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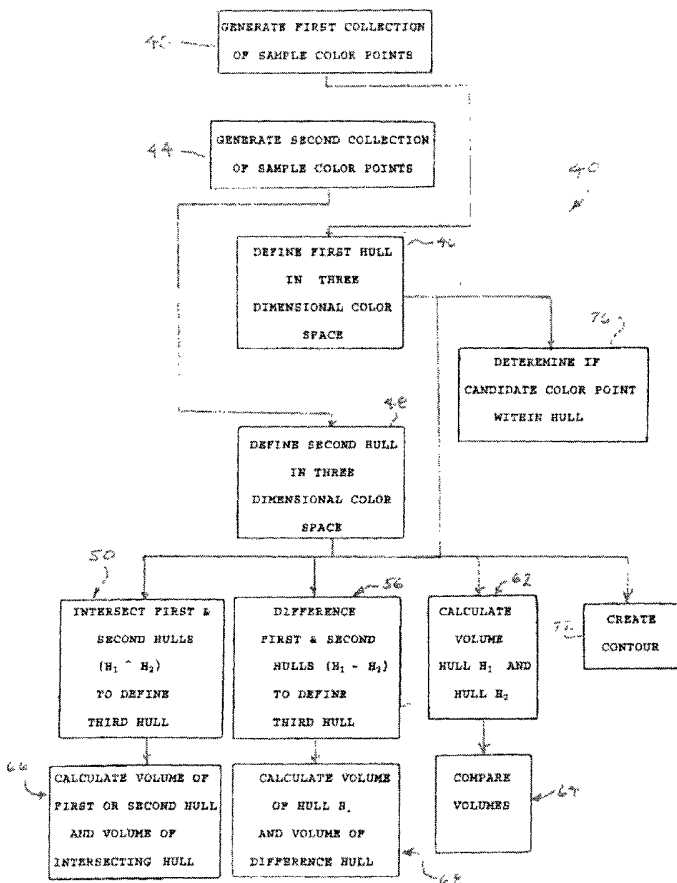
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(54) Title: GAMUT DESCRIPTION AND VISUALIZATION



(57) Abstract: This invention pertains to a computer-implemented method and program for the comparison of color gamuts (Fig. 2). Using first and second collections (40, 44) of sample color points respective hulls (46, 48) are created in a color space. The set of all of the points disposed on the surface of the a hull or within the volume enclosed thereby represents the respective color gamut. The hulls are combined, preferably by a Boolean operation, to create a third hull in the color space representing at least one region of overlap (56) or at least one region of exclusion (56) between the first color gamut (H1) and the second color gamut (H2). The volume of at least one of the hulls may be calculated and compared to the volume of the region of overlap (66) and/or the region of exclusion (68). A visual display of the contour produced by the intersection of one or both of the hulls with a plane perpendicular to a predetermined reference line in the color space may be created to ascertain qualitatively the degree of alignment of the first and second hulls along the reference line. The determination of whether a given color point lies within a hull may also be made.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 15/00, G03F 3/08.
 US CL : 358/1.9, 518; 345/590.

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. : 358/1.9, 3.27, 518, 520, 523, 530; 345/589, 590.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 East

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US-2002/0140701 (GUYLER) 03 OCTOBER 2002, FIGS. 1, 3, 6, PARAGRAPHS 0018-0041.	1-2, 4, 8-29, 31-52.
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Y	US-5,740,076 a (LINDBOLLM) 14 APRIL 1998, FIG.1B, COL. 2, LINES 6-30; COL. 5, LINES 3-8, COL. 6, LINES 7-9.	3, 5, 6, 7, 29-30

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"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
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"O" document referring to an oral disclosure, use, exhibition or other means	
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