ITU-T

X.681

Corrigendum 2
(05/2007)

SERIES X: DATA NETWORKS, OPEN SYSTEM COMMUNICATIONS AND SECURITY

OSI networking and system aspects – Abstract Syntax Notation One (ASN.1)

Information technology – Abstract Syntax Notation One (ASN.1): Information object specification

Technical Corrigendum 2

ITU-T Recommendation X.681 (2002) – Technical Corrigendum 2

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INTERNATIONAL STANDARD ISO/IEC 8824-2
ITU-T RECOMMENDATION X.681

Information technology – Abstract Syntax Notation One (ASN.1):
Information object specification

Technical Corrigendum 2

Summary

Technical Corrigendum 2 to ITU-T Rec. X.681 (2002) | ISO/IEC 8824-2:2002 clarifies some uses of the information object set notation, correcting identified defects.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. 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 Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 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.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

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Conventions used in this corrigendum: Original, unchanged text is in normal font. *Deleted text is struck-through, thus:* ~~deleted text~~. *Inserted text is underlined, thus:* inserted text.

1) Subclause 8.2

Replace subclause 8.2 with the following:

8.2 References to information objects and information object sets have a governing class. It is a requirement that the referenced information object and the information objects in the referenced information object set shall be of the governing class or one obtained from it by simple reference assignment. There is no equivalent of "value mappings" (see ITU-T Rec. X.680 | ISO/IEC 8824-1, Annex B) specified for information objects, so the above statement means that the information object or information object set ~~must~~ shall be defined using the same information object class reference as is used as the governor (or one obtained from it by simple reference assignment). Two identical (but textually distinct) instances of the information object class notation do not identify the same information object class for the purposes of this requirement.

2) Subclause 12.9

Add the following NOTE to subclause 12.9:

NOTE – In order to avoid clashes with possible future extensions or with extensions added by other implementations, the freedom to add arbitrary encodings should only be exercised if there is a UNIQUE field of type OBJECT IDENTIFIER and the encoding contains a value of that object identifier that has been allocated for such use.

3) Subclause 15.9

Replace subclause 15.9 with the following:

15.9 A "ValueSetFromObjects" can be defined using an information object set that is initially empty but extensible. Such an information object set shall have at least one object in it whenever a value set defined in terms of it is used by an application. The one or more objects present in the information object set shall be sufficient to satisfy the requirements of ITU-T Rec. X.682 | ISO/IEC 8824-3, 10.6.

4) Subclause 15.12

Replace subclause 15.12 with the following:

15.12 Use of ~~this~~the "ObjectSetFromObjects" notation when all cells in the column being referenced are empty denotes an empty inextensible object set. Empty inextensible object sets are allowed in general (such as in set arithmetic) but shall not be used directly in a table constraint.~~is not permitted if all cells in the column being referenced are empty, except where it is used to directly define a field of an information object which is OPTIONAL (or DEFAULT), which results in the field becoming empty (or defaults).~~

NOTE – Subclause 15.12 *bis* implies that a "ValueSetFromObjects" may not be extracted from an empty inextensible object set.

5)   **Subclause 15.12** *bis*

Add a new subclause 15.12 bis as follows:

15.12 *bis*   Use of the "InformationFromObjects" notation (except when it is an "ObjectSetFromObjects") is not permitted if all cells in the column being referenced are empty, except when it is used to directly define a field of an information object which is `OPTIONAL` (or `DEFAULT`), which results in the field becoming empty (or default).

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