

Non-CE4: A modified method to derive the temporal merge candidate for long-term reference picture

Geon-Won Lee, Geun-Bae Kim,
Sang-Guk Cha, Da-Yun Nam, Jong-Ki Han



Introduction

- In the merge mode of VTM-5.0 and VVC Draft 5,
 - When the reference picture of the co-located block is **long-term reference picture** in TMVP derivation process,
if the target picture indicated by index 0 in the reference picture list is **short-term reference picture**,
then TMVP is not used.

Proposed method

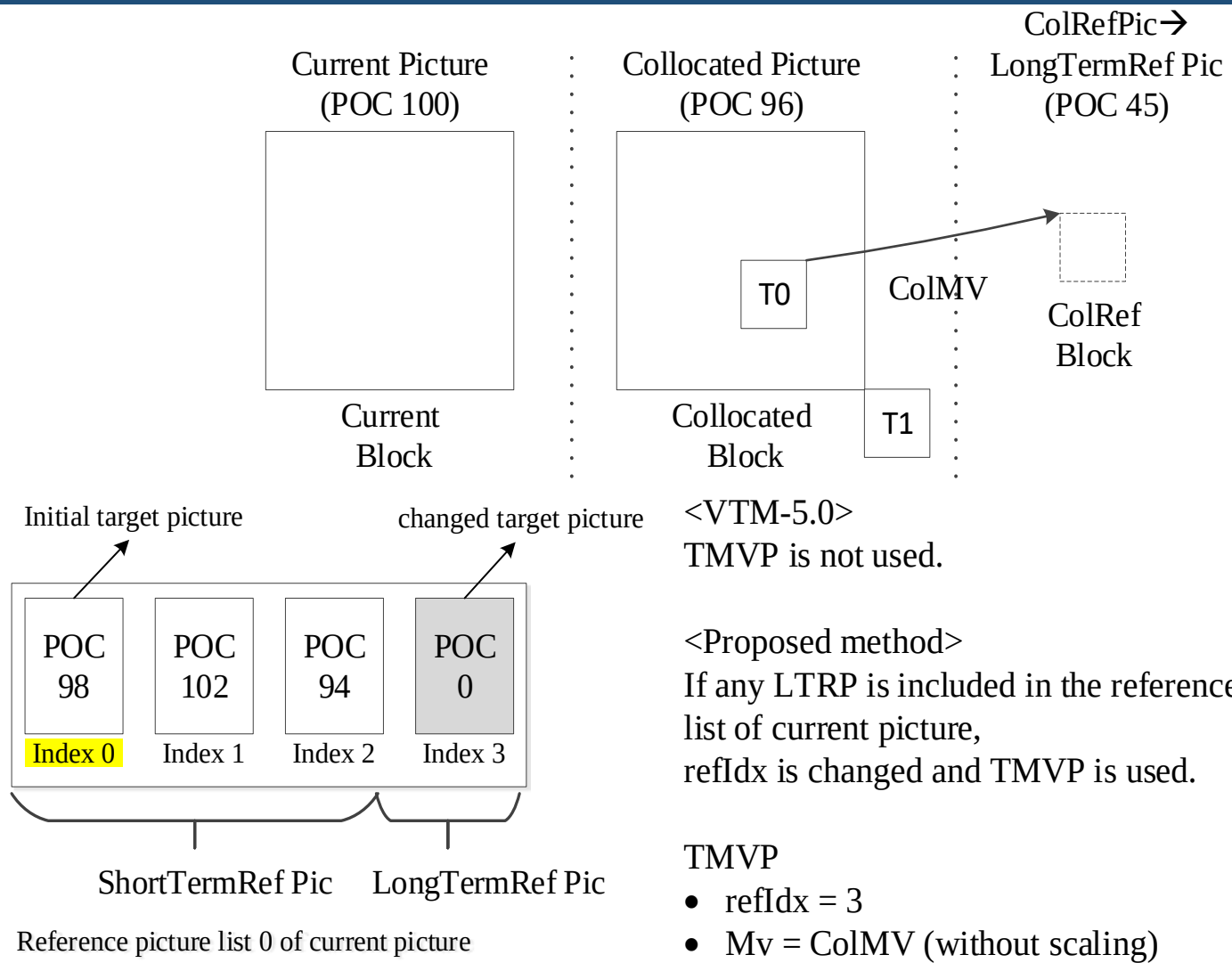
- When the co-located picture refers to the long-term reference picture in TMVP derivation process,

if any long-term type picture is included in the reference picture list of the current picture,

the long-term type picture is set to the target picture and the co-located MV is used as TMVP without MV scaling.
- If there are long-term pictures more than one in the reference picture list,

the picture indicated by the smallest index number is used as the target picture.

Proposed method



Conclusion

- This contribution proposes a modified method to set the target picture when the long-term reference picture is considered.
- Current VTM CTC does not consider the LTRP, we don't provide the evaluation results of the proposed method under CTC.
- We can expect that the proposed method increases the coding efficiency significantly in specific applications where many long-term reference pictures are used more frequently.