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Information technology — Concepts and usage of metadata —

Part 23: Data element exchange (DEX) for a subset of ISO/IEC 11179-3

Technologies de l'information — Concepts et utilisation des métadonnées —

Partie 23: Échange d'éléments de données (DEX) pour un sous-ensemble de l'ISO/IEC 11179-3

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents) or the IEC list of patent declarations received (see http://patents.iec.ch).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 32, *Data management and interchange*.

A list of all parts in the ISO/IEC 19583 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The ISO/IEC 11179 series addresses the semantics of data, the representation of data, and the registration of the descriptions of that data, i.e. metadata. While ISO/IEC 11179-3 provides the basic conceptual model for a metadata registry (MDR) in which information about metadata can be recorded and maintained, implementers and users of the registries described in the ISO/IEC 11179 series require further guidance to exchange data element definitions with each other via a standard-based protocol. It is necessary to have a common protocol and message semantics to be able to communicate with an MDR to locate the data elements given the search criteria and exchange metadata of data elements by addressing the technical and semantic interoperability challenges.

This document was developed to describe a message exchange framework specification for communicating a subset of data element metadata with an ISO/IEC 11179-3 MDR.

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Information technology — Concepts and usage of metadata —

Part 23: Data element exchange (DEX) for a subset of ISO/IEC 11179-3

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1 Scope

This document specifies the message exchange framework for communicating data element definitions with an ISO/IEC 11179-3 metadata registry (MDR). It defines message semantics, protocols and bindings for a set of transactions allowing the exchange of a commonly used subset of data element metadata with an ISO/IEC 11179-3 MDR.

This document establishes the following data element message exchange interoperability specifications:

— retrieving data element list from an ISO/IEC 11179-3 MDR matching the selection criteria;

— retrieving metadata of a selected data element from an ISO/IEC 11179-3 MDR.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO/IEC 11179-3, *Information technology — Metadata registries (MDR) — Part 3: Registry metamodel and basic attributes*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 11179-3 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1.1
target data model
information view of an application schema

Note 1 to entry: Implementation-dependent realizations of logical information models such as XML serializations, RDF serializations, JSON serializations and relational database schemas.

[SOURCE: ISO/TS 19129:2009, 4.1.2, modified — Note 1 to entry has been added.]

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