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

GB/T 20719.44-2010

**Industrial automation system and integration -- Process
specification language -- Part 44: Definitional extension --
Resource extensions
(English Translation)**

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Foreword

GB/T 20719 "Industrial automation systems and integrated process specification language" is divided into.

- Part 1. Overview and Fundamentals;
- Part 11. PSL core;
- Part 12. Outer core;
- Part 13. Timing theory;
- Part 14. Resource theory;
- Part 15. Theory of Activity Performance.
- Part 21. EXPRESS;
- Part 22. XML;
- Part 23. UML;
- Part 41. Activities;
- Part 42. time and state;
- Part 43. Sequence;
- Part 44. Defining the expansion of resources;
- Part 45. Types of resource sets;

- Part 46. Processing activities;
- Part 47. Purpose of process.

This part is part 44 of GB/T 20719.

This part is equivalent to ISO 18629-44.:2006 "Industrial automation systems and integration process specification language Part 44. Definitions Extended Resource Expansion "(English version).

The technical content and composition of this part are consistent with ISO 18629-44.:2006 and are consistent with GB/T 1.1-2000. Just according to China's national standards for the development of requirements and for the convenience of use, made the following editorial changes.

--- "ISO 18629" to "GB/T 20719", change "ISO 18629-44" to "GB/T 20719.44" or "GB/T 20719" this part ".

--- Deleted the preface of ISO 18629-44.:2006 and redrafted the preface in accordance with our national standards.

- Change the bootstrap in ISO 18629-44.:2006, Chapter 2, "Normative references" to GB/T 1.1-2000

6.2.3 Specified guidance.

--- will be part of the emergence of the national standard has been converted into the international standard number to national standard number, and the corresponding national standard the standard version of the international standard is placed within the brackets after the national standard number for ease of use and access. Untranslated international standard Quasi-reserved.

In order to make it easier for the reader to understand the meaning of this part of the bold, add Appendix NA.

--- delete the original does not meet the standards of our preparation of the words.

Appendix A to this section is a normative appendix, Appendix B, Appendix NA is an informative appendix.

This part is made by the China Machinery Industry Federation.

This part is headed by the National Automation System and Integrated Standardization Technical Committee (SAC/TC159).

Introduction

GB/T 20719 is a national standard for the use of computer-interpretable information exchanges related to the manufacturing process.

The GB/T 20719 standard contains all the parts that are combined to provide a language for describing the manufacturing process throughout the entire production process (The production process may be located in an industrial company, may also span several industrial sectors or companies), and independent of any particular representation of the mold type. The essence of language makes it suitable for sharing process information related to manufacturing at all stages of the production process.

This part of GB/T 20719 provides a definition of a language that is defined in relation to the activities defined by GB/T 20719 Related language.

All parts of GB/T 20719 are independent of the representation or model of any particular process used in the software industry of manufacturing management.

All parts of this standard work together to provide a structural framework for improving the synergy of these applications.

Industrial automation systems and integration Process specification language Part 44.
Definitive expansion Resource expansion

1 Scope

GB/T 20719 This part provides a non-essential concept of the language by using a set of definitions in GB/T 20719 language specification. These definitions provide semantically axiomatic terms for the terminology in this part of GB/T 20719.

GB/T 20719 The scope of this part includes.

- Resources, resource sets, resources and activities are described in detail in ISO 18629-11, ISO 18629-12 and ISO 18629-14 the definition of the concept of relation;
- Concepts describing the relationship between resources and activities described in detail in ISO 18629-11, ISO 18629-12 and ISO 18629-14 Definition.

2 Normative reference documents

The terms of this document are the terms of this part by reference to this part of GB/T 20719. Any reference to the date of the text , All subsequent amendments (excluding corrigenda) or revisions do not apply to this part, however, encouragement under this section the parties to the agreement study whether the latest version of these documents can be used. For undated references, the latest edition of this document applies section.

GB/T 16262.1 Information technology Abstract syntax notation (ASN.1) Part 1. Basic notation specification (GB/T 16262.1-2006, ISO/IEC 8824-1.:2002, IDT) GB/T 19114.1 Industrial automation systems and integrated industrial manufacturing management data Part 1. Summary (GB/T 19114.1-2003, ISO 15531-1.:2002, IDT) Industrial automation systems and integration process specification languages - Part 1. Overview and basic

principles GB/T 20719.1-2006.

(ISO 18629-1.:2004, IDT) ISO 18629-11.:2005 Industrial automation systems and integration process specification language - Part 11. PSL core ISO 18629-12 Industrial automation systems and integration process specification language - Part 12. External cores Industrial automation systems and integration process specification language - Part 14. Resource theory ISO

3.1 Terms and definitions

The following terms and definitions apply to this part of GB/T 20719.

3.1.1

Axiom axiom

A formal formula in a formal language that constrains the interpretation of symbols in a vocabulary of a language.

[GB/T 20719.1]

3.1.2

Defined vocabulary definedlexicon A series of symbols that are not logical words that represent the defined concepts.

Note: The defined vocabularies are constants, functions, and relational symbols.