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| **ITU - Telecommunications Standardization Sector**  STUDY GROUP 16 Question 6  **Video Coding Experts Group (VCEG)**  50th Meeting: March-April 2014, Valencia, Spain | Document VCEG-AX16 |

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| **Status** | **Contribution** |
| **Title** | **Proposal for Texture and depth view packing SEI message for 3D-AVC** |
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**Abstract**

This contribution proposes to revise the AVC specification to add a Texture and depth view packing SEI message.

# Introduction

Texture and depth view packing SEI message had been approved and had been included in 14496-10:2012/DAM3: 3D-AVC specification (M31703, JCT3V-F1002) because of its feature of simplicity and fast-encoding/decoding speed. This SEI message was however excluded when 3D-AVC specification became FDAM for the reason that FDAM cannot include insufficient description, saying that this SEI message can be an AMD in future. Since the SEI message didn’t include camera parameters which are used for the non-normative view synthesis after decoding, a revised SEI message including the camera parameters was reported at the 7th JCT-3V meeting. According to the review comments, the SEI message was further improved in JCT3V-H0059 (M32957). Additionally, a contribution JCT3V-H0061 (M32961) reports the completion of integrating revised SEI message process in 3D-AVC Test Model 10.0r1. Consequently, it seems mature to issue an AMD for this SEI message.

MPEG is currently exploring a new standardization item called as the 3rd phase FTV based on super multi-view video and free-navigation (N14179). For this work item, low-complexity and low-delay multi-view video codec is an essential requirement (N14178). As reported in M24984(CE7a: summary of GVD for 3DV-ATM), M24985(CE7a: results of GVD for 3DV-ATM), M24252 (CE7a: subjective test results of GVD for 3DV-ATM), JCT2-A0071(CE7h: summary of GVD for 3DV-HTM), JCT2-A0069(CE7h: results of GVD for 3DV-HTM), JCT2-A0172(CE7h: subjective test results of GVD for 3DV-HTM), Texture and depth view packing SEI message enables 3D video codec to reduce its encoding/decoding time and complexity. By further exploring the extensibility of such 3D video codec to be applicable to super-multiview video, the 3D video codec can be one of the starting points to meet the FTV requirements.

# Proposal

According to the above discussions, we propose to revise AVC to add a Texture and depth view packing SEI message in 3D-AVC, starting at the current meeting.

Proposed title and schedule of amendment:

Title: Texture and depth view packing SEI message in 3D-AVC

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Target Dates:

PDAM 2014-04

FPDAM 2014-07

FDAM & ITU-T Consent 2015-02

This amendment provides 3D-AVC a functionality for low-complexity and low-delay multi-view video coding. We would like to request a two-month ballot on this PDAM.

Anticipated Supporting WG 11 National Bodies (at least 5 NBs?):

Japan, USA, Poland, Belgium, Singapore, Korea, Spain, (China)