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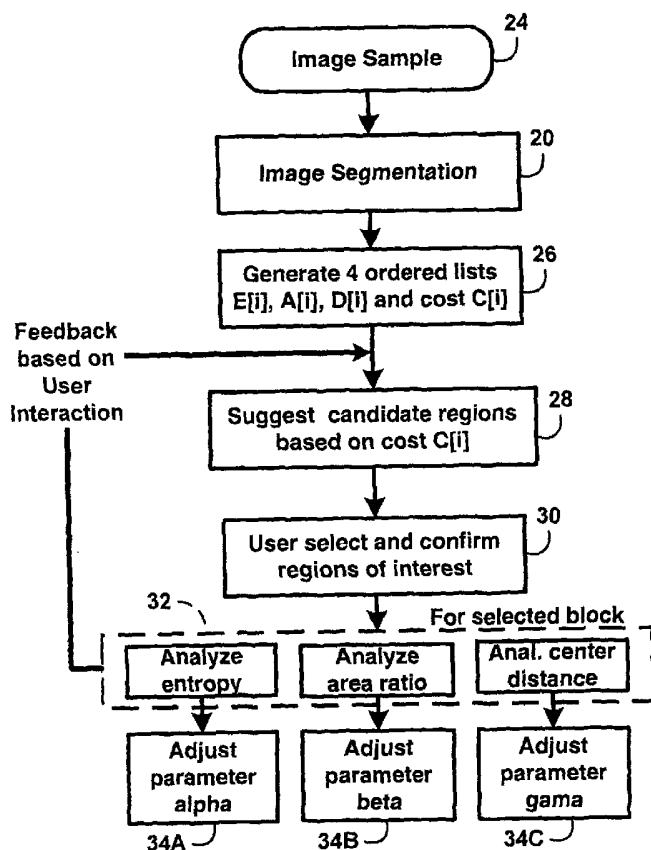
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(54) Title: AUTOMATIC IMAGE CROPPING SYSTEM AND METHOD FOR USE WITH PORTABLE DEVICES EQUIPPED WITH DIGITAL CAMERAS



(57) Abstract: An automatic image cropping system is for use with a portable device having an image capture mechanism and a limited resource for storing or transmitting captured information. The system includes a region of interest suggestion engine defining plural image region candidates by performing image segmentation (20) on an image stored in digital form. The engine also determines if an image region candidate is likely to be more or less interesting to a user than another image region candidate. The engine further selects an image region candidate (28) determined as likely to be of most interest to the user. In some embodiments, the engine further possesses a training module to track user interaction with the portable device and adjust future determination of likelihood of user interest accordingly.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/25490

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06K 9/34, 9/20

US CL : 382/173, 282

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. : 382/173, 282, 291, 225, 180; 345/620-628; 358/453

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
IEEE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---	US 2002/0191816 A1 (CHEATLE) 19 December 2002 (19.12.2002), Whole Document.	1,2,9,11,13,15,16,21-23,30-32,34,35,38,40,42,44-46,49
Y		10,14,17,36,37,41,43,47
Y	PORTER et al. A Robust Automatic Clustering Scheme for Image Segmentation Using Wavelets, IEEE Transactions on Image Processing, April 1996, Vol. 5, Issue 4, pages 662-665	10, 41
Y	US 5,341,226 A (SHIAU) 23 August 1994 (23.08.1994), Whole Document.	14,43
Y	US 2003/0035580 A1 (WANG et al) 20 February 2003 (20.02.2003), Whole Document.	17,47
Y	US 2003/0122942 A1 (PARKER et al) 03 July 2003 (03.07.2003), Whole Document.	36



Further documents are listed in the continuation of Box C.



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INTERNATIONAL SEARCH REPORT

PCT/US04/25490

Continuation of B. FIELDS SEARCHED Item 3:

EAST

search terms: camera, image, crop, segment, ROI, region, feature

INTERNATIONAL SEARCH REPORT

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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	US 2002/0114535 A1 (LUO) 22 August 2002 (22.08.2002), Whole Document.	37