[MS-OFFDI]:
Microsoft Office File Format Documentation Introduction

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Revision Summary

Date	Revision History	Revision Class	Comments
03/18/2009	1.0	Major	Initial Availability
07/13/2009	1.01	Major	Changes made for template compliance
08/28/2009	1.02	Editorial	Revised and edited the technical content
11/06/2009	1.03	Editorial	Revised and edited the technical content
02/19/2010	2.0	Editorial	Revised and edited the technical content
03/31/2010	2.01	Editorial	Revised and edited the technical content
04/30/2010	2.02	Editorial	Revised and edited the technical content
06/07/2010	2.03	Editorial	Revised and edited the technical content
06/29/2010	2.04	Editorial	Changed language and formatting in the technical content.
07/23/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
09/27/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
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12/17/2010	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
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06/10/2011	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
01/20/2012	2.04	No change	No changes to the meaning, language, or formatting of the technical content.
04/11/2012	2.04	No change	No changes to the meaning, language, or formatting of the technical content.

Date	Revision History	Revision Class	Comments
07/16/2012	2.5	Minor	Clarified the meaning of the technical content.

Table of Contents

1 Introduction

This document introduces the persistence formats that are primarily used by the following product versions:

- Microsoft® Excel® 97
- Microsoft® Excel® 2000
- Microsoft® Excel® 2002
- Microsoft® Office Excel® 2003
- Microsoft® Office Excel® 2007
- Microsoft® Excel® 2010
- Microsoft® Excel® 2013 Preview
- Microsoft® PowerPoint® 97
- Microsoft® PowerPoint® 2000
- Microsoft® PowerPoint® 2002
- Microsoft® Office PowerPoint® 2003
- Microsoft® Office PowerPoint® 2007
- Microsoft® PowerPoint® 2010
- Microsoft® PowerPoint® 2013 Preview
- Microsoft® Word 97
- Microsoft® Word 2000
- Microsoft® Word 2002
- Microsoft® Office Word 2003
- Microsoft® Office Word 2007
- Microsoft® Word 2010
- Microsoft® Word 2013 Preview

Each format consists of a set of data structures to which applications can read or write data, typically by writing a conforming stream of bytes to a file system as a stand-alone file.

In addition to introducing the persistence formats that are primarily used by these product versions, this document identifies related documents and specifications that provide more information about each format and how each format is implemented in each product version.

1.1 Glossary

The following terms are defined in [MS-OFCGLOS]:

animation
document template
drawing object
embedded object
formula
presentation
slide
slide show
table
template
workbook
XML schema

The following terms are specific to this document:

MAY, SHOULD, MUST, SHOULD NOT, MUST NOT: These terms (in all caps) are used as described in [RFC2119]. All statements of optional behavior use either MAY, SHOULD, or SHOULD NOT.

1.2 References

References to Microsoft Open Specifications documentation do not include a publishing year because links are to the latest version of the technical documents, which are updated frequently. References to other documents include a publishing year when one is available.

1.2.1 Normative References

We conduct frequent surveys of the normative references to assure their continued availability. If you have any issue with finding a normative reference, please contact dochelp@microsoft.com. We will assist you in finding the relevant information. Please check the archive site, http://msdn2.microsoft.com/en-us/library/E4BD6494-06AD-4aed-9823-445E921C9624, as an additional source.

[ECMA-376] ECMA International, "Office Open XML File Formats", 1st Edition, ECMA-376, December 2006, http://www.ecma-international.org/publications/standards/Ecma-376.htm

[ISO/IEC-29500:2008] International Organization for Standardization, "Information technology -- Document description and processing languages -- Office Open XML File Formats -- Parts 1-4", ISO/IEC 29500-1:2008, http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=51463

[MS-DOC] Microsoft Corporation, "Word Binary File Format (.doc) Structure Specification".

[MS-OLEDS] Microsoft Corporation, "Object Linking and Embedding (OLE) Data Structures".

[MS-PPT] Microsoft Corporation, "PowerPoint Binary File Format (.ppt) Structure Specification".

[MS-XLS] Microsoft Corporation, "Excel Binary File Format (.xls) Structure Specification".

[MS-XLSB] Microsoft Corporation, "Excel Binary File Format (.xlsb) Structure Specification".

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997, http://www.rfc-editor.org/rfc/rfc2119.txt

1.2.2 Informative References

[MSDN-COMPAC] Microsoft Corporation, "Microsoft Office Compatibility Pack for Word, Excel, and PowerPoint 2007 File Formats", Microsoft Download Center, http://www.microsoft.com/downloads/details.aspx?familyid=941B3470-3AE9-4AEE-8F43-C6BB74CD1466&displaylang=en

[MS-OE376] Microsoft Corporation, "Office Implementation Information for ECMA-376 Standards Support".

[MS-OFCGLOS] Microsoft Corporation, "Microsoft Office Master Glossary".

[MS-OI29500] Microsoft Corporation, "Office Implementation Information for ISO/IEC 29500 Standards Support".

[MS-OODF] Microsoft Corporation, "Office Implementation Information for ODF 1.1 Standards Support".

[MS-OODF2] Microsoft Corporation, "Office Implementation Information for ODF 1.1 Version 2 Standards Support".

[ODF] OASIS, "Open Document Format for Office Applications (OpenDocument) v1.1", 1 February 2007, http://docs.oasis-open.org/office/v1.1/OS/OpenDocument-v1.1-html/OpenDocument-v1.1.html

[RELAXNG] OASIS, Clark, J., Ed., and Makoto, M., Ed., "RELAX NG Specification", 3 December 2001, http://relaxng.org/spec-20011203.html

2 Microsoft Word Persistence Formats

Microsoft Word supports primarily four file formats:

- Word Binary File Format, as specified in [MS-DOC]
- Ecma Office Open XML File Format, as specified in [ECMA-376]
- Office Open XML File Format, as specified in [ISO/IEC-29500:2008]
- Open Document Format for Office Applications (OpenDocument), as described in [ODF]

2.1 Word Binary File Format

2.1.1 Applicability

The Word Binary File Format, as specified in [MS-DOC], is a persistence format that supports word-processing tasks for content in documents and **document templates**. These tasks include authoring and manipulating text, images, **tables**, and the layout of pages, and managing custom **XML schemas** that are associated with document content.

The Word Binary File Format is applicable to document content that is intended to flow across a set of pages and might be printed. It is also applicable to content that is to be presented as a stand-alone document or is contained within other documents as an **embedded object**, as specified in [MS-OLEDS].

The Word Binary File Format is not applicable to content that is to be presented across various media and devices as an exact reproduction of a specific representation of that content.

2.1.2 Application and Versions

Users can create, open, or save files that conform to the Word Binary File Format, as specified in [MS-DOC], by using Microsoft® Word 2010, Microsoft® Office Word 2007, Microsoft® Office Word 2003, Microsoft® Word 2002, Microsoft® Word 2000, or Microsoft® Word 97.

2.1.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Word Binary File Format, as specified in [MS-DOC], and were created by using a product version identified in section 2.1.2.

File name extension	Typical usage
.doc	Microsoft® Office Word 2003, Microsoft® Word 2002, Microsoft® Word 2000, or Microsoft® Word 97 document
.dot	Office Word 2003, Word 2002, Word 2000, or Word 97 document template

2.2 Ecma Office Open XML Document

2.2.1 Applicability

The Ecma Office Open XML File Format, as specified in [ECMA-376], is a persistence format that supports the same types of word-processing tasks described in section 2.1.1. It additionally provides the following benefits:

- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by Ecma International instead of a single, specific vendor.

2.2.2 Application and Versions

By using Microsoft® Word 2010, users can open document files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376]. To create document files that conform to the Office Open XML File Format that is specified in [ISO/IEC-29500:2008], and pursuant to the implementation notes that are cited in section 2.3.4 of this document, Word 2010 is required. For more information, see section 2.3.

Users can create, open, or save conforming document files by using Microsoft® Office Word 2007 Service Pack 2, Microsoft® Office Word 2007 Service Pack 1, or Microsoft® Office Word 2007. In addition, if they install the Microsoft Office Compatibility Pack, as described in [MSDN-COMPAC], users can create, open, or save conforming document files by using Microsoft® Office Word 2003 Service Pack 1, Microsoft® Word 2002 Service Pack 3, or Microsoft® Word 2000 Service Pack 3.

2.2.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376] and pursuant to the implementation notes that are cited in section 2.2.4 of this document, and were created by using a product version identified in section 2.2.2.

File name extension	Typical usage
.docx	Microsoft® Office Word 2007 XML-based document
.docm	Office Word 2007 macro-enabled document
.dotx	Office Word 2007 XML-based document template

2.2.4 Reference Information

The Ecma Office Open XML File Format is specified in [ECMA-376]. That specification includes relevant normative text, markup samples, informative notes, and the associated schemas for the format. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the 2007 Microsoft® Office system implementation of the Ecma Office Open XML File Format, as specified in [ECMA-376], are described in [MS-OE376]. These notes describe how the 2007 Office system applications implement the format and they are organized according to sections of the Ecma Office Open XML File Format specification.

2.3 Office Open XML Document

2.3.1 Applicability

The Office Open XML File Format, as specified in [ISO/IEC-29500:2008], is a persistence format that supports the same types of word-processing tasks described in section 2.1.1. It additionally provides the following benefits:

- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by the International Organization for Standardization (ISO) instead of a single, specific vendor.

2.3.2 Application and Versions

By using Microsoft® Word 2010, users can create, open, or save document files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 2.3.4 of this document.

2.3.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 2.3.4 of this document, and were created by using a product version identified in section 2.3.2.

File name extension	Typical usage
.docx	Microsoft® Word 2010 XML-based document
.docm	Word 2010 macro-enabled document
.dotx	Word 2010 XML-based document template

2.3.4 Reference Information

The Office Open XML File Format is specified in [ISO/IEC-29500:2008]. That specification includes relevant normative text, markup samples, informative notes, and associated schemas for the format. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the Office Open XML File Format, as specified in [ISO/IEC-29500:2008], are described in [MS-OI29500]. These notes describe how Office 2010 applications implement the format and they are organized according to sections of the Office Open XML File Format specification.

2.4 OpenDocument Text Document

2.4.1 Applicability

The Open Document Format for Office Applications (OpenDocument), as described in [ODF], is an appropriate persistence format for performing word-processing tasks with documents that might

need to be viewed or edited by using other applications or technologies that implement the OpenDocument format.

2.4.2 Application and Versions

By using Microsoft® Word 2010 or Microsoft® Office Word 2007 Service Pack 2, users can create, open, or save document files that conform to the OpenDocument format, as described in [ODF] and pursuant to the implementation notes that are cited in section 2.4.4 of this document.

2.4.3 File Name Extensions

Document files that conform to the OpenDocument format, as described in [ODF] and pursuant to the implementation notes that are cited in section 2.4.4 of this document, and were created by using a product version identified in section 2.4.2 typically have an .odt (OpenDocument format document) file name extension.

2.4.4 Reference Information

The OpenDocument format is described in [ODF]. That specification includes relevant normative text and informative notes. It also provides the associated schema in Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the OpenDocument format are described in [MS-OODF2]. Implementation notes for the Microsoft® Office 2007 Service Pack 2 (SP2) implementation of the OpenDocument format are described in [MS-OODF]. These notes describe how Office 2010 and Office 2007 SP2 applications implement the format and they are organized according to sections of the OpenDocument format specification.

3 Microsoft Excel Persistence Formats

Microsoft Excel supports primarily five file formats:

- Excel Binary File Format, as specified in [MS-XLS]
- Office Excel 2007 Binary File Format, as specified in [MS-XLSB]
- Ecma Office Open XML File Format, as specified in [ECMA-376]
- Office Open XML File Format, as specified in [ISO/IEC-29500:2008]
- Open Document Format for Office Applications (OpenDocument), as described in [ODF]

3.1 Excel Binary File Format

3.1.1 Applicability

The Excel Binary File Format, as specified in [MS-XLS], is a persistence format that supports authoring and manipulating content in **workbooks** and workbook **templates**. This content can include unstructured or semi-structured tables of numbers, text, and combinations of numbers and text, in addition to **formulas**, connections to external data sources, charts, and images.

The Excel Binary File Format is applicable to content that has a grid-based layout, including content that contains numeric data, structured data, and formulas. It is also applicable to content that is to be presented as a stand-alone workbook or is contained within other documents as an embedded object, as specified in [MS-OLEDS].

3.1.2 Application and Versions

Users can create, open, or save workbook files that conform to the Excel Binary File Format, as specified in [MS-XLS], by using Microsoft® Excel® 2010, Microsoft® Office Excel® 2007, Microsoft® Office Excel® 2003, Microsoft® Excel® 2002, Microsoft® Excel® 2000, or Microsoft® Excel® 97.

3.1.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Excel Binary File Format, as specified in [MS-XLS], and were created by using a product version identified in section 3.1.2.

File name extension	Typical usage
.xls	Microsoft® Office Excel® 2003, Microsoft® Excel® 2002, Microsoft® Excel® 2000, or Microsoft® Excel® 97 workbook
.xlt	Office Excel 2003, Excel 2002, Excel 2000, or Excel 97 workbook template

3.2 Office Excel 2007 Binary File Format

3.2.1 Applicability

The Office Excel 2007 Binary File Format, as specified in [MS-XLSB], is a persistence format that supports the same types of tasks described in section 3.1.1. It is applicable to content that has a

grid-based layout, including content that contains numeric data, structured data, and formulas. It is also applicable to content that is to be presented as a stand-alone workbook or is contained within other documents as an embedded object, as specified in [MS-OLEDS].

3.2.2 Application and Versions

By using Microsoft® Excel® 2010 or Microsoft® Office Excel® 2007, users can create, open, or save workbook files that conform to the Office Excel 2007 Binary File Format, as specified in [MS-XLSB]. In addition, if they install the Microsoft Office Compatibility Pack, as described in [MSDN-COMPAC], users can create, open, or save conforming workbook files by using Microsoft® Office Excel® 2003 Service Pack 1, Microsoft® Excel® 2002 Service Pack 3, or Microsoft® Excel® 2000 Service Pack 3.

3.2.3 File Name Extensions

Workbook files that conform to the Office Excel 2007 Binary File Format, as specified in [MS-XLSB], and were created by using a product version identified in section 3.2.2 typically have an .xlsb (Excel 2007 binary workbook) file name extension.

3.3 Ecma Office Open XML Spreadsheet

3.3.1 Applicability

The Ecma Office Open XML File Format, as specified in [ECMA-376], is an appropriate persistence format for spreadsheets that require the functionality provided by the Excel Binary File Format, as specified in [MS-XLS]. It additionally provides the following benefits:

- Standard syntax – The format uses a documented, standard syntax for formulas in spreadsheets.
- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by Ecma International instead of a single, specific vendor.

3.3.2 Application and Versions

By using Microsoft® Excel® 2010, users can open spreadsheet files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376]. To create spreadsheet files that conform to the Office Open XML File Format that is specified in [ISO/IEC-29500:2008], and pursuant to the implementation notes that are cited in section 3.4.4 of this document, Excel 2010 is required. For more information, see section 3.4.

Users can create, open, or save conforming spreadsheet files by using Microsoft® Office Excel® 2007 Service Pack 2, Microsoft® Office Excel® 2007 Service Pack 1, or Microsoft® Office Excel® 2007. In addition, if they install the Microsoft Office Compatibility Pack, as described in [MSDN-COMPAC], users can create, open, or save conforming spreadsheet files by using Microsoft® Office Excel® 2003 Service Pack 1, Microsoft® Excel® 2002 Service Pack 3, or Microsoft® Excel® 2000 Service Pack 3.

3.3.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376] and pursuant to the implementation notes

that are cited in section 3.3.4 of this document, and were created by using a product version identified in section 3.3.2.

File name extension	Typical usage
.xlsx	Microsoft® Office Excel® 2007 XML-based workbook
.xlsm	Office Excel 2007 macro-enabled workbook
.xltx	Office Excel 2007 XML-based workbook template

3.3.4 Reference Information

The Ecma Office Open XML File Format is specified in [ECMA-376]. That specification includes relevant normative text, markup samples, informative notes, and the associated schemas for the format. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the 2007 Microsoft® Office system implementation of the Ecma Office Open XML File Format, as specified in [ECMA-376], are described in [MS-OE376]. These notes describe how the 2007 Office system applications implement the format and they are organized according to sections of the Ecma Office Open XML File Format specification.

3.4 Office Open XML Spreadsheet

3.4.1 Applicability

The Office Open XML File Format, as specified in [ISO/IEC-29500:2008], is an appropriate persistence format for spreadsheets that require the functionality of the Excel Binary File Format, as specified in [MS-XLS], and the interoperability and archival benefits of using an open, standard format. It additionally provides the following benefits:

- Standard syntax – The format uses a documented, standard syntax for formulas in spreadsheets.
- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by the International Organization for Standardization (ISO) instead of a single, specific vendor.

3.4.2 Applications and Versions

By using Microsoft® Excel® 2010, users can create, open, and save spreadsheet files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 3.4.4 of this document.

3.4.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 3.4.4 of this document, and were created by using a product version identified in section 3.4.2.

File name extension	Typical usage
.xlsx	Microsoft® Excel® 2010 XML-based workbook
.xlsm	Excel 2010 macro-enabled workbook
.xltx	Excel 2010 XML-based workbook template

3.4.4 Reference Information

The Office Open XML File Format is specified in [ISO/IEC-29500:2008]. That specification includes relevant normative text, markup samples, informative notes, and associated schemas for the format. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the Office Open XML File Format, as specified in [ISO/IEC-29500:2008], are described in [MS-OI29500]. These notes describe how Office 2010 applications implement the format and they are organized according to sections of the Office Open XML File Format specification.

3.5 OpenDocument Spreadsheet Document

3.5.1 Applicability

The Open Document Format for Office Applications (OpenDocument), as described in [ODF], is an appropriate persistence format for performing tasks with spreadsheets that might need to be viewed or edited by using other applications or technologies that implement the OpenDocument format.

3.5.2 Application and Versions

By using Microsoft® Excel® 2010 or Microsoft® Office Excel® 2007 Service Pack 2, users can create, open, or save spreadsheet files that conform to the OpenDocument format, as described in [ODF] and pursuant to the implementation notes that are cited in section 3.5.4 of this document.

3.5.3 File Name Extensions

Spreadsheet files that conform to the OpenDocument format, as described in [ODF] and pursuant to the implementation notes that are cited in section 3.5.4 of this document, and were created by using a product version identified in section 3.5.2 typically have an .ods (OpenDocument format spreadsheet) file name extension.

3.5.4 Reference Information

The OpenDocument format is described in [ODF]. That specification includes relevant normative text and informative notes. It also provides the associated schema in Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the OpenDocument format are described in [MS-OODF2]. Implementation notes for the Microsoft® Office 2007 Service Pack 2 (SP2) implementation of the OpenDocument format are described in [MS-OODF]. These notes describe how Office 2010 and Office 2007 SP2 applications implement the format and they are organized according to sections of the OpenDocument format specification.

4 Microsoft PowerPoint Persistence Formats

Microsoft PowerPoint supports primarily four file formats:

- PowerPoint Binary File Format, as specified in [MS-PPT]
- Ecma Office Open XML File Format, as specified in [ECMA-376]
- Office Open XML File Format, as specified in [ISO/IEC-29500:2008]
- Open Document Format for Office Applications (OpenDocument), as described in [ODF]

4.1 PowerPoint Binary File Format

4.1.1 Applicability

The PowerPoint Binary File Format, as specified in [MS-PPT], is a persistence format that supports tasks for authoring and manipulating content in **presentations** and presentation templates. Such content includes **slides**, **drawing objects**, text, images, transitions, and **animations**.

The PowerPoint Binary File Format is applicable when the primary format for presentation content is electronic. It is also applicable to content that is to be presented as a stand-alone document or is contained within other documents as an embedded object, as specified in [MS-OLEDS].

4.1.2 Application and Versions

Users can create, open, or save files that conform to the PowerPoint Binary File Format, as specified in [MS-PPT], by using Microsoft® PowerPoint® 2010, Microsoft® Office PowerPoint® 2007, Microsoft® Office PowerPoint® 2003, Microsoft® PowerPoint® 2002, Microsoft® PowerPoint® 2000, or Microsoft® PowerPoint® 97.

4.1.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the PowerPoint Binary File Format, as specified in [MS-PPT], and were created by using a product version identified in section 4.1.2.

File name extension	Typical usage
.ppt	Microsoft® Office PowerPoint® 2003, Microsoft® PowerPoint® 2000, or Microsoft® PowerPoint® 97 presentation
.pot	Office PowerPoint 2003, PowerPoint 2000, or PowerPoint 97 presentation template
.pps	Office PowerPoint 2003, PowerPoint 2000, or PowerPoint 97 **slide show**

4.2 Ecma Office Open XML Presentation

4.2.1 Applicability

The Ecma Office Open XML File Format, as specified in [ECMA-376], is an appropriate persistence format for presentation content that requires the functionality provided by the PowerPoint Binary File Format, as specified in [MS-PPT]. It additionally provides the following benefits:

- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by Ecma International instead of a single, specific vendor.

4.2.2 Application and Versions

By using Microsoft® PowerPoint® 2010, users can open presentation files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376]. To create presentation files that conform to the Office Open XML File Format that is specified in [ISO/IEC-29500:2008], and pursuant to the implementation notes that are cited in section 4.3.4 of this document, PowerPoint 2010 is required. For more information, see section 4.3.

Users can create, open, or save conforming presentation files by using Microsoft® Office PowerPoint® 2007 Service Pack 2, Microsoft® Office PowerPoint® 2007 Service Pack 1, or Microsoft® Office PowerPoint® 2007. In addition, if they install the Microsoft Office Compatibility Pack, as described in [MSDN-COMPAC], users can create, open, and save conforming presentation files by using Microsoft® Office PowerPoint® 2003 Service Pack 1, Microsoft® PowerPoint® 2002 Service Pack 3, or Microsoft® PowerPoint® 2000 Service Pack 3.

4.2.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Ecma Office Open XML File Format, as specified in [ECMA-376] and pursuant to the implementation notes that are cited in section 4.2.4 of this document, and were created by using a product version identified in section 4.2.2.

File name extension	Typical usage
.pptx	Microsoft® Office PowerPoint® 2007 XML-based presentation
.pptm	Office PowerPoint 2007 macro-enabled presentation
.potx	Office PowerPoint 2007 XML-based presentation template
.ppsx	Office PowerPoint 2007 XML-based slide show

4.2.4 Reference Information

The Ecma Office Open XML File Format is specified in [ECMA-376]. That specification includes relevant normative text, markup samples, informative notes, and the associated schemas for the format. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the 2007 Microsoft® Office system implementation of the Ecma Office Open XML File Format, as specified in [ECMA-376], are described in [MS-OE376]. These notes describe how the 2007 Office system applications implement the format and they are organized according to sections of the Ecma Office Open XML File Format specification.

4.3 Office Open XML Presentation

4.3.1 Applicability

The Office Open XML File Format, as specified in [ISO/IEC-29500:2008], is an appropriate persistence format for presentation content that requires the functionality provided by the PowerPoint Binary File Format, as specified in [MS-PPT]. It additionally provides the following benefits:

- Improved interoperability and business process integration – The XML–based architecture and approval of the format as an international standard help ensure interoperability and integration between documents and technologies.
- Long-term archival protection – The format is documented and maintained by the International Organization for Standardization (ISO) instead of a single, specific vendor.

4.3.2 Application and Versions

By using Microsoft® PowerPoint® 2010, users can create, open, or save presentation files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 4.2.4 of this document.

4.3.3 File Name Extensions

The following table lists file name extensions and descriptions of files that conform to the Office Open XML File Format, as specified in [ISO/IEC-29500:2008] and pursuant to the implementation notes that are cited in section 4.3.4 of this document, and were created by using a product version identified in section 4.3.2.

File name extension	Typical usage
.pptx	Microsoft® PowerPoint® 2010 XML-based presentation
.pptm	PowerPoint 2010 macro-enabled presentation
.potx	PowerPoint 2010 XML-based presentation template
.ppsx	PowerPoint 2010 XML-based slide show

4.3.4 Reference Information

The Office Open XML File Format is specified in [ISO/IEC-29500:2008]. That specification includes relevant normative text, markup samples, informative notes, and the associated schemas. The associated schemas are available in XML schema (.xsd) format and Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the Office Open XML File Format, as specified in [ISO/IEC-29500:2008], are described in [MS-OI29500]. These notes describe how Office 2010 applications implement the format and they are organized according to sections of the Office Open XML File Format specification.

4.4 OpenDocument Presentation Document

4.4.1 Applicability

The Open Document Format for Office Applications (OpenDocument), as described in [ODF], is an appropriate persistence format for presentations that might need to be viewed or edited by using other applications or technologies that implement the OpenDocument format.

4.4.2 Application and Versions

By using Microsoft® PowerPoint® 2010 or Microsoft® Office PowerPoint® 2007 Service Pack 2, users can create, open, or save presentation files that conform to the OpenDocument format, as specified in [ODF] and pursuant to the implementation notes that are cited in section 4.4.4 of this document.

4.4.3 File Name Extensions

Presentation files that conform to the OpenDocument format, as described in [ODF] and pursuant to the implementation notes that are cited in section 4.4.4 of this document, and were created by using a product version identified in section 4.4.2 typically have an .odp (OpenDocument format presentation) file name extension.

4.4.4 Reference Information

The OpenDocument format is described in [ODF]. That specification includes relevant normative text and informative notes. It also provides the associated schema in Relax NG (.rng) format, which is described in [RELAXNG].

Implementation notes for the Microsoft Office 2010 implementation of the OpenDocument format are described in [MS-OODF2]. Implementation notes for the Microsoft® Office 2007 Service Pack 2 (SP2) implementation of the OpenDocument format are described in [MS-OODF]. These notes describe how Office 2010 and Office 2007 SP2 applications implement the format and they are organized according to sections of the OpenDocument format specification.

5 Change Tracking

This section identifies changes that were made to the [MS-OFFDI] protocol document between the April 2012 and July 2012 releases. Changes are classified as New, Major, Minor, Editorial, or No change.

The revision class **New** means that a new document is being released.

The revision class **Major** means that the technical content in the document was significantly revised. Major changes affect protocol interoperability or implementation. Examples of major changes are:

- A document revision that incorporates changes to interoperability requirements or functionality.
- An extensive rewrite, addition, or deletion of major portions of content.
- The removal of a document from the documentation set.
- Changes made for template compliance.

The revision class **Minor** means that the meaning of the technical content was clarified. Minor changes do not affect protocol interoperability or implementation. Examples of minor changes are updates to clarify ambiguity at the sentence, paragraph, or table level.

The revision class **Editorial** means that the language and formatting in the technical content was changed. Editorial changes apply to grammatical, formatting, and style issues.

The revision class **No change** means that no new technical or language changes were introduced. The technical content of the document is identical to the last released version, but minor editorial and formatting changes, as well as updates to the header and footer information, and to the revision summary, may have been made.

Major and minor changes can be described further using the following change types:

- New content added.
- Content updated.
- Content removed.
- New product behavior note added.
- Product behavior note updated.
- Product behavior note removed.
- New protocol syntax added.
- Protocol syntax updated.
- Protocol syntax removed.
- New content added due to protocol revision.
- Content updated due to protocol revision.
- Content removed due to protocol revision.
- New protocol syntax added due to protocol revision.

- Protocol syntax updated due to protocol revision.
- Protocol syntax removed due to protocol revision.
- New content added for template compliance.
- Content updated for template compliance.
- Content removed for template compliance.
- Obsolete document removed.

Editorial changes are always classified with the change type **Editorially updated.**

Some important terms used in the change type descriptions are defined as follows:

- **Protocol syntax** refers to data elements (such as packets, structures, enumerations, and methods) as well as interfaces.
- **Protocol revision** refers to changes made to a protocol that affect the bits that are sent over the wire.

The changes made to this document are listed in the following table. For more information, please contact protocol@microsoft.com.

Section	Tracking number (if applicable) and description	Major change (Y or N)	Change type
1 Introduction	Updated content to include new products.	N	Content updated.

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