INTERNATIONAL STANDARD

ISO/IEC 9834-7

Third edition
2008-12-15

Information technology — Open Systems Interconnection — Procedures for the operation of OSI Registration Authorities: Joint ISO and ITU-T Registration of International Organizations

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — Procédures opérationnelles pour les organismes d'enregistrement de l'OSI: Enregistrement conjoint par l'ISO et l'UIT-T d'organisations internationales

Reference number
ISO/IEC 9834-7:2008(E)

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

Published by ISO in 2009

Published in Switzerland

CONTENTS

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national 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 and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 9834-7:2009 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems,* in collaboration with ITU-T. The identical text is published as ITU-T Rec. X.666 (08/2008).

This third edition cancels and replaces the second edition (ISO/IEC 9834-7:2005), which has been technically revised.

ISO/IEC 9834 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Procedures for the operation of OSI Registration Authorities:*

— *Part 1: General procedures and top arcs of the International Object Identifier tree*

— *Part 2: Registration procedures for OSI document types*

— *Part 3: Registration of Object Identifier arcs beneath the top-level arc jointly administered by ISO and ITU-T*

— *Part 4: Register of VTE Profiles*

— *Part 5: Register of VT Control Object Definitions*

— *Part 6: Registration of application processes and application entities*

— *Part 7: Joint ISO and ITU-T Registration of International Organizations*

— *Part 8: Generation and registration of Universally Unique Identifiers (UUIDs) and their use as ASN.1 Object Identifier components*

— *Part 9: Registration of object identifier arcs for applications and services using tag-based identification*

INTERNATIONAL STANDARD
ITU-T RECOMMENDATION

Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Joint ISO and ITU-T registration of international organizations

1 Scope

This Recommendation | International Standard specifies procedures for Registration Authorities that are responsible for the assignment to international organizations of names that are globally unambiguous in the context of:

a) O/R addresses, as defined in ITU-T Rec. X.402 | ISO/IEC 10021-2;

b) Directory names, as defined in ITU-T Rec. X.501 | ISO/IEC 9594-2;

c) The joint international organizations arc (see 3.6.6) of the International Object Identifier tree, as defined in ITU-T Rec. X.660 | ISO/IEC 9834-1.

2 Nor ITU-T Recommendation mative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

– ITU-T Recommendation X.402 (1999) | ISO/IEC 10021-2:2003, *Information technology – Message Handling Systems (MHS) – Overall architecture*.

– ITU-T Recommendation X.500 (2008) | ISO/IEC 9594-1:2008, *Information technology – Open Systems Interconnection – The Directory: Overview of concepts, models and services*.

– ITU-T Recommendation X.501 (2008) | ISO/IEC 9594-2:2008, *Information technology – Open Systems Interconnection – The Directory: Models*.

– ITU-T Recommendation X.520 (2008) | ISO/IEC 9594-6:2008, *Information technology – Open Systems Interconnection – The Directory: Selected attribute types*.

– ITU-T Recommendation X.660 (2008) | ISO/IEC 9834-1:2008, *Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures and top arcs of the International Object Identifier tree*.

– ITU-T Recommendation X.680 (2008) | ISO/IEC 8824-1:2008, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation*.

3 Definitions

For the purposes of this Recommendation | International Standard, the following definitions apply.

3.1 ASN.1 terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.680 | ISO/IEC 8824-1:

a) **`NumericString`**;

b) **`PrintableString`**;

c) **`TeletexString`**.

3.2 Directory terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.501 | ISO/IEC 9594-2:

a) Directory Information Tree;

b) Directory System Agent;

c) directory name;

d) relative distinguished name.

3.3 Directory attribute terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.520 | ISO/IEC 9594-6:

a) Country Name;

b) Organization Name.

3.4 Registration terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.660 | ISO/IEC 9834-1:

a) object identifier;

b) OID internationalized resource reference;

c) primary integer value;

d) registration;

e) Registration Authority;

f) registration procedures;

g) secondary identifier;

h) sponsoring authority;

i) Unicode label;

j) long arc.

3.5 Message Handling System terms

This Recommendation | International Standard uses the following terms defined in ITU-T Rec. X.402 | ISO/IEC 10021-2:

a) administration-domain-name;

b) country-name;

c) management domain;

d) O/R address;

e) private-domain-name;

f) standard attribute.

3.6 Additional definitions

3.6.1 arc identifications: The totality of the names assigned to an arc of the Internationalized Object Identifier tree.

NOTE – These consist (except for long arcs) of a single unambiguous primary integer (defining an integer-valued Unicode label), zero or more unambiguous non-integer Unicode labels and zero or more (possibly ambiguous) secondary identifiers.

3.6.2 international ADMD name: An ADMD which can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard.

3.6.3 international name: A name that is globally unambiguous in some context.

3.6.4 international PRMD name: A PRMD name which can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard, and an ADMD name attribute value of a single space.

3.6.5 international organization name: An Organization Name value which can be used in an RDN that, without qualification by a Country Name RDN, is the directory name of the entry for the organization concerned.

3.6.6 joint international organization arc: An arc beneath the node of the International Object Identifier tree identified by the ASN.1 object identifier value **{joint-iso-itu-t international-organizations (23)}** and the ASN.1 OID internationalized resource identifier values **"/Joint-ISO-ITU-T/International-Organizations"** and **"/International-Organizations"**.

4 Abbreviations

For the purposes of this Recommendation | International Standard, the following abbreviations apply:

ADMD	Administration Management Domain
ASN.1	Abstract Syntax Notation One
DIT	Directory Information Tree
DSA	Directory System Agent
ITO	International Treaty Organization
MD	Management Domain
MHS	Message Handling System
MTS	Message Transfer System
O/R	Originator/Recipient
PRMD	Private Management Domain
PRMD name	private-domain-name
RDN	Relative Distinguished Name

5 General

5.1 ITU-T Rec. X.660 | ISO/IEC 9834-1 defines procedures that are generally applicable to the registration of objects. It allows for other Recommendations | International Standards to define procedures for registration of specific objects.

5.2 This Recommendation | International Standard defines procedures for registration that assigns international names to organizations, where the term "international name" denotes a name that is globally unambiguous within a specific context. This Recommendation | International Standard covers three kinds of international names:

a) international ADMD and PRMD names for use in O/R addresses as defined in ITU-T Rec. X.402 | ISO/IEC 10021-2;

b) international organization names for use in directory names as defined in ITU-T Rec. X.501 | ISO/IEC 9594-2;

c) arc identifications for joint international organization arcs.

5.3 A separate Registration Authority is responsible for the assignment of each kind of international name and there is only one Registration Authority for each kind of international name. The same entity may act as more than one of the authorities.

5.4 An organization that requires the assignment of equivalent name values for different kinds of name must make appropriate registration requests to each of the separate Registration Authorities.

6 Operation of Registration Authorities

6.1 The general operation of Registration Authorities is defined in ITU-T Rec. X.660 | ISO/IEC 9834-1, 8.2. Specific procedures for each kind of international name are defined in the annexes to this Recommendation | International Standard as follows:

a) procedures for the assignment of international MD names are defined in Annex A;

b) procedures for the assignment of international organization names are defined in Annex B;

c) procedures for the assignment of joint international organization arcs are defined in Annex C.

6.2 ITU-T Rec. X.660 | ISO/IEC 9834-1, 8.2, and the annexes to this Recommendation | International Standard define the principles governing the registration procedures to be applied. The Registration Authorities themselves define the mechanisms through which the principles are realized (e.g., through electronic operations), subject to the approval of ITU-T | ISO/IEC.

7 Appointment of Registration Authorities

It is within the mandate of ITU-T and ISO/IEC to organize registration as specified in this Recommendation | International Standard. In order to do this, ITU-T and ISO/IEC appoint, according to their internal requirements and rules, an organization to act as the Registration Authority for each kind of name covered by this Recommendation | International Standard.

8 Fees

8.1 An organization providing a Registration Authority function does so on a cost-recovery basis. The fee structure is designed to recover the expenses of operating a Registration Authority, and to discourage frivolous and multiple requests.

8.2 The fee values are determined by the Registration Authority, subject to the approval of ITU-T | ISO/IEC. Fees can apply to:

a) registration;

b) inquiry request;

c) publication request;

d) request for update;

e) name retention.

Annex A

The assignment of international ADMD and PRMD names

(This annex forms an integral part of this Recommendation | International Standard)

A.1 Purpose

The purpose of this annex is to define procedures for the assignment of international ADMD and PRMD names to organizations for use in O/R addresses as defined in ITU-T Rec. X.402 | ISO/IEC 10021-2.

A.2 Requirements from ITU-T Rec. X.402 | ISO/IEC 10021-2

A.2.1 ADMD and PRMD names are used in several elements of MHS protocols specified in the ITU-T Rec. X.400 | ISO/IEC 10021 series. Two syntaxes are specified for ADMD and PRMD name values: a value of type `NumericString` and a value of type `PrintableString`.

A.2.2 The procedures defined in this annex provide for the assignment, as international ADMD and PRMD names, of alphanumeric name values comprising characters from the `PrintableString` character set. In accordance with the requirements of ITU-T Rec. X.402 | ISO/IEC 10021-2, these names are limited in length to 16 characters.

A.2.3 Where an assigned name value consists solely of digits and spaces, then the equivalent `NumericString` name is also regarded as assigned.

NOTE – A `PrintableString` comprising solely digits and spaces is equivalent to a `NumericString`.

A.2.4 In the handling of name values for registration purposes:

a) comparison is case insensitive;

b) multiple consecutive spaces are treated as a single space;

c) leading and trailing spaces are not treated as part of the name value;

d) name values of a single space or single zero are not registered.

A.3 Use of names

There is a single register of international MD names. Each entry in the register has an indication whether the associated name value is used as an ADMD name or a PRMD name.

NOTE 1 – For ADMD and PRMD names to be used within message handling systems conforming to ITU-T Rec. X.402 | ISO/IEC 10021-2, it is necessary to specify procedures for identifying names and associated Registration Authorities within concrete protocols. Such procedures exist for ADMD and PRMD names registered within the context of a specific country name. Procedures for international ADMD and PRMD names, as defined in this Recommendation | International Standard, are under study.

NOTE 2 – Recommendations specifying MTS behaviour for voluntary participation in an international MD name structure may place additional requirements on the use of international ADMD and PRMD names assigned according to the procedures defined in this annex.

A.3.1 Use of international ADMD names

A.3.1.1 An ADMD name assigned by the procedures defined in this annex can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard.

A.3.1.2 The assignment of an ADMD name to an organization also delegates to that organization the authority to assign standard attributes for O/R addresses within the context of that name, subject to the constraints defined in ITU-T Rec. X.402 | ISO/IEC 10021-2.

A.3.2 Use of international PRMD names

A.3.2.1 A PRMD name assigned by the procedures defined in this annex can be used in the formation of O/R addresses which contain a country name standard attribute value identifying the Registration Authority operating under the provisions of this Recommendation | International Standard, and an ADMD name attribute value of a single space.

A.3.2.2 The assignment of a PRMD name to an organization also delegates to that organization the authority to assign O/R address components within the context of that name subject to the constraints defined in ITU-T Rec. X.402 | ISO/IEC 10021-2.

A.4 Registration procedures

This subclause specifies the procedures to be followed in the assignment of international ADMD and PRMD names to organizations. The procedures are designed to assure openness and due process in the registration process.

A.4.1 Application for registration

A.4.1.1 An ITO submits an application directly to the Registration Authority. Other applications are submitted through a Sponsoring Authority. The content of the application is defined in A.6.1.

A.4.1.2 Upon successful completion of the procedures specified in this annex, the alphanumeric value supplied by the applicant as constrained by the rules in A.2, is registered as assigned.

A.4.1.3 When applicants require multiple names, they must submit a separate application for each name.

A.4.2 Review of applications

A.4.2.1 Procedure

A.4.2.1.1 Since an alphanumeric name may have meaning outside the registration process, in order for an application to be processed, it shall contain a signed statement asserting the applicant's right to the name. If the statement is missing, the application is rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for the rejection.

NOTE – In the context of registration, the signed statement is collected for recording purposes only. The statement may be useful, for example, in the Sponsoring Authority challenge process; however, such use is outside the scope of this Recommendation | International Standard.

A.4.2.1.2 If the application does not contain the information specified in A.6.1, the application is rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for rejection.

A.4.2.1.3 If a new application arrives for an alphanumeric name that has already been requested, but the previous request has not yet been confirmed, the following process is followed:

a) If the new application arrives before the confirmation process for the previous application has started, then both applications are rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for rejection.

b) If the new application arrives after the confirmation process for the previous application has started, then the new application is put on hold until the confirmation process for the previous application is completed. The new applicant is immediately notified that a previous application for the name requested is in the confirmation process defined by this subclause. If the confirmation is successful, then the new application is rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for rejection. If the confirmation is not successful, then the new application continues with the confirmation process.

A.4.2.1.4 If the application is accepted, it is put into the confirmation process specified in A.4.3.

A.4.2.2 Response time

A.4.2.2.1 To the extent practicable, review of an application under the procedures specified in A.4.2.1 is completed within ten working days of the receipt of the application.

A.4.2.2.2 The Registration Authority may batch together several applications for registration when communicating the confirmation requests to Sponsoring Authorities. Nevertheless, the beginning of the confirmation process for any application is not delayed by more than two months from the date at which the application was submitted.

A.4.2.3 Unprocessable applications

An application is unprocessable if the requested name value does not comply with the requirements specified in A.2. The application is rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for the rejection.

A.4.3 Confirmation process

A.4.3.1 The requested name value is compared with all other name values in the Register. If the name value is a duplicate, the request is rejected by sending a notice of rejection as specified in A.6.6, citing this subclause as the reason for the rejection. If the supplied value is not a duplicate, it is entered into the Review List. The Review List is published and a request for confirmation as specified in A.6.2 is sent to each Sponsoring Authority.