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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**  2nd Meeting: Shanghai, CH, 13–19 October 2012 | Document: JCT3V-B0008  M26749 |

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| *Title:* | **AHG8 Report on Alternative 3D Format** | | |
| *Status:* | Input Document | | |
| *Purpose:* | Report | | |
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| *Source:* | AHG8 | | |

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# Abstract

This document is an ad-hoc group 8 report on Alternative 3D Format.

1. **Mandates**
2. Explore the relation of Global View and Depth format and current 3D video standardization tracks.
3. Study similarities and differences between the warp representation and existing depth/disparity representation as well as explore warp coding technologies (details in JCT3V-A0175).
4. Investigate possible signalling methods required to identify the type of 3D data format (e.g. global view/depth, warp) and to interpret such decoded 3D data by non-normative processing after decoding.
5. **Meetings**

Meeting was not held before the 102th MPEG meeting.

1. **General**

The Alternative 3D Format group was established to investigate low complexity format for 3D Video Coding that target subjectively good image quality (coding efficiency) to cover a wide variety of 3D applications and requirements together with the current standardization tracks.

Starting in the 98th MPEG meeting, initially three proposals related to Alternative 3D Format were proposed. They were categorized to Global View and Depth format and Warp format. Since then, through several Core Experiments, these formats showed subjectively good image quality with low complexity.

1. **Work Status and Comments**

A total of six Alternative 3D Format related input documents have been registered. All these documents have been reviewed during the AHG meeting with primary focus on the AHG mandates and consideration of a new CE establishment. A brief summary of the progress on each mandate and notes on the input documents that were reviewed is given below.

Mandate 1: Explore the relation of Global View and Depth format and current 3D video standardization tracks.

Mandate 2: Study similarities and differences between the warp representation and existing depth/disparity representation as well as explore warp coding technologies (details in JCT3V-A0175).

Mandate 3: Investigate possible signalling methods required to identify the type of 3D data format (e.g. global view/depth, warp) and to interpret such decoded 3D data by non-normative processing after decoding.

1. **Recommendations**

The AHG8 on Alternative 3D Format recommends to

1. .
2. **AHG Reports**

[**JCT3V-B0008**](http://phenix.it-sudparis.eu/jct2/doc_end_user/current_document.php?id=7)**/ m26749 AHG8 Report on Alternative 3D Format [M. Tanimoto(NISRI), T. Senoh(NICT), N. Stefanoski(Disney Research Zurich)]**

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

[**JCT3V-B0058**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/** [**m26750**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: Report on Exploration of Global View and Depth Format and Current 3D Video Standardization Tracks [T. Senoh, Y. Ichihashi, H. Sasaki, K. Yamamoto(NICT) M. Tanimoto, K. Suzuki(NISRI)]**

[**JCT3V-B0075**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/ m26809 Technical Description of GVD (Global View and Depth) 3D Format [K. Suzuki, M. Tanimoto (NISRI), T. Senoh (NICT)]**

[**JCT3V-B0076**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/ m26810 Experiments on GVD (Global View and Depth) by NISRI [K. Suzuki, M. Tanimoto (NISRI), T. Senoh (NICT)]**

* 1. **Mandate 2 related**

[**JCT3V-B0074**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/** [**m26802**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: New warp data for IDW-based view synthesis experiments [N. Stefanoski, A. Smolic (Disney Research Zurich)]**

[**JCT3V-B0077**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/** [**m26814**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: Proposal to compare synthesis quality of IDWR with VSRS-1D-Fast in a subjective test [Nicolce Stefanoski, Aljosa Smolic (Disney Research Zurich)]**

* 1. **Mandate 3 related**

[**JCT3V-B0059**](http://phenix.int-evry.fr/jct2/doc_end_user/current_document.php?id=12)**/** [**m26751**](http://phenix.int-evry.fr/mpeg/doc_end_user/current_document.php?id=38926&id_meeting=153) **AHG8: Proposed Draft Amendment on Signaling of Alternative 3D Format in ISO/IEC 14496-10 (ITU-T H.264) [T. Senoh, Y. Ichihashi, H. Sasaki, K. Yamamoto(NICT) M. Tanimoto, K. Suzuki(NISRI), N. Stefanoski(Disney Research Zurich)]**