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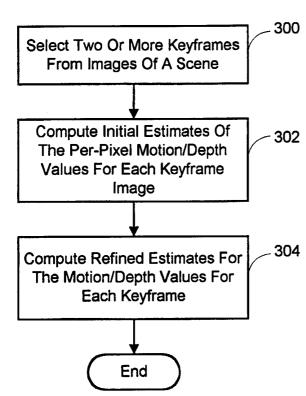
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(54) Title: A MULTI-VIEW APPROACH TO MOTION AND STEREO



(57) Abstract: A system and process for computing motion or depth estimates from multiple images. This is generally accomplished by associating a depth or motion map with each input image (or some subset of the images equal or greater than two), rather that computing a single map for all the images as has been done in the past. This ensures consistency between the estimates associated with different images. More particularly, a three-part cost function is minimized, which consists of an intensity (or color) compatibility constraint (708 & 716), a motion/depth compatibility constraint (712 & 718), and a flow smoothness constraint (738). In addition, a visibility term is added to the intensity (or color) compatibility and motion/depth compatibility constraints (714 - 722) to prevent the matching of pixels into areas that are occluded.

WO 00/77734 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06T7/20 G06F17/30						
Asserting to International Detant Classification (IDC) and both national classification and IDC						
According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED						
Minimum do IPC 7	ocumentation searched (classification system followed by classification ${\tt G06F-G06T}$	ation symbols)				
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-In	ternal, WPI Data, PAJ, INSPEC	-				
C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category °	Citation of document, with indication, where appropriate, of the r	elevant passages	Relevant to claim No.			
A	GUNSEL B ET AL: "Content-based access to video objects: Temporal Segmentation, visual summarization, and feature extraction" SIGNAL PROCESSING. EUROPEAN JOURNAL DEVOTED TO THE METHODS AND APPLICATIONS OF SIGNAL PROCESSING, NL, ELSEVIER SCIENCE PUBLISHERS B.V. AMSTERDAM, vol. 66, no. 2, 30 April 1998 (1998-04-30), pages 261-280, XP004129645 ISSN: 0165-1684 the whole document WO 97 06631 A (SPIEGEL ET AL.) 20 February 1997 (1997-02-20) page 15, line 2 -page 16, line 5		1			
Further documents are listed in the continuation of box C. Patent family members are listed in annex.						
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search		'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family Date of mailing of the international search report				
22 December 2000		03/01/2001				
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Chateau, J-P				

INTERNATIONAL SEARCH REPORT

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