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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44275.1-2024

**Industrial automation systems and integration - Open technical
dictionaries and their application to master data - Part 1:
Overview and fundamental principles**

工业自动化系统与集成 开放技术字典及其在主数据中的应用 第1部分：概述与基本原则

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is a copy of GB/T 44275 "Industrial Automation Systems and Integration Open Technology Dictionary and Its Application in Master Data" Part 1, GB/T 44275 has published the following parts.

Part 1: Overview and Basic Principles;-Part 2: Terminology;-Part 11: Guidelines for the Development of Terminology; -Part 13: Identification of concepts and terms; -Part 20: Maintenance procedures for the Open Technical Dictionary. -this document is modified to adopt ISO 22745-1:2010 "Industrial Automation Systems and Integration Open Technology Dictionary and its Application in Master Data" Part 1: Overview and Rationale.

Compared with ISO 22745-1:2010, this document deletes Appendix B of ISO 22745-1:2010.

Introduction

The descriptive technical system specified in GB/T 44275 includes.

Open Technical Dictionary (OTD);-Identification Guidelines (IG);-Master data;-Identify the mode;-Procedures for maintaining OTD;-Interface for querying information from OTD, including terms related to a given concept. -GB/T 44275 "Industrial Automation Systems and Integration Open Technology Dictionary and Its Application in Master Data" is proposed to consist of the following parts.

constitute.

Part 1: Overview and Basic Principles. The purpose is to explain the overall architecture, basic principles and Principles and basic concepts.

Part 2: Terminology. The purpose is to provide the terms and vocabulary used in the GB/T 44275 series of standards.

Part 10: Dictionary representation. The purpose is to provide a conceptual model of OTD for computer-to-computer exchange of OTD.

XML schema for the XML physical file.

Part 11: Guidelines for the Development of Terminology. The purpose is to provide guidelines for the development of terminology and the definition of concepts in open technical dictionaries. -Part 13: Identification of concepts and terms. The purpose is to identify concepts, terms, Definitions and image recognition rules, and the syntax of identifiers.

Part 14: Dictionary Query Interface. The purpose is to provide the query interface definition and web service binding supported by OTD. -Part 20: Open Technical Dictionary Maintenance Procedures. The purpose is to standardize the maintenance procedures, publication rules, changes, Change programs, add programs, and maintain organizational structures.

Part 30: Identification Guidelines Representation. The purpose is to provide a conceptual model and exchange format for IGs. -Part 35: Querying feature data. The purpose is to provide a conceptual model and exchange format for querying feature data.

Part 40: Master Data Representation. The purpose is to provide a conceptual model and exchange format for master data. -Part 50: Registration of Open Technical Dictionaries. The purpose is to provide the structure and operate.

Part.200.Implementation guidance for incorporating master data into ISO 10303 product data. The purpose is to provide guidance for incorporating master data into ISO 10303 product data in applications that comply with ISO 10303.

The general requirements for representing directory data in the data set of the protocol (AP).

Part 300: Master Data Guidelines. The purpose is to provide a generic template for commonly used master data types. -OTD is a term defined and derived from consensus bodies such as ISO, IEC, and other organizations that have a consensus process for developing terminology.

OTD is a collection of terms used to describe concepts such as individuals, organizations, locations, goods, and services.

In GB/T 44275, items are described by membership in a class and a set of attribute-value pairs.

OTD.

Allows attributes to be explicitly defined in ISO 10303 documents;

Allows information to be clearly defined and exchanged between multinational partners without loss of meaning;-Supports database synchronization with minimal data mapping requirements;-Providing transparent information flow between multiple information formats, especially between government and commercial systems;

Providing timely and accurate data that can be used to support financial and accounting processes;-Support cost-effective procurement;-Support inventory management and rationalization;-Providing commercial and intergovernmental services;-Supports multiple units of measurement and international currencies;-Supports multiple categories and multiple languages. -any consensus organization can submit terms for inclusion in the OTD. GB/T 44275 does not establish a new process for standardizing terms.

OTD will provide a globally unambiguous identifier for each concept and provide a reference to the original terminology (terms, definitions and images).

In linking terms and definitions with the same semantic content and citing the original source of each term and definition.

It does not seek to overwrite existing standards but rather to provide a comprehensive collection of terms for describing people, organizations, locations, goods, and services.

Although the process of harmonizing terminology is beyond the scope of GB/T 44275, OTD can be a useful research tool to help harmonize Processes, such as the coordination process between ISO, IEC and other standards.

The IG specifies which concepts are used and constrains which concepts are linked to each other. An example of the latter is when the IG specifies attributes that are linked to classes.

In addition, where there are multiple terms, definitions, and images for a concept, the IG

specifies which terms, definitions, and images are applicable.

Master data is data held by an organization that describes entities that are both independent and fundamental to the organization and that need to be referenced in order to be used.

Execute its business.

A directory represents master data in the form of attribute-value pairs.

This document contains an introduction to GB/T 44275. It includes the scope of GB/T 44275; the requirements that all open technical dictionaries should follow;

Requirements; Description of the GB/T 44275 architecture; Overview of GB/T 44275, including a summary of the other parts of GB/T 44275; Discussion Differences between GB/T 44275 and ISO 3584, and between GB/T 44275 and ISO 15926.

Industrial Automation Systems and Integration Open technical dictionary and its application in master data Part 1: Overview and basic principles

1 Scope

This document contains an introduction to GB/T 44275.

The Open Technical Dictionary (OTD) is a collection of technical concepts used to encode master data. GB/T 44275 defines these technical concepts.

The dictionary data model includes global unambiguous identification of concepts, their terms, definitions, and other auxiliary information about these concepts.

The Master Data and Identification Guide (IG) using OTD concept coding provides a data model and allows receiving organizations to define their requirements for master data.

This document applies to the construction, development, use, operation and maintenance of master data dictionaries using open technical dictionary technology.

The following belong to the scope of GB/T 44275.

General principles;-all OTD requirements;-Globally unambiguous concept identifiers;-OTD data model and file format;-Guidelines for the development of terminology in OTD;-Dictionary maintains the structure of the organization;-Maintain and update OTD's procedures;-Requirements for identifying concepts and terminology;-IG data model and file format;-Data model and file format of master data;-Guidelines for incorporating cataloguing data into GB/T 44275 product data;

The structure of the registration body that maintains the OTD list in accordance with GB/T 44275;-Procedures for maintaining an OTD list in accordance with GB/T 44275;-the location of the website containing the OTD list that complies with GB/T 44275.-the following contents are beyond the scope of GB/T 44275.