
Information technology — Topic Maps —
Part 3:
XML syntax

Technologies de l'information — Plans relatifs à des sujets —
Partie 3: Syntaxe XML

This document is a preview generated by PVSS



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Syntax definition.....	2
4.1 About the syntax.....	2
4.2 Deserialization.....	2
4.3 Common syntactical constructs.....	2
4.3.1 Common declarations.....	2
4.3.2 The reifier attribute.....	3
4.3.3 The reifier element.....	3
4.3.4 The href attribute.....	3
4.3.5 Creating IRIs from strings.....	3
4.4 The topicMap element.....	4
4.5 The topic element.....	4
4.6 The itemIdentity element.....	4
4.7 The subjectLocator element.....	4
4.8 The subjectIdentifier element.....	5
4.9 The instanceOf element.....	5
4.10 The name element.....	5
4.11 The value element.....	6
4.12 The variant element.....	6
4.13 The scope element.....	6
4.14 The type element.....	6
4.15 The occurrence element.....	6
4.16 The resourceData element.....	7
4.16.1 General.....	7
4.16.2 Deserialization.....	7
4.16.3 Canonicalizing embedded XML.....	7
4.17 The resourceRef element.....	7
4.18 The association element.....	8
4.19 The role element.....	8
4.20 The topicRef element.....	8
4.21 The subjectIdentifierRef element.....	8
4.22 The subjectLocatorRef element.....	9
4.23 The mergeMap element.....	9
5 Conformance.....	9
Annex A (normative) A RELAX-NG schema for XTM 2.1.....	10
Annex B (informative) The XTM 2.1 DTD.....	12
Annex C (informative) A W3C XML Schema schema for XTM 2.1.....	16
Annex D (informative) Differences from XTM 2.0 to XTM 1.0.....	21
Annex E (informative) Differences from XTM 2.1 to XTM 2.0.....	22
Annex F (informative) Subject identifiers for defined terms.....	23
Bibliography.....	24

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 13250-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

This second edition cancels and replaces the first edition (ISO/IEC 13250-3:2007), which has been technically revised. ISO/IEC 13250-3 is part of a multi-part standard. The complete series will cancel and replace ISO/IEC 13250:2003.

ISO/IEC 13250 consists of the following parts, under the general title *Information technology — Topic Maps*:

- *Part 2: Data model*
- *Part 3: XML syntax*
- *Part 4: Canonicalization*
- *Part 5: Reference model*
- *Part 6: Compact syntax*

Introduction

XTM (XML Topic Maps) 2.1 is a syntax for the interchange of Topic Maps. The syntax is not designed to be extended or modified. Ease of human authoring was not prioritized during the design of XTM, and consequently it is not recommended to edit the syntax directly.

This part of ISO/IEC 13250 should be read in conjunction with [ISO/IEC 13250-2] since the interpretation of the XTM syntax is defined through a mapping from the syntax to the data model there defined.

XTM 2.1 is a revision of the XTM 2.0 syntax defined in [ISO/IEC 13250-3:2007]. A description of the differences between the two versions can be found in Annex E.

This document is a preview generated by EVS

Information technology — Topic Maps —

Part 3:

XML syntax

1 Scope

This part of ISO/IEC 13250 defines an XML-based interchange syntax for Topic Maps, which can be used to interchange instances of the data model defined in [ISO/IEC 13250-2]. It also defines a mapping from the interchange syntax to the data model. The syntax is defined with a RELAX-NG schema, and more precision is provided through the mapping to the data model, which effectively also defines the interpretation of the syntax.

2 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.

NOTE Each of the following documents has a unique identifier that is used to cite the document in the text. The unique identifier consists of the part of the reference up to the first comma.

ISO/IEC 13250-2, *Information technology — Topic Maps — Data Model*

W3C XML, *Extensible Markup Language (XML) 1.1 (Second Edition)*, W3C Recommendation, 29 September 2006, available at <<http://www.w3.org/TR/2006/REC-xml11-20060816>>

W3C XML-Names, *Namespaces in XML*, W3C Recommendation, 14 January 1999, available at <<http://www.w3.org/TR/1999/REC-xml-names-19990114/>>

W3C XML-Infoset, *XML Information Set (Second Edition)*, W3C Recommendation, 4 February 2004, available at <<http://www.w3.org/TR/2004/REC-xml-infoset-20040204>>

W3C Canonical XML, *Canonical XML Version 1.0*, W3C Recommendation, 15 March 2001, available at <<http://www.w3.org/TR/2001/REC-xml-c14n-20010315>>

ISO/IEC 19757-2, *Information technology — Document Schema Definition Languages (DSDL) — Part 2: Grammar-based validation — RELAX NG*

IETF RFC 3986, *Uniform Resource Identifiers (URI): Generic Syntax*, Internet Standards Track Specification, January 2005, available at <<http://www.ietf.org/rfc/rfc3986.txt>>

IETF RFC 3987, *Internationalized Resource Identifiers (IRIs)*, Internet Standards Track Specification, January 2005, available at <<http://www.ietf.org/rfc/rfc3987.txt>>

3 Terms and definitions

For the purposes of this part of ISO/IEC 13250, the following terms and definitions apply.

3.1

XTM

the syntax defined in this part of ISO/IEC 13250