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Graphic technology — Extensible metadata platform (XMP) specification —

Part 3: JSON-LD serialization of XMP

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 XMP – JSON-LD serialization **1**
4.1 Namespace prefix serialization 1
4.2 Property Names in JSON-LD 2
4.3 rdf:about serialization in JSON-LD as @id 2
4.4 Use of @type JSON-LD keyword 3
4.5 XMP property forms serialization in JSON-LD 5
4.5.1 General 5
4.5.2 Simple valued XMP Properties 5
4.5.3 Array valued XMP properties 6
4.5.4 Structure valued XMP properties 8
4.5.5 Qualifiers 9
4.6 Media type 13
Bibliography **14**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents 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).

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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 Technical Committee ISO/TC 171, *Document management applications*, Subcommittee SC 2, *Document file formats, EDMS systems and authenticity of information*.

A list of all parts in the ISO 16684 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 extensible metadata platform (XMP) was introduced by Adobe Systems Incorporated in 2001 and has since established itself as a critical technology for improving business efficiency in many industries. The current serialization of XMP model is available in RDF/XML format as described in ISO 16684-1. This document provides a complete specification about how XMP can be serialized to JSON-LD.

JSON-LD is a lightweight syntax to serialize Linked Data in JSON (RFC4627). Its design allows existing JSON to be interpreted as linked data with minimal changes. It is also designed to be usable as RDF. JSON-LD can distinguish between values which are simple strings and internationalized resource identifiers (IRI). JSON itself has no built-in support for hyperlinks. Types of values can be indicated by an IRI in JSON-LD. But this cannot be done naturally in JSON. It provides the ability to annotate strings with their language.

Users of this document are cautioned that they are expected to be familiar with the documents listed as normative references and the terms used within those documents.[1)]

1) The PDF Association maintains an ongoing series of application notes for guiding developers and users of this document. It also retains copies of the specific non-ISO normative references of this document which are publicly available electronic documents.

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Graphic technology — Extensible metadata platform (XMP) specification —

Part 3: JSON-LD serialization of XMP

1 Scope

This document defines how the XMP data model can be serialized to JSON-LD.

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.

JSON-LD 1.1, A JSON-based Serialization for Linked Data, W3C Recommendation, 16 July 2020, https://www.w3.org/TR/json-ld11

BCP-47, Tags for Identifying Languages. A. Phillips; M. Davis. IETF. September 2009. IETF Best Current Practice. https://tools.ietf.org/html/bcp47

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

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

4 XMP – JSON-LD serialization

4.1 Namespace prefix serialization

Many of the terms used in this document come from JSON-LD 1.1.

According to ISO 16684-1, all names in XMP are XML expanded names, consisting of a namespace uniform resource identifier (URI) and a local name. The shortcut term of the namespace URI is defined inside the *@context* key in a JSON-LD document. All JSON-LD serializations of XMP shall contain a *@context* key.

EXAMPLE 1 XMP serialized as RDF/XML and its corresponding serialized JSON-LD with namespace prefixes.

Serialized XMP Packet in RDF/XML

```
<rdf:RDF
    xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
    xmlns:xmp="http://ns.adobe.com/xap/1.0/"
    xmlns:tiff="http://ns.adobe.com/tiff/1.0/">
    <rdf:Description rdf:about="">
            <xmp:Rating>4</xmp:Rating>
```

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