

JVET-00287

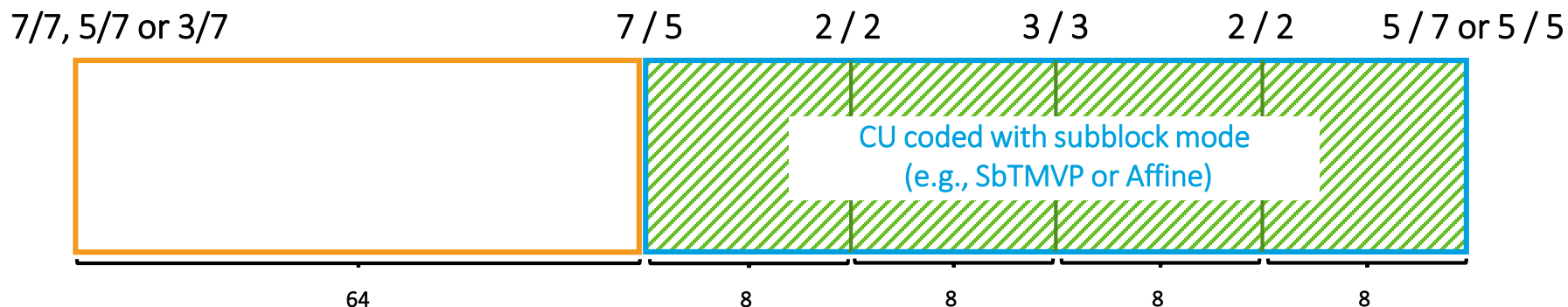
CE5-related: Simplification of subblock deblocking

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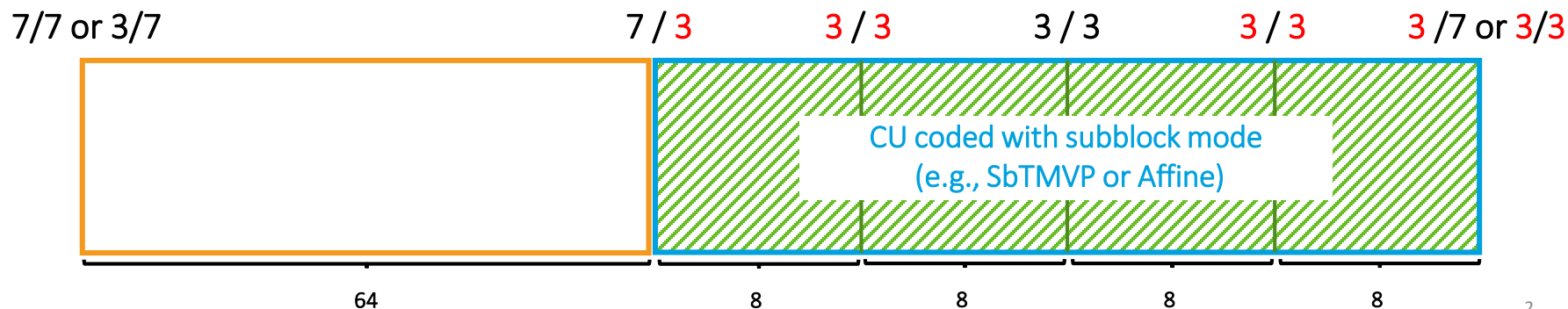
Presenter: Chia-Ming Tsai

Overall Summary

- Propose to simplify the maximum modified filter length for a side coded with subblock mode to 3
- VTM5.0:



- Proposed simplification:



Detailed Results

	All Intra Main10					All Intra Main10				
	Over VTM5.0					Over VTM5.0 with ALF switched off				
	Y	U	V	EncT	DecT	Y	U	V	EncT	DecT
Class A1	0.02%	0.00%	0.00%	100%	101%	0.04%	0.01%	0.01%	100%	98%
Class A2	0.02%	0.00%	0.00%	100%	100%	0.02%	0.00%	0.00%	101%	101%
Class B	0.02%	0.00%	0.00%	101%	100%	0.02%	0.00%	0.00%	100%	100%
Class C	0.00%	0.00%	0.00%	100%	100%	0.00%	0.00%	0.00%	100%	100%
Class E	0.04%	0.00%	0.00%	100%	99%	0.04%	0.00%	0.00%	100%	99%
Overall	0.02%	0.00%	0.00%	100%	100%	0.02%	0.00%	0.00%	100%	100%
Class D	0.00%	0.00%	0.00%	100%	99%	0.00%	0.00%	0.00%	100%	100%
Class F	0.00%	0.00%	0.00%	100%	101%	0.01%	0.00%	0.00%	100%	100%

	Random Access Main 10					Random Access Main 10				
	Over VTM5.0					Over VTM5.0 with ALF switched off				
	Y	U	V	EncT	DecT	Y	U	V	EncT	DecT
Class A1	-0.01%	-0.16%	0.09%	100%	100%	0.03%	0.05%	0.00%	101%	100%
Class A2	0.01%	0.08%	-0.01%	101%	101%	0.00%	0.07%	0.03%	101%	100%
Class B	-0.02%	0.06%	0.00%	101%	101%	0.01%	0.00%	0.02%	101%	100%
Class C	-0.03%	-0.01%	-0.12%	100%	100%	-0.01%	0.14%	0.11%	101%	101%
Overall	-0.02%	0.00%	-0.02%	101%	101%	0.01%	0.06%	0.04%	101%	100%
Class D	0.00%	-0.08%	0.09%	100%	100%	0.00%	0.05%	-0.04%	100%	101%
Class F	-0.01%	0.08%	0.01%	100%	101%	0.00%	0.01%	0.07%	101%	101%

	Low delay B Main10					Low delay B Main10				
	Over VTM5.0					Over VTM5.0 with ALF switched off				
	Y	U	V	EncT	DecT	Y	U	V	EncT	DecT
Class B	-0.09%	0.12%	-0.40%	101%	103%	-0.05%	0.08%	0.07%	101%	100%
Class C	-0.01%	0.25%	0.16%	103%	107%	-0.06%	-0.08%	-0.17%	100%	100%
Class E	-0.17%	-0.36%	-0.32%	100%	101%	0.01%	-0.68%	-0.23%	100%	101%
Overall	-0.09%	0.04%	-0.19%	101%	104%	-0.04%	-0.16%	-0.09%	100%	100%
Class D	-0.02%	-0.17%	0.23%	100%	101%	0.01%	0.11%	-0.46%	101%	102%
Class F	-0.03%	0.46%	-0.22%	102%	102%	-0.14%	0.09%	-0.06%	100%	100%

	Low delay P Main10					Low delay P Main10				
	Over VTM5.0					Over VTM5.0 with ALF switched off				
	Y	U	V	EncT	DecT	Y	U	V	EncT	DecT
Class B	-0.06%	-0.18%	0.07%	101%	102%	-0.02%	-0.15%	-0.47%	100%	100%
Class C	0.02%	-0.21%	0.18%	100%	100%	0.01%	-0.20%	-0.01%	101%	101%
Class E	-0.04%	0.69%	-0.19%	101%	101%	0.16%	0.00%	1.00%	101%	100%
Overall	-0.03%	0.03%	0.04%	101%	101%	0.03%	-0.13%	0.05%	101%	100%
Class D	-0.05%	0.08%	0.11%	100%	100%	0.02%	0.32%	0.22%	100%	100%
Class F	-0.06%	0.17%	0.34%	101%	101%	-0.09%	-0.15%	-0.58%	101%	100%

Summary

- Propose to simplify the maximum modified filter length for a side coded with subblock mode to 3
- Results in very minor subjective or objective quality changes
- Suggests to adopt this simplification to the VVC draft specification and the VTM reference software