Office Open XML packages (Part 1, §15.2.11) with each embedded package having any of the three document categories. However, the presence of these embedded packages does not change the category of the document.

**DrawingML** — A set of conventions for specifying the location and appearance of drawing elements in an Office Open XML document.

**extension** — Any XML element, XML attribute, relationship, or part not explicitly included in ISO/IEC 29500, but that uses the extensibility mechanisms described by ISO/IEC 29500.

**Office Open XML document** — A rendition of a data stream formatted using the wordprocessing, spreadsheet, or presentation ML and its related MLs as described in ISO/IEC 29500-1 and ISO/IEC 29500-4. Such a document is represented as a package as described in ISO/IEC 29500-2.

**package**— A ZIP archive that conforms to the Open Packaging Conventions specification defined in ISO/IEC 29500-2.

**package, embedded**— A package that has been stored as the target of an Embedded Package relationship (Part 1, §15.2.11) in an Office Open XML document

**PresentationML** — A set of conventions for representing an Office Open XML document of category Presentation.

**producer** — A piece of software or a device that writes packages through a package implementer. A producer is often designed to produce packages according to a particular physical package format specification.

**relationship** —The kind of connection between a source part and a target part in a package. Relationships make the connections between parts directly discoverable without looking at the content in the parts, and without altering the parts themselves. (See also Package Relationships.)

**relationships part** — A part containing an XML representation of relationships.

**relationship, explicit** — A relationship in which a resource is referenced from a source part's XML using the Id attribute of a Relationship tag.

**relationship, implicit** — A relationship that is not explicit.

**SpreadsheetML** — A set of conventions for representing an Office Open XML document of category Spreadsheet.

**WordprocessingML** — A set of conventions for representing an Office Open XML document of category Wordprocessing.