

JVET-M0251

Non-CE7: Last position coding for large block-size transforms

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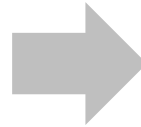
LG Electronics Inc.

Proposed Method

- Binarization table of the last sig coeff position also does not consider high-freq. zeroing.
- Considering high-frequency zeroing, the maximum possible codeword length of the prefix *last_sig_coeff_x_prefix* or *last_sig_coeff_y_prefix* is derived as:

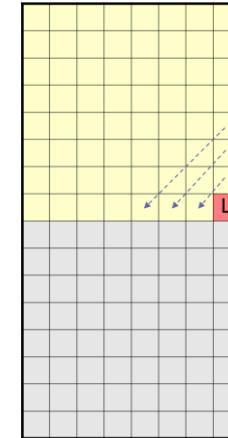
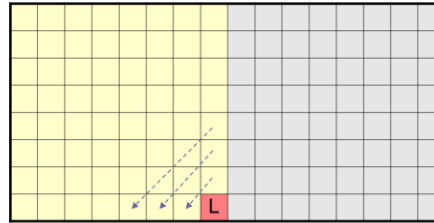
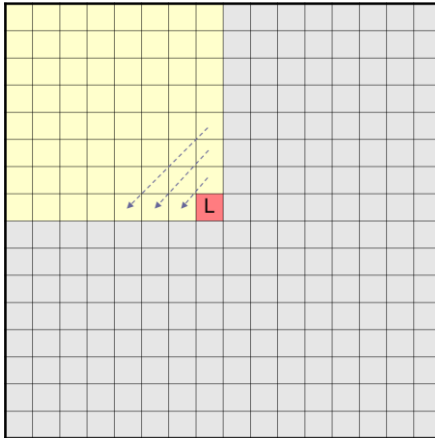
$$cMax = (\log_2 TbSize \ll 1) - 1$$

Truncated Rice code



$$cMax = (\min(\log_2 TbSize, 5) \ll 1) - 1$$

Truncated Rice code



* On top of JVET-M0250 (skipping coded_sub_block_flag in high-frequency zeroing region)

Experimental Results

- EncT, DecT come from the cross-check results

		Over VTM-3.0				
		Y	U	V	EncT	DecT
AI	Class A1	0.03%	-0.07%	0.03%	100%	101%
	Class A2	0.02%	0.00%	-0.03%	100%	100%
	Class B	0.01%	0.05%	-0.02%	100%	102%
	Class C	0.00%	0.01%	-0.03%	100%	101%
	Class E	0.02%	-0.02%	-0.03%	100%	99%
	Overall	0.01%	0.00%	-0.02%	100%	101%
	Class D	0.00%	0.01%	-0.01%	100%	100%
RA	Class F	-0.01%	0.03%	0.02%	100%	99%
	Class A1	0.05%	-0.09%	0.00%	99%	104%
	Class A2	0.01%	0.07%	0.03%	100%	102%
	Class B	-0.01%	-0.02%	-0.04%	100%	100%
	Class C	0.00%	0.02%	-0.01%	99%	100%
	Overall	0.01%	-0.01%	-0.01%	100%	101%
	Class D	0.00%	0.03%	0.06%	100%	100%
LD	Class F	-0.01%	-0.03%	-0.07%	100%	99%
	Class B	0.01%	-0.31%	-0.05%	100%	106%
	Class C	-0.01%	0.19%	0.20%	100%	100%
	Class E	0.11%	0.29%	-1.33%	100%	99%
	Overall	0.03%	0.01%	-0.29%	100%	102%
	Class D	-0.01%	0.26%	-0.07%	100%	98%
	Class F (optional)	0.06%	0.02%	0.13%	100%	101%

Thank you