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Information technology — Document Schema Definition Languages (DSDL) —

Part 11:
Schema association

Technologies de l'information — Langages de définition de schéma de documents (DSDL) —

Partie 11: Association de schémas

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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 19757-11 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 34, *Document description and processing languages*.

ISO/IEC 19757 consists of the following parts, under the general title *Information technology — Document Schema Definition Languages (DSDL)*:

— *Part 1: Overview* [Technical Report]

— *Part 2: Regular-grammar-based validation — RELAX NG*

— *Part 3: Rule-based validation — Schematron*

— *Part 4: Namespace-based Validation Dispatching Language (NVDL)*

— *Part 5: Extensible Datatypes*

— *Part 7: Character Repertoire Description Language (CREPDL)*

— *Part 8: Document Semantics Renaming Language (DSRL)*

— *Part 9: Namespace and datatype declaration in Document Type Definitions (DTDs)*

— *Part 11: Schema association*

Introduction

There are several document schema definition languages in common use today that can be used to specify one or more validation processes performed against Extensible Markup Language (XML) documents. Some schema languages provide their own syntax for associating schemas with documents (DTD, W3C XML Schema) and some languages (RELAX NG, Schematron) do not provide schema association mechanisms at all. The purpose of this part of ISO/IEC 19757 is to define a common, schema-agnostic syntax for associating schema documents written in any schema definition language with a given XML document.

This part of ISO/IEC 19757 defines the syntax and processing expectations for an xml-model processing instruction. Such processing instructions associate one or more schemas with the XML document in which they are present. The associated schemas may be written in any schema definition language. Applications can use the associated schemas for any purpose including those such as document validation, content completion in interactive editors, or creating models for data binding. Presence of an xml-model processing instruction is not in itself an instruction to any processor to validate the document, nor is it a statement that the document is not to be processed without validation. It is a declarative statement of a relationship between the document and one or more external schemas. This part of ISO/IEC 19757 does not prescribe what, if anything, an application does with an xml-model processing instruction. The presence of an xml-model processing instruction referencing a Document Type Definition (DTD) does not affect the validity of the document which contains it.

This part of ISO/IEC 19757 is not meant as a replacement for other technologies that provide more general and indirect schema association features like Namespace-based Validation Dispatching Language (NVDL) and XProc. This part of ISO/IEC 19757 is complementary technology which can be used when it is necessary to store ad hoc schema associations directly inside an XML document.

The technical content of this part of ISO/IEC 19757 has been developed jointly with W3C. It is expected to be identical to that of W3C's *Associating Schemas with XML documents 1.0*.

Information technology — Document Schema Definition Languages (DSDL) —

Part 11:
Schema association

1   Scope

This part of ISO/IEC 19757 allows schemas using any schema definition language to be associated with an XML document by including one or more processing instructions with a target of xml-model in the document's prolog.

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.

[ASSOCCSS] *Associating Style Sheets with XML documents 1.0 (Second Edition)*. W3C, 28 October 2010. Available at <http://www.w3.org/TR/2010/REC-xml-stylesheet-20101028/>

[IANACHARSET] *Character Sets*, IANA, May 2007. Available at <http://www.iana.org/assignments/character-sets>

[ISO/IEC 19757-3]   ISO/IEC 19757-3:2006, *Information technology — Document Schema Definition Languages (DSDL) — Part 3: Rule-based validation — Schematron*

[IETF RFC3987] *Internationalized Resource Identifiers (IRIs)*, M. Dürst, M. Suignard. IETF, January 2005. Available at <http://www.ietf.org/rfc/rfc3987.txt>

[XML] *Extensible Markup Language (XML) 1.0 (Fifth Edition)*, T. Bray, J. Paoli, C. Sperberg-McQueen, E. Maler, F. Yergeau. W3C, November 2008. Available at <http://www.w3.org/TR/xml/>