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| **Joint Collaborative Team on 3D Video Coding Extensions**  **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-E0299\_r3 |

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| *Title:* | **AHG11 : New stereo test sequences from Korean Broadcasting System (KBS)** | | |
| *Status:* | Input | | |
| *Purpose:* | Proposal | | |
| *Author(s) or Contact(s):* | Sunmi Yoo LG Electronics Seocho R&D Campus Seoul, South Korea  Seung Jun Kim Korean Broadcasting System  Seoul, South Korea | Tel: Email: | +82-2-6912-6477 [sunmi.yoo@lge.com](../AppData/Local/Temp/sunmi.yoo@lge.com) [june4u@kbs.co.kr](../AppData/Local/Temp/june4u@kbs.co.kr) |
| *Source:* | LG Electronics | | |

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# Abstract

In this contribution, a new set of stereo test sequences are presented. We recommend the proposed test materials be used for the standardization.

# Introduction

The mandates of the AdHoc group on 3D test material (AHG11) include recommendation of appropriate test materials for use in 3D Video Coding Extension Development. This document presents samples of stereo sequences captured by Korean Broadcasting System (KBS). The presented stereo sequences are 1080i@30Hz and do not have associated depth-maps. However, they include fast-motion and complex textures, which can be complementary to the existing JCT3V test sets.

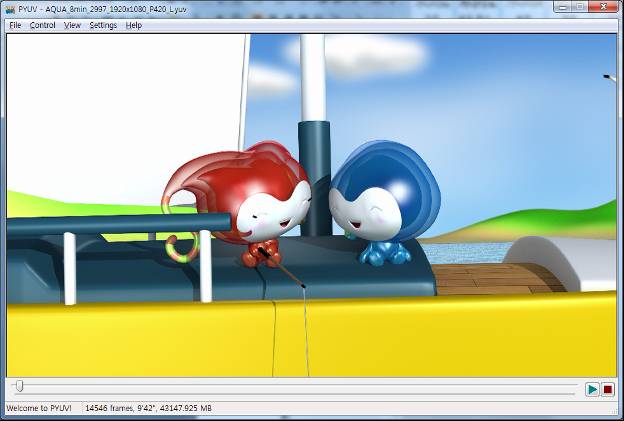
# Test materials

## General description

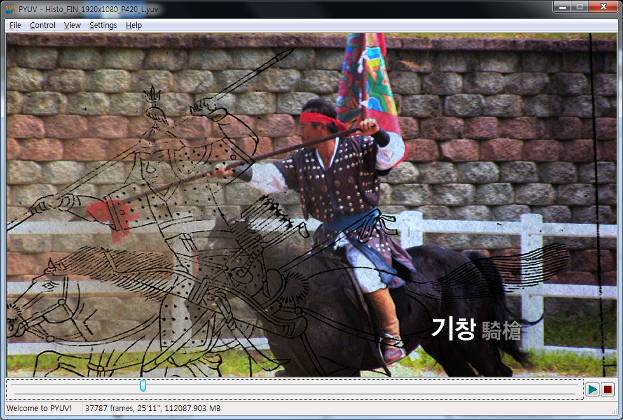
The sequences were captured at 59.94 Hz resulting in an interlaced format of 1920x1080i@30Hz, followed compression with Apple ProRes 422 at 214715 Kbit/s. Originally the sequences have YUV4:2:2 with 10-bit per pixel, so we sub-sampled the samples of materials to YUV4:2:0 with 8-bit per pixel. Except for this conversion, nothing has been post-processed to the video. Additionally, the depth maps for these test materials were not taken in the acquisition process.

Sample video clips of the sequences can be downloaded from <http://lg3dv.com/> without any ID/password. In case your media player cannot play it back, please install a codec pack such as <http://download.cnet.com/Media-Player-Codec-Pack/3000-13632_4-10749065.html> (Media-Player-Codec-Pack ver 4.2.8).

## Full-HD stereo sequences



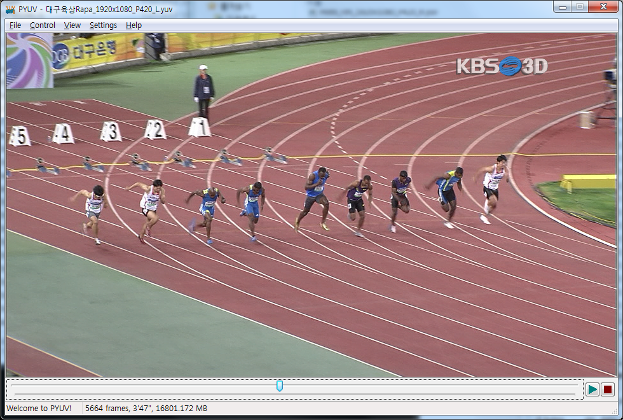
(a) Korean Traditional Documentary (b) Aqua Animation



(c) Korean Drama (d) Korean History Documentary



(e) Sports 1 (f) Medical Documentary with CG



(h) Yeosu Expo (i) Sports 2



(j) Korean Wrestling

Fig. 1 Proposed test sequences

## Contents information

All sequences are 1920x1080i@30Hz. Tables 1 and 2 provide the sequence information and brief descriptions of the contents.

Table Sequence information of original sequences

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Name | Original Information | | | | |
| # of Frames | Width | Height | Frame Rate | Runtime |
| 1 | Korean Tradition Documentary | 7134 | 1920 | 1080 | 30 | 3:58 |
| 2 | Aqua Animation | 14546 | 1920 | 1080 | 30 | 8:05 |
| 3 | Korean Drama | 8321 | 1920 | 1080 | 30 | 4:37 |
| 4 | Korean History Documentary | 17787 | 1920 | 1080 | 30 | 21:00 |
| 5 | Sports 1 | 9408 | 1920 | 1080 | 30 | 5:13 |
| 6 | Medical Documentary with CG | 15603 | 1920 | 1080 | 30 | 8:40 |
| 7 | Yeosu Expo | 14593 | 1920 | 1080 | 30 | 8:06 |
| 8 | Sports 2 | 5664 | 1920 | 1080 | 30 | 3:08 |
| 9 | Korean Wrestling | 12902 | 1920 | 1080 | 30 | 7:10 |

Table Sequence information of stereo sample sequences

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Name | Stereo Sample Information | | | | |
| # of Frames | Width | Height | Frame Rate | Runtime |
| 1 | Korean Tradition Documentary | 1000 | 1920 | 540 | 30 | 0:33 |
| 2 | Aqua Animation | 1000 | 1920 | 540 | 30 | 1:33 |
| 3 | Korean Drama | 1000 | 1920 | 540 | 30 | 2:33 |
| 4 | Korean History Documentary | 1000 | 1920 | 540 | 30 | 3:33 |
| 5 | Sports 1 | 1000 | 1920 | 540 | 30 | 4:33 |
| 6 | Medical Documentary with CG | 1000 | 1920 | 540 | 30 | 5:33 |
| 7 | Yeosu Expo | 1000 | 1920 | 540 | 30 | 6:33 |
| 8 | Sports 2 | 1000 | 1920 | 540 | 30 | 7:33 |
| 9 | Korean Wrestling | 1000 | 1920 | 540 | 30 | 8:33 |

Table Characteristics of sequences

|  |  |
| --- | --- |
| Sequence | Characteristic |
| Korean Tradition Documentary | Complex texture, texts on the bottom, camera movement |
| Aqua Animation | Expo sequence after computer generated animations |
| Korean Drama | Many people in sequence, large movements |
| Sports 1 | Wrestlers with large movements |
| Medical Documentary with CG | CG and natural images |
| Yeosu Expo | Complex texture, day and night scenes |
| Sports2 | Running scenes, watermark on the right top |
| Korean Wrestling | Large movements, texts on the bottom, watermark on the right top |

# License statement

The presented video data is provided free of charge by the Licenser, KBS, and made available for use by the Licensee, who shall be a member of the JCT-3V standardization committee only. The Licensee agrees not to provide the presented sequences to any third party without permission from the provider.

# Conclusion

In this input contribution, test materials for 3D video coding extension development were presented. Since the presented test sequences have a variety of characteristics which can supplement current test sequences in the CTC, we recommend the proposed sequences be considered for use.