

Non-CE2: Simplified subblock motion derivation for SbTMVP (JVET-M0343)

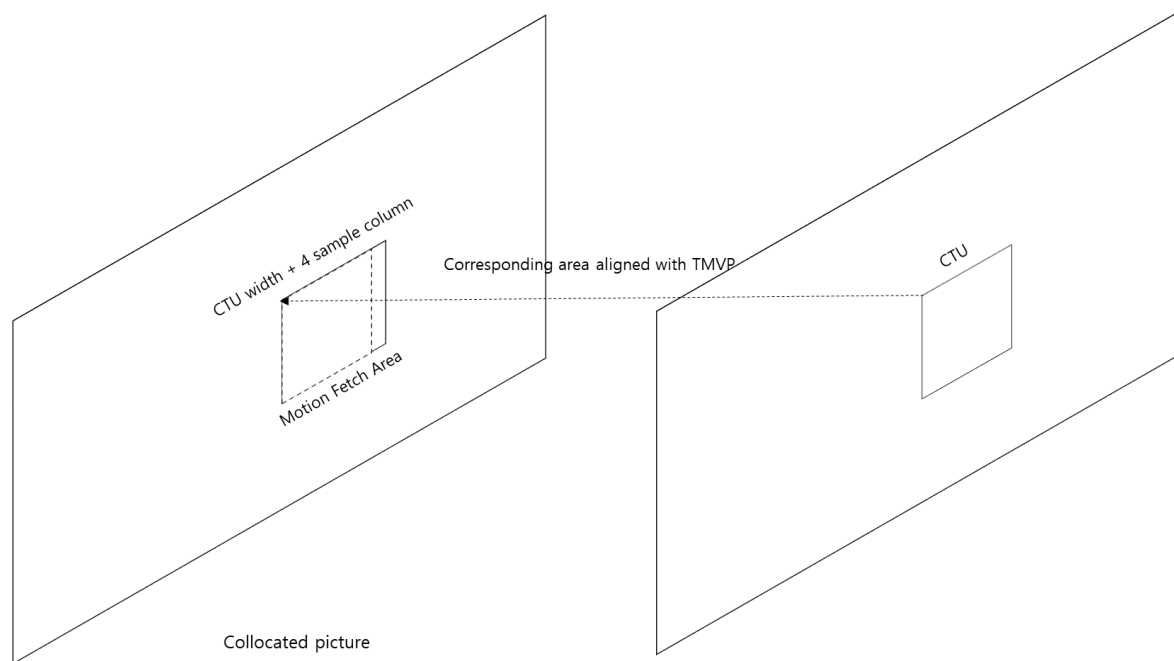
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Summary

- Propose sub-block motion equal to default motion when sub-block is located outside pre-defined fetched area.
 - 0.02%(RA), 0.01%(LDB) BD-rate change, respectively.
- Cross-check by Sharp

Motivation

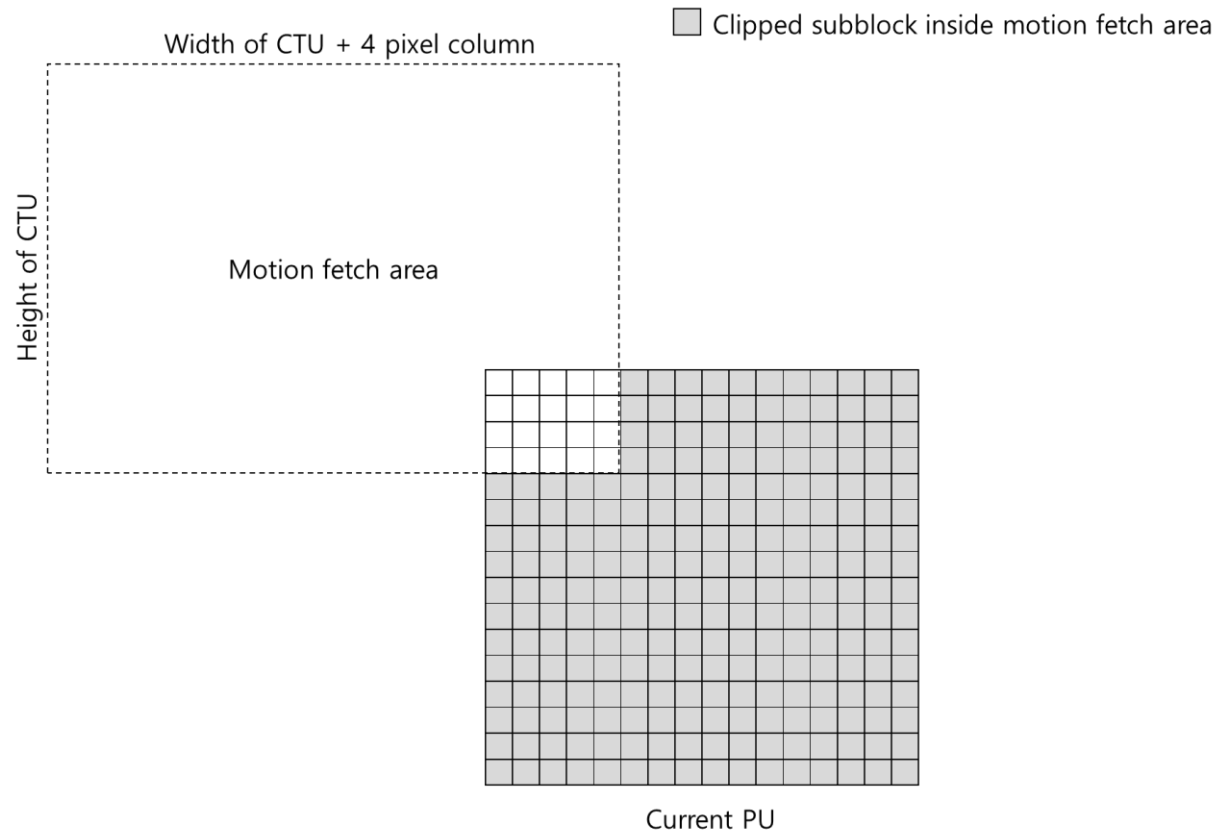
- At 11th JVET meeting,
 - JVET-K0346 suggests temporal motion fetch area where same as conventional TMVP should be defined.



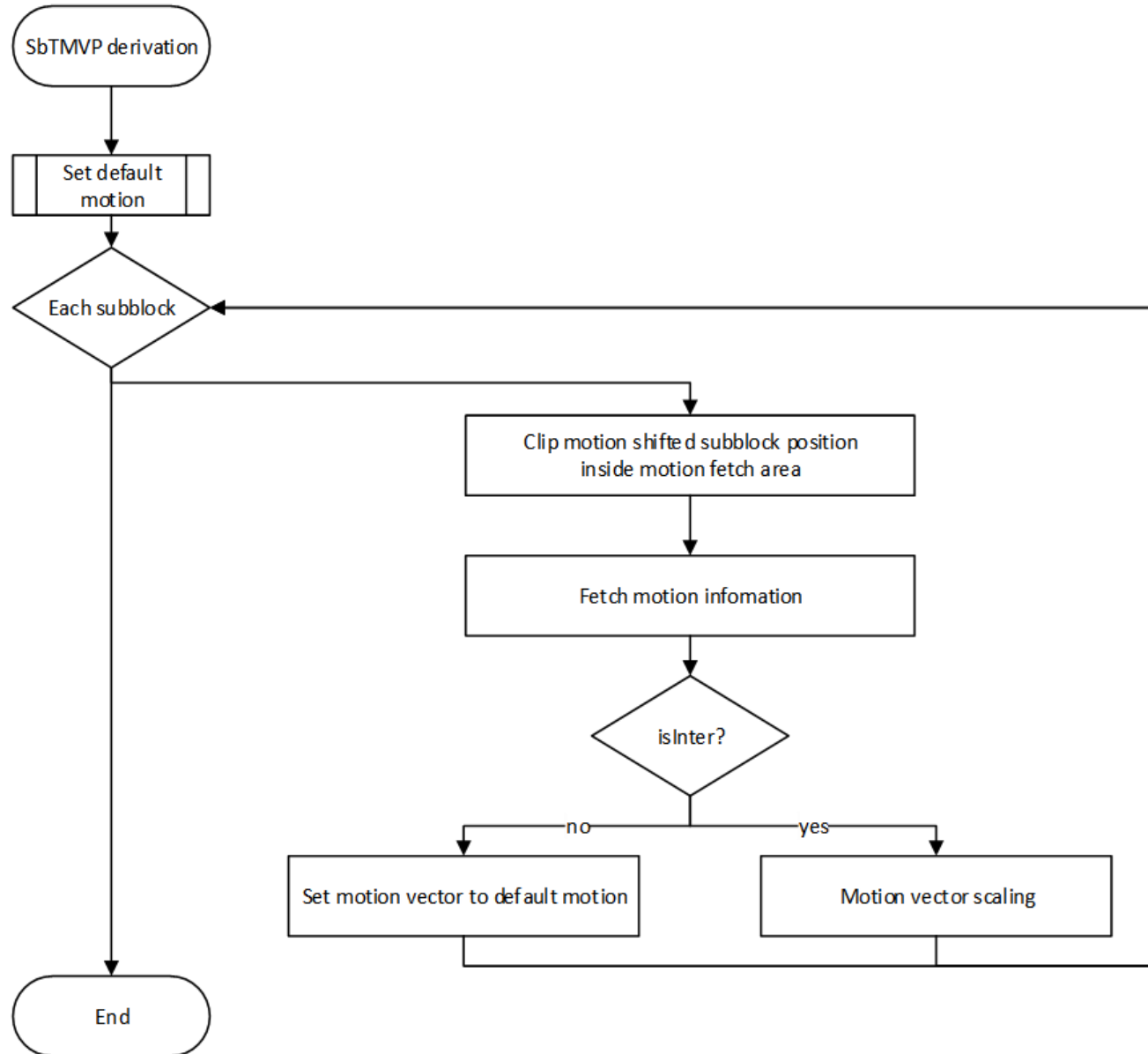
- Sub-block merge/amvp candidate is derived based on same reference index candidate
 - In order to remove scaling process for each sub-block motion derivation.

Motivation

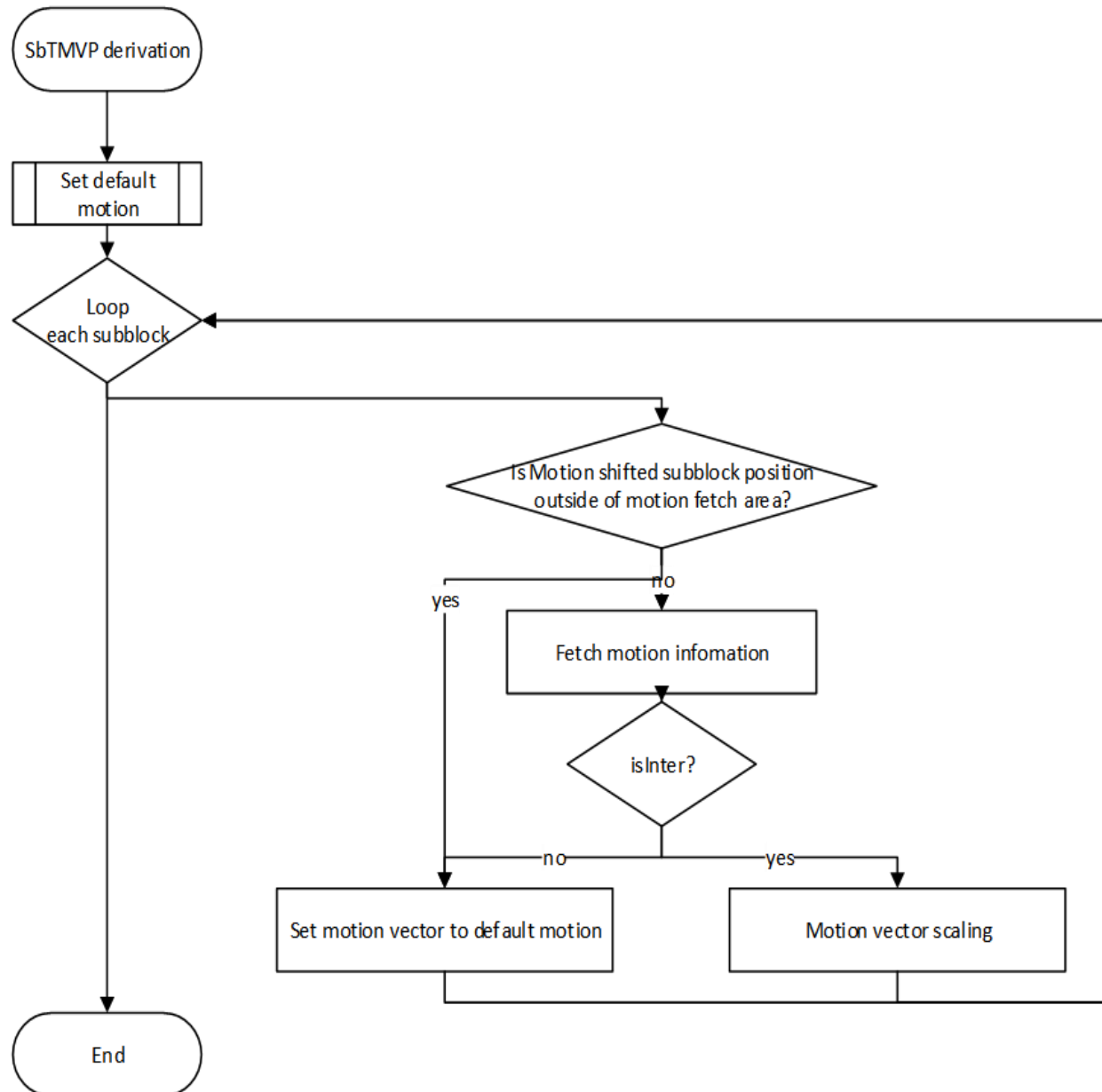
- Current VTM-3
 - Sub-block motion is derived based on scaling operation when sub-block with motion shifting located outside pre-defined fetch area



Proposed method



Proposed method



	Random access Main10				
	Over VTM-3.0				
	Y	U	V	EncT	DecT
Class A1	0.04%	0.04%	0.03%	100%	100%
Class A2	0.02%	0.06%	0.12%	100%	100%
Class B	0.00%	0.02%	-0.04%	100%	100%
Class C	0.02%	-0.01%	-0.03%	100%	100%
Class E					
Overall	0.02%	0.02%	0.01%	100%	100%
Class D	0.00%	0.00%	0.02%	100%	100%
Class F	0.00%	-0.01%	0.01%	100%	100%

	Low delay Main10				
	Over VTM-3.0				
	Y	U	V	EncT	DecT
Class A1					
Class A2					
Class B	0.03%	-0.17%	-0.09%	100%	100%
Class C	0.03%	0.22%	0.11%	100%	101%
Class E	-0.05%	0.17%	-0.34%	100%	101%
Overall	0.01%	0.05%	-0.08%	100%	101%
Class D	0.01%	0.31%	0.12%	100%	101%
Class F	0.04%	0.17%	0.04%	100%	100%