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| **Joint Collaborative Team on 3D Video Coding Extension Development**  **of ITU-T SG 16 WP 3 and ISO/IEC JTC 1/SC 29/WG 11**  5th Meeting: Vienna, AT, 27 July – 2 Aug. 2013 | Document: JCT3V-E0008  MPEG/M29988 |

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| *Title:* | **AHG8: Summary Report on Alternative 3D Formats** | | |
| *Status:* | Input Document | | |
| *Purpose:* | Report | | |
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# Abstract

This document reports on the work of the JCT-3V ad hoc group 8 on Alternative 3D Format (AHG8) between the 4th JCT-3V meeting in Incheon (20-26 April 2013) and the 5th JCT-3V meeting in Vienna (27 July – 2 August 2013).

1. **Mandates**

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| **Alternative 3D Formats (AHG8)**  ([jct-3v@lists.rwth-aachen.de](mailto:jct-3v@lists.rwth-aachen.de))   * Improve draft text of depth view information SEI message text in 3D-AVC Draft Text. * Improve the description of global view and depth format description in 3D-AVC Test Model. * Prepare and deliver Global View and Depth software based on ATM v8.x software version and the reference configuration encodings. * Improve draft text of Global View and Depth SEI message in 3D-HEVC Test Model. | M. Tanimoto, T. Senoh, N. Stefanoski (co‑chairs) | N |

1. **General**

Since the two Alternative 3D Formats, Global View and Depth format, and Warp format were agreed to be included in 3D-AVC and 3D-HEVC at the 3rd JCT-3V meeting held at Geneva in January 17-23, 2013 AHG8 has been developing SEI message descriptions to signal these formats, software to be integrated in ATM and HTM according to the above mandates.

1. **Work Status and Comments**

A total of three input documents relating to the Alternative 3D Format have been registered. The contents of these documents have been discussed through e-mail during the AHG meeting period with primary focus on the AHG mandates. A brief summary of the progress on each mandate and notes on the input documents that were contributed is given below.

Mandate 1: Improve draft text of depth view information SEI message text in 3D-AVC Draft Text.

According to the review comments given by the editor in 3D-AVC Draft Text 6, a revised text was contributed in JCT3V-E0105.

AHG8 recommends to review and adopt this revision in the 3D-AVC Draft Text 7.

Mandate 2: Improve the description of global view and depth format description in 3D-AVC Test Model.

Following to the revision done in the depth view information SEI message in 3D-AVC Draft Text 6, a revised text was contributed in JCT3V-E0106.

AHG8 recommends to review and adopt this revision in the 3D-AVC Test Model 7.

Mandate 3: Prepare and deliver Global View and Depth software based on ATM v8.x software version and the reference configuration encodings.

A Global View and Depth software based on the 3D-ATM v8.0r2 was released at

https://skydrive.live.com/redir?resid=FF27D4AA3D66ACF3!139&authkey=!AMRxxXdzAzXWZK0

It supports GVD type-1 3-view case,

-generation of a global depth for type-1,

-generation of a residual view,

-encoding/decoding base view, residual view, global depth and depth view info SEI message,

-generation of target views.

AHG8 recommends to confirm the software and integrate it to ATM9.x.

Mandate 4: Improve draft text of Global View and Depth SEI message in 3D-HEVC Test Model.

According to the review comments given by the editor in 3D-HEVC Test Model 4, a revised text was contributed in JCT3V-E0034.

AHG8 recommends to review and adopt this revision in the 3D-HEVC Test Model 5.

1. **Recommendations**

The AHG8 on Alternative 3D Format recommends,

* to review and adopt the revised text on depth view information SEI message described in JCT3V-E0105 to 3D-AVC DT7,
* to review and adopt the revised text on Global View and Depth format description for depth view information SEI message described in JCT3V-E0106 to 3D-AVC Test Model 7,
* to confirm and integrate the software for Global View and Depth format in the ATM9.x.
* to review and adopt the revised text on alternative depth information SEI message described in JCT3V-E0034.

1. **AHG Reports**

**[JCT3V-E0008](http://phenix.it-sudparis.eu/jct2/doc_end_user/current_document.php?id=7) / m29988 JCT-3V AHG8: Summary Report on Alternative 3D Format [M. Tanimoto (NISRI), T. Senoh (NICT), N. Stefanoski (DRZ)]**

1. **Contributions**
   1. **Mandate 1 related**

**JCT3V-E0105/** [**m29991**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: Revision on Depth View Information SEI message in 3D-AVC DT6 [T. Senoh, K. Wakunami, Y. Ichihashi, H. Sasaki, K. Yamamoto(NICT), M. Tanimoto(NISRI)]**

* 1. **Mandate 2 related**

**JCT3V-E0106/** [**m29993**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: Revised Text on Global View and Depth format for Depth View SEI message [T. Senoh, K. Wakunami, Y. Ichihashi, H. Sasaki, K. Yamamoto(NICT), M. Tanimoto(NISRI)]**

* 1. **Mandate 4 related**

[**JCT3V-E0034**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/ m** **29617 AHG8: Revision of the Alternative Depth Info SEI message [N. Stefanoski, A. Smolic (DRZ), T. Senoh (NICT), M. Tanimoto (NISRI)]**