(54) Title: COMBINED MOTION VECTOR AND REFERENCE INDEX PREDICTION FOR VIDEO CODING

(57) Abstract: A system and method for improving the coding efficiency of motion vector information in video coding. According to various embodiments, a list of motion vector predictor candidates is arranged according to predefined rules. Each motion vector also has a reference index associated with it. One of the motion vector candidates is then selected as a predictor based on predefined rules, or the selection is explicitly signaled in the bitstream. The reference index associated with the selected motion vector is used as a reference index for the current block. The reference index is predicted along with the motion vector. Such embodiments can improve the compression efficiency of modern video codecs.
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— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(4))
A. CLASSIFICATION OF SUBJECT MATTER:
INV. H04N7/26 H04N7/34 H04N7/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. RELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
H04N

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, COMPENDEX, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<tr>
<td>X</td>
<td>TOURAPIS A M ET AL: &quot;Motion Vector Prediction With Reference Frame Consideration&quot;</td>
<td>1-19, 24-31, 36-42</td>
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Further documents are listed in the continuation of Box C.

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Name and mailing address of the ISA:
European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel: (+31-70) 340-2040
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<td>X</td>
<td>JUNG J ET AL: &quot;Competitive on-based scheme for motion vector selection and coding&quot; ITU-T STUDY GROUP 16 - VIDEO CODING EXPERTS GROUP (VCEG), no. VCEG-AC06, 17 July 2006 (2006-07-17), pages 1-7, XP002439849, Kiagenfurt, Austria</td>
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<td>JANIELAINEMA ET AL: &quot;Improved Motion Prediction for TML-4&quot; ITU-T VCEG, ITU-T SG16 Q15, no. q15k34, 16 August 2000 (2000-08-16), pages 1-2, XP030003126, Portland, Oregon, USA</td>
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sections 2.1, 2.2, 3.1, 3.2 and 4