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Industrial automation systems and integration — Service interface for testing applications —

Part 5: Application program service interface

Systèmes d'automatisation industrielle et intégration — Interface de service pour contrôler les applications —

Partie 5: Interface de service des programmes d'application

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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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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.

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This document was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 5, *Interoprability, integration and architectures for enterprise systems and automation applications*.

A list of all parts in the ISO 20242 series can be found on the ISO website.

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Introduction

The motivation for the ISO 20242 series stems from international automotive industries and their suppliers to facilitate the integration of automation and measurement devices, and other peripheral components for this purpose, into computer based applications. It defines rules for the construction of device drivers and their behaviour in the context of an automation and/or measurement application.

The main goal of the ISO 20242 series is to provide users with:

— independence from the computer operating system;

— independence from the device connection technology (device interface/network);

— independence from device suppliers;

— the ability to certify device drivers with connected devices and their behavior in the context of a given computer platform;

— independence from the technological device development in the future.

The ISO 20242 series will not force the development of new device families or the use of special interface technologies (networks). It encapsulates a device and its communication interface to make it compatible with other devices of that kind for a given application.

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Industrial automation systems and integration — Service interface for testing applications —

Part 5:
Application program service interface

1 Scope

This document defines the formatting, syntax and semantic rules for describing

— an object oriented interface for using services provided by a coordinator and

— the configuration of virtual devices and the environment for their use.

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 20242-1, *Industrial automation and systems integration — Service interface for testing applications — Part 1: Overview*

ISO 20242-2, *Industrial automation and systems integration — Service interface for testing applications — Part 2: Resource Management Service Interface*

ISO 20242-3, *Industrial automation and systems integration — Service interface for testing applications — Part 3: Virtual Device Service Interface*

ISO 20242-4, *Industrial automation and systems integration — Service interface for testing applications — Part 4: Device Capability Profile Template*

ISO 13209-1, *Road vehicles — Open Test sequence eXchange format (OTX) — Part 1: General information and use cases*

ISO 13209-2, *Road vehicles — Open Test sequence eXchange format (OTX) — Part 2: Core data model specification and requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20242-1, ISO 20242-2, ISO 20242-3, ISO 20242-4, ISO 13209-1, ISO 13209-2 and the following apply.

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

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

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

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