

ICS 35.040
CCS L 72



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

GB/T 32913-2016

Information technology -- Meta Object Facility (MOF)

信息技术 元对象设施 (MOF)

(English Translation)

Issued on: August 29, 2016

Implemented on: March 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to the international standard ISO/IEC 19502.:2005 "Information Technology Meta Object Facility (MOF)".

Introduction

This standard defines the meta-model (defined by MOF), the interface set {with ODPIDL [ITU-T Recommendation X.920 (1997) | ISO/IEC 14750.:1999], which can be used to define and manipulate a set of interoperable metamodels and their corresponding models.

The MOF specification also defines mappings from MOF to ODPIDL (ITU-T Recommendation X.920 | ISO 14750). These interoperable dollars the model includes the Unified Modeling Language (UML) meta-model (ISO/IEC 19501.:2005), the MOF meta-meta-model, and those that use meta-models Describe the future of standard technology. MOF provides the infrastructure for implementing design and reuse of repositories, application development tools, and so on.

MOF accurately describes the mapping rules, so that the meta-model CORBA interface can be automatically generated, for this need in the distributed application development week all phases of the period encourage consistency in metadata manipulation. XMI (GB/T 28167-2011, ISO/IEC 19503.:2005) Describes the mapping from MOF to W3CXML and XSD. Described by the JMI (Java Metadata Exchange) specification defined by the JCP organization Mapping from MOF to Java™ (superscript).

In order to achieve the coordination of the architecture level, after a lot of effort, UML and MOF share the same core language Righteousness This coordination allows the MOF to reuse UML symbols to visualize the meta-model. In semantic requirements for different areas, meta-models need to be made with well-defined mapping rules. UML is already an independent PAS recommended object.

OMG adopted MOF (version 1.0) in November.1997. MOF has been developed as a repository for metadata reuse repository facilities the response is requested by the OMG Analysis and Design Task Group. The goal of the facility is to support the creation, manipulation and exchange of meta-models.

The recent version of MOF 1.4 was adopted in April.2002, and the original version 1.3 was amended and clarified, supplemented by additional Modeling function.

The development of distributed processing technology has led to the coordination of the standards and ITU-T Recommendations X.901 ~ 904 | ISO/IEC 10746 (RM-ODP) of the open distributed processing proposed such a framework. The framework defines support for distributed, interoperable and portable architecture can be integrated. RM-ODP Part 2 (GB/T 18714.2-2002, ISO/IEC 10746-2.

1996) defines the basic terms and modeling frameworks that describe distributed systems. RM-ODP Part 3 (GB/T 18714.3-2003, ie ISO/IEC 10746-3.:1996) gives the architecture of a common open distributed system that uses the concepts and boxes in Part 2 to express.

This standard is closely related to the standardization of open distributed processing (ODP). In particular, the ODP type repository function (ISO/IEC 14769 | ITU-T Recommendation X.960) quotes OMGMOF1.3. This function explains how to use OMGMOF as an ODP type repository.

Information Technology Meta Object Facility (MOF)

1 Scope

This standard specifies.

- a) an abstract language used to describe, construct and manage a technically neutral meta-model, the meta-model is actually some kind of metadata an abstract language;
- b) a framework for implementing repositories and integration frameworks (such as tools)

that have metadata (such as models) that are described by the meta-model frame). The framework transforms the MOF metamodel into metadata API by using standard mapping techniques.

This standard also provides.

- a) The formal definition of the MOF meta-meta-model, which is used to specify the abstract language of the MOF meta-model;
- b) a mapping from any MOF meta-model to CORBAIDL, which is used to generate IDLs that manage any kind of metadata interface;
- c) a set of "reflective" CORBAIDL interfaces for managing the metadata of the independent metamodel;
- d) a set of CORBAIDL interfaces for representing and managing MOF metamodels;
- e) An XML format for the exchange of MOF metamodels (OMGXML specification).

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

Information technology - Open distributed processing reference model - Part 2. Basic concepts - GB/T 18714.2-2002 (ISO/IEC 10746-2.:1996, IDT) Information technology - Open distributed processing reference model - Part 3. Architecture - GB/T 18714.3-2003.

(ISO/IEC 10746-3.:1996, IDT) GB/T 28167-2011 Information Technology XML Metadata Exchange (XMI) (ISO/IEC 19503.:2005, IDT) ISO/IEC 14769.:2001 Information technology open distribution processing type repository function

(Informationtechnology-OpenDistributedProcessing-TypeRepositoryFunction) ISO/IEC 19501.:2005 Information Technology Unified Modeling Language (UML)

[Informationtechnology-OpenDistrib-utedProcessing-UnifiedModelingLanguage (UML) Version1.4.2]

3 Abbreviations

The IDL convention used is defined in the IDL standard.

CORBA. Common Object Request Broker Architecture

(CommonObjectRequestBrokerArchitecture) IDL. Interface Definition Language

(InterfaceDefinitionLanguage) MOF. MetaObjectFacility UML. Unified Modeling Language

(UnifiedModelingLanguage) XMI. XML Metadata Exchange Specification

(XMLMetadataInterchangeSpecification)