

ICS 25.040.40

CCS L 67



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

GB/T 17645.511-2010

**Industrial automation systems and integration -- Parts library --
Part 511: Mechanical systems and components for general use:
Reference dictionary for fasteners**

工业自动化系统与集成 零件库 第511部分：机械系统与通用件：紧固件参考字典
(English Translation)

Issued on: December 1, 2010

Implemented on: May 1, 2011

Issued by: Standardization Administration of China

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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 resources. Logical model of expressions;

--- Part 24, Logical resources. Logical model of supplier library;

--- Part 25, logical resource. with aggregate value and supplier base logical model explicit content;

--- Part 26, logical resource. Information supplier identification;

--- Part 31, of resources. Geometric programming interface;

--- Part 42, description. - part family construction methodology;

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

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

This section is GB/T Part 51,117,645, gives standardized in line with GB/T 17645 series of standards fasteners dictionary content.

The partial modification of international standard ISO 13584-511:2006 "Industrial automation systems and integration - Parts library - Part 511. Machine Mechanical systems and common parts. Fastener reference dictionary. " This part of ISO 13584-511 in the technical content. consistent with 2006, but considering the country International Standard describes the contents of the dictionary is limited to fasteners international standard content, can not meet the needs of the domestic use, therefore I Content fastener country national standards included in this standard. Object registration information in Appendix A.

This section of the Appendix A, Appendix B, Appendix C, Appendix D and Appendix E are normative appendix.

This section presents the 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

GB/T 17645 is a parts library data representation and national standards for computer interpretable exchange, which aims to provide the ability to Neutral mechanism transmission parts library data, independent of any use of library data system applications. The nature of this description makes it not only for the exchange of parts of documents, but also to achieve the shared library data and database infrastructure.

GB/T 17645 issued by a series of separate parts. Its parts belong to one of the following series. Concept description logic Resources, standardized content resources, describe methods, conformance testing, protocol and exchange views about the dictionary. This part belongs to the reference dictionary series.

GB/T 17645 series provides a reference dictionary application domain ontology entity expression and characterization and range. Each entity, special and range constitute a dictionary entry, the entry is formalized and computer interpretable specific body. This representation points Do computer interpretable definition of humans and the computer can recognize and read the associated logo interpretable. Identification dictionary entries to ensure that any Application of the reference to the dictionary entry does not exist ambiguity. Definition and identification dictionary entries included in the definition of public dictionary mode Examples EXPRESS entity data type, its extension is defined in GB/T 17645 series logic resources.

This section provides the use of properties and range represents fasteners reference dictionary.

Fastener dictionary definitions cited classes and attributes.

--- Mechanical fasteners national standards;

--- Joint item identification guide.

Industrial automation systems and integration Parts library Part 511. Mechanical systems and components for general.

Fasteners reference dictionary

1 Scope

GB/T 17645 Part of mechanical fasteners into the national standard reference dictionary provides all the components, including their characteristics and classification range.

Reference Dictionary includes the following.

--- Used to describe the definition and identification of mechanical fasteners national

standard fasteners, as well as the associated sort mode;

--- Fasteners used to express the characteristics of data element type definitions and identification;

--- Used to describe the range of the above types of data elements defined and identified.

Each class, characteristic or range application domain constitutes the entry of this part of the definition of the reference dictionary. Entry with the computer or a human interpretable Class can recognize and read the definition of identity associated computer interpretable. Ensure identification dictionary entry dictionary entry referenced in any application There is no ambiguity.

Definition and identification dictionary entry is dependent on standard data definitions, a standard data dictionary consisting EXPRESS in public mode defined Examples of entity data type. Public extended definition dictionary mode in GB/T 17645.24-2003 and GB/T 17645.25-2008 in.

This section applies to.

--- Express various kinds of standard fastener data;

--- Expression data standard fasteners of various characteristics;

--- Expression data standard fasteners range of characteristics.

This section does not apply to.

--- Provisions for structuring parts families method defined in this standard data of science;

--- For implementing the method defined in this standard data exchange.

NOTE: The standard for exchanging data structure defined in this part of the physical file, see GB/T 16656.21-2008.

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 Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 3099-1982 bolts, screws, nuts and accessories - Terminology (ISO 1891. 1979, MOD)
GB/T 16262.1-2006 Information technology - Abstract Syntax Notation - (ASN.1) - Part 1. Specification of basic notation (ISO/IEC 8824-1:2002, IDT) GB/T 16656.1-2008 Industrial automation systems and integration - Product data representation and exchange - Part 1. Overview and fundamental principles Management (ISO 10303-1:1994, MOD) GB/T