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

GB/T 19114.31-2008

**Industrial automation systems and integration -- Industrial
manufacturing management data -- Part 31: Resource
information model**

工业自动化系统与集成 工业制造管理数据 第31部分：资源信息模型
(English Translation)

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Foreword

GB/T 19114 "Industrial automation systems and integration - Industrial manufacturing management data" contains the following sections.

Part 1. Industrial manufacturing management data. Survey (ISO 15531-1);

Part 21. Specification external expression product data exchange (ISO 15531-21);

Article 31-33 parts. Expression manufacturing resource data management applications (ISO 15531-31 ~ 33);

The first section 41-44. Manufacturing Process Management expression data (ISO 15531-41 ~ 44).

Part 1,32,42 which has been transformed into China's national standard.

This part of GB/T 19114 of Part 31. This part identical with ISO 15531-31:2004, technical content and structure of the party Surface with ISO 15531-31:2004 agreement. Prepared pursuant to the requirements of national standards, made some editorial changes, mainly.

--- For each entity name for EXPRESS blackbody English language to describe underlined, in order to maintain both its intent and easy English Learn the name of the representative of the meaning, in this section, mainly in English. Increase the informative appendix NA, collecting entity blackbody English Name and gives Chinese translation.

--- ISO 15531, ISO 13584, ISO 10303 and IEC 61360 standards each has the same or

equivalent portions are converted into China's national standards, national standards corresponding numbers are GB/T 19114, GB/T 17645, GB/T 16656 and GB/T 17564 in all parts, both in technology and the use of the like. However, taking into account the ISO 15531, ISO 13584, ISO 10303 and IEC 61360 matching EXPRESS description, and application software for each model, entities, features, genus Expressive, function, etc., in order to complete the application does not occur when the application name and the replacement of international standards brought about Problems, in this section as well as all of the EXPRESS description is automatically generated by STEP files and development tools EXPRESS-G diagram international standard code remains the same, only in the title of this section and discuss the text, with the national standard number Replace the original International Standard.

This part of the Appendix A and Appendix B are normative appendices, Appendices C and D are informative appendices.

This part is proposed by China Machinery Industry Federation.

This part of the National Industrial automation systems and integration Standardization Technical Committee (SAC/TC159) centralized.

This section drafted by. China National Institute of Standardization.

Introduction

Resources is a major component and technology based manufacturing systems. The main objective of efficient use of resources is to reduce costs, which make direct Business success in the market.

Different health resources depends on perspective. Effective selection of a particular situation is a means of reducing complexity.

Therefore, the future development of the concept of business processes and resource management requirements.

--- A complete set of business processes and integration of concepts related to resource management activities;

--- Manufacturing unit includes an external interface integrated resource management.

Note: The manufacturing unit may include external suppliers or affiliate companies.

Resource properties and the desired performance and capacity of the manufacturing process must be described by a data modeling, application resources so that they can be managed more Effective delivery and use of information expressed in ways so they can be standardized.

Example. Resource property can be performance, capability and status.

This section only consider the resource management application. The goal is to describe the resource management information so that the information flowing between all systems and people Pass unimpeded.

GB/T 19114.31-2008/ISO 15531-31:2004 Industrial automation systems and integration
Industrial manufacturing management data Part 31. Resource information model

1 Scope

According to GB GB/T 19114 Appendix B of this part referred/T 19114.3 series range, this part is GB/T 19114 Presentation 3 series parts. This section describes the GB/T 19114 in the domain of information and resource model. It gives the GB/T 19114 series the main principle.

This section applies to.

- Summary of GB/T 19114.3 portion;
- Define the terms used;
- Application of the basic principles of resource management data conceptual model;
- Description resource information model;

Formation processes and resources --- description of resources identified;

--- Standard structure and composition of relations and GB/T 19114 other part of the series of 3 part series;

--- Standard use (informative).

This section does not apply to.

--- Detailed description of the resource information model;

EXPRESS --- models and related description of the entity;

--- Detailed definition of the concept of hierarchy and entities.

Note: These three in GB/T Part 3219114. Resource data management application is further described in the conceptual model.

2 Normative references

The following documents contain provisions which, through GB/T 19114 in this part of the reference in terms of this section. For dated reference documents Member, subsequent amendments or revisions do not apply to this section, however, according to whether the parties are encouraged to study this part of the agreement You can use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 16262.1 Information technology - Abstract Syntax Notation One (ASN.1) - Part 1. Specification of basic notation (GB/T 16262.1-2006, ISO/IEC 8824-1:2002, IDT) GB/T 16656.1 Industrial automation systems and integration - Product data representation and the first part of the exchange. Overview and fundamental principles (GB/T 16656.1-2008, ISO 10303-1:1994, IDT) GB/T 16656.49 Industrial automation systems and integration - Product data representation and exchange - Part 49. Process structure and special Sex (GB/T 16656.49-2003, ISO 10303-49:1998, IDT) GB/T 17645.1 Industrial automation systems and integration - Parts library - Part 1. Overview and fundamental principles (GB/T 17645.1-2008, ISO 13584-1:2001, IDT) GB/T 18999 Industrial automation systems concepts and rules of the enterprise model (GB/T 18999-2003, ISO 14258:1998, IDT) GB/T 19114.1 Industrial automation systems and integration - Industrial manufacturing management data - Part 1. Review (GB/T 19114.1-2003, ISO 15531-1:2002, IDT) ISO 10303-11:1994 Industrial automation systems and integration - Product data representation and exchange - Part 11. Description methods.

GB/T 19114.31-2008/ISO 15531-31:2004