Title (en)

ADAPTIVE INTERPOLATION METHOD AND SYSTEM FOR MOTION COMPENSATED PREDICTIVE VIDEO CODING AND DECODING

Title (de)

ADAPTIVES INTERPOLATIONSVERFAHREN UND SYSTEM FÜR BEWGUNGSKOMPENSIERTE PRÄDIKTIVE VIDEOKODIERUNG UND - DEKODIERUNG

Title (fr)

PROCÉDÉ ET SYSTÈME D'INTERPOLATION ADAPTATIVE POUR UN CODAGE ET UN DÉCODAGE VIDÉO PRÉDICTIF À COMPENSATION DE MOUVEMENT

Publication

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Application

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Abstract (en)

[origin: WO2008068623A2] Disclosed is an adaptive interpolation method and system for motion compensated predictive video codec, and a decoding method and system corresponding to the interpolation method and system. The interpolation method comprises providing a set of filters including F1 and F2 for a current frame; interpolating a reference frame according to the filters; calculating motion vectors to generate a prediction frame; constructing and adaptively training F1 for a first part of sub-pixel positions; constructing and adaptively training F2 for a second part of sub-pixel positions under the constraint of F1; re-training F1 under the constraint of F2; and updating the filters by the trained filters F1 and F2 to further optimize the filters. In the invention, it is possible to minimize the difference between the current frame and its prediction frame by one pass fast algorithm to make it feasible for real-time coding application.

IPC 8 full level

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CPC (source: EP)

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