

## **Television METADATA -- Part 2: Data encoding protocol using key-length-value**

Television METADATA -- Part 2: Data encoding protocol using key-length-value

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 62261-2:2007 sisaldab Euroopa standardi EN 62261-2:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.01.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 62261-2:2007 consists of the English text of the European standard EN 62261-2:2006.</p> <p>This document is endorsed on 17.01.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This part of IEC 62261 defines an octet-level data encoding protocol for representing data items and data groups. This protocol defines a data structure which is independent of the application or transportation method used. The standard defines a key-length-value (KLV) triplet as a data interchange protocol for data items where the key identifies the data, the length specifies the length of the data, and the value is the data itself. The KLV protocol provides a common interchange for all compliant applications irrespective of the method of implementation or transport.</p>	<p><b>Scope:</b></p> <p>This part of IEC 62261 defines an octet-level data encoding protocol for representing data items and data groups. This protocol defines a data structure which is independent of the application or transportation method used. The standard defines a key-length-value (KLV) triplet as a data interchange protocol for data items where the key identifies the data, the length specifies the length of the data, and the value is the data itself. The KLV protocol provides a common interchange for all compliant applications irrespective of the method of implementation or transport.</p>
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ICS 33.160, 35.040

**Võtmesõnad:**

**Television METADATA**  
**Part 2: Data encoding protocol using key-length-value**  
(IEC 62261-2:2005)

Métadonnées des applications télévision  
Partie 2: Protocole de codage des  
données par méthode de longueur de clés  
(CEI 62261-2:2005)

Fernseh-Metadaten  
Teil 2: Protokoll zur Datencodierung mit  
Schlüssellängenwert  
(IEC 62261-2:2005)

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Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of the International Standard IEC 62261-2:2005, prepared by Technical Area 6: Higher data rate storage media, data structure and equipment, of IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the formal vote and was approved by CENELEC as EN 62261-2 on 2006-12-01 without any modification.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2007-12-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2009-12-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62261-2:2005 was approved by CENELEC as a European Standard without any modification.

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## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO/IEC 8825-1	2002	Information technology ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)	-	-
ANSI/SMPTE 298M	1997	Television - Universal Labels for Unique Identification of Digital Data	-	-

# INTERNATIONAL STANDARD

**IEC**  
**62261-2**

First edition  
2005-08

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## Television METADATA –

### Part 2: Data encoding protocol using key-length-value



Reference number  
IEC 62261-2:2005(E)

## Publication numbering

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**IEC**  
**62261-2**

First edition  
2005-08

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## Television METADATA –

### Part 2: Data encoding protocol using key-length-value

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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references .....	6
3 KLV protocol.....	6
3.1 General.....	6
3.2 ANSI/SMPTE 298M universal label key .....	7
3.3 Encoding of the KLV length field.....	10
3.4 Encoding of data values .....	11
3.5 Empty metadata items .....	12
4 KLV coding of individual data items .....	12
4.1 General.....	12
4.2 Identification of value data representations .....	12
5 KLV group coding .....	13
5.1 General.....	13
5.2 Universal sets .....	14
5.3 Global sets .....	14
5.4 Local sets.....	16
5.5 Variable-length packs.....	19
5.6 Fixed-length packs .....	22
6 Labels .....	24
Annex A (normative) Glossary of terms.....	25
Annex B (informative) Example usage of Universal Label Key.....	27
Annex C (informative) Example of the KLV encoding of a single metadata item .....	28
Annex D (informative) Example of a universal set .....	29
Annex E (informative) Example of a global set .....	30
Annex F (informative) Example of a local set .....	31
Annex G (informative) Example of a variable-length pack .....	32
Annex H (informative) Example of a fixed-length pack .....	33
Annex I (informative) Example of a label.....	34
Bibliography.....	35
Figure 1 – KLV encoding.....	7
Figure 2 – KLV coded universal set data structure .....	15
Figure 3 – KLV coded global set data structure.....	17
Figure 4 – KLV coded local set structure.....	18
Figure 5 – Informative illustration of local set label to global key linking.....	20
Figure 6 – KLV coded variable-length pack structure .....	21
Figure 7 – KLV coded fixed-length pack structure .....	23
Figure 8 – UL key for labels .....	24
Figure B.1 – Example of universal label fields for metadata encoding in the SMPTE namespace .....	27

Table 1 – KLV fields for encoding of data.....	7
Table 2 – Field descriptions for the universal label key for the KLV encoding of data .....	8
Table 3 – UL designators for octets 5 through 7 .....	9
Table 4 – Field descriptions for the UL key for the KLV encoding of universal sets .....	15
Table 5 – Field descriptions for the UL key for global set encoding .....	17
Table 6 – Coding of registry designator (octet 6) for global set syntax .....	18
Table 7 – Field descriptions for the UL key for local set encoding .....	18
Table 8 – Coding of registry designator (octet 6) for local set syntax .....	19
Table 9 – Field descriptions for the UL key for variable-length pack encoding.....	21
Table 10 – Coding of registry designator (octet 6) for variable-length pack syntax .....	21
Table 11 – Field descriptions for the UL key for fixed-length pack encoding.....	23
Table 12 – Field descriptors for the UL key for labels.....	24
Table B.1 – Expanded example of SMPTE universal label fields for metadata encoding.....	27
Table C.1 – Informative example of KLV individual value encoding of metadata.....	28
Table D.1 – Informative example of KLV universal set encoding of metadata (octets separated by spaces for readability) .....	29
Table E.1 – Informative example of KLV global set encoding of metadata (octets separated by spaces for readability) .....	30
Table F.1 – Informative example of KLV local set encoding of metadata (octets separated by spaces for readability) .....	31
Table G.1 – Informative example of KLV variable-length pack encoding of metadata (octets separated by spaces for readability).....	32
Table H.1 – Informative example of KLV fixed-length pack encoding of metadata (octets separated for readability) .....	33
Table I.1 – Example of a label.....	34

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## TELEVISION METADATA –

## Part 2: Data encoding protocol using key-length-value

## FOREWORD

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International Standard IEC 62261-2 has been prepared by Technical Area 6: Higher data rate storage media, data structures and equipment, of IEC technical committee 100: Audio, video and multimedia systems and equipment

This standard cancels and replaces IEC/PAS 62261 published in 2001.

This first edition constitutes a technical revision.

The text of this standard is based on the following documents:

CDV	Report on voting
100/854/CDV	100/955/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 62261 consists of the following parts, under the general title *Television metadata*:

Part 1: Metadata dictionary structure

Part 2: Data encoding protocol using key-length-value

Part 3: Universal labels for unique identification of digital data

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

## TELEVISION METADATA –

### Part 2: Data encoding protocol using key-length-value

#### 1 Scope

This part of IEC 62261 defines an octet-level data encoding protocol for representing data items and data groups. This protocol defines a data structure which is independent of the application or transportation method used.

The standard defines a key-length-value (KLV) triplet as a data interchange protocol for data items where the key identifies the data, the length specifies the length of the data, and the value is the data itself. The KLV protocol provides a common interchange for all compliant applications irrespective of the method of implementation or transport.

The standard also provides methods for combining associated KLV triplets in data sets where the set of KLV triplets is itself coded with KLV data coding protocol. Such sets can be coded in either full form (universal sets) or in one of four increasingly bit-efficient forms (global sets, local sets, variable-length packs, and fixed-length packs). The standard provides a definition of each of these data constructs. The encoding octet range (length of the payload) specified in this standard may generate unusually large volumes of data. Consequently, a specific application of KLV encoding is capable of only a limited operating data range and those details shall be defined in a relevant application document.

Of necessity, keys and other reference data have to be globally unique if clashes are to be avoided. The IEC will therefore, from time to time, designate other bodies to act as its registration authority and agent in this respect; it is important to note that, as a result of this, registrations will always contain the designator of the registration authority acting at the time of registration and not that of the IEC (unless the IEC was acting directly as its own registration authority). A mixture of registration authority designators is therefore to be expected.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 8825-1:2002, (ITU-T X.690), *Information Technology – ASN.1 Encoding Rules – Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER), and Distinguished Encoding Rules (DER)*

ANSI/SMPTE 298M:1997, *Television – Universal Labels for Unique Identification of Digital Data*

#### 3 KLV protocol

##### 3.1 General

Table 1 and Figure 1 present an introductory view of the KLV protocol for encoding data. The data encoded may be a single data item or a data group. The coding of data items is described in Clause 4 while the coding of data groups is described in Clause 5 of this standard.