

# **JVET-P0544**

## **Non-CE4: A slice header flag disabling PROF**

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## ■ Problem statement

- These two items were adopted at the last meeting in Gothenburg.
  - Slice header flag disabling BDOF and DMVR
  - PROF
- PROF can be controlled at only sequence level.

## ■ Proposal

- “slice\_disable\_bdof\_dmvr\_flag” disables not only BDOF and DMVR but also PROF at slice level.

## ■ Related contributions

- Identical proposal : JVET-P0314 Method 1, JVET-P0408, JVET-P0434, JVET-P0524 Method 2
- Alternative proposal : JVET-P0314 Method 2, JVET-P0524 Method 1, JVET-P0601

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- Slice header flag disabling BDOF and DMVR “slice\_disable\_bdof\_dmvr\_flag”
  - It controls enable/disable for both BDOF and DMVR at slice level.
  - Originally, both DMVR and BDOF don't have explicit flag at slice and CU levels.
  
- PROF
  - It is a similar tool to BDOF.
  - PROF doesn't have explicit flag at slice and CU levels.
  
- BDOF and DMVR can be controlled at sequence/slice level, however PROF can be controlled only sequence level.

- It is proposed that “**slice\_disable\_bdof\_dmvr\_flag**” disables not only BDOF and DMVR but also PROF.

## •7.3.2.3 Sequence parameter set RBSP syntax

| seq_parameter_set_rbsp( ) {  | Descriptor  |
|--|-------------|
| ...  |             |
| if( sps_bdof_enabled_flag    sps_dmvr_enabled_flag    sps_affine_prof_enabled_flag ) | 1           |
| <b>sps_bdof_dmvr_prof_slice_present_flag</b>   | <b>u(1)</b> |
| ...  |             |
| rbsp_trailing_bits( )  |             |
| }  |             |

## •7.3.6.1 General slice header syntax

| slice_header( ) {                           | Descriptor  |
|---|-------------|
| ...   |             |
| if( sps_bdof_dmvr_prof_slice_present_flag ) |             |
| <b>slice_disable_bdof_dmvr_prof_flag</b>    | <b>u(1)</b> |
| ...   |             |
| }   |             |

## 8.5.5.9 Derivation process for motion vector arrays from affine control point motion vectors

The variable cbProfFlagLX is derived as follows:

- If one or more of the following conditions are true, cbProfFlagLX is set equal to FALSE.
  - sps\_affine\_prof\_enabled\_flag is equal to 0.
  - **slice\_disable\_bdof\_dmvr\_prof\_flag is equal to 1.**
  - fallbackModeTriggered is equal to 1.
  - ...
- Otherwise, cbProfFlagLX set equal to TRUE.

## ■ Problem statement

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  - Slice header flag disabling BDOF and DMVR
  - PROF
- **PROF can be controlled at only sequence level.**

## ■ Proposal

- **“slice\_disable\_bdof\_dmvr\_flag” disables not only BDOF and DMVR but also PROF at slice level.**

## ■ Proposal is recommended to adopt to VVC D7 and VTM-7.

## ■ Related contributions

- **Identical proposal : JVET-P0314 Method 1, JVET-P0408, JVET-P0434, JVET-P0524 Method 2**
- **Alternative proposal : JVET-P0314 Method 2, JVET-P0524 Method 1, JVET-P0601**