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

GB/T 19902.6-2012

**Industrial automation systems and integration -- Manufacturing software
capability profiling for interoperability -- Part 6: Interface services and protocols
for matching profiles based on multiple capability class structures**

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Foreword

GB/T 19902 "Industrial automation systems and integration - Manufacturing software capability profiling for interoperability" includes the following sections.

- Part 1. Framework;
- Part 2. Profiling methodology;
- Part 3. Interface services, protocols and capability templates;
- Part 4. Conformance testing methodology, the judge and reports;
- Part 5. Regulations were designed to match the ability to multi-class structure based methodology;
- Part 6. based on multi-class structure designed capacity gauge match the interface services and protocols.

This section GB/T Part of 619,902.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with ISO 16100-6.2011 "Industrial automation systems and integration - Manufacturing software capability for interoperability

Building Regulations Part 6. based on multi-class structure designed capacity gauge match the interface services and protocols "(in English).

Consistency correspondence between this part of international documents and normative references of our files are as follows.

GB/T 19902.1-2005 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 1. Framework

(ISO 16100-1.2002, IDT)

GB/T 19902.2-2005 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 2. Profiling Party

Act On (ISO 16100-2.2003, IDT)

GB/T 19902.3-2006 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 3. Interface service

Services, protocols and capability templates (ISO 16100-3:2005, IDT)

Technical content and composition and structure of this part of ISO 16100-6:2011

"Industrial automation systems and integration - Manufacturing software interoperability

Ability Building Regulations - Part 6. Taking special regulations matching based on multi-ability class structure interface services and protocols "(in English) is consistent only when needed

Place, doing a few editorial changes, the main changes are as follows.

--- Uppercase acronym in English formerly known as reservations;

--- Deletion of the original text does not meet the standard of written words.

This part is proposed by China Machinery Industry Federation.

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

This part of the Beijing Machinery Industry Institute of Automation, Southeast University, responsible for drafting.

Introduction

The standard preparation of motivation from industrial and economic environment, in particular.

- a) growing vendor-specific solutions;
- b) the difficulties encountered by users of the application criteria;
- c) needs to be a standard system integration tool module closer;
- d) Recognizing the application software and the expertise to use the software but the company's assets.

GB/T 19902 is the national standard for the ability to standardize software described in this description and is computer interpretable

Human readable. Its goal is to provide a method for describing the manufacturing software capability, and its ability to apply these to life in the manufacturing sector

Cycle-related tasks, does not depend on a particular system architecture or implementation platform. This can reduce the manufacturing and supply of application users

Production and information management costs and Suppliers/providers.

GB/T 19902 in this section are based on certain charts UML convention structure. Because all is not included in the chart

The concept has explained in the text, it is assumed that the reader has some knowledge of UML.

Industrial automation systems and integration

Manufacturing software capability profiling for interoperability

Part 6. Multi ability class structure

Profile - matching interface services and protocols

1 Scope

GB/T 19902 is used in this section defines the matching method based on the ability to multi-class structure in the detailed interface services and protocols.

This section GB/T 19902 also defines the ability of special size board interface (CPTI) service group, scalability profile - Interface (CPI) and service groups

Expanded matching interface service group, they are GB/T 19902.3-2006 defined type 5.4 1, Type 2 and Type 3

Service extensions.

This section also defines the ability of the class structure of the interface (CCSI) service groups, the additional service group for the creation, registration, access and modify

Ability class structure GB/T 19902.5-2011 Chapter 6 of the defined reference manufacturing model.

This section also specifies designated as part of GB/T 19902.5-2011 Chapter 7 of the ability to specifically define the scale plate details.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 19902.4-2010 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 4. Conformance

Test methods, and sentenced the report (ISO 16100-4.2006, IDT)

GB/T 19902.5-2011 Industrial automation systems and integration - Manufacturing software

capability profiling for interoperability - Part 5. Multi

Ability class structure profile - matching methodology (ISO 16100-5:2009, IDT)

ISO 16100-1 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 1. Framework (Industrial

automationsystemsandintegration-Manufacturingsoftwarecapabilityprofilingforinteroperability-Part 1.

Framework)

ISO 16100-2 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 2. Profiling methodology (In-

dustrialautomationsystemsandintegration-Manufacturingsoftwarecapabilityprofilingforinterop-

erability-Part 2. Profiling methodology)

ISO 16100-3 Industrial automation systems and integration - Manufacturing software capability profiling for interoperability - Part 3. Interface services, protocols

And capability profile

(Industrialautomationsystemsandintegration-Manufacturingsoftwarecapabilityprofilingforinteroperability-Part 3. Interfaceservices, protocolsandcapabilitytemplates)

3 Terms and Definitions

ISO 16100-1, ISO 16100-2, ISO 16100-3, GB/T 19902.4-2010 and GB/T 19902.5-2011 defined

The following terms and definitions apply to this document.

3.1

Ability classes capabilityclass

< Software unit capability class> capacity-building elements in the conventional method, according to which the role of software in manufacturing activities in the unit to represent the single software