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Information technology — Internet of media things —

Part 4: Reference software and conformance

Technologie de l'information — Internet des objets media —

Partie 4: Logiciels de référence et conformité

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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 ... 1

4 Reference software for ISO/IEC 23093-3 ... **2**
4.1 General ... 2
4.2 ISO/IEC 23093-3 APIs for MTDL ... 2
4.2.1 General ... 2
4.2.2 APIs for MThing ... 2
4.2.3 APIs for MSensor ... 3
4.2.4 APIs for MActuator ... 3
4.2.5 APIs for MAnalyser ... 3
4.2.6 APIs for MStorage ... 3
4.2.7 APIs for MManager ... 4
4.2.8 APIs for MAggregator ... 4
4.3 ISO/IEC 23093-3 APIs for MSOV ... 4
4.4 ISO/IEC 23093-3 APIs for MACV ... 4
4.5 ISO/IEC 23093-3 APIs for MAOV ... 5
4.6 ISO/IEC 23093-3 binary representation APIs ... 6
4.6.1 General ... 6
4.6.2 Common APIs for binary representation ... 6
4.6.3 Binary representation APIs for MTDL ... 7

5 Conformance for ISO/IEC 23093-3 ... **9**
5.1 General ... 9
5.2 Schema-based conformance for ISO/IEC 23093-3 ... 9
5.2.1 General ... 9
5.2.2 Example of a valid MTDL instance test ... 10
5.2.3 Example of an invalid MTDL instance test ... 10
5.2.4 Example of a valid MSOV instance test ... 10
5.2.5 Example of an invalid MSOV instance test ... 10
5.2.6 Example of a valid MACV instance test ... 10
5.2.7 Example of an invalid MACV instance test ... 11
5.2.8 Example of a valid MAOV instance test ... 11
5.2.9 Example of an invalid MAOV instance test ... 11

Bibliography ... **12**

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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 or www.iec.ch/members_experts/refdocs).

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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*.

This second edition cancels and replaces the first edition (ISO/IEC 23093-4:2020), which has been technically revised.

The main changes are as follows:

— modification of introduction;

— addition of new APIs;

— addition of binary reference software and its conformance streams.

A list of all parts in the ISO/IEC 23093 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 and www.iec.ch/national-committees.

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Introduction

The ISO/IEC 23093 series provides an architecture and specifies APIs and compressed representation of data flowing between media things.

The APIs for the media things facilitate discovering other media things in the network, connecting, and efficiently exchanging data between media things. The APIs also support transaction tokens to access valuable functionalities, resources, and data from media things.

Information related to media things consists of characteristics and discovery data, setup information from a system designer, raw and processed sensed data, and actuation information. The ISO/IEC 23093 series specifies input and output data formats for media things such as media sensors, actuators, storage, and analysers. In addition, media analysers can process sensed data from media sensors to produce analysed data, and the media analysers can be cascaded to extract semantic information.

This document contains the conformance and reference software implementing ISO/IEC 23093-3, which includes the tools to describe data exchanged between media things and their APIs.

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Information technology — Internet of media things —

Part 4:
Reference software and conformance

1 Scope

This document specifies the conformance and reference software implementing ISO/IEC 23093-3. The information provided is applicable for determining the reference software modules available for ISO/IEC 23093-3, understanding the functionality of the available reference software modules, and utilising the available reference software modules.

Furthermore, this document provides means for conformance testing, i.e. bitstreams – XML and binary descriptions – that conform or do not conform to ISO/IEC 23093-3.

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 23093-1, *Information technology — Internet of media things — Part 1: Architecture*

ISO/IEC 23093-2, *Information technology — Internet of media things — Part 2: Discovery and communication API*

ISO/IEC 23093-3, *Information technology — Internet of media things — Part 3: Media data formats and APIs*

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 23093-1, ISO/IEC 23093-2, and ISO/IEC 23093-3 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/

3.2 Abbreviated terms

API	application programming interface
MACV	media actuator command vocabulary
MAOV	media analyser output vocabulary
MSOV	media sensor output vocabulary
MTDL	media thing description language

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