ITU Telecommunication Standardization Sector   Document AVC-1004
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Q.2&3/15 Rapporteur Meeting
Eibsee, 24-27 September 1996

Source: Rapporteur for Q.2/15 (Sakae Okubo)
Title: Communication with MPEG regarding H.262 VFS C&I signals
Purpose: Report

This document contains the following communications between SG15 and MPEG (ISO/IEC JTC1/SC29/WG11):

Annex 1   Contribution of Rapporteur for Q.2/15 to MPEG (July 1996)
Annex 2   Liaison from MPEG to SG15
Annex 3   Proposed Draft Amendment 4 to ITU-T Rec. H.262|ISO/IEC 13818-2

END

Annex 1

Source: Sakae OKUBO (Liaison Representative from ITU-T SG15 to JTC1/SC29, GCL)

Title: Release of a reserved extension_start_code_identifier code in ITU-T Rec. H.262|ISO/IEC 13818-2 for ITU-T applications

Purpose: Discussion

1.   Introduction

ITU-T SG15 is extending Recommendation H.320 (audiovisual communication systems in N-ISDN environments) to optionally cover recently developed audiovisual coding; G.723.1, G.729, H.262|ISO/IEC 13818-2, H.263. The H.320 system uses H.221 for multimedia multiplexing.

In the course of this work, we identified the need to convey video-frame synchronous control and indication signals in the H.262|ISO/IEC 13818-2 video stream. A typical example of such signal is "freeze picture release". This signal indicates that the video frame containing it is in response to the fast update request from the remote end and is used for multipoint communications where video switching is employed at the MCU (Multipoint Control Unit).

2.   Syntax and semantics

To meet the above and other similar requirements, we need syntax and semantics for the H.262|ISO/IEC 13818-2 stream. The following is provided for consideration of MPEG.

1)   In Table 6-2, change

"1011   reserved"

to

"1011   ITU-T VFS Information Extension ID"

2)   Add

"

6.2.3.8   ITU-T VFS Information Extension

```
ITU-T_VFS_information_extension() {               No. of bits  Mnemonic
    extension_start_code_identifier                      4     uimsbf
    while (nextbits() == '1' ) {
      ITU-T_VFS_information_flag /* with the value '1' */  1   uimsbf
      ITU-T_application_identifier                       8     uimsbf
      ITU-T_VFS_information                              8     uimsbf
    }
    ITU-T_VFS_information_flag /* with the value '0' */    1   uimsbf
    next_start_code()
}
```
"

3)   Add

"

6.3.16   ITU-T VFS Information Extension

ITU-T_VFS_information_extension provides video-frame synchronous (VFS) information for applications defined by ITU-T.

ITU-T_VFS_information -- This flag indicates the presence of the following ITU-T VFS information. If it is set to '1', ITU-T_application_identifier and ITU-T_VFS_information will follow it. If it is set to '0', there is no ITU-T VFS information following it.

ITU-T_application_identifier -- This field identifies the ITU-T application type to which the following ITU-T_VFS_information applies. Specific values for this field is defined in the specifications of the application.

ITU-T_VFS_information -- This field provides VFS information for the ITU-T application indicated by the preceding ITU-T_application_identifier. The detailed semantics of this field is defined in the specifications of the application.
"

3.   Corresponding addition in Recommendation H.320

For the current particular need of the H.320 system, the following will be added to ITU-T Recommendation H.320 if the above H.262 syntax and semantics are agreed.

"

Section A.2

In H.262 video streams, the functionalities of the H.261 PTYPE field is provided in ITU-T_VFS_information_extension() defined in Table X-XX/H.262.

The value of the H.262 ITU-T_application_identifier assigned for H.320 VFS C&I is 0x01.

The structure of the H.262 ITU-T_VFS_information field used for H.320 VFS C&I is shown in Table X-XX/H.320.

ITU-T_VFS_information	No. of bits	Mnemonic
split_screen_indicator	1	uimsbf
document_camera_indicator	1	uimsbf
freeze_picture_release	1	uimsbf
marker_bit	1	bslbf
marker_bit	1	bslbf
marker_bit	1	bslbf
marker_bit	1	bslbf
marker_bit	1	bslbf

NOTE - As in H.262, marker_bit has the value '1'.

The semantics of split_screen_indicator, document_camera_indicator, freeze_picture_release are identical with the corresponding bits in the PTYPE/H.261 field.
"

4.   Conclusion

The H.262IISO/IEC 13818-2 syntax and semantics suggested above is generalized to give a pointer for ITU-T applications and application specific syntax and semantics will be defined in each application Recommendation such as H.320.

MPEG is requested to review the above requirement and solution. ITU-T SG15 endorsed at its meeting last May-June to finalize the draft proposal by the end of November 1996 for its approval early next year.

END

Annex 2

Title :   Liaison to ITU-T SG15 (Sakae Okubo)
Source: Leonardo Chiariglione (Convener)

Thank you for your liason statement relating to the inclusion of the functionalities for Frame Synchronous signalling within MPEG-2 video and also for the active participation of several members of your group in the ongoing activities of MPEG-2.

We are happy to report that MPEG has incorporated this request into a new Proposed Draft Amendment (PDAM-4) to ISO 13818-2 MPEG-2 video. An ad hoc group chaired by B.G. Haskell whose email is bgh°research.att.com has been set up to address this matter.

We look forward to our continuing collaboration in these matters.

Annex 3

INTERNATIONAL ORGANISATION FOR STANDARDISATION
ORGANISATION INTERNATIONALE DE NORMALISATION
ISO/IEC JTC1/SC29/WG11
CODING OF MOVING PICTURES AND ASSOCIATED AUDIO

ISO/IEC JTC1/SC29/WG11 **N1335**

July 1996

Video

INFORMATION TECHNOLOGY -

GENERIC CODING OF MOVING PICTURES AND ASSOCIATED AUDIO: VIDEO

ISO/IEC 13818-2 Proposed Draft Amendment 4

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY -- GENERIC CODING OF MOVING PICTURES AND ASSOCIATED AUDIO INFORMATION: VIDEO

AMENDMENT 4

To facilitate their use of ITU-T H.262 / ISO/IEC 13818-2 and to facilitate interoperability, the International Telecommunications Union-Telecommunications Sector would like to reserve one Video Bitstream Extension Identifier. To meet this need, in table 6-2 of ISO/IEC 13818-2 replace entry - 1011   reserved:

"1011   ITU-T Extension ID"

END