
Information technology — JPSearch —

Part 2:

**Registration, identification and
management of schema and ontology**

Technologies de l'information — JPSearch —

*Partie 2: Enregistrement, identification et gestion des schémas et de
l'ontologie*

This document is a preview generated by EVS



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing 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	v
Introduction.....	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Conventions	2
4.1 Naming convention	2
4.2 Document convention	2
4.3 Wrapper of the schema	3
5 JPSearch Core Metadata Schema	3
5.1 General	3
5.2 JPSearchCoreType	3
5.3 PersonNameType	9
5.4 SourceType	10
5.5 PublisherType	11
5.6 RightsDescriptionType	12
5.7 PlaceType	14
5.8 PersonType	15
5.9 OrganizationType	16
5.10 EventType	17
5.11 ObjectType	18
5.12 RegionOfInterestType	20
5.13 RegionLocatorType	22
5.14 ExternalDescriptonType	23
5.15 ControlledRatingTermType	26
5.16 ImageIdentifierType	27
5.17 GPSPositioningType	28
6 Management of core schema and translation rules	29
6.1 General	29
6.2 Wrapper of the schema	29
6.3 Root Element	30
6.4 RegisterInputType	34
6.5 RequestInputType	36
6.6 RequestOutputType	37
6.7 ProviderInformationType	38
6.8 ContactType	40
6.9 QueryCapabilityType	41
6.10 BenchmarkCapabilityType	43
6.11 ExtensionCapabilityType	45
6.12 SchemaType	46
6.13 ReplaceInputType	48
6.14 ReplaceOutputType	49
6.15 SchemaInformationType	50
6.16 RegisterOutputType	52
7 JPSearch Translation Rules Declaration Language (JPTRDL)	54
7.1 Wrapper of the schema	54
7.2 TranslationRulesType	54
7.3 Abstract Types	55

7.4	OneToOneFieldType	56
7.5	ManyToOneFieldType	56
7.6	OneToManyFieldType	58
7.7	SourceFieldType	59
7.8	FilteredSourceFieldType	60
7.9	TargetFieldType	61
7.10	FormattedTargetFieldType	62
Annex A (informative) JPSearch Registration Procedure		63

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 24800-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

ISO/IEC 24800 consists of the following parts, under the general title *Information technology — JPSearch*:

- *Part 1: System framework and components*
- *Part 2: Registration, identification and management of schema and ontology*
- *Part 3: Query format*
- *Part 4: File format for metadata embedded in image data (JPEG and JPEG 2000)*
- *Part 5: Data interchange format between image repositories*
- *Part 6: Reference software*

Introduction

This part of ISO/IEC 24800 provides a standardized set of technologies for metadata representation, querying and management of images. It specifies the JPSearch's Core Metadata Schema as the cornerstone of metadata interoperability in ISO/IEC 24800. It also specifies the structure and rules to which any metadata annotation of images must conform in order to be considered valid within a JPSearch compliant system.

In addition to the definition of JPSearch Core Metadata Schema, ISO/IEC 24800 provides a mechanism which allows a JPSearch compliant system taking profit from proprietary or community-specific metadata schemas. A translation rules language is defined, allowing the publication of machine-readable translations between metadata terms belonging to proprietary metadata schemas and metadata terms in the JPSearch Core Metadata Schema. Users can choose which metadata language to use in a JPSearch-based interaction (annotation, querying, etc.) if the proper translations are available.

In order to specify the issues in a detailed manner in this document, this part of ISO/IEC 24800 first provides the fundamental information including scope definition, description of terms and definitions, and conventions that are necessary to understand this document. The definition of JPSearch Core Metadata Schema is described in the context of XML structure. Management of information regarding other metadata schema is also described in respect of registration, maintenance, and translation rules.

Information technology — JPSearch —

Part 2:

Registration, identification and management of schema and ontology

1 Scope

This part of ISO/IEC 24800 specifies a series of interfaces to allow disparate systems an interoperable management of image repositories. It also specifies the general rules which govern the usage of metadata in JPSearch and provides a specification which

- provides rules for the representation of image metadata descriptions, consisting of the definition of the JPSearch Core Metadata Schema,
- provides rules for the publication of machine-readable translations between metadata terms belonging to proprietary metadata schemas and metadata terms in the JPSearch Core Metadata Schema, and
- provides rules for the registration and request of metadata schemas and its translation rules or links to them.

JPSearch is an extensible standard. The normative method of extending the structures and rules beyond the JPSearch Core Metadata Schema is provided in this part of ISO/IEC 24800.

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.

XML, Extensible Markup Language (XML) 1.0 (Fifth Edition), 26 November 2008, available at <http://www.w3.org/TR/xml/>

XML Schema Part 1: Structures Second Edition, W3C Recommendation, 28 October 2004, available at <http://www.w3.org/TR/xmlschema-1/>

XML Schema Part 2: Datatypes Second Edition, W3C Recommendation, 28 October 2004, available at <http://www.w3.org/TR/xmlschema-2/>

XPath, XML Path Language, W3C Recommendation, 16 November 1999, available at <http://www.w3.org/TR/xpath>

NOTE These documents are maintained by the W3C (<http://www.w3.org>).

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.