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

GB/T 43529.8-2025

**Standardized product ontology register and transfer by data
parcels - Part 8: Web service interface for data parcels**

利用电子表格标准化产品本体的注册和传递 第8部分：数据块的网络服务接口
(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.

This document is part 8 of GB/T 43529 "Registration and delivery of standardized product ontologies using electronic forms".

The following parts have been published.

- Part 3: Common information model interface;
- Part 5: Activity description interface;
- Part 8: Network service interface for data blocks.

This document is equivalent to IEC 62656-8:2020 "Registration and transfer of standardized product ontologies using electronic forms Part 8: Data Block Network Service Interface.

The following minimal editorial changes were made to this document.

- Appendix A is changed to Appendix C, Appendix B is changed to Appendix A, Appendix C is changed to Appendix D, and Appendix D is changed to Appendix B.

Introduction

Develop national standards in the field of intelligent production systems, aiming to describe the entire life cycle of products and services and improve data interoperability in this process, industrial ontology plays an important role, ensuring that each component in the

system can realize information the mutual conversion of information means that machines can understand each other's functions, capabilities, structures and configurations.

GB/T 43529 "Registration and transfer of standardized product ontologies using electronic forms" is based on GB/T 17564 (all parts) and GB/T 17645 (all parts) standard dictionary mode (common data dictionary model), defines the registration and transmission of various product and service information GB/T 43259 is intended to consist of the following parts.

--- Part 1: Logical structure of data blocks. The purpose is to define the logical structure of data blocks for defining, transmitting and registering products ontology.

--- Part 2: Application guide for use with the IEC Common Data Dictionary (CDD). The purpose is to provide application guidance for data blocks.

South and is used to define data dictionaries that can be imported and exported from CDD.

--- Part 3: Common Information Model Interface. The purpose is to define the mapping specification between data blocks and the Common Information Model (CIM) so that Importing CIM ontology into the common data dictionary.

--- Part 5: Activity Description Interface. The purpose is to define the Activity Model Block (PAM) used to represent activities and relationships between activities.

--- Part 8: Network service interface for data blocks. The purpose is to provide a way to exchange data between servers and clients or between servers.

The network service interface specification for data blocks.

The rest of GB/T 43529 will describe the new application scope of the Common Ontology Repository (COR) based on the Ontology Model Block (POM).

This document provides a basic network service description based on the POM semantic repository, advanced network interfaces (including complex queries on products and forwarding queries to another repository) will be developed in other parts of this family of standards.

Standardize the registration and delivery of product ontologies using electronic forms Part 8: Network service interface for data blocks

1 Scope

This document specifies the exchange of data blocks compliant with the IEC 62656-1 standard between block servers and block clients or between block servers.

The network service interface includes three basic services. registration service, resolution service and subscription service.

This document also specifies.

- Overall usage scenario;
- Detailed specifications for the three basic services;
- JSON and XML annotation modes for data blocks.

This document does not specify.

- User identification and authorization;
- Query language for data blocks;
- Transmission protocol;
- Data and communication security technologies.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

languages-Part 1: Alpha-2code) Note. GB/T 4880.1-2005 Language name code Part 1.2-letter code (ISO 639-1:2002, MOD) ISO 3166-1 Codes for the names of countries and regions and their administrative divisions Part 1: Codes for countries and regions Note. GB/T 2659.1-2022 Codes for the names of countries and regions and their administrative divisions Part 1: Country and area codes (ISO 3166-1.

2020,MOD)

ISO 8601-1 Date and time - Representation of date and time information interchange - Part 1: Basic principles Note. GB/T 7408.1-2023 Representation of date and time information exchange Part 1: Basic principles (ISO 8601-1:2019, IDT) ISO 8601-2 Date and time-Representations Part 2: Extensions ISO 13584-32 Industrial automation systems and integrated parts libraries Part 32: Implementation resources. OntoML. Product ontology standard terchangesyntax) IEC 62656-1:2014 Registration and delivery of standardized product ontologies using electronic forms Part 1: Logical structure of data blocks