



---

# ODF 1.1 Interoperability Profile

## Community Draft 01

**20 October 2009**

### Specification URIs:

#### This Version:

ODF11\_Interop\_Profile-cd01.odt <http://www.oasis-open.org/committees/oic>  
ODF11\_Interop\_Profile-cd01.pdf at <http://www.oasis-open.org/committees/oic>  
ODF11\_Interop\_Profile-cd01.html.zip at <http://www.oasis-open.org/committees/oic>

#### Previous Version:

n/a

#### Latest Version:

ODF11\_Interop\_Profile-cd01.odt <http://www.oasis-open.org/committees/oic>  
ODF11\_Interop\_Profile-cd01.pdf at <http://www.oasis-open.org/committees/oic>  
ODF11\_Interop\_Profile-cd01.html.zip at <http://www.oasis-open.org/committees/oic>

#### Technical Committee:

OASIS ODF Interoperability and Conformance TC

#### Chair(s):

Bart Hanssens, Fedict

#### Editor(s):

Bart Hanssens, Fedict

#### Related Work:

This specification is related to:

- OASIS ODF 1.1

#### Declared XML Namespace(s):

n/a

#### Abstract:

This specifications describes an interoperability profile on top of ODF 1.1.

#### Status:

This document was last revised or approved by the OASIS OIC TC on the above date. The level of approval is also listed above. Check the "Latest Version" or "Latest Approved Version" location noted above for possible later revisions of this document.

Technical Committee members should send comments on this specification to the Technical Committee's email list. Others should send comments to the Technical Committee by using the "Send A Comment" button on the Technical Committee's web page at <http://www.oasis-open.org/committees/oic/>.

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Technical Committee web page (<http://www.oasis-open.org/committees/oic/ipr.php>).

The non-normative errata page for this specification is located at <http://www.oasis-open.org/committees/oic/>.

---

# Notices

Copyright © OASIS® 2008. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The names "OASIS", [insert specific trademarked names, abbreviations, etc. here] are trademarks of OASIS, the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <http://www.oasis-open.org/who/trademark.php> for above guidance.

# Table of Contents

1 Introduction.....	5
1.1 Terminology.....	5
1.2 Normative References.....	6
1.3 Non-normative References.....	6
2 Interoperability profile for ODF 1.1 .....	7
2.1 Conformance and interoperability.....	7
3 Conformance.....	8
General clauses.....	8
1.5 Document Processing and Conformance.....	9
1.7 MIME Types and File Name Extensions.....	9
2.1 Document Roots.....	10
2.1.2 Document Root Attributes - Version.....	10
2.2.1 Pre-Defined vs Custom Metadata.....	10
3.1 Pre-Defined Metadata Elements.....	11
3.1.1 Generator.....	11
3.1.5 Keywords.....	11
3.1.6 Initial Creator.....	12
4.6 Change tracking.....	13
8.1.3 Table Cell - Formula.....	14
9.3.3 Objects - Object Data.....	15
10.5 Plot Area.....	16
10.9 Series.....	16
11.4.2 Control Implementation.....	17
12.1 Annotations.....	18
12.1.3 Creation Date and Time String.....	18
15.4.6 Line-Through Type.....	19
15.4.7 Line-Through Style.....	19
17.3 Encryption.....	20
17.4 MIME Type Stream.....	20

---

# 1 Introduction

ODF 1.1 is widely implemented, but there are areas where the specification is not clear or not complete. As a result of this ambiguity, interoperability issues arise when exchanging documents between different implementations.

ODF is also very flexible, leaving a great degree of freedom for implementing - or not implementing - certain features and using supplementary objects of various types. However, from an interoperability point of view, this flexibility calls for a common denominator.

This document aims to clarify and formalize interpretations of the ODF specification by creating an interoperability profile. Note that this document starts out rather small, and is expected to be updated frequently: using this approach, one doesn't have to wait until the next version of the ODF specification arrives (a process that can take several years) to clear out the details of implementing ODF.

Care shall be taken that new versions of this specification do not contradict earlier versions and/or the ODF 1.1 specification itself.

This document does not add new features to ODF 1.1 (although some implicit features may be clarified), nor does it remove existing conformance clauses. It does, however, add more conformance constraints.

## 1.1 Terminology

Within this specification, the key words "shall", "shall not", "should", "should not" and "may" are to be interpreted as described in Annex H of [ISO/IEC Directives] if they appear in bold letters.

Application in this context does not refer to a software product like an office suite. In this context, the broader term implementation is used instead of software product.

**ODF Implementation:** implementation using ODF as (a) storage format. This may be a general office suite or a specialist application and can be installed as part of a network service (like - but not limited to - a webbased editor) or as a stand-alone application on a computing device (like - but not limited to - a PC, netbook, PDA, cell phone...)

**ODF Document (ODF-Doc):** Conforming [ODF] document that may or may not conform to the Interoperability Profile outlined in this document

**ODF 1.1 Interoperability Profile Conformant Document (ODF11i-Doc):** Conforming [ODF 1.1] document that also conforms to the Interoperability Profile outlined in this document

**ODF 1.1 Interoperability Profile Conformant Producer (ODF11i-Prod):** ODF Implementation capable of producing ODF11i-Doc files and conforming to the Producer Conformance Clauses outlined in this specification.

**ODF 1.1 Interoperability Profile Conformant Consumer (ODF11i-Cons):** ODF Implementation capable of consuming ODF 1.1 files and conforming to the Consumer Conformance Clauses outlined in this specification.

**ODF 1.1 Interoperability Profile Conformant Implementation (ODF11i-Impl):** a ODF11i-Cons or ODF11i-Prod or a combination of both.

**User:** a human or system who interacts with a ODF11i-Impl

## 1.2 Normative References

- [ISO/IEC Directives]** ISO/IEC Directives, Part 2 Rules for the structure and drafting of International Standards, International Organization for Standardization, 2004
- [ODF 1.1]** OASIS Standard, "OpenDocument Format for Office Applications (ODF) Version 1.1", February 2007
- [ODF 1.2]** OASIS Committee Draft 3, "OpenDocument Format for Office Applications (ODF) Version 1.2", August 2009
- [OFF]** Pre-draft 12, "OpenDocument Format for Office Applications (ODF) Version 1.2, Part 2: Formula", May 2009

## 1.3 Non-normative References

- [Reference]** [reference citation]
- [Reference]** [reference citation]

---

## **2 Interoperability profile for ODF 1.1**

### **2.1 Conformance and interoperability**

Conformance and interoperability are two distinct (but related) topics. It is assumed that increasing the number of strict conformance clauses improves interoperability by reducing the number of interpretations.

The rest of this document consists of conformance clauses.

---

## 3 Conformance

### General clauses

Conformance:

- ODF11i-Doc **shall** conform to all "shall" requirements outlined in [ODF 1.1]
- ODF11i-Prod **shall** produce ODF11i-Doc when instructed by the User

Conformance when using / converting ODF-Doc:

- ODF11i-Impl **may** inform the User that an ODF-Doc is not a ODF11i-Doc
- ODF11i-Impl **may** convert ODF-Doc to ODF11i-Doc, when doing so the ODF11i-Impl **shall** follow the steps outlined in the "Conversion conformance (ODF-Doc to ODF11i-Doc)" sections of this Interoperability Profile
- ODF11i-Impl converting ODF-Doc to ODF11i-Doc **shall** inform the User when this conversion may lead to data loss, unless the User has specifically instructed the ODF11i-Impl to do a silent conversion

## 1.5 Document Processing and Conformance

Conformance:

- ODF11i-Impl **shall** preserve the elements and element content within the `<office:meta>` element unless specifically instructed otherwise by the User
- ODF11i-Impl **shall** preserve processing instructions.

## 1.7 MIME Types and File Name Extensions

Conformance:

- ODF11i-Doc **shall** be contained in a package.
- ODF11i-Doc **shall** contain the MIME-type as outlined in Appendix C of the [ODF 1.1] specification.
- ODF11i-Doc files **shall** be stored using the filetype extensions outlined in Appendix C of the [ODF 1.1] specification.

## 2.1 Document Roots

Conformance:

- ODF11i-Doc **shall** be represented as a collection of several subdocuments within a package
- ODF11i-Doc **shall** contain at least the `<office:document-content>`, `<office:document-styles>` and `<office:document-meta>` subdocuments.

### 2.1.2 Document Root Attributes - Version

Conformance:

- ODF11i-Doc **shall** contain an `office:version` attribute, which value **shall** be "1.1"

### 2.2.1 Pre-Defined vs Custom Metadata

Conformance:

- ODF11i-Impl **shall** preserve arbitrary (custom) metadata elements within `<office:meta>` unless specifically instructed otherwise by the User, even if the ODF11i-Impl does not support those arbitrary metadata elements

## 3.1 Pre-Defined Metadata Elements

Conformance:

- ODF11i-Doc **shall not** contain more than one <dc:title>, <dc:description>, <dc:subject>, <meta:initial-creator>, <dc:creator>, <meta:creation-date>, <dc:date>, <meta:template>, <meta:auto-reload>
- ODF11i-Impl **shall** preserve the content of all <meta:keyword> and <meta:user-defined> elements unless specifically instructed otherwise by the User
- ODF11i-Prod **shall** provide the User a means to create/read/update/delete the content of all <meta:keyword> elements
- ODF11i-Prod **shall** provide the User a means to create/read/update/delete the content of the <dc:title>, <dc:description> element
- ODF11i-Cons **shall** provide the User a means to read the content of all <meta:keyword> elements

Conversion conformance (ODF-Doc to ODF11i-Doc):

- ODF11i-Impl **shall** preserve the content of only the last <dc:title>, <dc:description>, <dc:subject>, <meta:initial-creator>, <dc:creator> and <meta:creation-date> elements

### 3.1.1 Generator

Conformance:

- ODF11i-Doc **shall** contain exactly one <meta:generator> element.
- The (text string) contents of this element **shall** match the definition for user-agents as specified in section 14.43 of RFC 2616 and **shall** include name and version information identifying the ODF implementation.
- ODF11i-Prod **shall** provide an identifier string as outlined above.

Conversion conformance (ODF-Doc to ODF11i-Doc):

- ODF11i-Impl **shall** remove all <meta:generator> elements and **shall** add one <meta:generator> element as described above

### 3.1.5 Keywords

Conformance:

- ODF11i-Prod **shall** provide the User a means to create/read/update/delete the content of all <meta:keyword> elements
- ODF11i-Cons **shall** provide the User a means to read the content of all the <meta:keyword> elements

### 3.1.6 Initial Creator

Conformance:

- when creating a new document, ODF11i-Prod **shall** either set the content of the `<meta:initial-creator>` automatically, or provide the User a means to create the content

## 4.6 Change tracking

Conformance:

- ODF11i-Impl **shall** preserve the attributes and the content of `text:tracked-changes` elements unless specifically instructed otherwise by the User, even if the ODF11i-Impl does not support change tracking

### 8.1.3 Table Cell - Formula

Conformance:

- ODF11i-Doc `table:formula` attributes **shall** contain a non-empty string value expressing a formula
- ODF11i-Doc `table:formula` attribute values **shall** begin with a namespace prefix specifying the syntax and semantics used within the formula, the formula itself **shall** begin with an equal sign (=)
- ODF11i-Doc formula function parameters **shall** be enclosed within round brackets
- ODF11i-Impl supporting formulas **shall** support at least the limits mentioned in [OFF] 3.6 Basic Limits
- ODF11i-Cons supporting formulas **shall** treat the names of a formula function in a case-insensitive way

Conversion conformance (ODF-Doc to ODF11i-Doc):

- ODF11i-Impl **shall** preserve the value of `table:formula` attribute if the formula belongs to a namespace not supported by the ODF11i-Impl, unless the table cell value has been changed by the User
- ODF11i-Cons supporting formulas **may** treat formulas not beginning with a namespace prefix as an [OFF] formula

[

Conformance once [OFF] is approved:

- ODF11i-Doc **shall** only contain [OFF] in `table:formula` attributes
- ODF11i-Cons supporting formulas **shall** support [OFF], they **may** treat formulas not beginning with a namespace prefix as an [OFF] formula
- ODF11i-Prod supporting formulas **shall** use the [OFF] namespace mentioned in [OFF] 1.3 Namespace

]

### 9.3.3 Objects - Object Data

Conformance:

- ODF11i-Doc `<draw:object>` elements using the `xlink:href` attribute to link to a subpackage, **shall** use a trailing slash in the value of this attribute
- ODF11i-Doc `<draw:object>` elements **should** contain a preview image, this image **shall** be stored as either an [SVG] or a [PNG] image
- ODF11i-Impl supporting objects, **shall** support linking to objects contained in the same package
- ODF11i-Cons supporting the object **shall** consume this object instead of the preview image if the preview image is missing or unsupported

Conversion conformance (ODF-Doc to ODF11i-Doc):

- if the object is stored in a subpackage, ODF11i-Cons supporting the object **shall** be able to consume the subpackage regardless if the `xlink:href` of the `<draw:object>` element has a trailing slash or not

## 10.5 Plot Area

Conformance:

- ODF11i-Cons **shall** ignore the `table:cell-range-address` attribute on a `<chart:plot-area>` element if that element contains one or more `<chart:series>` elements with a non-empty `chart:values-cell-range-address` attribute

## 10.9 Series

Conformance:

- ODF11i-Doc `<chart:series>` elements **shall** have a non-empty `chart:values-cell-range-address` attribute

## 11.4.2 Control Implementation

Conformance:

- ODF11i-Cons **shall not** solely depend of the value of the `form:control-implementation` attribute for representing the form control. That is, if the ODF11i-Cons does not support the concrete rendition specified in the value of this attribute, the ODF11i-Cons **shall** use it's own rendition as a fallback mechanism

## 12.1 Annotations

Conformance:

- ODF11i-Doc `<office:annotation>` elements **shall** contain a non-empty `<dc:creator>` and a non-empty `<dc:date>` element
- when creating a new `<office:annotation>`, ODF11i-Prod supporting annotations **shall** either set the content of the `<dc:creator>` and `<dc:date>` attributes automatically, or provide the User a means to create the content
- ODF11i-Prod supporting annotations **shall** provide the User a means to create / read / update / delete the content of `<text:p>` and `<text:list>` elements within a `<office:annotation>` element
- ODF11i-Cons supporting annotations **shall** provide the User a means to read the content of the `<dc:creator>`, `<dc:date>`, `<text:p>` and `<text:list>` elements within a `<office:annotation>` element

### 12.1.3 Creation Date and Time String

Conformance:

- ODF11i-Cons **shall** ignore the `meta-date-string` element within `<office:annotation>` elements when that element contains a non-empty `<dc:date>` element

## 15.4.6 Line-Through Type

Conformance:

- See 15.4.7

## 15.4.7 Line-Through Style

Conformance:

- ODF11i-Doc `<style:text-properties>` elements **shall not have a** `style:text-line-through-style` attribute when they have a `style:text-line-through-type` attribute with value "none"
- ODF11i-Doc `<style:text-properties>` elements **shall have a** `style:text-line-through-style` attribute when they have a `style:text-line-through-type` attribute with a value other than "none"
- ODF11i-Cons **shall ignore the** `style:text-line-through-style` attribute on `<style:text-properties>` elements when the `style:text-line-through-type` attribute is not present, empty or set to "none"

This is in line with [ODF 1.2] 19.364

## 17.3 Encryption

Conformance:

- ODF11i-Cons supporting encryption **shall** at least accept passwords containing between 1 (inclusive) and 16 (inclusive) characters
- ODF11i-Prod supporting encryption **may** impose stricter limits on passwords

## 17.4 MIME Type Stream

Conformance:

- ODF11i-Doc packages **shall** contain a stream called "mimetype", this stream **shall** be the first stream of the package's zip file

---

## Appendix A. Acknowledgments

The following individuals have participated in the creation of this specification and are gratefully acknowledged

### Participants:

- Andreas Guelzow, Individual
- Andrew Rist, Oracle
- Bernd Eilers, Sun
- Dennis Hamilton, Individual
- Rob Weir, IBM

---

# Appendix B. Non-Normative Text

---

## Appendix C. Revision History

- wd 1: creation
- wd 2:
  - using ISO/IEC keywords instead of IETF's
  - editorial corrections
  - removed printed-by/print-date (needs more thinking)
  - added OIC-5, OIC-6, OIC-7
- wd 3:
  - added 17.4 MIME stream, 12.1 Annotations
- wd 3b:
  - OIC-26, OIC-27
- wd 4:
  - added "supporting ..." prerequisite where applicable
  - added password length
  - added "keep table:formula"
  - added change tracking
- wd 5:
  - added paragraph on flexibility in Introduction
  - corrected typos
  - splitted 8.9 Table formula in pre- and post-OFF approval
  - added "conversion conformance"