

**Title:** 3D-CE2.h cross check of adaptive quantization for depth map (JCT2-A0016)

**Status:** Input Document

**Purpose:** Report

**Author(s) or**

**Contact(s):** Yunseok Song

Cheon Lee

Yo-Sung Ho

**Tel:** +82-62-715-2263

**Email:** [ysong@gist.ac.kr](mailto:ysong@gist.ac.kr)

[leecheon@gist.ac.kr](mailto:leecheon@gist.ac.kr)

[hoyo@gist.ac.kr](mailto:hoyo@gist.ac.kr)

**Source:** Gwangju Institute of Science and Technology (GIST)

## Abstract

This document reports the results of KWU's adaptive quantization for depth map (JCT2-A0016) performed by GIST. In the proposed method, quantization is applied to TU adaptively (with/without transformation). This algorithm is implemented on 3DV-HTM 3.1. We observed 0.1% loss on coded & synthesized data, which match the results from the proponents.

## 1 Simulation results

Experiments were conducted under the common test conditions for 3DV-HTM. The results match that of the proponents. Although gains were achieved in three sequences, overall, 0.1% loss was introduced.

	video 0	video 1	video 2	video only	synthesized only	coded & synthesized	enc time	dec time	ren time
Balloons	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	102.8%	111.1%	#NUM!
Kendo	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%	104.2%	99.3%	#NUM!
Newspapercc	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	103.1%	102.0%	#NUM!
GhostTownFly	0.0%	0.0%	0.0%	0.0%	-0.4%	-0.2%	111.7%	101.9%	#NUM!
PoznanHall2	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	101.8%	102.8%	#NUM!
PoznanStreet	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	110.7%	101.7%	#NUM!
UndoDancer	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%	108.6%	102.0%	#NUM!
1024x768	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	103.4%	104.0%	#NUM!
1920x1088	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%	108.1%	102.1%	#NUM!
<b>average</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>106.1%</b>	<b>102.9%</b>	<b>#NUM!</b>

## 2 Acknowledgment

This research was supported a grant “Establishing the Foundation of International Standardization for Mobile Devices and Multimedia Convergence Technology” from Improvement of Standards Technology Program funded by Korean Agency for Technology and Standards, Ministry of Knowledge Economy of Korea.