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

GB/T 17645.101-2008

**Industrial automation systems and integration -- Parts library --
Part 101: Geometrical view exchange protocol by parametric
program**

工业自动化系统与集成 零件库 第101部分：参数化程序的几何视图交换协议
(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;

--- Part 25. Logical resource. with aggregate values and explicit content provider database logical model;

--- 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 101. This part identical with ISO 13584-101:2003 "Industrial automation systems and Integrated library - Part 101. the geometric parameters of the program view exchange protocol. " this part of ISO 13584-101 in the preparation of the technical content and 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 Entity name, 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 each part, di those in technology and the use of peer to peer. However, taking into account the ISO 13584, ISO 10303 and IEC 61360 matching EX-PRESS description, as well as the expression of patterns, entities, attributes, properties, functions, and other application software, application software in order to support Problems due to the replacement of international standards and bring the name does not occur when the practical application of all EXPRESS In this section Description and automatically generated by STEP development tools, documentation and EXPRESS-G diagram international standard code remains unchanged, Only in the title of

this section and discuss the text, replace the original with a number of international standards National standard.

This section of Appendix A normative annex, appendix 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 17645.101-2008/ISO 13584-101:2003 Industrial automation systems and integration Parts library Section 101.

Parametric Programming geometric view exchange protocol

1 Scope

General concept of shape. It can be associated with any item in the parts defined in the library. This section also defines how to comply by this expression belongs to the category of expression GB/T 17645.31 FORTRAN program exchange in the library exchange context.

The following applies to this part.

- c) the format for the exchange of library external file, an external library file based GB/T 17645.31 defined application programming interface through
- d) In the case between the sender and receiver have their own protocol for referencing external files (by GB/T 17645 is not specified
- e) any implementation support (statement of compliance with this section) of the resource;
- f) statement of compliance with any implementation of this part of the dictionary entries supported;
- g) Compliance statement data from any part of the implementation of the present can be identified.

This section does not apply to the following.

Library delivery of the document structure and exchange formats, including expression of this part of the definition of the category of reference, and (or) the library external files (specified Exchange format) by reference.

Note 1: The library integrated information model GB/T 17645 series logic of a part of the resources

provided to define the structure of the delivery of the document library.

Member may include a reference to the expression category as defined in this section and (or) the value of the instance library external files.

2 Normative references

The following documents contain provisions which, through reference GB/T 17645 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Study of the parties to the agreement to use the latest versions of these files. 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, MOD) 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 16656.31 Industrial automation systems and integration - Product data representation and exchange - Part 31. Conformance Test side on law and framework. General concepts (GB/T 16656.31-1997, idt ISO 10303-31:1994) GB/T 16656.42 Industrial automation systems and integration - Product data representation and exchange Part 42. Integrated generic resources.

Geometric and topological representation (GB/T 16656.42-1998, idt ISO 10303-42:1994) GB/T 17645.101-2008/ISO 13584-101:2003