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

TECHNICAL CORRIGENDUM 1

Technologies de l'information — Notation de syntaxe abstraite numéro un (ASN.1): Paramétrage des spécifications de la notation de syntaxe abstraite numéro un

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/IEC 8824-4:2008 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 Rec. ITU-T X.683 (2008)/Cor.1 (03/2014).
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. Additionally 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-tecitt-eesl(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
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:

```plaintext
-- 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 #my{1}examples(999) 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.

```plaintext
My-Body-Types MHS-BODY-CLASS ::= {
  { My-First-Type IDENTIFIED BY my-first-obj-id } |
  { My-Second-Type IDENTIFIED BY my-second-obj-id }
}
```

```plaintext
my-message-abstract-syntax ABSTRACT-SYNTAX ::= 
  message-abstract-syntax { { My-Body-Types } }
```