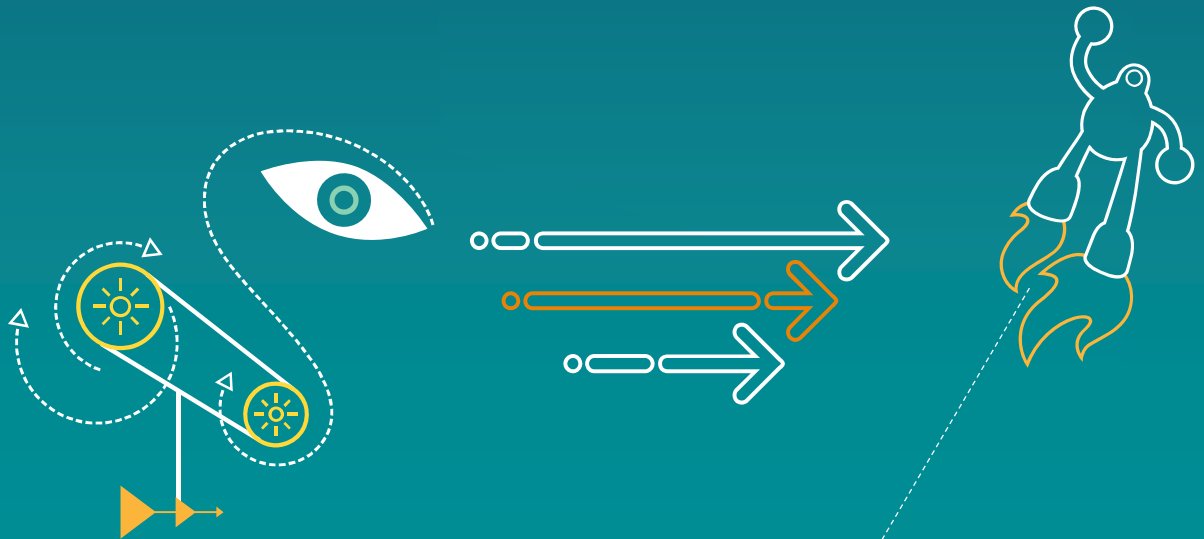


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JVET-F0054

Non-EE1: Alternative setting for PDPC mode



Alternative setting for PDPC mode

- ARSS is disabled
- PDPC is applied in a similar manner as ARSS in JEM
 - PDPC mode can be used with NSST
 - PDPC mode is not applied for small block sizes: 4x4, 4x8 and 8x4
 - PDPC flag is signaled only when a block has at least 2 non-zero transform coefficients

Test #1. EE1 UW planar and alternative PDPC settings are both enabled, PDPC is not applied to UW planar mode

	All Intra Main10				
	Over JEM-5.0.1				
	Y	U	V	EncT	DecT
Class A1	-0.20%	0.12%	0.12%	78%	101%
Class A2	-0.20%	0.57%	0.47%	80%	101%
Class B	-0.04%	0.38%	0.47%	78%	99%
Class C	-0.07%	0.45%	0.53%	78%	100%
Class D	-0.28%	0.29%	0.21%	80%	98%
Class E	-0.16%	0.27%	0.29%	80%	102%
Overall	-0.15%	0.35%	0.36%	79%	100%
Class F (optional)	-0.38%	0.08%	-0.06%	82%	101%

Test #2. Alternative PDPC settings is enabled, and PDPC mode is always applied to JEM planar mode

	All Intra Main10				
	Over JEM-5.0.1				
	Y	U	V	EncT	DecT
Class A1	-0.15%	-0.06%	0.07%	79%	102%
Class A2	-0.15%	0.35%	0.46%	81%	102%
Class B	-0.05%	0.26%	0.35%	78%	99%
Class C	-0.10%	0.49%	0.58%	78%	101%
Class D	-0.30%	0.22%	0.26%	80%	97%
Class E	-0.16%	0.19%	0.11%	80%	103%
Overall	-0.15%	0.24%	0.32%	79%	100%
Class F (optional)	-0.28%	-0.01%	-0.01%	82%	102%

Conclusion

- Encoder speed-up is proposed based on PDPC mode
 - achieves 20% encoder running time reduction with 0.2% luma gain for AI
 - provides better trade-off than tests in EE1
- Test 2 shows that EE1 UW planar mode overlaps with PDPC