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PEOPLE'S REPUBLIC OF CHINA**

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**Information technology -- Common Logic (CL): A framework for
a family of logic-based languages**

信息技术 通用逻辑 (CL) : 基于逻辑的语言族框架
(English Translation)

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Foreword

Accordance with the standards GB/T 1.1-2009 given rules drafted.

This standard uses the translation method identical with ISO/IEC 24707:2007 "Information technology - Generic logic. the logic-based language family framework." (In English).

Please note that some of the content of this document may involve patents. Release

mechanism of the present document does not assume responsibility for the identification of these patents.

This standard by the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points.

This standard drafting units. China National Institute of Standardization, Beijing Information Technology Co., Ltd. Cody intellectual standard, the Ministry of Environmental Protection Information Center.

Introduction

General logic is a logical framework for the exchange of information and transmission. This framework can be a variety of different grammatical forms, called dialects.

Dialect logical skills in XML-based universal grammar, and have a common semantics.

General logic has some new features, mainly characterized by its syntax and semantics. The syntax without signature and allow "more advanced" configuration Made, for example, while maintaining a first-order model theory of class relations or quantified; endorsement of its semantic connotation entity classes or attributes to describe Theory. General logic also fixed some meaning practice widely used, such as the number is an integer, a string with quotation marks, etc., Also use the data type and the use of XML on the Web name, import and transfer content have made the appropriate provisions.

General logic (CL). logic-based Language family framework

1 Scope

This standard specifies the use of data and information between different computer systems logical language ethnic representation and exchange.

The following features of the standard design is crucial.

- Language within the family has publicly semantics, without resorting to the language interpreter to execute expressions we can understand the expression Formula meaning;
- Language within the family is logically complete, can be any first-order logic statement specifies an expression;
- Exchange of information between heterogeneous computer systems.

The following fall within the scope of this standard.

- Ontology and knowledge base of information representation;
- Inference engine input or output specification expression;
- Formal sign language interpretation.

The following are outside the scope of this standard.

--- Proof Norms and inference rules;

--- Intersymbol specification translator isomers computer systems;

Computer-based method of operation --- provides a logic "on the field" symbol between individual relationship with the "real world" of.

This standard shows the general logic of syntax and semantics.

This standard defines the abstract syntax and the general logic of first-order logic specific extension defines a model associated with the theory of language Righteousness. The aim is to use the content of any system of first-order logic are able to express this standard, thereby promoting inter-system based on first-order logic Exchange of information.

This standard does not consider the computing power related issues (such as efficiency, optimization, etc.).

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 5271.15-2008 Information technology - Vocabulary Part 15. Programming languages
ISO/IEC 2382-15:1999, IDT) GB 13000-2010 Information technology -
Universal Multiple-Octet Coded Character Set (UCS) (ISO/IEC 10646:2003, IDT) ISO/IEC
14977:1996 Information technology - Syntactic metalanguage extended Backus-Naur Form
(Informationtechnology-Syn-tacticmetalanguage-ExtendedBNF)

3 Terms and Definitions

The following terms and definitions apply to this document.

Atom atom

No statement in the form of a clause grammar component.

NOTE: You can either be an equation, it can be applied by the atomic sentence predicate in a sequence consisting of a parameter.