

JVET-M0250

Non-CE7: Simplified CSBF coding for large block-size transforms

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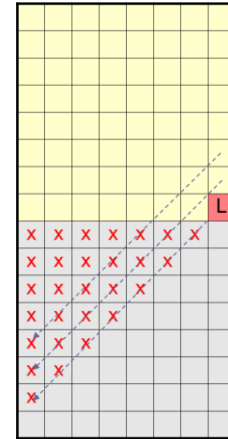
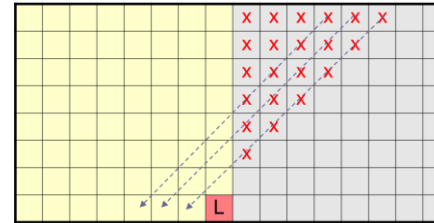
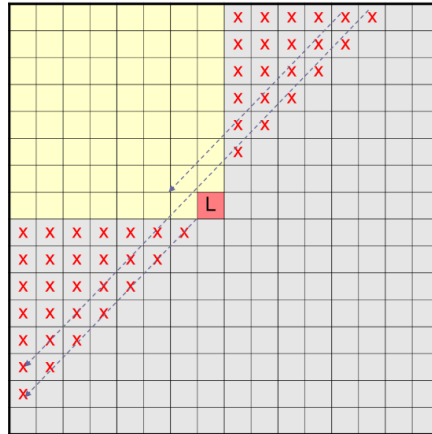
Background and Goal

- High-frequency zeroing
 - High frequency transform coefficients are zeroed out for the transform blocks with size (width or height, or both width and height) equals to 64
 - In current *coded_sub_block_flag* (CSBF) coding, high-frequency zeroing is not considered at all
- Goal
 - To remove unnecessary CSBF coding processes in the high-frequency zeroing region

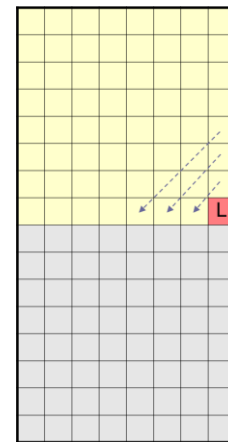
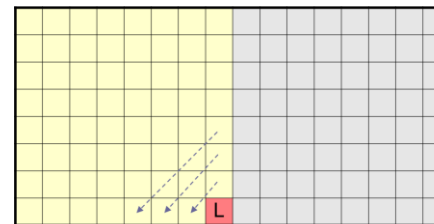
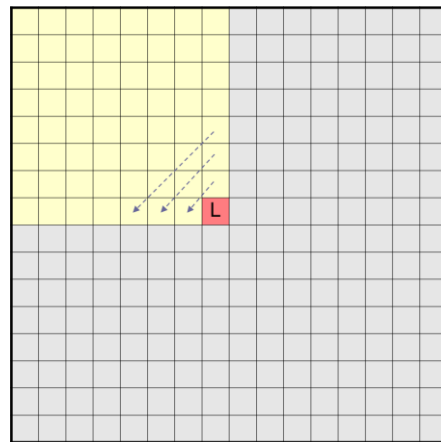
Proposed CSBF coding

- By restricting the coefficient scan to the non-zero out region, we can easily remove the unnecessary csbf coding

VTM
3.0



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Experimental Results

		Over VTM-3.0				
		Y	U	V	EncT	DecT
AI	Class A1	0.01%	-0.02%	0.04%	99%	99%
	Class A2	0.00%	-0.02%	0.01%	99%	100%
	Class B	0.00%	0.01%	0.02%	100%	97%
	Class C	0.00%	0.01%	-0.01%	100%	97%
	Class E	0.00%	0.04%	0.02%	101%	98%
	Overall	0.00%	0.00%	0.02%	100%	98%
	Class D	0.00%	0.03%	-0.02%	101%	100%
	Class F	0.00%	0.00%	0.01%	101%	99%
RA	Class A1	-0.01%	-0.13%	0.08%	100%	99%
	Class A2	-0.01%	0.08%	0.10%	100%	100%
	Class B	-0.03%	0.05%	0.00%	101%	99%
	Class C	0.00%	-0.01%	-0.01%	101%	100%
	Overall	-0.01%	0.00%	0.04%	101%	99%
	Class D	0.01%	0.00%	-0.01%	101%	99%
	Class F	0.01%	-0.01%	0.00%	101%	98%
LB	Class B	-0.01%	-0.32%	-0.23%	102%	105%
	Class C	0.01%	0.15%	0.07%	99%	95%
	Class E	-0.02%	0.52%	0.18%	100%	98%
	Overall	0.00%	0.05%	-0.03%	101%	100%
	Class D	-0.01%	-0.22%	0.06%	100%	100%
	Class F	-0.06%	0.04%	0.08%	100%	99%

Thank you