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AMENDMENT 2
2013-07-15

Information technology — Multimedia framework (MPEG-21)

Part 3: Digital Item Identification

AMENDMENT 2: Digital item semantic relationships

Technologies de l'information — Cadre multimédia (MPEG-21)

Partie 3: Identification des éléments numériques

AMENDEMENT 2: Relations sémantiques des éléments numériques

Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
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Foreword

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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.

Amendment 2 to ISO/IEC 21000-3:2003 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

This Amendment provides MPEG-21 DII with the ability to explicitly and unambiguously describe existing relationships between different MPEG-21 Digital Items. It also conveys the base inter-DI relationship taxonomy in the form of an RDF/OWL ontology.

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Information technology — Multimedia framework (MPEG-21)

Part 3:
Digital Item Identification

AMENDMENT 2: Digital item semantic relationships

In Clause 1 insert a new bullet containing the following text:

— How to express the relationship between two Digital Items

In 3.1, insert the definition for the term "Inter-DI Relationship" as follows:

Inter-DI Relationship
any form of logical connection or association between two Digital Items, pertaining to the semantics of the role that one DI plays towards another DI

Move 4.3 and all following 4.x one point up (for instance, 4.3 becomes 4.4, etc).

After 4.2, insert 4.3:

4.3 `Relationships` Element

The **`Relationships`** element is intended to enable the description of one, or more, relationships between properly identified Digital Items. Each such relationship logically connects two DIs (referring them through their DII identifiers), to each other through a specific, directional logical connection of the *subject-predicate-object* type. One of the DIs plays the role of the *subject*, the other DI plays the role of the *object* and the relationship itself plays the role of the logical *predicate* that relates *subject* to *object*.

One example of such a relationship is that which exists between a "Book DI" and its corresponding "Errata DI". The "Errata DI" is the *subject* in a "correction" relationship (or *predicate*) where the "Book DI" is the *object*.

4.3.1 Syntax

```
<xs:element name="Relationships">
   <xs:complexType mixed="true">
      <xs:sequence>
         <xs:element
            xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax- ns#"
            ref="rdf:RDF" minOccurs="1" maxOccurs="1"/>
      </xs:sequence>
   </xs:complexType>
</xs:element>
```

A **`Relationship`** element has to appear as a child of a **`Statement`** element (defined in MPEG-21 DID on ISO/IEC 21000-2).

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