

ISO/IEC 29500-2:2011-08 (E)

Information technology - Document description and processing languages - Office Open XML File Formats - Part 2: Open Packaging Conventions

Contents	Page
Foreword	vii
Introduction	viii
1. Scope	1
2. Conformance	2
3. Normative References	3
4. Terms and Definitions	5
5. Notational Conventions	8
5.1 Document Conventions	8
5.2 Diagram Notes	8
6. Acronyms and Abbreviations	10
7. General Description	11
8. Overview	12
9. Package Model	13
9.1 Parts	13
9.1.1 Part Names	13
9.1.2 Content Types	16
9.1.3 Growth Hint	17
9.1.4 XML Usage	17
9.2 Part Addressing	18
9.2.1 Relative References	18
9.2.2 Fragments	19
9.3 Relationships	19
9.3.1 Relationships Part	19
9.3.2 Relationship Markup	20
9.3.3 Representing Relationships	22
9.3.4 Support for Versioning and Extensibility	25
10. Physical Package	26
10.1 Physical Mapping Guidelines	26
10.1.1 Mapped Components	27
10.1.2 Mapping Content Types	27
10.1.3 Mapping Part Names to Physical Package Item Names	32
10.1.4 Interleaving	34
10.2 Mapping to a ZIP Archive	36
10.2.1 Mapping Part Data	36
10.2.2 ZIP Item Names	36
10.2.3 Mapping Part Names to ZIP Item Names	37
10.2.4 Mapping ZIP Item Names to Part Names	37
10.2.5 ZIP Package Limitations	37
10.2.6 Mapping Part Content Type	38
10.2.7 Mapping the Growth Hint	38

10.2.8	Late Detection of ZIP Items Unfit for Streaming Consumption	39
10.2.9	ZIP Format Clarifications for Packages	39
11.	Core Properties	40
11.1	Core Properties Part	41
11.2	Location of Core Properties Part	43
11.3	Support for Versioning and Extensibility	43
11.4	Schema Restrictions for Core Properties	43
12.	Thumbnails	45
12.1	Thumbnail Parts	45
13.	Digital Signatures	46
13.1	Choosing Content to Sign	46
13.2	Digital Signature Parts	46
13.2.1	Digital Signature Origin Part	47
13.2.2	Digital Signature XML Signature Part	47
13.2.3	Digital Signature Certificate Part	48
13.2.4	Digital Signature Markup	48
13.3	Digital Signature Example	58
13.4	Generating Signatures	60
13.5	Validating Signatures	61
13.5.1	Signature Validation and Streaming Consumption	62
13.6	Support for Versioning and Extensibility	62
13.6.1	Using Relationship Types	62
13.6.2	Markup Compatibility Namespace for Package Digital Signatures	62
Annex A. (normative) Resolving Unicode Strings to Part Names	65	
A.1	Creating an IRI from a Unicode String	65
A.2	Creating a URI from an IRI	65
A.3	Resolving a Relative Reference to a Part Name	66
A.4	String Conversion Examples	66
Annex B. (normative) Pack URI	67	
B.1	Pack URI Scheme	67
B.2	Resolving a Pack URI to a Resource	69
B.3	Composing a Pack URI	69
B.4	Equivalence	70
Annex C. (normative) ZIP Appnote.txt Clarifications	71	
C.1	Archive File Header Consistency	71
C.2	Table Key	71
Annex D. (normative) Schemas - W3C XML Schema	82	
D.1	Content Types Stream	82
D.2	Core Properties Part	83
D.3	Digital Signature XML Signature Markup	84
D.4	Relationships Part	85
Annex E. (informative) Schemas - RELAX NG	86	
E.1	Content Types Stream	86
E.2	Core Properties Part	87
E.3	Digital Signature XML Signature Markup	87
E.4	Relationships Part	88
E.5	Additional Resources	89
E.5.1	XML	89
E.5.2	XML Digital Signature Core	89

Annex F. (normative) Standard Namespaces and Content Types	90
Annex G. (informative) Physical Model Design Considerations	92
G.1 Access Styles	93
G.1.1 Direct Access Consumption	93
G.1.2 Streaming Consumption	93
G.1.3 Streaming Creation	93
G.1.4 Simultaneous Creation and Consumption	93
G.2 Layout Styles	93
G.2.1 Simple Ordering	93
G.2.2 Interleaved Ordering	94
G.3 Communication Styles	94
G.3.1 Sequential Delivery	94
G.3.2 Random Access	94
Annex H. (informative) Guidelines for Meeting Conformance	95
H.1 Package Model	95
H.2 Physical Packages	103
H.3 ZIP Physical Mapping	108
H.4 Core Properties	112
H.5 Thumbnail	114
H.6 Digital Signatures	114
H.7 Pack URI	125
I.1 XML Elements	127
I.2 XML Attributes	127
I.3 XML Enumeration Values	127
I.4 XML Simple Types	127
Annex J. (informative) Index	128