TECHNICAL SPECIFICATION

ISO/TS 15926-6

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Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities —

Part 6: Methodology for the development and validation of reference data

Systèmes d'automatisation industrielle et intégration — Intégration de données de cycle de vie pour les industries de "process", y compris les usines de production de pétrole et de gaz —

Partie 6: Méthodologie pour le développement et la validation des données de référence

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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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

ISO 15926 is organized as a series of parts, each published separately. The structure of ISO 15926 is described in ISO 15926-1.

ISO 15926 consists of the following parts, under the general title *Industrial automation systems and integration — Integration of life-cycle data for oil and gas production facilities*:

— *Part 1: Overview and fundamental principles;*

— *Part 2: Data model;*

— *Part 3: Reference data for geometry and topology* [Technical Specification]*;*

— *Part 4: Initial reference data* [Technical Specification]*;*

— *Part 6: Methodology for the development and validation of reference data* [Technical Specification]*;*

— *Part 7: Implementation methods for the integration of distributed systems: Template methodology* [Technical Specification]*;*

— *Part 8: Implementation methods for the integration of distributed systems: Web Ontology Language (OWL) implementation* [Technical Specification].

The following parts are under preparation:

— *Part 9: Implementation methods for the integration of distributed systems: Facade implementation* [Technical Specification]*;*

— *Part 10: Implementation methods for the integration of distributed systems:·Abstract·test·methods* [Technical Specification]*;*

— *Part 11: Methodology for simplified industrial usage of reference data* [Technical Specification].

Introduction

ISO 15926 is an International Standard for the representation of process industries facility life-cycle information. This representation is specified by a generic, conceptual data model that is suitable as the basis for implementation in a shared database or data warehouse. The data model is designed to be used in conjunction with reference data, i.e. standard instances that represent information common to a number of users, production facilities, or both. The support for a specific life-cycle activity depends on the use of appropriate reference data in conjunction with the data model.

This part of ISO 15926 specifies the information that is required to be recorded for reference data items. This part of ISO 15926 contains examples of reference data items.

NOTE 1 These examples are not taken from ISO/TS 15926-4 or from any other standard. In some cases, the examples contain deliberate mistakes in order to show changes to a reference data library.

NOTE 2 A reference data library used with the ISO 15926 series of parts can be standardized or proprietary. A reference data library which is initially proprietary can subsequently be submitted for standardization. Classes contained within a reference data library can be more or less generic. Generic core classes and commodity classes are likely to be standardized, but specific manufactured product classes are unlikely to be standardized. The terms for the different types of class are defined in Clause 3.

Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities —

Part 6: Methodology for the development and validation of reference data

1 Scope

This part of ISO 15926 specifies technical requirements for the structure and content of a reference data library.

The technical requirements are appropriate to a reference data library that is used with the ISO 15926 series of parts.

The following are within the scope of this part of ISO 15926:

— identification of a reference data item;

— information that defines a reference data item;

— administrative information about the source, the history of changes, and current status of a reference data and a reference data library;

— the way identification, defining information, and administrative data are recorded using ISO 15926-2;

— the reference data library that contains the reference data items necessary to record identification, defining information, and administrative data;

— the representation of the reference data library that is defined by this part of ISO 15926 as a spreadsheet;

— requirements for the representation of a reference data library.

The following are outside the scope of this part of ISO 15926:

— the definitions of the scope of reference data libraries within the ISO 15926 series of standards;

— methods and guidelines for implementing ISO 15926-2;

— the representation of a reference data library, that is not defined by this part of ISO 15926;

— procedures for the maintenance of reference data libraries.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15926-2, *Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities — Part 2: Data model*