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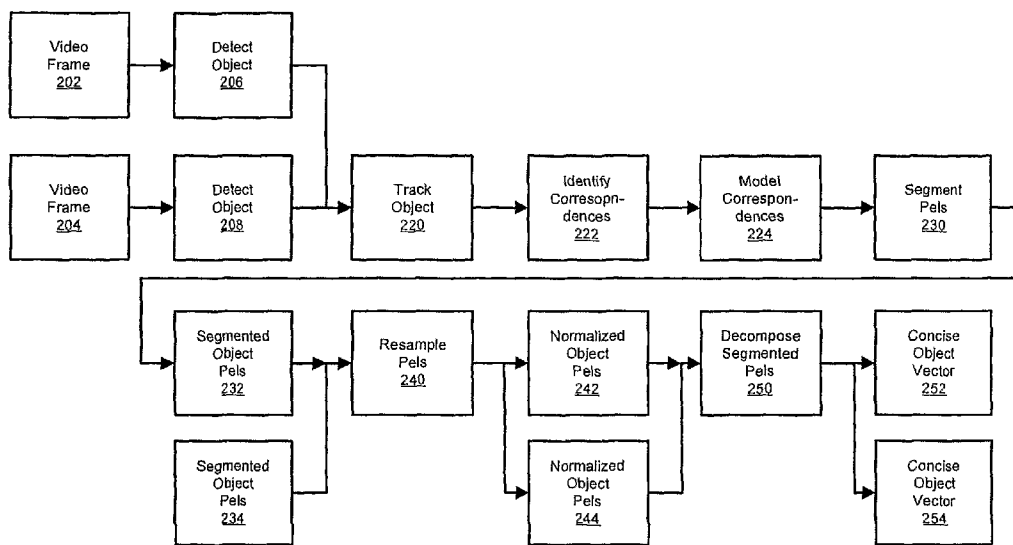
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(54) Title: APPARATUS AND METHOD FOR PROCESSING VIDEO DATA



(57) Abstract: An apparatus and methods for processing video data are described. The invention provides a representation of video data that can be used to assess agreement between the data and a fitting model for a particular parameterization of the data. This allows the comparison of different parameterization techniques and the selection of the optimum one for continued video processing of the particular data. The representation can be utilized in intermediate form as part of a larger process or as a feedback mechanism for processing video data. When utilized in its intermediate form, the invention can be used in processes for storage, enhancement, refinement, feature extraction, compression, coding, and transmission of video data. The invention serves to extract salient information in a robust and efficient manner while addressing the problems typically associated with video data sources.

WO 2006/055512 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **G06K 9/36(2006.01),9/46(2006.01),9/00(2006.01)**

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

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 382/236,103

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 practicable, search terms used)
 Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,711,278 B1 (Gu et al.) 23 March 2004 (23.03.2004) column 1, line 13 - column 6, line 42.	1-9
Y	Viola, Paul and Michael Jones. "Rapid Object Detection Using a Boosted Cascade of Simple Features". 2001 IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'01). IEEE: 2001. Volume 1. Pages 511-518.	1-9
Y	US 2004/0135788 A1 (Davidson et al.) 15 July 2004 (15.07.2004), pages 8-9, paragraphs 112-113.	3
Y	US 2003/0235341 A1 (Gokturk et al.) 25 December 2003 (25.12.2003), page 5, paragraphs 64 and 69.	5-7
Y	US 2003/0194134 A1 (Wenzel et al.) 16 October 2003 (16.10.2003), Abstract.	6

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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Damon Conover <i>Renair</i> Telephone No. (571) 272-5448

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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.
Y	Toklu, Candemir, A. Murat Tekalp, and A. Tanju Erdem. "Simultaneous Alpha Map Generation and 2-D Mesh Tracking for Multimedia Applications". Proceedings of the International Conference on Image Processing: 1997. 26-29 october 1997. Volume 1. Pages 113-116.	8
Y	Urban, Martin. "Harris Interest Operator". http://cmp.felk.cvut.cz/cmp/courses/dzo/resources/lecture_harris_urban.pdf 28 January 2003.	9
Y	Vidal, Rene, Yi Ma, and Shankar Sastry. "Generalized Principal Component Analysis (GPCA)". Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition: 2003. Volume 1. Pages 621-628.	10
Y	US 2004/0107079 A1 (MacAuslan) 3 June 2003 (03.06.2004), paragraphs 6 and 9.	10
Y	US 6,661,004 B2 (Aumond et al.) 9 December 2003 (09.12.2003), column 5, lines 11-13.	10