Title (en)

APPARATUS AND METHOD FOR PROCESSING VIDEO DATA

Title (de)

VORRICHTUNG UND VERFAHREN ZUM VERARBEITEN VON VIDEODATEN

Title (fr)

APPAREIL ET PROCEDE DE TRAITEMENT DE DONNEES VIDEO

Publication

EP 1815397 A4 20120328 (EN)

Application

EP 05822396 A 20051116

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Abstract (en)

[origin: WO2006055512A2] 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.

IPC 8 full level

G06T 7/00 (2006.01); **G06T 7/20** (2006.01); **G06T 9/00** (2006.01); **G06V 10/20** (2022.01); **H04N 5/225** (2006.01); **H04N 7/26** (2006.01); **H04N 7/36** (2006.01); **H04N 7/50** (2006.01)

CPC (source: EP KR US)

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Citation (search report)

- [XYI] EP 0614318 A2 19940907 - TOSHIBA KK [JP]
- [XAI] US 5760846 A 19980602 - LEE MIN-SUP [KR]
- [E] WO 2006015092 A2 20060209 - EUCLID DISCOVERIES LLC [US], et al
- [E] WO 2006034308 A2 20060330 - EUCLID DISCOVERIES LLC [US], et al
- [XAI] TABATABAI A J ET AL: "Motion Estimation Methods for Video Compression-A Review", JOURNAL OF THE FRANKLIN INSTITUTE, PERGAMON PRESS, ELMSFOR, NY, US, vol. 335, no. 8, 1 November 1998 (1998-11-01), pages 1411 - 1441, XP027118902, ISSN: 0016-0032, [retrieved on 19981101]
- [Y] PIQUE R ET AL: "Efficient face coding in video sequences combining adaptive principal component analysis and a hybrid codec approach", PROCEEDINGS OF INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING (ICASSP'03) 6-10 APRIL 2003 HONG KONG, CHINA; [IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP)], IEEE, 2003 IEEE INTERNATIONAL CONFE, vol. 3, 6 April 2003 (2003-04-06), pages III_629 - III_632, XP010639151, ISBN: 978-0-7803-7663-2, DOI: 10.1109/ICASSP.2003.1199553
- [Y] FISCHLER M A ET AL: "RANDOM SAMPLE CONSENSUS: A PARADIGM FOR MODEL FITTING WITH APPLICATIONS TO IMAGE ANALYSIS AND AUTOMATED CARTOGRAPHY", COMMUNICATIONS OF THE ASSOCIATION FOR COMPUTING MACHINERY, ACM, NEW YORK, NY, US, vol. 24, no. 6, 1 June 1981 (1981-06-01), pages 381 - 395, XP001149167, ISSN: 0001-0782, DOI: 10.1145/358669.358692
- [A] YAO WANG ET AL: "Use of Two-Dimensional Deformable Mesh Structures for Video Coding, Part I-The Synthesis Problem: Mesh-Based Function Approximation and Mapping", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 6, no. 6, 1 December 1996 (1996-12-01), XP011014340, ISSN: 1051-8215
- [A] YAO WANG ET AL: "Use of Two-Dimensional Deformable Mesh Structures for Video Coding, Part II-The Analysis Problem and a Region-Based Coder Employing an Active Mesh Representation", IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 6, no. 6, 1 December 1996 (1996-12-01), XP011014339, ISSN: 1051-8215
- [A] HARRIS C ET AL: "A COMBINED CORNER AND EDGE DETECTOR", ALVEY VISION CONFERENCE. PROCEEDINGS OF THE ALVEY VISIONCONFERENCE, XX, XX, 1 January 1988 (1988-01-01), pages 147, XP001155775
- See references of WO 2006055512A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

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