

**Joint Video Experts Team (JVET)
of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC
29/WG 11**

Document: JVET-AG0082

MPEG: m65974

33rd Meeting, by teleconference, 17-26 January 2024

Title: AHG9: On Source Picture Timing SEI message

Status: Input document to JVET

Purpose: Proposal

**Author(s) or
Contact(s):** [J. Samuelsson-Allendes](#) | samuelssonj@sharplabs.com | submitter (Sharp)
[Sachin Deshpande](#) | sdeshpande@sharplabs.com (Sharp)

Source: Sharp

HEADER EXCERPT FROM SOURCE DOCUMENT

Abstract

This input document relates to the Source Picture Timing Information (SPTI) SEI message included in the Technology under Consideration for future extensions of VSEI (draft 2). It is proposed to modify how TemporalId is used to derive SourcePictureInterval. It is asserted that the proposed modification makes the SPTI signalling more robust and able to handle more usage scenarios.

Introduction

The source picture timing information SEI message offers content providers the means for providing receivers with information about the source picture timing, which may be different from the output picture timing. In the current version of the SPTI SEI message draft the source picture interval is defined for “consecutive pictures” and mentions “the previous decoded output picture”. We assert that it might not always be clear to the receiver which picture is meant by “the previous decoded output picture”. In particular in cases that involves temporal scalability, step-wise temporal access and/or drop of individual pictures due to congestion.

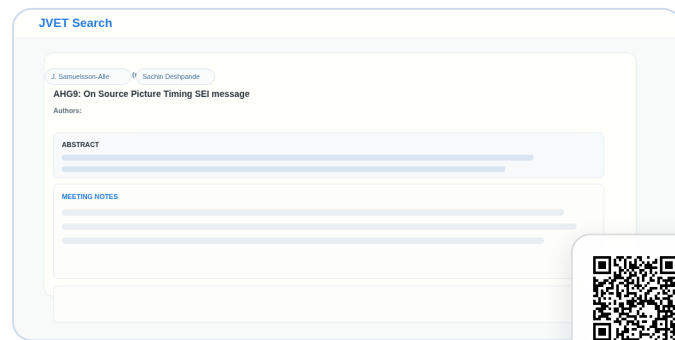
Proposal

We believe the reference the previous picture in temporal layer. It is therefore proposed to make the following modifications (marked in red):

Built from JVET-AG0082-v2.docx

CARD

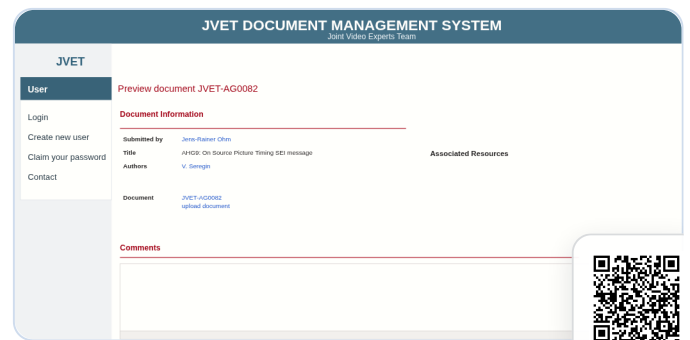
<http://vexpertise.stbit.ru/documents/JVET-AG0082>



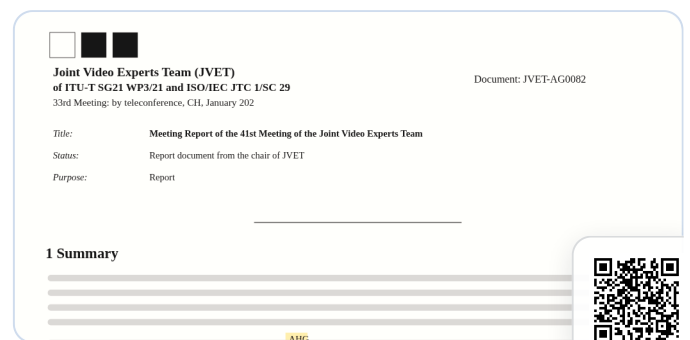
https://jvet-experts.org/doc_end_user/documents/33_Teleconference/wg11/JVET-AG0082-v2.zip



https://jvet-experts.org/doc_end_user/current_document.php?id=13638



http://vexpertise.stbit.ru/meeting-notes/source/meeting_33_ag



MEETING NOTES

[JVET-AG0082](#) AHG9: On Source Picture Timing SEI message [J. Samuelsson-Allendes, S. Deshpande (Sharp)]

This input document relates to the Source Picture Timing Information (SPTI) SEI message included in the Technology under Consideration for future extensions of VSEI (draft 2). It is proposed to modify how TemporalId is used to derive SourcePictureInterval. It is asserted that the proposed modification makes the SPTI signalling more robust and able to handle more usage scenarios.

The source picture timing information SEI message offers content providers the means for providing receivers with information about the source picture timing, which may be different from the output picture timing. In the current version of the SPTI SEI message draft the source picture interval is defined for “consecutive pictures” and mentions “the previous decoded output picture”. It is asserted that it might not always be clear to the receiver which picture is meant by “the previous decoded output picture”, in particular in cases that involve temporal scalability, step-wise temporal access and/or dropping of individual pictures due to congestion.

It is proposed to specify the previous picture as the one in temporal layer zero, as this is always present. It is pointed out in the discussion that the proposed approach would deviate from the original intent. If it was always referring to TId zero, it might be necessary to also introduce a scale factor.

It is agreed that there is an issue in case that temporal layers are removed, but another solution would be necessary. After offline consideration, an update was made available in JVET-AG0082v2 (green highlighted text)

Decision: Agreed to include the modification from JVET-AG0082v2 in the SPTI SEI (which is to be included in prelim. WD of VSEIv4)

CITATION

J. Samuelsson-Allendes, S. Deshpande, "AHG9: On Source Picture Timing SEI message", JVET-AG0082, 33rd Meeting: by teleconference, CH, January 2024.