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Title: EE1 Tests 2 and 3: Replace Planar mode in P-PDPC with UWP and Enable UW66 on top of the above test

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Purpose: Proposal

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Source: Arris, LGE

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Abstract

This contribution reports results of EE1 for Test 2 (Replace Planar mode in P-PDPC with UWP) and Test 3 (Enable UW66 on top of Test 2). Test 2 shows the BD rates of -0.1% with the encoding time of 99% for AI, and no significant change in decoding time. Test 3 shows the BD rates of -0.1% with the encoding time of 99% for AI, and no significant change in decoding time.

Introduction

G0081 [1] proposes to replace P-PDPC with UWP and angular mode 66 with UW66. For UW66, post filtering is disabled. UW-Planar and UW66 improve the coding efficiency by modifying Planar mode and Angular mode 66. To reduce the UWP complexity, its implementation is modified so that one less multiplication is required to compute final UWP predictor. EE1 Test2 [2] evaluates coding performance impact from replacing Planar mode with UWP. EE1 Test3 [2] evaluates coding performance impact from replacing Planar mode and Angular mode 66 with UWP and UW66.

Modifications to reduce number of multiplication in UWP

Division-free calculation of the final predictor proposed in [3] is shown in Equations (1) - (3). However, number of multiplication required can be reduced due to the fact that combination of and parameters have to be a constant.

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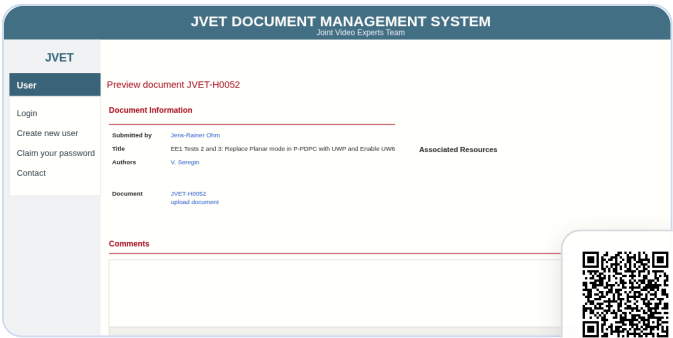
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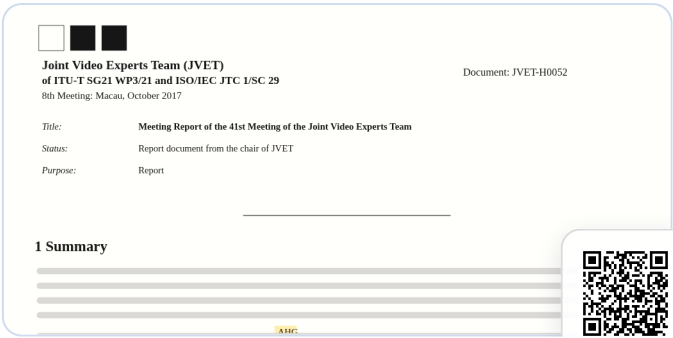
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MEETING NOTES

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MEETING NOTES

[JVET-H0052](#) EE1 Tests 2 and 3: Replace Planar mode in P-PDPC with UWP and Enable UW66 on top of the above test [S. Hong, K. Panusopone, Y. Yu, L. Wang (Arris), H. M. Jang, J. Lim, S.-H. Kim (LGE)]

This contribution reports results of EE1 for Test 2 (Replace Planar mode in P-PDPC with UWP) and Test 3 (Enable UW66 on top of Test 2). Test 2 shows the BD rates of -0.1% with the encoding time of 99% for AI, and no significant change in decoding time. Test 3 shows the BD rates of -0.1% with the encoding time of 99% for AI, and no significant change in decoding time.

CITATION

S. Hong, K. Panusopone, Y. Yu, L. Wang, H. M. Jang, J. Lim, S.-H. Kim, "EE1 Tests 2 and 3: Replace Planar mode in P-PDPC with UWP and Enable UW66 on top of the above test", JVET-H0052, 8th Meeting: Macau, October 2017.

REFERENCES

1. [K. Panusopone, S. Hong, L. Wang, "Unequal Weight Planar Prediction and Constrained PDPC", JVET-E0068, 5th Meeting: Geneva, January 2017.](#)
2. [K. Panusopone, S. Hong, Y. Yu, L. Wang, "Comparisons between UWP, W66 and Planar, Angular mode 66 under the same coding conditions", JVET-G0081, 7th Meeting: Torino, July 2017.](#)
3. [E. Alshina, L. Zhang, "Description of Exploration Experiments on Coding Tools", JVET-G1011, 7th Meeting: Torino, July 2017.](#)