

Title (en)

FASTER TRANSFORMS USING SCALED TERMS, EARLY ABORTS, AND PRECISION REFINEMENTS

Title (de)

SCHNELLERE TRANSFORMATIONEN DURCH VERWENDUNG VON SKALIERTEN TERMEN, FRÜHEN ABBRÜCHEN UND PRÄZISIONSVERFEINERUNGEN

Title (fr)

TRANSFORMEES PLUS RAPIDES A TERMES AVEC ECHELLE, SUSPENSIONS ANTICIPEES ET AMELIORATIONS DE PRECISION

Publication

**EP 1352336 A4 20060906 (EN)**

Application

**EP 01981308 A 20011023**

Priority

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- US 69445200 A 20001023
- US 69444800 A 20001023
- US 69445500 A 20001023

Abstract (en)

[origin: WO0235380A1] Fast transform (200) that use multiple scaled terms, early aborts, and precision refinements are disclosed. The discrete transforms are split into sub-transforms (210) that are independently calculated using multiple scaling terms on the transform constants (220). The effect of the scaling for the transform coefficients may optionally be handled by appropriately scaling the quantization values or any comparison values. The possible need to perform a corrective action is detected based upon testing the incremental calculations of transform coefficients. Corrective action is then performed. The corrective action includes refining the incremental calculations to obtain additional precision and/or aborting the incremental calculations when the resulting numbers are sufficient.

IPC 1-7

**G06F 17/14**

IPC 8 full level

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CPC (source: EP KR)

**G06F 17/14** (2013.01 - EP KR)

Citation (search report)

- [A] EP 0599315 A2 19940601 - SONY CORP [JP]
- [A] US 5649077 A 19970715 - ON BILL NGOC [SG], et al
- [A] WO 0055757 A1 20000921 - UNIV JOHNS HOPKINS [US], et al
- [A] US 5740284 A 19980414 - WOBER MUNIB A [US], et al
- [A] FEHER B: "New inner product algorithm of the two-dimensional DCT", PROCEEDINGS OF THE SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING USA, vol. 2419, 1995, pages 436 - 444, XP002388637, ISSN: 0277-786X
- [A] DRYGAJLO A ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "BUTTERFLY ORTHOGONAL STRUCTURE FOR FAST TRANSFORMS, FILTER BANKS AND WAVELETS", DIGITAL SIGNAL PROCESSING 2, ESTIMATION, VLSI. SAN FRANCISCO, MAR. 23, vol. VOL. 5 CONF. 17, 23 March 1992 (1992-03-23), pages V81 - V84, XP000341419, ISBN: 0-7803-0532-9
- See also references of WO 0235380A1

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