

INTERNATIONAL STANDARD

**ISO/IEC
13818-1**

First edition
2013-06-15

AMENDMENT 2
2015-07-15

Information technology — Generic coding of moving pictures and associated audio information —

Part 1: Systems

AMENDMENT 2: Delivery of timeline for external data

*Technologies de l'information — Codage générique des images
animées et du son associé —*

Partie 1: Systèmes

AMENDEMENT 2



Reference number
ISO/IEC 13818-1:2013/Amd.2:2015(E)

AVA Documents
Document Sharing Hub
© ISO/IEC 2015



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

INTERNATIONAL STANDARD

ISO/IEC 13818-1:201x/Amd.2 (E)

Rec. ITU-T H. 222.0 (xx/2013) /Amd.2

ITU-T RECOMMENDATION**INFORMATION TECHNOLOGY -- GENERIC CODING OF MOVING PICTURES
AND ASSOCIATED AUDIO INFORMATION: SYSTEMS****AMENDMENT 2****Delivery of timeline for external data***Replace the Table 2-6 with following table:***Table 2-6 – Transport Stream adaptation field**

Syntax	No. of bits	Mnemonic
adaptation_field() {		
adaptation_field_length	8	uimsbf
if (adaptation_field_length > 0) {		
discontinuity_indicator	1	bslbf
random_access_indicator	1	bslbf
elementary_stream_priority_indicator	1	bslbf
PCR_flag	1	bslbf
OPCR_flag	1	bslbf
splicing_point_flag	1	bslbf
transport_private_data_flag	1	bslbf
adaptation_field_extension_flag	1	bslbf
if (PCR_flag == '1') {		
program_clock_reference_base	33	uimsbf
reserved	6	bslbf
program_clock_reference_extension	9	uimsbf
}		
if (OPCR_flag == '1') {		
original_program_clock_reference_base	33	uimsbf
reserved	6	bslbf
original_program_clock_reference_extension	9	uimsbf
}		
if (splicing_point_flag == '1') {		
splice_countdown	8	tcimsbf
}		
if (transport_private_data_flag == '1') {		
transport_private_data_length	8	uimsbf
for (i = 0; i < transport_private_data_length; i++) {		
private_data_byte	8	bslbf
}		
}		
if (adaptation_field_extension_flag == '1') {		
adaptation_field_extension_length	8	uimsbf
ltw_flag	1	bslbf
piecewise_rate_flag	1	bslbf
seamless_splice_flag	1	bslbf
af_descriptor_not_present_flag	1	bslbf
reserved	4	bslbf
if (ltw_flag == '1') {		
ltw_valid_flag	1	bslbf
ltw_offset	15	uimsbf

<pre> } if (piecewise_rate_flag == '1') { reserved piecewise_rate } if (seamless_splice_flag == '1') { splice_type DTS_next_AU[32..30] marker_bit DTS_next_AU[29..15] marker_bit DTS_next_AU[14..0] marker_bit } if (af_descriptor_not_present_flag == '0') { for (i = 0; i < N; i++) { af_descriptor() } } for (i = 0; i < N; i++) { reserved } } for (i = 0; i < N; i++) { stuffing_byte } } </pre>	<pre> 2 22 4 3 1 15 1 15 1 8 8 </pre>	<pre> bslbf uimsbf bslbf bslbf bslbf bslbf bslbf bslbf bslbf bslbf </pre>
--	---	---

In 2.4.3.5, add to semantics:

af_descriptor_not_present_flag – This 1-bit field when set to ‘0’ signals the presence of one or several **af_descriptor()** construct in the adaptation header. When this flag is set to ‘1’ it indicates that the **af_descriptor()** is not present in the adaptation header.

af_descriptor may carry one or more descriptors as defined in Annex T. For descriptors carrying information associated with specific access units of an elementary stream, the descriptor applies to the first access unit that starts in the PES packet immediately following this adaptation field. There may be several TS packets carrying no payload before the start of the PES, in which case these descriptors apply to the next TS packet with payload on the same PID.

Adaptation field shall contain only complete **af_descriptor()** descriptors, i.e. a single descriptor is always contained in a single transport stream packet.

NOTE: adaptation field should remain relatively small; it is therefore recommended for large descriptors to use PES carriage as defined in Annex T.

Replace the Table 2-22 with following table:

Table 2-22 – Stream_id assignments

stream_id	Note	stream coding
1011 1100	1	program_stream_map
1011 1101	2, 9,10	private_stream_1
1011 1110		padding_stream
1011 1111	3	private_stream_2
110x xxxx		ISO/IEC 13818-3 or ISO/IEC 11172-3 or ISO/IEC 13818-7 or ISO/IEC 14496-3 audio stream number x xxxx

1110 xxxx		ITU-T Rec. H.262 ISO/IEC 13818-2 or ISO/IEC 11172-2 or ISO/IEC 14496-2 or ITU-T Rec.H.264 ISO/IEC 14496-10 video stream number xxxx
1111 0000	3	ECM_stream
1111 0001	3	EMM_stream
1111 0010	5	ITU-T Rec. H.222.0 ISO/IEC 13818-1 Annex A or ISO/IEC 13818-6_DSMCC_stream
1111 0011	2	ISO/IEC_13522_stream
1111 0100	6	ITU-T Rec. H.222.1 type A
1111 0101	6	ITU-T Rec. H.222.1 type B
1111 0110	6	ITU-T Rec. H.222.1 type C
1111 0111	6	ITU-T Rec. H.222.1 type D
1111 1000	6	ITU-T Rec. H.222.1 type E
1111 1001	7	ancillary_stream
1111 1010		ISO/IEC14496-1_SL-packetized_stream
1111 1011		ISO/IEC14496-1_FlexMux_stream
1111.1100		metadata stream
1111.1101	8	extended_stream_id
1111 1110		reserved data stream
1111 1111	4	program_stream_directory

The notation x means that the values '0' or '1' are both permitted and results in the same stream type. The stream number is given by the values taken by the x's.

NOTE 1 – PES packets of type program_stream_map have unique syntax specified in 2.5.4.1.

NOTE 2 – PES packets of type private_stream_1 and ISO/IEC_13522_stream follow the same PES packet syntax as those for ITU-T Rec. H.262 | ISO/IEC 13818-2 video and ISO/IEC 13818-3 audio streams.

NOTE 3 – PES packets of type private_stream_2, ECM_stream and EMM_stream are similar to private_stream_1 except no syntax is specified after PES_packet_length field.

NOTE 4 – PES packets of type program_stream_directory have a unique syntax specified in 2.5.5.

NOTE 5 – PES packets of type DSM-CC_stream have a unique syntax specified in ISO/IEC 13818- 6.

NOTE 6 – This stream_id is associated with stream_type 0x09 in Table 2-29.

NOTE 7 – This stream_id is only used in PES packets, which carry data from a Program Stream or an ISO/IEC 11172-1 System Stream, in a Transport Stream (refer to 2.4.3.8).

NOTE 8 – The use of stream_id 0xFD (extended_stream_id) identifies that this PES packet employs an extended syntax to permit additional stream types to be identified. .

NOTE 9 - JPEG 2000 video streams (stream_type = 0x21) are carried using the same PES packet syntax as private_stream_1.

NOTE 10 – Timeline and External Media Information streams (stream_type = 0x26) are carried using the same PES packet syntax as private_stream_1.

Replace the Table 2-34 with following table:

0x26-0x7E	ITU-T Rec. H.222.0 ISO/IEC 13818-1 Reserved
-----------	---

with:

0x26	Timeline and External Media Information Stream (See Annex T)
0x27-0x7E	ITU-T Rec. H.222.0 ISO/IEC 13818-1 Reserved

Replace Table AMD8-1 by:

Table AMD8-1 – Extension descriptor

Syntax	No. of bits	Mnemonic
Extension_descriptor () { descriptor_tag	8	uimsbf