

Variable Block Size Motion Vector Retrieval Schemes for H.264 Inter Frame Error Concealment

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Background

H.264 adopts many new effective features to achieve higher compression efficiency and it becomes more and more common in video transmission.

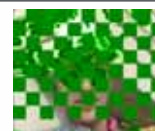
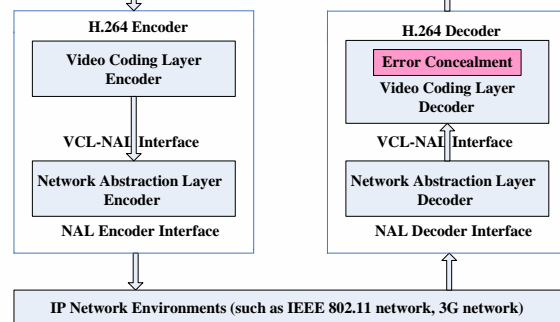
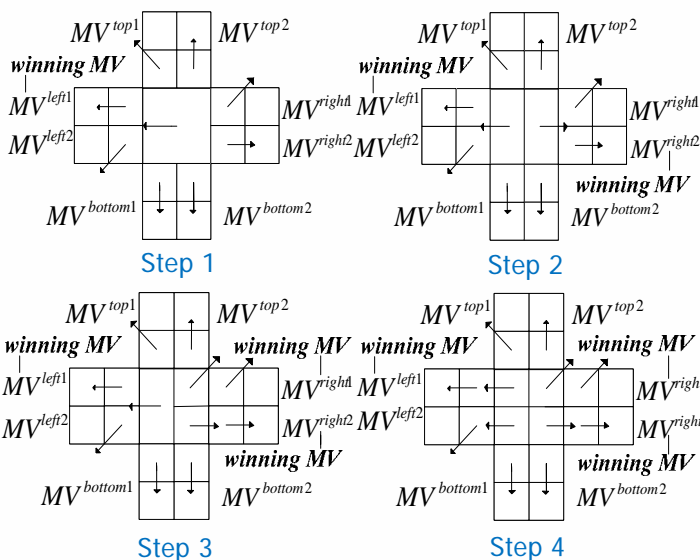
H.264 is more sensitive to transmission errors than other video compression standards.

Our research is to predict more accurate MV for the corrupted MB and achieve high-quality error concealment performance with less reconstruction artifacts.

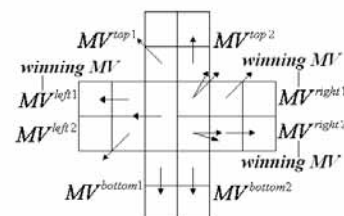
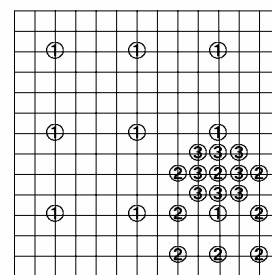
Our research can achieve high-quality video decoding on H.264 video decoder.

Proposals

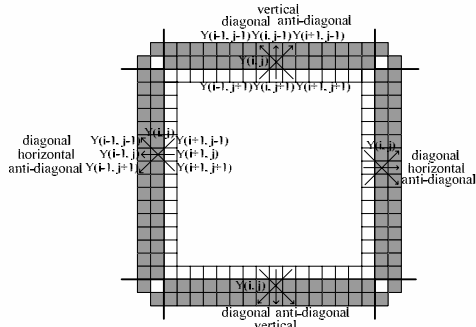
Variable Block Size Error Concealment



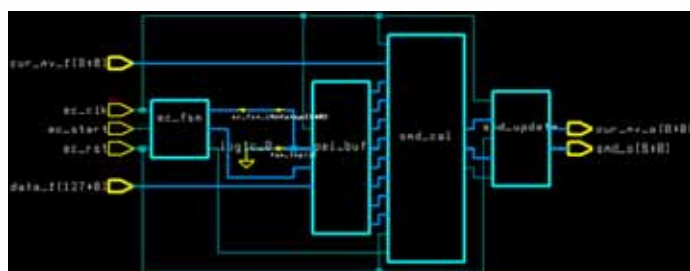
Motion Vector Refinement



Directional Spatio-temporal Boundary Matching Algorithm



H.264 Inter Frame Error Concealment Engine



H.264

Our proposed method

