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(54) Title: SYSTEM AND METHOD FOR PERFORMING REGION-BASED IMAGE RETRIEVAL USING COLOR-BASED SEGMENTATION.

(57) Abstract: There is disclosed an image retrieval system for analyzing an image in a first color model format and detecting and retrieving from the image a selected image portion. The image retrieval system comprises an image processor for converting pixels in the image from the first color model format to a (Yrθ) color model format, where Y is an intensity component indicating a total amount of light, r is a saturation component indicating an amount of white light mixed with a color of each pixel, and θ is a hue component indicating the color of each pixel. The image processor groups spatially adjacent pixels into image regions according to hue components of the adjacent pixels and performs a merging process wherein a first image region and an adjacent second image region are merged into a composite region if a hue difference between the first and second image regions is less than a predetermined hue difference threshold. The process is repeated to continually merge regions of similar hue until no further merges can be performed.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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)
IPC 7 G06F G06T

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-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BALLARD ET AL: "Computer Vision" US,ENGLEWOOD CLIFFS, PRENTICE HALL, 1989, pages 149-165, XP002158527 Chapter 5 page 152, paragraph 5.3 -page 160, paragraph 5.5 ---	1-12
Y	SMITH J R ET AL: "TOOLS AND TECHNIQUES FOR COLOR IMAGE RETRIEVAL" PROCEEDINGS OF SPIE,US,BELLINGHAM, SPIE, vol. 2670, 1 February 1996 (1996-02-01), pages 426-437, XP000642585 ISBN: 0-8194-2044-1 page 427, paragraph A -page 433, paragraph E --- -/--	1-12

[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the 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.
A	TOMINAGA S: "COLOR CLASSIFICATION OF NATURAL COLOR IMAGES" COLOR RESEARCH AND APPLICATION,US,JOHN WILEY & SONS INC. NEW YORK, vol. 17, no. 4, 1 August 1992 (1992-08-01), pages 230-239, XP000647180 ISSN: 0361-2317 page 230, left-hand column, line 1 -page 233, left-hand column, line 1; figures 2,5,7 page 235, right-hand column, line 16 -page 236, left-hand column, line 9 -----	1-6,9-12

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