

The background is a solid green color with a repeating pattern of white line-art icons. These icons include various nautical and marine items such as anchors, lifebuoys, seashells, jellyfish, fish, and tools like a compass and a wrench.

MEDIATEK

JVET-N0093

CE8-related: Disallowing coexistence of regular merge and IBC merge in SMR

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Overall Summary

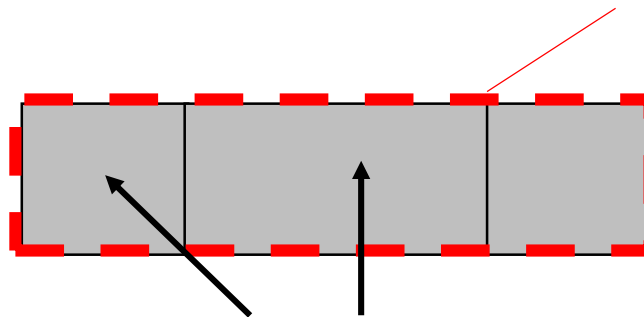
- Propose to disallow coexistence of regular merge and IBC merge in the SMR (Shared merging candidate list Region)
- BD-rates (anchor: VTM4.0 with IBC on)
 - Ticket #193: Support SMR to IBC mode
 - Proposed method

Over VTM 4.0 with IBC on	Luma BD-rates		
	CTC	Class F	TGM
AI	0.00%	0.03%	0.05%
RA	0.00%	-0.02%	0.13%
LB	-0.01%	-0.09	0.11%

Proposed Method

- In VTM-4.0 with IBC on + ticket #193
 - Support two shared merging candidate lists in SMR
 - One for regular merge and one for IBC merge
- Propose to allow only one merge list construction in SMR
 - Either regular merge or IBC merge will occur in SMR

Shared Merging Region



Either IBC merge or regular merge will occur in the same shared merging region

Simulation Results

Proposed Method Anchor: VTM4.0 with IBC on	BD-rates & run time				
	Y	U	V	EncT	DecT
CTC					
AI	0.00%	0.00%	-0.01%	100%	98%
RA	0.00%	-0.03%	0.01%	100%	100%
LB	-0.01%	-0.16%	0.22%	100%	101%
Class F					
AI	0.03%	-0.02%	-0.10%	100%	100%
RA	-0.02%	0.00%	-0.02%	100%	101%
LB	-0.09%	0.02%	-0.24%	100%	101%
TGM					
AI	0.05%	0.01%	0.01%	99%	100%
RA	0.13%	0.20%	0.14%	100%	99%
LB	0.11%	0.17%	0.14%	99%	99%

Conclusion

- Propose to disallow coexistence of regular merge and IBC merge in the SMR when IBC applies
- BD-rates change is minor
- Recommend to adopt these constraints for SMR

Appendix

Simulation Results from fix Ticket #193

Proposed Method Anchor: VTM4.0 with IBC on	BD-rates & runtime				
	Y	U	V	EncT	DecT
CTC					
AI	0.00%	0.00%	-0.01%	100%	98%
RA	0.01%	-0.04%	-0.03%	100%	99%
LB	0.02%	-0.19%	-0.01%	100%	101%
Class F					
AI	0.03%	-0.02%	-0.10%	101%	101%
RA	-0.01%	0.02%	-0.01%	100%	99%
LB	-0.02%	0.10%	-0.73%	100%	101%
TGM					
AI	0.05%	0.01%	0.01%	99%	100%
RA	-0.04%	0.01%	-0.03%	100%	100%
LB	-0.01%	0.13%	0.08%	99%	102%