

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

## X.691

**Corrigendum 2**  
(11/2005)

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 – ASN.1 encoding rules:  
Specification of Packed Encoding Rules (PER)

**Technical Corrigendum 2**

ITU-T Recommendation X.691 (2002) – Technical  
Corrigendum 2

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**Summary**

This Corrigendum addresses a defect in ITU-T Rec. X.691 | ISO/IEC 8825-2 arising from a change in wording between the 1997 version and the 2002 version which is considered ambiguous.

The ambiguity relates to the encoding of a type that is not in the extension root of a character string type. The clarification is to ensure that it is still encoded (after the setting of the extension bit) using the effective permitted alphabet (which itself can never be extensible), but without an effective size constraint (which can be extensible).

This is arguably implied by the current text, but some interpretations assumed that the (non-extensible) effective permitted alphabet constraint was (unnecessarily) discarded when encoding values outside the root of the extensible effective size constraint. The clarification is to state that this is not the case.

**Source**

Corrigendum 2 to ITU-T Recommendation X.691 (2002) was approved on 29 November 2005 by ITU-T Study Group 17 (2005-2008) under the ITU-T Recommendation A.8 procedure. An identical text is also published as Technical Corrigendum 2 to ISO/IEC 8825-2.

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INTERNATIONAL STANDARD  
ITU-T RECOMMENDATION

**Information technology – ASN.1 encoding rules: Specification of  
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*Replace 27.4 and its Note with the following (deleted text is struck through below, and new text is underlined):*

**27.4** If the type is extensible for PER encodings (see 9.3.16), then a bit-field consisting of a single bit shall be added to the field-list. The single bit shall be set to zero if the value is within the range of the extension root, and to one otherwise. If the value is outside the range of the extension root, then the following encoding shall be as if there was no effective size constraint, and shall have an effective permitted-alphabet constraint ~~that consists of the set of characters of the unconstrained type specified in 9.3.11.~~

NOTE 1 – Only the known-multiplier character string types can be extensible for PER encodings. Extensibility markers on other character string types do not affect the PER encoding.

NOTE 2 – Effective permitted-alphabet constraints can never be extensible, as extensible permitted-alphabet constraints are not PER-visible (see 9.3.10).





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