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

GB/T 17645.25-2008

**Industrial automation systems and integration -- Parts library --
Part 25: Logical resources: Logical model of supplier library
with aggregate values and explicit content**

工业自动化系统与集成 零件库 第25部分：逻辑资源：带聚合值和显式内容的供
应商库逻辑模型

(English Translation)

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Foreword

GB/T 17645 "Industrial automation systems and integration Parts library" is a multi-part standard, each part published separately.

Each part of GB/T 17645 belongs, according to the functions are divided into a plurality of sub-series. Concept description logic resources to achieve resource description methods consistency Test, view exchange protocol concerning standardization dictionary content, including.

--- The first part defines the concept of 10 to 19 is described;

Part --- 20 to 29 provides logical resources;

--- 30 to 39 section provides resource;

Part --- 40 to 49 defines the method described;

Part --- 50 to 59 specifies conformance testing;

--- Part 100 to 199 specifies the view exchange protocol;

--- The first 500 to 599 provided specific dictionary of standardized content.

GB/T 17645 "Industrial automation systems and integration Parts Library" has now published the following nine sections.

--- Part 1. Overview and fundamental principles;

--- Part 20. Logical resource. Logical model of expressions;

--- Part 24. Logical resource. Logical model of supplier library;

Supplier logic model library with aggregate values \u200b\u200band display contents;. ---
Part 25. Logical resource

--- Part 26. Logical resource. Information supplier identification;

--- Part 31. resource. Geometric programming interface;

--- Part 42. Description methods. part family construction methodology;

--- Part 101. Geometrical view exchange protocol parameters of the program;

--- Part 102. meet GB/T 16656 regulations consistent view exchange protocol.

This part of GB/T 17645 Part 25. This part identical with ISO 13584-25:2003 "Industrial automation systems and set Part 25 to Part Library. Logical resource. with aggregate value and supplier base logic model "explicit content.

This part of ISO 13584-25 on technical content and writing format. consistent with 2003, but according to China's national standard preparation Request, 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, collect all the blackbody English name entities, and gives Chinese translation.

--- ISO 13584, ISO 10303 and IEC 61360 standards for each part are already a number of identical or equivalent into our national Standard, the corresponding numbers are national standards GB/T 17645, GB/T 16656 and GB/T 17564 in all parts, both in technology and the use of peer to peer. However, taking into account the ISO 13584, ISO 10303 and IEC 61360 matching EXPRESS description, and should Expressing each mode, entities, attributes, properties, functions, and other software in order to complete the application in

practical application, does not occur due to the replacement of international the problems posed by the standard name, description, and all EXPRESS automatically generated by STEP files and development tools EXPRESS-G diagram international standard code remains unchanged.

This section of the Appendix A, Appendix B, Appendix C, Appendix D and Appendix E are normative appendices, this section of Appendix F, Appendix G, Appendix H and Annex NA informative appendices.

This part is proposed by China Machinery Industry Federation.

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

This section drafted by. China National Institute of Standardization.

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GB/T 17645.25-2008/ISO 13584-25:2003 Industrial automation systems and integration Parts library Part 25. Logical resource.

With aggregate values and explicit content provider database logical model

1 Scope

This section GB/T 17645 specifies the general EXPRESS resources structure, which is used to describe the degree of polymerization vendor library appearing Data types and values. In exchange, this section also includes an integrated information model expression EXPRESS vendor library. This integrated information model the structure of these resources, as well as GB/T 17645 and other parts of GB/T 16656 EXPRESS other resources integrated into a single structure Alone mode. Supplier database can consist of definitions and expression part family. They can also define a new category of expression. Suppliers library by only dictionary elements with or without aggregate data types composition may also include instructions to allow explicit instance of the collection.

When used with a view exchange protocol, the integrated information model also allows the expression of one or more parts categories defined in Part Library Exchanged.

The following applies to this part.

- a) the expression of aggregate data type universal resource configuration. According EXPRESS language (GB/T 16656.11) aggregate data types Definition, aggregate data types and numerical modeling.
- b) the expression of a universal resource construction aggregate values.
- c) expressing assembly (which may include an unlimited number of components) universal resource configuration.

d) for modeling and exchange vendor library (including many features, its value can be polymerized composition, and can be explicitly extended to the possible class description Said library integrated information model as an example set).

This section does not apply to the following.

- a) expression expressions and variables;
- b) by constraint allows implicit instance set class description;
- c) to manage supplier database (in accordance with the information model defined in this section performs a predetermined expression) software systems.

2 Normative references

The following documents contain provisions which, through reference GB/T 17645 in this section constitute provisions of this section. For dated references Documents, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encourage the present section Research on the parties to reach an agreement to use the latest versions of these files. For undated references, the latest version applies to this section.

GB/T 15273.1 information processing bit single-byte coded graphic character sets - Part 1. Latin alphabet a (GB/T 15273.1-1994, idt ISO 8859-1. 1987) 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 16656.11 Industrial automation systems and integration - Product data representation and exchange - Part 11. Description methods. EX-PRESS Language Reference Manual GB/T 16656.21 representation and exchange of industrial automation systems and integration - Product data - Part 21. Implementation methods. exchange Clear text encoding of the file structure (GB/T 16656.21-2008, ISO 10303-21:2001, IDT) GB/T 16656.41 Industrial automation systems and integration - Product data representation and exchange Part 41. Integrated generic resources. Product Product description and support (GB/T 16656.41-1999, idt ISO 10303-41:1994) GB/T 17645.25-2008/ISO 13584-25:2003