



REDEFINING MOBILITY



JCTVC-E391 CU Level QP Prediction

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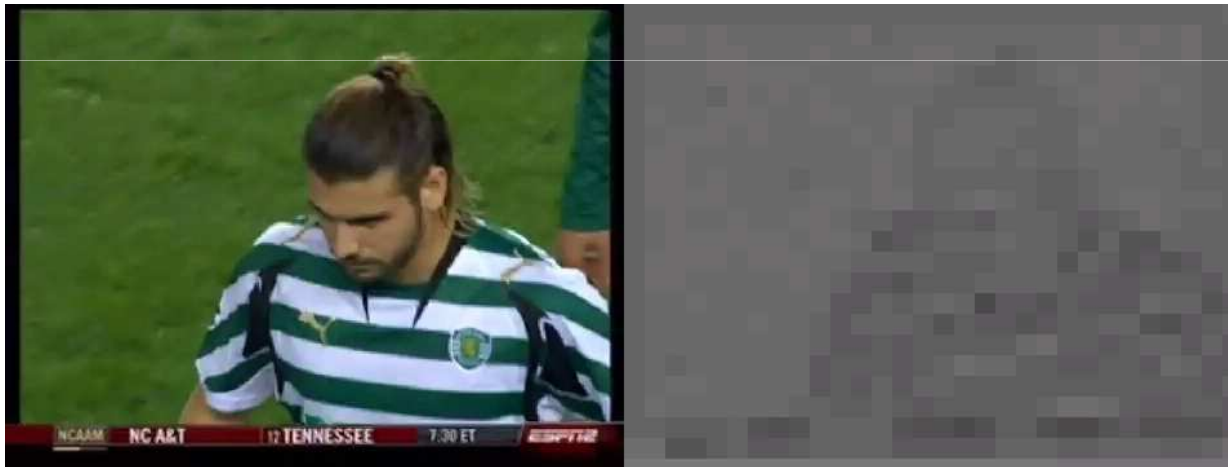
Sub-LCU Level QP

- Motivation

- Perceptual quantization
- Rate-control

- Delta QP

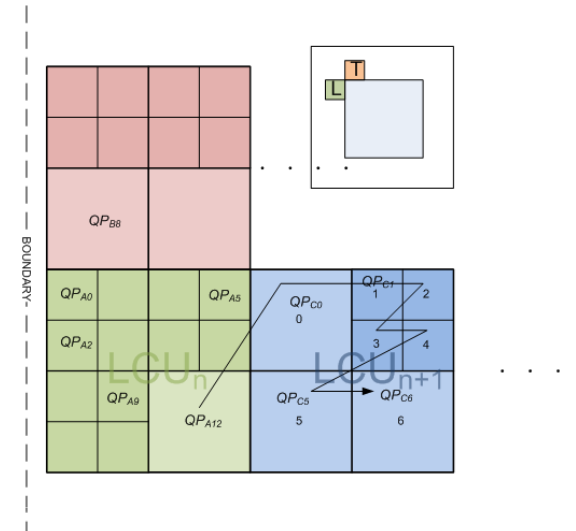
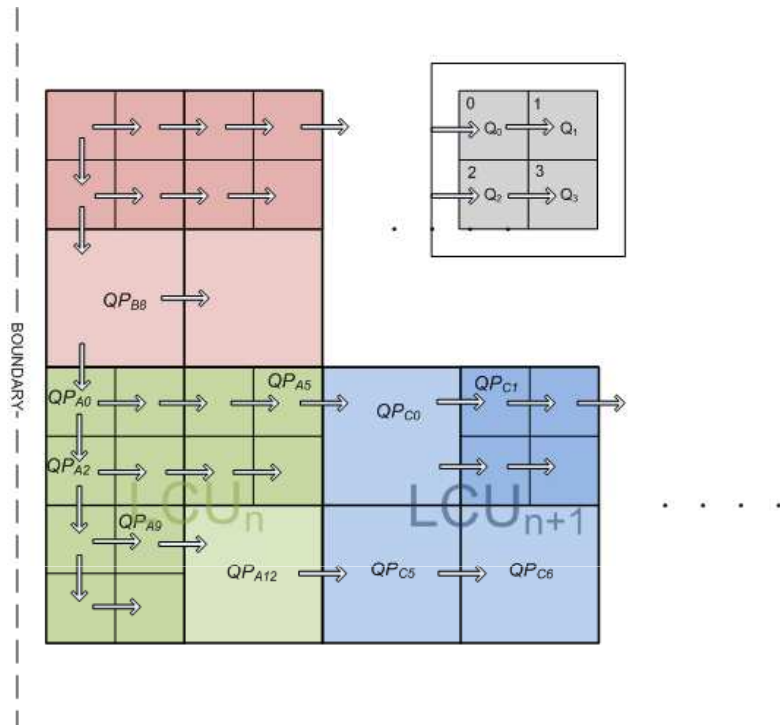
- LCU-level Signaling → CU-level signaling
- Coding order based prediction → Spatial neighbor based QP prediction



Coded frame

QP map

QP Prediction (Method 1)



- Predict from left neighbor's QP

$$dQP_{C0} = QP_{C0} - QP_{A5}$$

$$dQP_{A0} = QP_{A0} - QP_{B8} \text{ (boundary)}$$

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QP Prediction (Method 2)

- Use immediate neighbors' QPs within a quad-tree split CU block as predictors

$$dQP_{C0} = QP_{C0} - QP_{A5}$$

$$dQP_{C1} = QP_{C1} - QP_{C0}$$

$$dQP_{C5} = QP_{C5} - QP_{C0}$$

$$dQP_{C9} = QP_{C6} - QP_{C5}$$

$$dQP_{A0} = QP_{A0} - QP_{B8} \text{ (boundary)}$$

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