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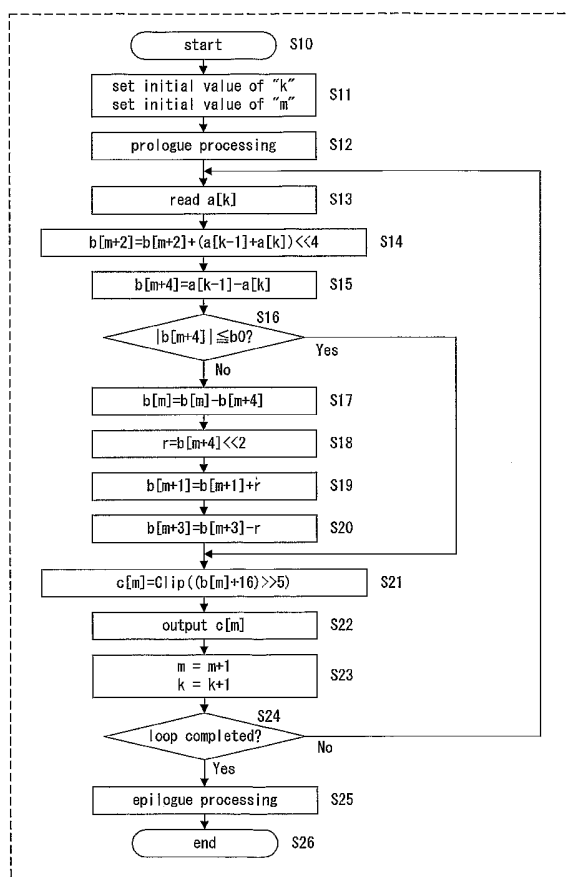
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(54) Title: PIXEL INTERPOLATING METHOD AND DEVICE



(57) Abstract: The n-tap filtering for generating interpolated pixels is converted into calculation of terms consisting of the difference and sum of the pixel values of adjoining pixels. When the difference is equal to or less than a predetermined value, the calculation related to the terms including the difference is omitted, thereby reducing the calculation amount in generating the interpolated pixels. In loop processing according to a flow chart of the pixel interpolating method, the reference pixels are accessed by one pixel per one loop processing for reading pixel values thereof, and the difference and sum of the pixel values are calculate using the adjoining pixel value already read one loop before, thereby interpolating the pixel values of consecutive pixels to be interpolated. Consequently, redundant reading of pixel values is avoided, with further beneficial effects on speedy generation of the interpolated pixels and reduction of the power consumption therein.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| Y | US 5 257 355 A (AKAMATSU ET AL) 26 October 1993 (1993-10-26) column 5, line 9 - line 49 column 7, line 45 - column 8, line 23 claim 1 | 1-8 |
| Y | KYEOUNSOO KIM ET AL: "A high-performance low-power asynchronous matrix-vector multiplier for discrete cosine transform" ASICS, 1999. AP-ASIC '99. THE FIRST IEEE ASIA PACIFIC CONFERENCE ON SEOUL, SOUTH KOREA 23-25 AUG. 1999, PISCATAWAY, NJ, USA, IEEE, US, 23 August 1999 (1999-08-23), pages 135-138, XP010371862 ISBN: 0-7803-5705-1 sections II and III the whole document | 1-8 |

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | SATO, K.; YAGASAKI, Y: "Adaptive MC interpolation for memory access reduction in JVT video coding" PROCEEDINGS. SEVENTH INTERNATIONAL SYMPOSIUM ON SIGNAL PROCESSING AND ITS APPLICATIONS, 2003., vol. 1, 1 July 2003 (2003-07-01), - 4 July 2003 (2003-07-04) pages 77-80, XP002394465 the whole document | 1-8 |
| A | ----- TAMHANKAR A ET AL: "AN OVERVIEW OF H.264/MPEG-4 PART 10" PROCEEDINGS OF MULTIMEDIA COMMUNICATIONS, IOS PRESS, AMSTERDAM, NL, vol. 1, 2 July 2003 (2003-07-02), pages 1-51, XP008034260 sectionn 4.3 ----- | 1-8 |

INTERNATIONAL SEARCH REPORT

— information on patent family members

International application No

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| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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| US 5257355 | A | NONE | |