INTERNATIONAL STANDARD

ISO/IEC 8825-1

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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: Relative object identifiers

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

AMENDEMENT 1: Identificateurs d'objet relatif

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Foreword

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In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this Amendment may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to International Standard ISO/IEC 8825-1:1998 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 ITU-T Rec. X.690/Amd.1.

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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
Relative object identifiers

1) New subclause 8.19 *bis*

Add a new subclause 8.19 bis after 8.19 as follows:

8.19 *bis* Encoding of a relative object identifier value

NOTE – The encoding of the object identifier components in a relative object identifier is the same as the encoding of components (after the second) in an object identifier.

8.19 *bis* 1 The encoding of a relative object identifier value shall be primitive.

8.19 *bis* 2 The contents octets shall be an (ordered) list of encodings of sub-identifiers (see 8.19 *bis* 3 and 8.19 *bis* 4) concatenated together. Each sub-identifier is represented as a series of (one or more) octets. Bit 8 of each octet indicates whether it is the last in the series: bit 8 of the last octet is zero; bit 8 of each preceding octet is one. Bits 7-1 of the octets in the series collectively encode the sub-identifier. Conceptually, these groups of bits are concatenated to form an unsigned binary number whose most significant bit is bit 7 of the first octet and whose least significant bit is bit 1 of the last octet. The sub-identifier shall be encoded in the fewest possible octets, that is, the leading octet of the sub-identifier shall not have the value 80_{16}.

8.19 *bis* 3 The number of sub-identifiers (N) shall be equal to the number of object identifier arcs in the relative object identifier value being encoded.

8.19 *bis* 4 The numerical value of the ith sub-identifier ($1 \le i \le N$) is that of the ith object identifier arc in the relative object identifier value being encoded.

8.19 *bis* 5 **Example** – A relative object identifier value of:

{8571 3 2}

has sub-identifiers of 8571, 3, and 2. The resulting encoding is:

RELATIVE OBJECT IDENTIFIER	Length	Contents
$0D_{16}$	04_{16}	$C27B0302_{16}$

ICS 35.100.60

Price based on 1 page