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Information technology — JPEG Trust —

Part 4: Reference software

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Contents

Page

Foreword ... **iv**
Introduction ... **v**
1 Scope ... **1**
2 Normative references ... **1**
3 Terms, definitions and abbreviated terms ... **1**
3.1 Terms and definitions ... 1
3.2 Abbreviated terms ... 2
4 Reference software ... **3**
4.1 Purpose ... 3
4.2 Examples of use ... 3
4.3 Warranty disclaimer ... 3
4.4 General ... 4
5 Copyright, licensing and intellectual property ... **4**
Annex A (informative) **JPEG Trust reference software: Java implementation** ... **5**
Annex B (informative) **JPEG Trust test dataset** ... **13**
Bibliography ... **18**

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Foreword

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

A list of all parts in the ISO 21617 series can be found on the ISO and IEC websites. 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 and www.iec.ch/national-committees.

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Introduction

This document is part of the JPEG Trust series of standards that specify a framework for individuals, organizations, and governing institutions to signal and evaluate the trustworthiness of media. It presents software reference implementations of different elements of the JPEG Trust. It is important to note that this reference software implementations represent just one way of implementing JPEG Trust functionalities. The implementations can serve as a validation anchor to other implementations.

Furthermore, this document presents a comprehensive test dataset which provides JPEG Trust data that conform to the JPEG Trust series of standards. The test dataset incorporates a variety of different scenarios where a Trust Record is embedded in media assets of varying file formats. Each entry in the test dataset is accompanied by the respective Trust Indicator Set.

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Information technology — JPEG Trust —

Part 4:
Reference software

1 Scope

This Part 4 of JPEG Trust specifies reference software implementations of ISO/IEC 21617. The reference software is accompanied with a test data set.

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 21617-1, *Information technology — JPEG Trust — Part 1: Core foundation*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

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

3.1.1
trust manifest
set of information about the media asset provenance of a media asset

[SOURCE: ISO/IEC 21617-1]

3.1.2
assertion
data structure which represents a statement asserted by an actor concerning the media asset

[SOURCE: ISO/IEC 21617-1]

3.1.3
trust record
collection of one or more trust manifest that can either be embedded into a media asset or be external to its media asset

[SOURCE: ISO/IEC 21617-1]

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3.1.4
trust indicator
information derived from a combination of the media asset and the trust record that indicate a level of trustworthiness of a media asset in a given context

[SOURCE: ISO/IEC 21617-1]

3.1.5
trust indicator set
set of {{trust indicators}} that are derived from a media asset and its trust record

[SOURCE: ISO/IEC 21617-1]

3.1.6
claim signature
digital signature on the claim using the private key of an actor

[SOURCE: ISO/IEC 21617-1]

3.1.7
claim
digitally signed and tamper-evident data structure that references one or more assertion by one or more actors, concerning a media asset, and the information necessary to represent the content binding. If any assertion was redacted, then a declaration to that effect is included

[SOURCE: ISO/IEC 21617-1]

3.1.8
trust profile
result of evaluating a trust indicator set against a trust profile

[SOURCE: ISO/IEC 21617-1]

3.1.9
trust report
result of evaluating a trust indicator set against a trust profile

[SOURCE: ISO/IEC 21617-1]

3.1.10
codestream
sequence of bits representing a compressed image and associated metadata

[SOURCE: ISO/IEC 19566-5]

3.2 Abbreviated terms

CAWG	Creator Assertions Working Group
CBOR	concise binary object representation
COSE	CBOR Object Signing and Encryption
CLI	command line interface
EXIF	exchangeable image file format
ISOBMFF	ISO base media file format
JP2	Image complying to ISO/IEC 15444-1

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