INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
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SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATION

OSI networking and system aspects – Naming, Addressing and Registration

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Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: Registration of values of RH-name-tree components for joint ISO and ITU-T use

ITU-T Recommendation X.662

(Previously CCITT Recommendation)

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INTERNATIONAL STANDARD 9834-3

ITU-T RECOMMENDATION X.662

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – PROCEDURES FOR THE OPERATION OF OSI REGISTRATION AUTHORITIES: REGISTRATION OF VALUES OF RH-NAME-TREE COMPONENTS FOR JOINT ISO AND ITU-T USE

Summary

This Recommendation | International Standard specifies the procedures for operating the International Registration Authority for assignment of values to RH-name-tree components for joint ISO-ITU-T use.

Source

The ITU-T Recommendation X.662 was approved on the 9th of August 1997. The identical text is also published as ISO/IEC International Standard 9834-3.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

Introduction

CCITT Rec. X.660 | ISO/IEC 9834-1 defines procedures for registration to meet OSI environment requirements for assignment of unambiguous names (e.g. object identifiers as specified in ITU-T Rec. X.680 | ISO/IEC 8824-1, Distinguished Names as specified in ITU-T Rec. X.501 | ISO/IEC 9594-2) to objects (distinguishable entities). These registration procedures are generally applicable to registration independent of the type of object involved. In particular, CCITT Rec. X.660 | ISO/IEC 9834-1 defines the registration-hierarchical-name-tree, which is a tree whose nodes correspond to objects that are registered and whose non-leaf nodes may be registration authorities. CCITT Rec. X.660 | ISO/IEC 9834-1 also defines procedures for the delegation of authority for the assignment of names in order to ensure that names are unambiguous.

The root node of the registration-hierarchical-name-tree (RH-name-tree) is CCITT Rec. X.660 | ISO/IEC 9834-1. The root has three entries in its register:

RH-name-tree	Alphanumeric value	Numeric (Integer) Value
itu-t (0)	itu-t	0
iso (1)	iso	1
joint-iso-itu-t (2)	joint-iso-itu-t	2

NOTE – In accordance with ITU-T Rec. X.680 | ISO/IEC 8824-1, the alphanumeric value *ccitt* and *joint-iso-ccitt* used in CCITT Rec. X.660 (1992) | ISO/IEC 9834-1:1993, may be used as synonym for *itu-t* and *joint-iso-itu-t*, respectively.

The Registration Authority identified by "itu-t (0)" and by "iso (1)" are provided by ITU-T Rec. X.680 | ISO/IEC 8824-1. Further discussion is beyond the scope of this Recommendation | International Standard.

The role of the registration authority identified by "joint-iso-itu-t (2)" is the "International Registration Authority for assignment of values to RH-name-tree components for joint ISO-ITU-T use". The operations of this Registration Authority[1)] are specified by this Recommendation | International Standard.

This Recommendation | International Standard is concerned with a Registration Authority which performs a purely administrative role as defined in CCITT Rec. X.660 | ISO/IEC 9834-1.

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1) The Registration Authority for the assignment of RH-name component values for joint ISO-ITU-T use is the American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036, United States.

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – PROCEDURES FOR THE OPERATION OF OSI REGISTRATION AUTHORITIES: REGISTRATION OF VALUES OF RH-NAME-TREE COMPONENTS FOR JOINT ISO AND ITU-T USE

1 Scope

This Recommendation | International Standard specifies the procedures for operating the International Registration Authority for assignment of values to RH-name-tree components for joint ISO-ITU-T use.

2 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 Telecommunications Standardization Bureau of the ITU maintains a list of the currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.501 (1993) | ISO/IEC 9594-2:1995, *Information technology – Open Systems Interconnection – The Directory: Models*.
- CCITT Recommendation X.660 (1992) | ISO/IEC 9834-1:1993, *Information technology – Open Systems Interconnection – Procedures for the operation of OSI Registration Authorities: General procedures*.
- ITU-T Recommendation X.680 (1994) | ISO/IEC 8824-1:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation*.

3 Definitions

3.1 For the purposes of this Recommendation |International Standard, the following terms are used and are defined in ITU-T Rec. X.680 | ISO/IEC 8824-1:

a) object;

b) object identifier.

3.2 For the purposes of this Recommendation | International Standard, the following terms are used and are defined in ITU-T Rec. X.501 | ISO/IEC 9594-2:

a) Directory name;

b) relative distinguished name.

3.3 For the purposes of this Recommendation | International Standard, the following terms are used and are defined in CCITT Rec. X.660 | ISO/IEC 9834-1:

a) Registration-hierarchical-name-tree (RH-name-tree);

b) Registration-hierarchical-name (RH-name).

3.4 The following terms are used in this Recommendation | International Standard, and are defined here.

3.4.1 **registration-hierarchical-name-tree component**: A registration-hierarchical-name-tree node (arc).

3.4.2 **RH-name-tree component name**: A type of RH-name. Identifies a component in the RH-name-tree.

3.4.3 **registry**: The collection of all the entries registered by the registrar.

4 Abbreviations

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

ASN.1	Abstract Syntax Notation One
CCITT	International Telegraph and Telephone Consultative Committee
IEC	International Electrotechnical Commission
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union-Telecommunication Standardization Sector
ISO	International Organization for Standardization
JTC 1	Joint Technical Committee 1
Q	Question
RH-name-tree	Registration-hierarchical-name-tree

5 General information

5.1 The Registration Authority performs a purely administrative role in recording decisions made by the appropriate ISO/IEC Subcommittee or ISO Technical Committee and by the appropriate ITU-T Study Group on the addition of an entry to the register.

5.2 Register entries in the registers identified by these entries shall be recorded in the joint text of ISO/IEC International Standards and CCITT/ITU-T Recommendations.

6 Elements of information of register entries

The elements of information of a register entry shall be:

a) an RH-name-tree component name, composed of a numeric (integer) value and an alphanumeric value drawn from the character set specified for an "identifier" in ITU-T Rec. X.680 | ISO/IEC 8824-1 (together forming an instance of the "NameandNumberForm" for "ObjIdComponent"), each of which shall be unique within a register;

NOTE – ITU-T Rec. X.680 | ISO/IEC 8824-1 (8.3) specifies that an "identifier" shall consist of an arbitrary number (one or more) of letters, digits and hyphens and that the initial character shall be a lower case letter and that the last character shall not be a hyphen and that a hyphen shall not be immediately followed by a hyphen;

b) an area of joint ISO-ITU-T work in which the value is to be applied, specified by the ISO work item number and number of the International Standard in which the RH-name component value is specified, and the ITU-T Study Group, Study Period, and Question, and the number of the CCITT and ITU-T Recommendation in which the RH-name component value is specified, and a brief title;

c) status of the entry indicating whether the entry is "active" or "deleted"; and

d) a "Responsible Officer" nominated by ISO and a "Responsible Officer" nominated by ITU-T, who will jointly agree on the assignment of object identifier component values within the area of work.

The registration entry shall be identified by the object identifier derived from the RH-name-tree component name, as specified in CCITT Rec. X.660 | ISO/IEC 9834-1, Annex A.

7 Procedures

7.1 Maintenance of the register

A register is to be maintained, recording for each entry the information required by clause 6.

7.2 Recording of entries

The register is to have new entries added as the result of simple resolutions by the appropriate ISO/IEC Subcommittee or ISO Technical Committee, ratified by decisions of the appropriate ITU-T Study Group, or as the result of decisions by the appropriate ITU-T Study Group, ratified by simple resolutions by the appropriate ISO/IEC Subcommittee or ISO Technical Committee.

NOTE – An entry may involve work items or Questions for other Subcommittees or Study Groups if requested by those other bodies.

The alphanumeric value of the RH-name-tree component name shall be requested by the Responsible Officers of ISO and ITU-T. If the alphanumeric value is already assigned within the register, or otherwise deemed inappropriate by the Registration Authority, the request shall be rejected by the Registration Authority. Otherwise the identifier shall be assigned.

The numeric value of the RH-name-tree component shall be assigned by the International Registration Authority. This value shall be increased sequentially by the positive integer one, i.e. +1, above the last assigned numeric value of the RH-name-tree component value in the register.

7.3 Deletion of entries

The status entry shall be updated upon activation or deletion of an entry. Entries shall be marked as deleted (but still retained) as the result of simple resolutions by the appropriate ISO/IEC Subcommittee or ISO Technical Committee, ratified by decisions of the appropriate ITU-T Study Group, or as the result of decisions by the appropriate ITU-T Study Group, ratified by simple resolutions by the appropriate ISO/IEC Subcommittee or ISO Technical Committee, when no further assignments of object identifiers are expected in the area of work. The RH-name-tree component name values shall never be reused.

7.4 Change of entries

Entries shall not be changed except to replace the ISO "Responsible Officer" or project number, or the ITU-T "Responsible Officer" or Question identification.

The former changes shall require a simple resolution of the lSO Subcommittee or Technical Committee involved in the work, notified in writing to the International Registration Authority.

The latter changes shall require a decision of the ITU-T Study Group involved in the work, notified in writing to the International Registration Authority.

7.5 Resolving disputes

It may come to pass that a dispute in the operation of the register may arise. For example, an alphanumeric value may be requested which has already been assigned in the register. Disputes shall be resolved in the following manner.

7.5.1 The international registrar shall inform the ISO Responsible Officer and the ITU-T Responsible Officer that a dispute has occurred and requires resolution.

7.5.2 The Responsible Officers shall attempt to expedite the resolution of the dispute.

7.5.3 If the Responsible Officers are unable to resolve the dispute, the Convenor of the concerned ISO/IEC Working Group and the Chair of the concerned ITU-T Working Party shall attempt to expedite the resolution of the dispute.

7.5.4 In the event that the Convenor and the Chair are unable to resolve the dispute, a joint ISO-ITU-T RH-name-tree component shall not be assigned by the International Registration Authority that assigns values to RH-name-tree components for joint ISO-ITU-T use.

Annex A

Proforma for registration

(This annex does not form an integral part of this Recommendation | International Standard)

Key to register entries

(i) RH-name-tree component values allocated (alphanumeric and numeric values)

(ii) Brief title and area of work

(iii) ISO Work Item number

(iv) ISO Standard number plus date

(v) ITU-T Question identification

(vi) ITU-T Recommendation number plus date

(vii) ISO "Responsible Officer"

(viii) ITU-T "Responsible Officer"

(ix) Status – active/deleted

Example of a registration

<table>
<tr><td colspan="2">(i)
asn1(1)</td><td colspan="2">(ii)
ASN.1</td><td>(ix)
active</td></tr>
<tr><td colspan="3">(iii)
97.21.17.3-4</td><td colspan="2">(v)
(85-88) Q 40/VII</td></tr>
<tr><td colspan="3">(iv)
ISO 8824:1987</td><td colspan="2">(vi)
X.208 (1988)</td></tr>
<tr><td colspan="3">(vii)
A. N. ISO expert</td><td colspan="2">(viii)
A. ITU-T expert</td></tr>
</table>

ITU-T RECOMMENDATIONS SERIES

Series A	Organization of the work of the ITU-T
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Series C	General telecommunication statistics
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Series I	Integrated services digital network
Series J	Transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
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