Title (en)

EFFICIENT FIXED-POINT APPROXIMATIONS OF FORWARD AND INVERSE DISCRETE COSINE TRANSFORMS

Title (de)

EFFIZIENTE FESTPUNKTANNÄHERUNGEN AN DISKRETE VORWÄRTS- UND RÜCKWÄRTS-COSINUS-TRANSFORMATIONEN

Title (fr)

APPROXIMATIONS EN VIRGULE FIXE EFFICACES DE TRANSFORMÉES EN COSINUS DISCRÈTES INVERSES ET AVANT

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Application

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- US 84719406 P 20060925
- US 82966906 P 20061016
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- US 88393207 P 20070108

Abstract (en)

[origin: WO2008005757A2] Techniques are described to approximate computation of an inverse discrete cosine transform using fixed-point calculations. According to these techniques, matrixes of scaled coefficients are generated by multiplying coefficients in matrixes of encoded coefficients by scale factors. Next, matrixes of biased coefficients are generated by adding a midpoint bias value to a DC coefficient of the matrix of scaled coefficients. Fixed-point arithmetic is then used to apply a transform to the matrixes of biased coefficients. Values in the resulting matrixes are then right-shifted in order to derive matrixes of pixel component values. Matrixes of pixel component values are then combined to create matrixes of pixels. The matrixes of pixels generated by these techniques closely resemble matrixes of pixels decompressed using the ideal inverse discrete cosine transform ("IDCT").

IPC 8 full level

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CPC (source: BR EP KR)

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Citation (search report)

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