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**Title:** [VCM] Cross-check of CE4.1

**Source:** Poznań University of Technology

**Authors:** Marek Domański, Olgierd Stankiewicz, Sławomir Maćkowiak,  
Sławomir Rózek, Tomasz Grajek, Maciej Wawrzyniak,  
Jakub Stankowski, Dominik Cywiński, Jakub Szekięda

## **Abstract**

This document describes the results of cross-checking Core Experiment proposal CE4.1 [1].

## **1. Introduction**

In this round of VCM Core Experiments on temporal resampling methods [2], Poznań University of Technology was supposed to perform cross-check of the CE4.1 solution [1]. We have done the encoding and evaluation using the machines with the following specification:

Processor: Intel Core i7-12700K

RAM: 32 GB

GPU: nVidia RTX 4090.

Operating System: Ubuntu 22.04 (updated)

We had installed and launched Proponent's software without any bigger issues. Proponent has prepared helpful scripts, which made encoding process easy.

According to the CE4 description, the test should be done in two configurations:

- temporal resampling off,
- temporal resampling on with proper GOP configuration.

## **2. Cross-check results**

The detailed cross-check results and comparison can be found in attached excel files. Almost all the encoded bitstreams match exactly. There are some negligible differences in mAP and MOTA caused probably by slightly different evaluation environment. There are also a few noticeable differences, however within acceptable range.

The cross-check can be summarized as confirmed.

### **References**

- [1] Enmin Lu, Yunlong Li, Hao Shen, Huifen Wang, Yuan Zhang, Ning Guo(China Telecom), “[VCM] Report on CE 4.1”, doc. m65250, October 2023, Hannover.
- [2] ISO/IEC JTC 1/SC 29/WG 04, “VCM-CE 4: Temporal resampling”, doc. N0383, July 2023, Geneva.