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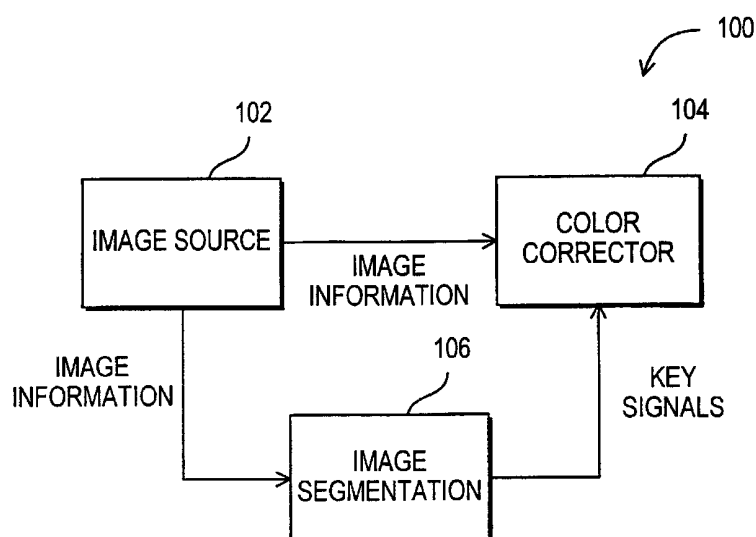
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(54) Title: **IMPROVED IMAGE SEGMENTATION PROCESSING BY USER-GUIDED IMAGE PROCESSING TECHNIQUES**



(57) **Abstract:** Machine analysis of an image to segment (106) the image for subsequent processing is guided by input (102) from a human operator. A convenient drawing tool allows the user to select an object in an image. Machine image segmentation processing is constrained to a region of interest indicated by the operator using the drawing tool. Through the combination of operator input and machine analysis, including edge detection, the object's boundaries are detected accurately. A resulting key signal may be manipulated by the operator in a number of respects and outputted for use in subsequent processing of the image, including color correction (104). Automatic segmentation is also applied to each image in a video clip based on a region of interest indicated by the operator on a first image of the clip. The region of interest is repositioned from image to image on the basis of detected motion of the object indicated by the region of interest.

INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06K 9/36

US CL : 382/164, 167, 199, 282; 345/342

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. : 382/164, 167, 199, 282; 345/342

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P ----- Y,P Y	US 6,097,853 A (GU et al) 01 August 2000, col. 15, lines 38-59. US 5,940,538 A (SPIEGEL et al.) 17 August 1999, col. 21, lines 60-64.	1-6 & 8-40 ----- 7 7

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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P document published prior to the international filing date but later than the priority date claimed	

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