

# JVET-Q0501: On palette predictor initialization in WPP

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# Summary

- Current design in palette mode for WPP
  - Reset size of palette predictor to 0 at each CTU row
- Proposed palette predictor initialization in WPP
  - Initialized with the palette predictor from the first CTU in the previous CTU row
  - Same as CABAC synchronization in WPP

# Results (Dual Tree OFF)

- Anchor: VTM7.0 for WPP (--PLT=1)
- Test: Proposed method for WPP (--PLT=1)

	All Intra Main10				
	Over VTM7.0 PLT=1 DT=0				
	Y	U	V	EncT	DecT
TGM 1080p	-0.62%	-0.73%	-0.67%	100%	100%
TGM 720p	-0.28%	-0.50%	-0.48%	100%	101%
Animation	-0.40%	-0.85%	-0.98%	101%	100%
Mixed content	-0.17%	-0.06%	-0.17%	101%	100%
Camera-Captured content	0.00%	0.00%	0.00%	100%	101%
<b>Overall</b>	-0.33%	-0.48%	-0.50%	100%	101%

	Random access Main10				
	Over VTM7.0 PLT=1 DT=0				
	Y	U	V	EncT	DecT
TGM 1080p	-0.25%	-0.41%	-0.30%	100%	100%
TGM 720p	-0.20%	-0.43%	-0.49%	100%	101%
Animation	-0.21%	-0.54%	-0.65%	99%	100%
Mixed content	-0.13%	-0.29%	-0.12%	100%	100%
Camera-Captured content	0.00%	0.00%	0.00%	100%	101%
<b>Overall</b>	-0.18%	-0.37%	-0.34%	100%	101%

	Low delay B Main10				
	Over VTM7.0 PLT=1 DT=0				
	Y	U	V	EncT	DecT
TGM 1080p	-0.08%	-0.24%	-0.20%	100%	100%
TGM 720p	-0.42%	-0.49%	-0.76%	101%	100%
Animation	-0.07%	-0.22%	-0.03%	97%	100%
Mixed content	-0.06%	0.19%	-0.05%	99%	100%
Camera-Captured content	0.00%	0.00%	0.00%	100%	101%
<b>Overall</b>	-0.15%	-0.19%	-0.26%	99%	100%

# Results (Dual Tree ON)

- Anchor: VTM7.0 for WPP (--PLT=1)
- Test: Proposed method for WPP (--PLT=1)

	All Intra Main10				
	Over VTM7.0 DT=1				
	Y	U	V	EncT	DecT
TGM 1080p	-0.06%	-0.10%	-0.06%	100%	100%
TGM 720p	-0.12%	0.00%	-0.01%	100%	101%
Animation	-0.07%	-0.05%	0.04%	100%	101%
Mixed content	-0.03%	-0.06%	0.02%	101%	100%
Camera-Captured content	0.00%	0.00%	-0.02%	100%	101%
<b>Overall</b>	-0.06%	-0.05%	-0.01%	100%	101%





	Random access Main10				
	Over VTM7.0 DT=1				
	Y	U	V	EncT	DecT
TGM 1080p	-0.14%	-0.20%	-0.10%	100%	99%
TGM 720p	-0.05%	-0.07%	-0.07%	100%	98%
Animation	-0.08%	0.01%	0.10%	101%	100%
Mixed content	-0.09%	-0.03%	-0.04%	100%	100%
Camera-Captured content	0.00%	-0.02%	0.02%	100%	102%
<b>Overall</b>	-0.08%	-0.07%	-0.03%	100%	100%

	Low delay B Main10				
	Over VTM7.0 DT=1				
	Y	U	V	EncT	DecT
TGM 1080p	-0.10%	-0.15%	-0.10%	100%	100%
TGM 720p	0.13%	0.04%	-0.13%	101%	101%
Animation	-0.02%	-0.13%	-0.11%	102%	100%
Mixed content	-0.10%	-0.10%	0.02%	99%	100%
Camera-Captured content	-0.01%	0.03%	-0.05%	100%	100%
<b>Overall</b>	-0.02%	-0.06%	-0.08%	100%	100%

We thank Kwai for the crosschecking !!



# Thank you

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