

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# X.691

**Corrigendum 4**  
(11/2014)

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 – Specification of Packed  
Encoding Rules (PER)

**Technical Corrigendum 4**

Recommendation ITU-T X.691 (2008) – Technical  
Corrigendum 4

## ITU-T X-SERIES RECOMMENDATIONS

### DATA NETWORKS, OPEN SYSTEM COMMUNICATIONS AND SECURITY

For further details, please refer to the list of ITU-T Recommendations.

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## Information technology – Specification of Packed Encoding Rules (PER)

### Technical Corrigendum 4

#### Summary

This Technical Corrigendum 4 to Rec. ITU-T X.691 (2008) | ISO/IEC 8825-2:2008 provides corrections and clarifications to various minor problems.

#### History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T X.691	1995-04-10	7	<a href="http://handle.itu.int/11.1002/1000/3047">11.1002/1000/3047</a>
1.1	ITU-T X.691 (1995) Technical Cor. 1	1997-12-12	7	<a href="http://handle.itu.int/11.1002/1000/4184">11.1002/1000/4184</a>
1.2	ITU-T X.691 (1995) Technical Cor. 2	1997-12-12	7	<a href="http://handle.itu.int/11.1002/1000/4185">11.1002/1000/4185</a>
2.0	ITU-T X.691	1997-12-12	7	<a href="http://handle.itu.int/11.1002/1000/4448">11.1002/1000/4448</a>
2.1	ITU-T X.691 (1997) Technical Cor. 1	1999-06-18	7	<a href="http://handle.itu.int/11.1002/1000/4707">11.1002/1000/4707</a>
2.2	ITU-T X.691 (1997) Amd. 1	1999-06-18	7	<a href="http://handle.itu.int/11.1002/1000/4706">11.1002/1000/4706</a>
2.3	ITU-T X.691 (1997) Technical Cor. 2	2001-02-02	7	<a href="http://handle.itu.int/11.1002/1000/5337">11.1002/1000/5337</a>
2.4	ITU-T X.691 (1997) Technical Cor. 3	2001-03-15	7	<a href="http://handle.itu.int/11.1002/1000/5338">11.1002/1000/5338</a>
3.0	ITU-T X.691	2002-07-14	17	<a href="http://handle.itu.int/11.1002/1000/6090">11.1002/1000/6090</a>
3.1	ITU-T X.691 (2002) Amd. 1	2003-10-29	17	<a href="http://handle.itu.int/11.1002/1000/7022">11.1002/1000/7022</a>
3.2	ITU-T X.691 (2002) Technical Cor. 1	2005-05-14	17	<a href="http://handle.itu.int/11.1002/1000/8513">11.1002/1000/8513</a>
3.3	ITU-T X.691 (2002) Technical Cor. 2	2005-11-29	17	<a href="http://handle.itu.int/11.1002/1000/8638">11.1002/1000/8638</a>
3.4	ITU-T X.691 (2002) Amd. 2	2006-06-13	17	<a href="http://handle.itu.int/11.1002/1000/8839">11.1002/1000/8839</a>
3.5	ITU-T X.691 (2002) Amd. 3	2007-05-29	17	<a href="http://handle.itu.int/11.1002/1000/9109">11.1002/1000/9109</a>
4.0	ITU-T X.691	2008-11-13	17	<a href="http://handle.itu.int/11.1002/1000/9609">11.1002/1000/9609</a>
4.1	ITU-T X.691 (2008) Cor. 1	2011-10-14	17	<a href="http://handle.itu.int/11.1002/1000/11379">11.1002/1000/11379</a>
4.2	ITU-T X.691 (2008) Cor. 2	2012-04-13	17	<a href="http://handle.itu.int/11.1002/1000/11585">11.1002/1000/11585</a>
4.3	ITU-T X.691 (2008) Cor. 3	2014-11-13	17	<a href="http://handle.itu.int/11.1002/1000/12337">11.1002/1000/12337</a>
4.4	ITU-T X.691 (2008) Cor. 4	2014-11-13	17	<a href="http://handle.itu.int/11.1002/1000/12339">11.1002/1000/12339</a>

\* 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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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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INTERNATIONAL STANDARD  
RECOMMENDATION ITU-T

## Information technology – Specification of Packed Encoding Rules (PER)

## Technical Corrigendum 4

Conventions used in this corrigendum: Original, unchanged, text is in normal font. Deleted text is struck-through, thus: ~~deleted text~~. Inserted text is underlined, thus: inserted text.

## 1 Clause 32.6.1

Update clause 32.6.1 as shown:

32.6.1 The DURATION-INTERVAL-ENCODING type is:

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DURATION-INTERVAL-ENCODING ::= SEQUENCE { -- 8 bits for optionality
    years          INTEGER (0..31, ..., 32..MAX) OPTIONAL,
                    -- 5 bits for up to 31 years
    months         INTEGER (0..15, ..., 16..MAX) OPTIONAL,
                    -- 4 bits for up to 15 months
    weeks          INTEGER (0..63, ..., 64..MAX) OPTIONAL,
                    -- 6 bits for up to 63 weeks
    days           INTEGER (0..31, ..., 32..MAX) OPTIONAL,
                    -- 5 bits for up to 31 days
    hours          INTEGER (0..31, ..., 32..MAX) OPTIONAL,
                    -- 5 bits for up to 31 hours
    minutes        INTEGER (0..63, ..., 64..MAX) OPTIONAL,
                    -- 6 bits for up to 63 minutes
    seconds        INTEGER (0..63, ..., 64..MAX) OPTIONAL,
                    -- 6 bits for up to 63 seconds
    fractional-part SEQUENCE {
        number-of-digits INTEGER(1..3, ..., 4..MAX),
                    -- 3 bits for up to three digits accuracy
        fractional-value  INTEGER(01..999, ..., 1000..MAX)
                    -- 11 bits for up to three digits accuracy
    } OPTIONAL }

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