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

GB/T 20720.5-2015

**Enterprise control system integration -- Part 5: Business to
manufacturing transactions**

企业控制系统集成 第5部分：业务与制造间事务

(English Translation)

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Foreword

GB/T 20720 "enterprise control system integration" is divided into the following parts.

Part 1. Models and terminology;

Part 2. Object model attributes;

Part 3. Activity model for manufacturing operations management;

- Part 4. Manufacturing operations management integration of objects and attributes;

- Part 5. Business and manufacturing matters.

This part is part 5 of GB/T 20720.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to IEC 62264-5.:2011 "Enterprise Control System Integration Part 5. Business and Manufacturing Services".

In this part of the normative reference to the international documents have a consistent correspondence between the following documents.

Enterprise control system integration - Part 1. Models and terminology (idtIEC

62264-1..2003) GB/T 20720.1-2006.

GB/T 20720.2-2006 Enterprise control system integration Part 2. Object model attributes (idt IEC 62264-2..2004) Integration of enterprise control systems - Part 3. Activity model for manufacturing operations management (IEC 62264.3.:2007, IDT) According to China's national standards for the development of requirements and for the convenience of use, made the following editorial changes.

- For the definition of the message content, the message noun and its related objects, in order to facilitate the use of programming, in this part, the use of its English the original name, and in the English name after the increase in its interpretation of the Chinese.

--- delete the original does not meet the standards of our preparation of the words.

This part is made by the China Machinery Industry Federation.

This part is headed by the National Automation System and Integrated Standardization Technical Committee (SAC/TC159).

This part of the drafting unit. Beijing Machinery Industry Automation Institute, Zhejiang University, Tsinghua University, Zhejiang Central Control Software Technology Co., Ltd.

Introduction

This part of GB/T 20720 uses the base of the IEC 62264 abstract model defined in IEC 62264-1 and IEC 62264-2 on the basis of the combination of verbs for the exchange of information defined a transaction model. Need to know, other non-GB/T 20720.5 transaction agreement will not be in the presence of this standard and invalid. The transaction takes place at all levels between the enterprise and the business partner, and with both the demand and the actual behavior Related, but this part focuses on the enterprise/business systems and manufacturing system interface issues.

Based on the definition of the object model in IEC 62264-1 and IEC 62264-2, this section defines the business-to-manufacturing and manufacturing Transactions, their use may be related to Layer 4 Layer 3 objects. The reference to the model provides a detailed description of the transaction the behavior of the requested transaction is described.

This section does not define a specific technical implementation method that provides this behavior. The purpose of this section is to reach a job for the reader to determine the transaction Provide an in-depth understanding of the level of demand.

Enterprise control system integration Part 5. Business and Manufacturing Services

1 Scope

This part of GB/T 20720 defines the information exchange between the application execution business and the manufacturing behavior related to layer 3, layer 4 Affairs. The

purpose of these exchanges is to enable information collection, retrieval, delivery and storage to support enterprise control system integration. This part with the model and terminology in IEC 62264-1 and the object model attributes in IEC 62264-2 are consistent. This section also defines a detailed description IEC 62264-1 Chapter 7, IEC 62264-2 and the transactions defined in this section. This section does not define a transaction model Other uses.

The models covered in this section are. Personnel model, Equipment model, Maintenance model, Material model, Process segment model, Production capacity model, Product Definition model, production scheduling model and production performance model.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

IEC 62264-1 Enterprise control system integration - Part 1. Models and terminology
(Enterprise - controlsystem integration-Part 1. Modelsandterminology IEC 62264-2
Enterprise Control System Integration Part 2. Object Model Properties
(Enterprise-controlsystemintegra-tion-Part 2. ObjectModelAttributes) IEC 62264-3
Enterprise Control System Integration Part 3. Manufacturing Operation Management Model
(Enterprise-control) systemintegration-Part 3.
ActivityModelsofManufacturingOperationsManagement)

3.1 Terms and definitions

The following terms and definitions apply to this document. In addition to the differences specified in this document, IEC 62264-1, IEC 62264-2, the terms, definitions, and concepts expressed in IEC 62264-3 are used.

3.1.1

Application an ordered set of physical and virtual processes, executed by a set of resources that manage the set of transactions that define the object;

The information provider and the information user of the act.

3.1.2

The identifier identifierID Identify information about object or object properties.

3.1.3

Message

A transmission application and one or more structured information units that are

unidirectionally transmitted between the receiving applications.