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

Part 1: **Overview**

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

Partie 1: Vue d'ensemble

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member 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 shall not be held responsible for identifying any or all such patent rights.

ISO 20242-1 was prepared by Technical Committee ISO/TC 184, *Industrial automation systems and integration*, Subcommittee SC 5, *Architecture, communications and integration frameworks*.

In addition to this part, ISO 20242 is envisaged to consist of several more parts dealing with:

• Resource management service interface;

• Virtual device service interface;

• Device capability profile template;

• Application program service interface;

• Conformance test methods, criteria and reports.

Introduction

The motivation for this International Standard 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 ISO 20242 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 behaviour in the context of a given computer platform;
- independence from the technological device development in the future.

ISO 20242 will not involve 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.