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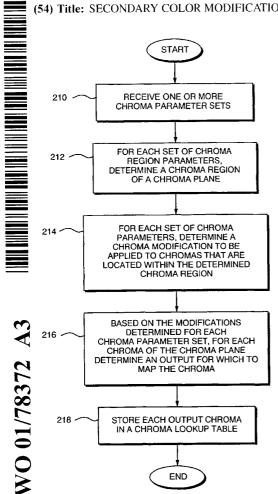
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(54) Title: SECONDARY COLOR MODIFICATION OF A DIGITAL IMAGE



(57) Abstract: An ellipsoid chroma region of a chroma plane may be defined to specify a range of chromas for which a secondary chroma modification is to be applied, and to determine an output chroma for each chroma of the chroma plane based on the ellipsoid chroma region. Further, two or more different-shaped chroma regions of a chroma plane may be defined and manipulated, each chroma region specifying a range of chroma for which a secondary chroma modification is to be applied, and to determine an output chroma for each chroma of the chroma plane based on the two or more different-shaped chroma regions. Also, chroma-matching techniques may be used to define and manipulate the chroma region of a chroma plane that specifies a range of for which a secondary chroma modification is to be applied, and an output chroma may be determined for each chroma of the chroma plane based on the chroma region.

INTERNATIONAL SEARCH REPORT

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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 HO4N

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

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	US 5 202 935 A (KOTERA HIROAKI ET AL) 13 April 1993 (1993-04-13)	1-3
Α	abstract column 3, line 8 -column 5, line 6	4-14
A	US 5 412 491 A (BACHAR AVRAHAM) 2 May 1995 (1995-05-02) abstract column 2, line 50 -column 5, line 13	1-14
A	EP 0 670 528 A (CANON KK) 6 September 1995 (1995-09-06) abstract page 3, line 36 -page 4, line 26	1-14
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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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INTERNATIONAL SEARCH REPORT

Int stional Application No
PCT/US 01/10761

C.(Continuation) DOCUMENTS CONSIDE		Delevent to the Me
Category * Citation of document, with ind	cation, where appropriate, of the relevant passages	Relevant to claim No.
P,A US 6 122 012 / 19 September 2 abstract	A (SEGMAN YOSEF) 2000 (2000–09–19) 2 56 -column 3, line 38	1-14

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INTERNATIONAL SEARCH REPORT

Information on patent family members

Int tional Application No
PCT/US 01/10761

Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5202935 A	13-04-1993	JP DE DE EP	4156779 A 69124184 D1 69124184 T2 0481525 A2	29-05-1992 27-02-1997 26-06-1997 22-04-1992
US 5412491 A	02-05-1995	IL US	101197 A 5331439 A	19-01-1996 19-07-1994
EP 0670528 A	06-09-1995	JP JP JP EP DE DE DE US US	1044169 A 2617724 B2 1175369 A 2692823 B2 0670528 A2 3854851 D1 3854851 T2 3856285 D1 3856285 T2 0303474 A2 5194945 A 5726779 A	16-02-1989 04-06-1997 11-07-1989 17-12-1997 06-09-1995 15-02-1996 17-10-1996 04-02-1999 10-06-1999 15-02-1989 16-03-1993 10-03-1998
US 6122012 A	19-09-2000	AU WO	3496300 A 0052938 A1	21-09-2000 08-09-2000