

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

## X.683

**Corrigendum 1**  
(03/2014)

SERIES X: DATA NETWORKS, OPEN SYSTEM  
COMMUNICATIONS AND SECURITY

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

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Information technology – Abstract Syntax Notation  
One (ASN.1): Parameterization of ASN.1  
specifications

**Technical Corrigendum 1**

Recommendation ITU-T X.683 (2008) – Technical  
Corrigendum 1

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**Information technology – Abstract Syntax Notation One (ASN.1):  
Parameterization of ASN.1 specifications**

**Technical Corrigendum 1**

**Summary**

This technical corrigendum, Corrigendum 1 to Rec. ITU-T X.683 (2008) | ISO/IEC 8824-4:2008 provides corrections and clarifications to various minor problems.

**History**

Edition	Recommendation	Approval	Study Group	Unique ID*
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\* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

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INTERNATIONAL STANDARD  
RECOMMENDATION ITU-TInformation technology – Abstract Syntax Notation One (ASN.1):  
Parameterization of ASN.1 specifications

## Technical Corrigendum 1

Conventions used in this corrigendum: Original, unchanged text is in normal font; deleted text is struck through e.g., ~~deleted text~~, and inserted text is underlined e.g., inserted text.

1) **Clause 8.4**

Modify the first paragraph as follows:

The scope of a "DummyReference" appearing in a "ParameterList" is the "ParameterList" itself, together with that part of the "ParameterizedAssignment" which follows the "ParameterList" ~~::=~~. The "DummyReference" hides any other "Reference" with the same name in that scope in any given instantiation.

2) **Clause A.2**

Modify the example as follows:

**Example**

-- An instance of this class contains all the parameters for the abstract  
-- syntax, Message-PDU.

```
MESSAGE-PARAMETERS ::= CLASS {
    &maximum-priority-level          INTEGER,
    &maximum-message-buffer-size    INTEGER,
    &maximum-reference-buffer-size  INTEGER
}
WITH SYNTAX {
    THE MAXIMUM PRIORITY LEVEL IS          &maximum-priority-level
    THE MAXIMUM MESSAGE BUFFER SIZE IS    &maximum-message-buffer-size
    THE MAXIMUM REFERENCE BUFFER SIZE IS  &maximum-reference-buffer-size
}
-- The "ValueFromObject" production is used to extract values
-- from the abstract syntax parameter, "param". The values can be
-- used only in constraints. In addition the parameter is passed
-- through to another parameterized type.
```

```
Message-PDU { MESSAGE-PARAMETERS : param } ::= SEQUENCE {
    priority-level INTEGER (0..param.&maximum-priority-level),
    message      BMPString (SIZE (0..param.&maximum-message-buffer-size)),
    reference     Reference { param }
}
Reference { MESSAGE-PARAMETERS : param } ::=
    SEQUENCE OF IA5String (SIZE (0..param.&maximum-reference-buffer-size))
-- Definition of a parameterized abstract syntax information object.
-- The abstract syntax parameter is used only in constraints.
message-Abstract-Syntax { MESSAGE-PARAMETERS : param }
ABSTRACT-SYNTAX ::=
{
    Message-PDU { param }
    IDENTIFIED BY { joint-iso-itu-teeit-asn1(1) examples(999123) 0 }
}
```

The class MESSAGE-PARAMETERS and the parameterized abstract syntax object, message-Abstract-Syntax, are used as follows:

```
-- This instance of MESSAGE-PARAMETERS defines parameter values
-- for the abstract syntax.
my-message-parameters MESSAGE-PARAMETERS ::= {
    THE MAXIMUM PRIORITY LEVEL IS 10
```

```

    THE MAXIMUM MESSAGE BUFFER SIZE IS 2000
    THE MAXIMUM REFERENCE BUFFER SIZE IS 100
}
-- The abstract syntax can now be defined with all variable constraints specified.

```

```

my-message-Abstract-Syntax ABSTRACT-SYNTAX ::=
    message-Abstract-Syntax { my-message-parameters }

```

### 3) Clause A.8

Modify the clause as follows:

The type defined in Rec. ITU-T X.682 | ISO/IEC 8824-3, clause A4, can be used in a parameterized abstract syntax definition as follows:

```

-- PossibleBodyTypes is a parameter for an abstract syntax.

message-abstract-syntax { MHS-BODY-CLASS : PossibleBodyTypes } ABSTRACT-SYNTAX ::= {
    INSTANCE OF MHS-BODY-CLASS ({PossibleBodyTypes})
    IDENTIFIED BY { joint-iso-itu asn1(4) examples(9991) 123 }
}
-- This object set lists all the possible pairs of values and type-ids
-- for the instance-of type. The object set is used as an actual parameter
-- for the parameterized abstract syntax definition.

My-Body-Types MHS-BODY-CLASS ::= {
    { My-First-Type IDENTIFIED BY my-first-obj-id } |
    { My-Second-Type IDENTIFIED BY my-second-obj-id }
}
my-message-abstract-syntax ABSTRACT-SYNTAX ::=
    message-abstract-syntax { { My-Body-Types } }

```



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