



INTERNATIONAL TELECOMMUNICATION UNION

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# H.222.0

**Corrigendum 1**  
(03/2001)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Transmission  
multiplexing and synchronization

---

Information technology – Generic coding of moving  
pictures and associated audio information: Systems

**Technical Corrigendum 1**

ITU-T Recommendation H.222.0 – Corrigendum 1

(Formerly CCITT Recommendation)

---

ITU-T H-SERIES RECOMMENDATIONS  
AUDIOVISUAL AND MULTIMEDIA SYSTEMS

CHARACTERISTICS OF VISUAL TELEPHONE SYSTEMS	H.100–H.199
INFRASTRUCTURE OF AUDIOVISUAL SERVICES	
General	H.200–H.219
<b>Transmission multiplexing and synchronization</b>	<b>H.220–H.229</b>
Systems aspects	H.230–H.239
Communication procedures	H.240–H.259
Coding of moving video	H.260–H.279
Related systems aspects	H.280–H.299
SYSTEMS AND TERMINAL EQUIPMENT FOR AUDIOVISUAL SERVICES	H.300–H.399
SUPPLEMENTARY SERVICES FOR MULTIMEDIA	H.450–H.499

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

# **INTERNATIONAL STANDARD ISO/IEC 13818-1**

## **ITU-T RECOMMENDATION H.222.0**

### **INFORMATION TECHNOLOGY – GENERIC CODING OF MOVING PICTURES AND ASSOCIATED AUDIO INFORMATION: SYSTEMS**

#### **TECHNICAL CORRIGENDUM 1**

#### **Summary**

This document proposes a corrigendum to the common text ITU-T Rec. H.222.0 | ISO/IEC 13818-1 regarding carriage of ISO/IEC 14496 (MPEG-4) contents over H.222.0 | ISO/IEC 13818-1 (MPEG-2 Systems) multiplex.

The Study Group (SG) 16 meeting in February 2000 approved Amendment 7 for this purpose, but it has been found that a descriptor (FlexMuxTiming\_descriptor) was omitted by oversight.

This corrigendum proposes to recover this situation by adding its syntax and semantics.

#### **Source**

Corrigendum 1 to ITU-T Recommendation H.222.0 was prepared by ITU-T Study Group 16 (2001-2004) and approved on 1 March 2001. An identical text is also published as Technical Corrigendum 1 to ISO/IEC 13818-1.

## FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

## NOTE

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

## INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

© ITU 2001

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from ITU.

## CONTENTS

	<i>Page</i>
1) Table 2-39.....	1
2) Two new subclauses: 2.6.54 and 2.6.55.....	2



## INTERNATIONAL STANDARD

## ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – GENERIC CODING OF MOVING PICTURES  
AND ASSOCIATED AUDIO INFORMATION: SYSTEMS

## TECHNICAL CORRIGENDUM 1

## 1) Table 2-39

Replace Table 2-39 by the following:

Table 2-39 – Program and program element descriptors

descriptor_tag	TS	PS	Identification
0	n/a	n/a	Reserved
1	n/a	n/a	Reserved
2	X	X	video_stream_descriptor
3	X	X	audio_stream_descriptor
4	X	X	hierarchy_descriptor
5	X	X	registration_descriptor
6	X	X	data_stream_alignment_descriptor
7	X	X	target_background_grid_descriptor
8	X	X	Video_window_descriptor
9	X	X	CA_descriptor
10	X	X	ISO_639_language_descriptor
11	X	X	System_clock_descriptor
12	X	X	Multiplex_buffer_utilization_descriptor
13	X	X	Copyright_descriptor
14	X		Maximum_bitrate_descriptor
15	X	X	Private_data_indicator_descriptor
16	X	X	Smoothing_buffer_descriptor
17	X		STD_descriptor
18	X	X	IBP_descriptor
19-26	X		Defined in ISO/IEC 13818-6
27	X	X	MPEG-4_video_descriptor
28	X	X	MPEG-4_audio_descriptor
29	X	X	IOD_descriptor
30	X		SL_descriptor
31	X	X	FMC_descriptor
32	X	X	External_ES_ID_descriptor
33	X	X	MuxCode_descriptor
34	X	X	FmxBufferSize_descriptor
35	X		MultiplexBuffer_descriptor
36	X	X	FlexMuxTiming_descriptor
37-63	n/a	n/a	ITU-T H.222.0   ISO/IEC 13818-1 Reserved
64-255	n/a	n/a	User Private

**2) Two new subclauses: 2.6.54 and 2.6.55**

Between 2.6.53 (Semantics of fields in MultiplexBuffer descriptor) and 2.7, insert the two following subclauses 2.6.54 and 2.6.55:

**2.6.54 FlexMuxTiming\_descriptor**

Syntax	No. of bits	Mnemonic
FlexMuxTiming_descriptor () { <b>descriptor_tag</b> <b>descriptor_length</b> <b>FCR_ES_ID</b> <b>FCRRResolution</b> <b>FCRLength</b> <b>FmxRateLength</b> }	 <b>8</b> <b>8</b> <b>16</b> <b>32</b> <b>8</b> <b>8</b>	 <b>uimsbf</b> <b>uimsbf</b> <b>uimsbf</b> <b>uimsbf</b> <b>uimsbf</b> <b>uimsbf</b>

**2.6.55 Semantics of fields in FlexMuxTiming descriptor**

**FCR\_ES\_ID** – Is the ES\_ID associated to this clock reference stream.

**FCRRResolution** – Is the resolution of the object time base in cycles per second.

**FCRLength** – Is the length of the fmxClockReference field in FlexMux packets with index = 238. A length of zero shall indicate that no FlexMux packets with index = 238 are present in this FlexMux stream. FCRLength shall take values between zero and 64.

**FmxRateLength** – Is the length of the fmxRate field in FlexMux packets with index = 238. FmxRateLength shall take values between 1 and 32.





## SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
<b>Series H</b>	<b>Audiovisual and multimedia systems</b>
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communications
Series Y	Global information infrastructure and Internet protocol aspects
Series Z	Languages and general software aspects for telecommunication systems