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Author(s) or [Suhong Wang](#) | suhong.wang@pku.edu.cn (Peking Univ.)

Contact(s): [Xiaozhen Zheng](#) | xiaozhen.zheng@dji.com (DJI)

[S.S. Wang](#)

[S.W. Ma](#)

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Abstract

At the 11th JVET meeting, alternative temporal motion vector prediction (ATMVP) was adopted to VTM reference software. Aiming at reducing both the average and worst-case complexity, this contribution proposes a simplification of ATMVP co-located block derivation process in the case of bidirectional prediction. Simulation results for the simplification show no performance change compared to VTM-3.0 and observe minor encoding and decoding time decrease.

Introduction

ATMVP derives multiple motion for sub-blocks of one coding unit (CU) based on the motion information of the collocated blocks from temporal reference picture. The main process of ATMVP tool can be described as two parts:

1. Derive the co-located block of current CU in the co-located picture with a temporal motion vector;
2. Derive motion information for each sub-block in the current CU.

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