

| | |
|-----------------------------------|--|
| Committee Draft ISO/IEC CD | |
| Date: 2005-12-28 | Reference number: ISO/JTC 1/SC 32N1396 |
| Supersedes document SC 32N1183 | |

THIS DOCUMENT IS STILL UNDER STUDY AND SUBJECT TO CHANGE. IT SHOULD NOT BE USED FOR REFERENCE PURPOSES.

| | |
|--|---|
| ISO/IEC JTC 1/SC 32 Data Management and Interchange Secretariat: USA (ANSI) | Circulated to P- and O-members, and to technical committees and organizations in liaison for voting (P-members only) by: 2006-03-27 Please return all votes and comments in electronic form directly to the SC 32 Secretariat by the due date indicated. |
|--|---|

| |
|---|
| ISO/IEC CD 20944-80:200x(E) Title: Information technology - Metadata Registry Interoperability & Bindings (MDR-IB) Part 80: Common provisions for profiles Project: 1.32.17.01.80.00 |
|---|

| |
|--|
| Introductory note: The attached document is hereby submitted for a three-month letter ballot to the National Bodies of ISO/IEC JTC 1/SC 32. The ballot starts 2005-12-28. Medium: E No. of pages: 11 |
|--|

Address Reply to: SC 32 Secretary, ISO/IEC JTC 1/SC 32, Farance Inc, Island Box 256, New York, NY 10044-0205, United States of America

Telephone: +1 212 486-4700; E-mail: SC32-Sec@JTC1SC32.org

Reference number of working document: **ISO/IEC JTC1 SC32 N1396**

Date: 2005-12-25

Reference number of document: **ISO/IEC CD2 20944-80**
[Release Sequence #8]

Committee identification: **ISO/IEC JTC1 SC32 WG2**

SC32 Secretariat: **US**

**Information technology —
Metadata Registries Interoperability and Bindings (MDRIB) —
Part 80: Common provisions for profiles**

Warning

This document is not an ISO International Standard. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an International Standard.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Document type: **International standard**
Document subtype: **if applicable**
Document stage: **(30) Committee**
Document language: **E**

Copyright notice

This ISO document is a working draft or committee draft and is copyright-protected by ISO. While the reproduction of working drafts or committee drafts in any form for use by participants in the ISO standards development process is permitted without prior permission from ISO, neither this document nor any extract from it may be reproduced, stored or transmitted in any form for any other purpose without prior written permission from ISO.

Requests for permission to reproduce this document for the purpose of selling it should be addressed as shown below or to ISO's member body in the country of the requester:

*ISO copyright office
Case postale 56
CH-1211 Geneva 20
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org*

Reproduction for sales purposes may be subject to royalty payments or a licensing agreement.

Violators may be prosecuted.

Contents

Page

| | |
|---|----|
| Foreword | iv |
| Introduction..... | vi |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Developing and using profiles | 2 |
| 4.1 General principles of a profile | 2 |
| 4.2 Main elements of a profile definition | 3 |
| 4.3 Derived standards | 4 |
| 4.4 Copy/paste vs. incorporation via normative reference | 4 |

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 20944-80 was prepared by Technical Committee ISO/IEC JTC1, *Information Technology*, Subcommittee SC32, *Data Management and Interchange*.

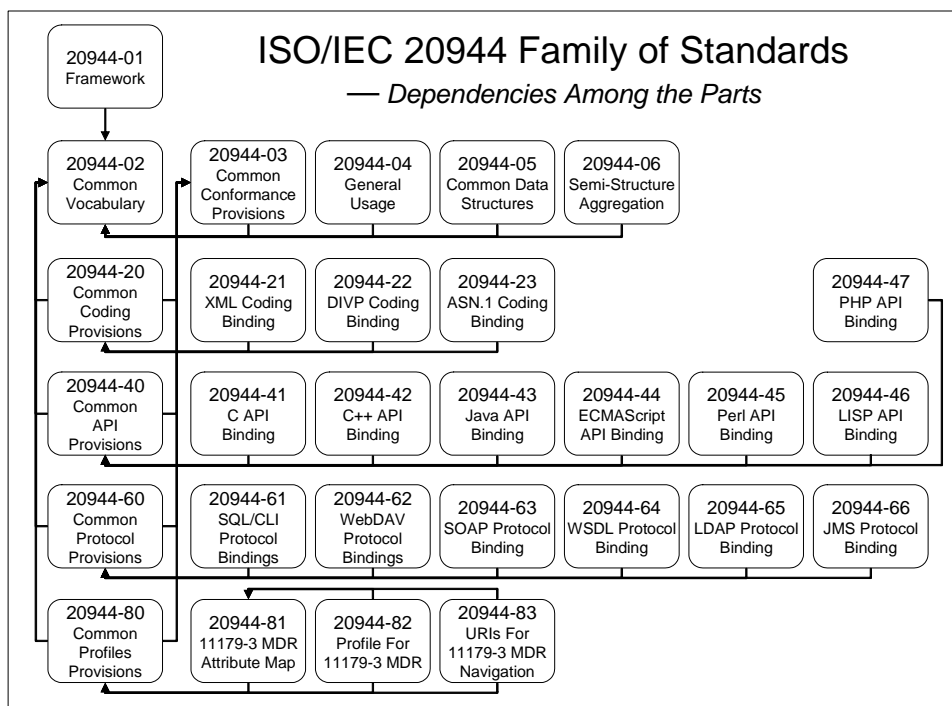
ISO/IEC 20944 consists of the following parts, under the general title *Information technology — Metadata Registries Interoperability and Bindings (MDRIB)*:

- *Part 01: Framework*
- *Part 02: Common vocabulary*
- *Part 03: Common provisions for conformance*
- *Part 04: Generic usage*
- *Part 05: Common data structures and services*
- *Part 06: Semi-structured aggregation*
- *Part 20: Common provisions for coding bindings*
- *Part 21: XML coding binding*
- *Part 22: DIVP coding binding*
- *Part 23: ASN.1 coding binding*
- *Part 40: Common provisions for application programming interface (API) bindings*
- *Part 41: C API binding*

- *Part 42: C++ API binding*
- *Part 43: Java API binding*
- *Part 44: ECMAScript API binding*
- *Part 45: Perl binding*
- *Part 46: LISP binding*
- *Part 47: PHP binding*
- *Part 60: Common provisions for protocol bindings*
- *Part 61: SQL/CLI protocol binding*
- *Part 62: WebDAV protocol binding*
- *Part 63: SOAP protocol binding*
- *Part 64: WSDL protocol binding*
- *Part 65: LDAP protocol binding*
- *Part 66: JMS protocol binding*
- *Part 80: Common provisions for profiles*
- *Part 81: Attribute mapping for 11179-3 metadata registry metamodel*
- *Part 82: Profile for 11179-3 metadata registry metamodel*
- *Part 83: Uniform Resource Identifier (URI) suffixes for 11179-3 metadata registry metamodel navigation*

Introduction

The following diagram shows the organization of the ISO/IEC 20944 family of standards.



Organization of ISO/IEC 20944 family of standards.

This Part of ISO/IEC 20944 concerns provisions that are common to the profiles, i.e., Parts 80 to 89. The profiles have commonality in their specification of subsets, supersets, and applications of the 20944 standards.

Information technology — Metadata Registries Interoperability and Bindings (MDRIB) — Part 80: Common provisions for profiles

Editor's Note: Each part of 20944 is marked with a common sequence number ("[Release Sequence #N]") to indicate they are synchronized and harmonized among themselves. The mark "[Release Sequence #N]" does *not* imply that there are a complete set of N-1 prior drafts for any particular Part.

1 Scope

The ISO/IEC 20944 family of standards describe codings, APIs, and protocols for interacting with an ISO/IEC 11179 metadata registry (MDR).

This part specifies the common provisions for profiles using the 20944 family.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC Guide 2, *Standardization and related activities — General vocabulary*

ISO/IEC TR 10000-1, *Information technology — Framework and taxonomy of International Standardized Profiles — Part 1: General principles and documentation framework*

ISO/IEC 20944-01:—¹, *Information technology — Metadata Registries Interoperability and Bindings (MDRIB) — Overview*²

ISO/IEC 20944-02:—³, *Information technology — Metadata Registries Interoperability and Bindings (MDRIB) — Common vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in Part 02 and the following apply⁴.

¹ To be published.

² The current drafts of the 20944 series are available at "<http://metadata-standards.org/20944>".

³ To be published.

3.1

base standard

approved standard used for creating derived standards [adapted from ISO/IEC TR 10000-1]

3.2

implementation conformance statement

ICS

statement made by the supplier of an implementation or IT system claimed to conform to one or more specifications, stating which capabilities have been implemented, specifically including the relevant optional capabilities and limits [ISO/IEC TR 10000-1]

3.3

international standardized profile

ISP

internationally agreed-to, harmonized normative document which describes one or more profiles [adapted from ISO/IEC TR 10000-1]

3.4

IT system

set of IT resources providing services at one or more interfaces [ISO/IEC TR 10000-1]

3.5

profile

set of one or more base standards and/or ISPs, and, where applicable, the identification of chosen classes, conforming subsets, options and parameters of those base standards, or ISPs necessary to accomplish a particular function [ISO/IEC TR 10000-1]

NOTE ISPs may contain normative references to specifications other than International Standards; see document JTC1/N4047: *The Normative Referencing of Specifications other than International Standards in JTC1 International Standardized Profiles — Guidelines for ISP Submitters*.

4 Developing and using profiles

A profile is defined in ISO/IEC TR 10000-1 as a "set of one or more base standards and/or ISPs, and, where applicable, the identification of chosen classes, conforming subsets, options and parameters of those base standards, or ISPs necessary to accomplish a particular function".

Profiles reference other standards. References may be dated or undated.

4.1 General principles of a profile

The general principles of a profile are specified in ISO/IEC TR 10000-1, subclause 6.3.1:

6.3.1 General Principles

A profile makes explicit the relationships within a set of base standards used together (relationships which can be implicit in the definitions of the base standards themselves), and may also specify particular details of each base standard being used. A profile may refer to other International Standardized Profiles

⁴ Users and implementers of this International Standard may find it useful to reference additional terms and definitions from 20944-02.

in order to make use of the functions and interfaces already defined by them, and thus limit its own direct reference to base standards. It follows that a profile

a) shall restrict the choice of base standard options to the extent necessary to maximise the probability of achieving the objective of the profile; for example to facilitate interworking between IT systems, or porting an application between them, where they have implemented different selections of options of the profile. Thus a profile may retain base standard options as options of the profile provided that they do not affect interworking or portability.

b) shall not specify any requirements that would contradict or cause non-conformance to the base standards to which it refers;

c) may contain conformance requirements which are more specific and limited in scope than those of the base standards to which it refers. Whilst the capabilities and behaviour specified in a profile will always be valid in terms of the base standards, a profile may exclude some valid optional capabilities and optional behaviour permitted in those base standards.

Thus conformance to a profile implies by definition conformance to the set of base standards which it references. However, conformance to that set of base standards does not necessarily imply conformance to the profile.

While the last paragraph above summarizes one important aspect of interoperability and compatibility (i.e., conformance to the profile implies conformance to the base standard), from the perspective of the developer of profile, a more important interoperability and compatibility issue is item b above: *[a profile] shall not specify any requirements that would contradict or cause non-conformance to the base standards to which it refers.* This requirement has a profound effect upon profiles of data interchange standards because profiles inherit certain *implicit* requirements from base standards.

4.2 Main elements of a profile definition

The main elements of a profile definition are specified in ISO/IEC TR 10000-1, subclause 6.3.2:

6.3.2 Main elements of a profile definition

The definition of a profile shall comprise the following elements:

a) a concise definition of the scope of the function for which the profile is defined and the user requirements which it will satisfy, which is capable of being used as an Executive Summary of the profile;

b) an illustration of the scenario within which the profile is applicable, giving, where possible, a diagrammatic representation of the IT systems, applications and interfaces which are relevant;

c) normative reference to a single set of base standards or ISPs, including precise identification of the actual texts of the base standards or ISPs being used; also identification of any approved amendments and technical corrigenda (errata), conformance to which is identified as potentially having an impact on achieving interoperability or portability using the profile;

d) specifications of the application of each referenced base standard or ISP, stating the choice of classes or conforming subsets, and the selection of options, ranges of parameter values, etc, and reference to registered objects;

e) a statement defining the requirements to be observed by IT systems claiming conformance to the profile, including any remaining permitted options of the referenced base standards or ISPs, which thus become options of the profile;

f) if relevant, a reference to the specification of conformance tests for the profile;

g) informative reference to any amendments or technical corrigenda to the base standards referenced in the profile, which have been determined to be not applicable to the profile, and to any other relevant source documents

4.3 Derived standards

A derived standard is a normative document that has provisions in common with a base standard. In comparison to profiles, a derived standard makes no requirements concerned the relationship between conformance to the base standard and conformance to the derived standard (or vice versa). This an implementation that conforms to the derived standard is not required to conform to the base standard (and vice versa).

4.4 Copy/paste vs. incorporation via normative reference

From the perspective of standards interpretation and the meaning of a profile, there is no difference between copying and pasting normative wording into the profile vs. incorporating provisions via normative reference (i.e., reference to Clause, subclause, etc.). This non-distinction applies to both profiles and derived standards.

The decision of copy/paste vs. incorporation via normative reference is affected by standards maintenance and the availability of base standards. Generally, incorporation via normative reference is preferred because (1) it minimizes the editing and review work of the profile or derived standard, (2) the maintenance is (largely) the responsibility of the committee that developed the base standard, (3) technical corrigenda and amendments of the base standard may be incorporated into the profile or derived standard without modifying (and balloting) the new document. In some cases copy/paste may be preferable, such as (1) when, due to the structure of the base standard, the normative referencing is complex or impractical, (2) when the normative wording in the base document may be unavailable, such as references to specifications other than international standards (see document JTC1/N4046 and JTC1/N4047).