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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**  3rd Meeting: Geneva, CH, 17–23 Jan. 2013 | Document: JCT3V-C0216 |

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| *Title:* | **3D-CE6.h cross check on software improvement of simplified depth coding of LGE (JCT3V-C0068)** | | |
| *Status:* | Input Document | | |
| *Purpose:* | Report | | |
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# Introduction

The experimental result for LG’s software improvement of simplified depth coding is reported. The BD-rate (and PSNR) results obtained from the cross-verification match those provided to us by LG. Encoding and decoding time differences are similar enough to be considered a match.

# Test results

## Testing environment

Testing environment is described in below.

• Operating System

Linux Cluster

• Compiler

GCC 4.1.2 [64 bit]

## Testing result

**Table 1. Test results in common test conditions**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | video 0 | video 1 | video 2 | video only | synthesized only | coded & synthesized | enc time | dec time |
| Balloons | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | -0.1% | 99.6% | 98.9% |
| Kendo | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 102.8% | 101.2% |
| Newspaper | 0.0% | 0.0% | 0.0% | 0.0% | -0.2% | -0.1% | 99.7% | 105.1% |
| GT\_Fly | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | -0.1% | 98.0% | 98.7% |
| PoznanHall2 | 0.0% | 0.0% | 0.0% | 0.0% | -0.2% | -0.1% | 101.2% | 99.0% |
| PoznanStreet | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | 0.0% | 100.5% | 90.1% |
| UndoDancer | 0.0% | 0.0% | 0.0% | 0.0% | -0.2% | -0.1% | 101.3% | 100.7% |
| 1024x768 | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | -0.1% | 100.7% | 101.7% |
| 1920x1088 | 0.0% | 0.0% | 0.0% | 0.0% | -0.1% | -0.1% | 100.2% | 97.0% |
| **average** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **-0.144%** | **-0.081%** | **100.4%** | **99.0%** |

**Table 2. Test results in all intra conditions**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | video 0 | video 1 | video 2 | video only | synthesized only | coded & synthesized | enc time | dec time |
| Balloons | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 84.9% | 101.1% |
| Kendo | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 85.0% | 97.1% |
| Newspapercc | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 82.7% | 108.3% |
| GhostTownFly | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 81.9% | 95.4% |
| PoznanHall2 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 83.8% | 97.8% |
| PoznanStreet | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 81.6% | 100.9% |
| UndoDancer | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 81.1% | 94.2% |
| 1024x768 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 84.2% | 102.1% |
| 1920x1088 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 82.1% | 97.0% |
| **average** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.00%** | **0.00%** | **83.0%** | **99.2%** |

# Conclusion

The BD-rate (and PSNR) results obtained from the cross-verification match those provided by LG. Encoding and decoding time differences are similar enough to be considered a match.