(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 October 2009 (15.10.2009)

PCT

(10) International Publication Number
WO 2009/126911 A1

(51) International Patent Classification:
H04N 7/26 (2006.01)

(21) International Application Number:
PCT/US2009/040250

(22) International Filing Date:
10 April 2009 (10.04.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/044,023	10 April 2008 (10.04.2008)	US
61/044,020	10 April 2008 (10.04.2008)	US
61/044,240	11 April 2008 (11.04.2008)	US
61/057,373	30 May 2008 (30.05.2008)	US
12/420,333	8 April 2009 (08.04.2009)	US

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(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

[Continued on next page]

(54) Title: PREDICTION TECHNIQUES FOR INTERPOLATION IN VIDEO CODING

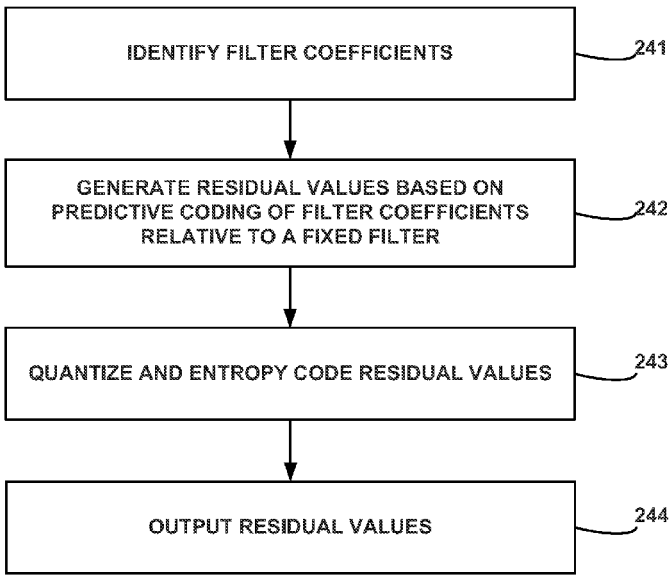


FIG. 24

(57) Abstract: This disclosure describes filtering techniques applied by an encoder and a decoder during the prediction stage of a video encoding and/or decoding process. The filtering techniques may enhance the accuracy of predictive data used during fractional interpolation, and may improve predictive data of integer blocks of pixels. There are several aspects to this disclosure, including a useful twelve-pixel filter support that may be used for interpolation, techniques that use coefficient symmetry and pixel symmetry to reduce the amount of data needed to be sent between an encoder and a decoder to configure the filter support for interpolation, and techniques for filtering data at integer pixel locations in a manner that is similar to sub-pixel interpolation. Other aspects of this disclosure concern techniques for encoding information in the bitstream to convey the type of filter used, and possibly the filter coefficients used. Predictive coding of filter coefficients is also described.

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report (Art. 21(3))*