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ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

X.681

Corrigendum 1
(06/99)

SERIES X: DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS

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

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

Technical Corrigendum 1

ITU-T Recommendation X.681 – Corrigendum 1

(Previously CCITT Recommendation)

ITU-T X-SERIES RECOMMENDATIONS
DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

PUBLIC DATA NETWORKS	
Services and facilities	X.1–X.19
Interfaces	X.20–X.49
Transmission, signalling and switching	X.50–X.89
Network aspects	X.90–X.149
Maintenance	X.150–X.179
Administrative arrangements	X.180–X.199
OPEN SYSTEMS INTERCONNECTION	
Model and notation	X.200–X.209
Service definitions	X.210–X.219
Connection-mode protocol specifications	X.220–X.229
Connectionless-mode protocol specifications	X.230–X.239
PICS proformas	X.240–X.259
Protocol Identification	X.260–X.269
Security Protocols	X.270–X.279
Layer Managed Objects	X.280–X.289
Conformance testing	X.290–X.299
INTERWORKING BETWEEN NETWORKS	
General	X.300–X.349
Satellite data transmission systems	X.350–X.399
MESSAGE HANDLING SYSTEMS	X.400–X.499
DIRECTORY	X.500–X.599
OSI NETWORKING AND SYSTEM ASPECTS	
Networking	X.600–X.629
Efficiency	X.630–X.639
Quality of service	X.640–X.649
Naming, Addressing and Registration	X.650–X.679
Abstract Syntax Notation One (ASN.1)	X.680–X.699
OSI MANAGEMENT	
Systems Management framework and architecture	X.700–X.709
Management Communication Service and Protocol	X.710–X.719
Structure of Management Information	X.720–X.729
Management functions and ODMA functions	X.730–X.799
SECURITY	X.800–X.849
OSI APPLICATIONS	
Commitment, Concurrency and Recovery	X.850–X.859
Transaction processing	X.860–X.879
Remote operations	X.880–X.899
OPEN DISTRIBUTED PROCESSING	X.900–X.999

For further details, please refer to ITU-T List of Recommendations.

INTERNATIONAL STANDARD 8824-2

ITU-T RECOMMENDATION X.681

INFORMATION TECHNOLOGY – ABSTRACT SYNTAX NOTATION ONE (ASN.1): INFORMATION OBJECT SPECIFICATION

TECHNICAL CORRIGENDUM 1

Summary

This technical corrigendum to ITU-T Rec. X.681 | ISO/IEC 8824-2:

- a) clarifies what is meant by a "recursive definition" when information objects are being discussed;
- b) changes the production for "ObjectSetSpec" so that it corresponds to the corrected definition of "ElementSetSpecs" in ITU-T Rec. X.680 | ISO/IEC 8824-1 Corrigendum 1;
- c) clarifies the effect of the extension marker when used in defining information object sets;
- d) clarifies that value sets that contain no values are invalid;
- e) makes a few editorial corrections.

Source

Corrigendum 1 to the ITU-T Recommendation X.681 was approved on the 18th of June 1999. The identical text is also published as Technical Corrigendum 1 to ISO/IEC 8824-2.

FOREWORD

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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.

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CONTENTS

	<i>Page</i>
1) New subclause 3.4.16 <i>bis</i>	1
2) Subclause 8.3	1
3) Subclause 9.16	1
4) Subclause 10.6	1
5) Subclause 10.13	1
6) Subclause 11.9	2
7) Subclause 12.2	2
8) New subclause 12.2 <i>bis</i>	2
9) Subclause 13.5	2
10) Subclause 14.9	2
11) Subclause 15.6	3
12) Annex F	3

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – ABSTRACT SYNTAX NOTATION ONE (ASN.1):
INFORMATION OBJECT SPECIFICATION

TECHNICAL CORRIGENDUM 1

1) **New subclause 3.4.16 bis**

Create a new subclause as follows:

3.4.16 bis recursive definition (of an information object class): A set of ASN.1 definitions which cannot be reordered so that all information object classes used in a construction are defined before the definition of the construction.

NOTE – Recursive definitions of information object classes are allowed in ASN.1. Recursive definitions of information objects and information object sets are not allowed.

2) **Subclause 8.3**

Replace the two occurrences of "Usefulobjectclassreference" with "UsefulObjectClassReference".

3) **Subclause 9.16**

In the first sentence, replace:

as an example in 3.49

by:

as an example in 3.4.9

4) **Subclause 10.6**

Add the following below the "REAL" in 10.6:

RELATIVE-OID

5) **Subclause 10.13**

In the definition of the class OPERATION, replace:

&ArgumentTypeOPTIONAL

by:

&ArgumentType OPTIONAL

6) Subclause 11.9

In the definition of the object invertMatrix, replace:

&ArgumentTypeMatrix

by:

&ArgumentType Matrix

7) Subclause 12.2

Change the production for "ObjectSetSpec" to:

ObjectSetSpec ::=
RootElementSetSpec |
RootElementSetSpec " " "..." |
"..." |
"..." "," AdditionalElementSetSpec |
RootElementSetSpec " " "..." "," AdditionalElementSetSpec

Also in 12.2, replace the paragraph that starts with "ElementSetSpecs is specified in ITU-T Rec. X.680 | ..." with the following:

"RootElementSetSpec" and "AdditionalElementSetSpec" are specified in ITU-T Rec. X.680 | ISO/IEC 8824-1 and enable an information object set to be specified in terms of information objects or sets thereof of the governing class. There shall be at least one information object in the set unless the third alternative ("...") of "ObjectSetSpec" is specified. In the latter case, the presence of the ellipsis is an indication that the object set is initially empty but will have objects dynamically added to it by the application program.

NOTE 1 – The elements that are referenced by "ObjectSetSpec" are the union of the elements referenced by the "RootElementSetSpec" and "AdditionalElementSetSpec".

Also in 12.2, change the existing "NOTE" to "NOTE 2".

8) New subclause 12.2 bis

Create a new subclause as follows:

12.2 bis The result of set arithmetic involving object sets that are extensible is specified in clause 46 of ITU-T Rec. X.680 | ISO/IEC 8824-1.

9) Subclause 13.5

Replace:

as defined in 10.3

by:

as defined in 10.13

10) Subclause 14.9

Replace:

Each of the following examples is based on the example in 10.3

by:

Each of the following examples is based on the example in 10.13

11) Subclause 15.6

Add the following Note:

NOTE – ITU-T Rec. X.680 | ISO/IEC 8824-1, 44.6, forbids the definition of a value set containing no values.

12) Annex F

Change the production for "ObjectSetSpec" to:

```

ObjectSetSpec ::=
  RootElementSetSpec |
  RootElementSetSpec "," "..." |
  "..." |
  "..." "," AdditionalElementSetSpec |
  RootElementSetSpec "," "..." "," AdditionalElementSetSpec

```


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Series A	Organization of the work of the ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Transmission of television, sound programme and other multimedia signals
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Series U	Telegraph switching
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