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AMENDMENT 1
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Information technology — ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)

AMENDMENT 1: Support for EXTENDED-XER

Technologies de l'information — Règles de codage ASN.1: Spécification des règles de codage de base (BER), des règles de codage canoniques (CER) et des règles de codage distinctives (DER)

AMENDEMENT 1: Prise en charge des règles de codage XML étendues

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Foreword

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Amendment 1 to International Standard ISO/IEC 8825-1:2002 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 Amendment 1 to ITU-T Rec. X.690.

INTERNATIONAL STANDARD
ITU-T RECOMMENDATION

Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)

Amendment 1

Support for EXTENDED-XER

NOTE – All new or changed text in this amendment is underlined in the clauses being replaced. When merging all such text into the base Recommendation, the underlining is to be removed.

1) New subclause 8.1.1.5

Insert a new subclause 8.1.1.5 as follows:

8.1.1.5 There are no encoding instructions (see ITU-T Rec. X.680 | ISO/IEC 8824-1, 3.6.22 *ter*) defined for the encoding rules specified in this Recommendation | International Standard.

2) Subclause 8.5.2

Replace subclause 8.5.2 with the following:

8.5.2 If the real value is the value plus zero, there shall be no contents octets in the encoding.

3) New subclause 8.5.2 *bis*

Insert a new subclause 8.5.2 bis as follows:

8.5.2 *bis* If the real value is the value minus zero, then it shall be encoded as specified in 8.5.8.

4) Subclause 8.5.5

Replace subclause 8.5.5 as follows:

8.5.5 Bit 8 of the first contents octet shall be set as follows:

a) if bit 8 = 1, then the binary encoding specified in 8.5.6 applies;

b) if bit 8 = 0 and bit 7 = 0, then the decimal encoding specified in 8.5.7 applies;

c) if bit 8 = 0 and bit 7 = 1, then either a "SpecialRealValue" (see ITU-T Rec. X.680 | ISO/IEC 8824-1) or the value minus zero is encoded, as specified in 8.5.8.

5) Subclause 8.5.8

Replace subclause 8.5.8 with the following:

8.5.8 When "SpecialRealValues" or minus zero are to be encoded (bits 8 to 7 = 01), there shall be only one contents octet, with values as follows:

01000000	Value is **PLUS-INFINITY**
01000001	Value is **MINUS-INFINITY**
01000010	Value is **NOT-A-NUMBER**
01000011	Value is minus zero

All other values having bits 8 and 7 equal to 0 and 1 respectively are reserved for addenda to this Recommendation | International Standard.

6) Subclause 8.14

Replace subclause 8.14 with the following:

8.14 Encoding of a value of a prefixed type

7) New subclause 8.14.1 *pre*

Insert a new subclause 8.14.1 pre before subclause 18.14.1 as follows:

8.14.1 *pre* If the prefixed type is an "EncodingPrefixedType", then the encoding is that of the "Type" in the "EncodingPrefixedType". If the prefixed type is a "TaggedType", then the following subclauses apply.

8) Subclause 8.14.2

*In subclause 8.14.2, replace "*30.6*" with "*30.2.7*".*