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(54) Title: SYSTEM AND METHOD FOR THE DISPLAY OF EXTENDED BIT DEPTH HIGH RESOLUTION IMAGES

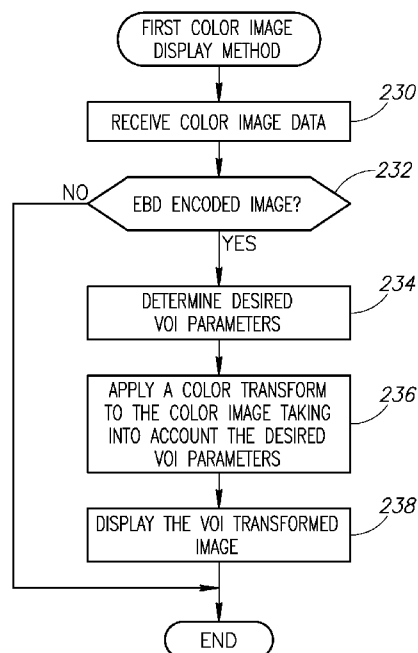


FIG.12

(57) Abstract: A novel and useful system and method for the serving and display of extended bit depth (EBD) high resolution images on a web browser using multimedia platform code or code for a graphics framework. To display an EBD image, such as an x-ray or MRI image set, on a web browser, the image data is mapped into a plurality of channels of pixels of a color image which a web browser is able to handle, where each channel holds a portion of the full dynamic range of the original EBD image. At the client, a color transform is applied to the color image data which takes into account the user's desired VOI settings. The resulting display image has the exact values as if the VOI was applied to the original EBD image and is dynamically mapped to the display capabilities of the client viewing framework thus enabling a reviewer to detect any available details of the image.



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A. CLASSIFICATION OF SUBJECT MATTER**G06F 15/16(2006.01)i, G06F 3/14(2006.01)i, G06T 1/00(2006.01)i**

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: H04N, G06F

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

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

eKOMPASS(KIPO internal) "Keywords: extended bit depth image, color transform, multi-channel image, and similar terms"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1496685 A2 (HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.) 12 January 2005 See the abstract, figures 2-10, page 2 lines 2-32, page 4 lines 12-32, page 5 lines 4-18, page 5 line 9 - page 6 line 2, and page 11 lines 8-10.	1-45
A	KR 10-2006-0080438 A (SAMSUNG ELECTRONICS CO., LTD.) 10 July 2006 See the whole document.	1-45
A	KR 10-2008-0020314 A (SAMSUNG ELECTRONICS CO., LTD.) 05 March 2008 See the abstract, figures 3a, 3b and 10, and claims 1-6.	1-45

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

* Special categories of cited documents:

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Date of the actual completion of the international search

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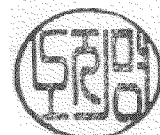
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1496685 A2	12.01.2005	EP 1496685 A3 JP 2005-033806 A US 07352893 B2 US 2005-0008223 A1	20.12.2006 03.02.2005 01.04.2008 13.01.2005
KR 10-2006-0080438 A	10.07.2006	KR 10-0682912 B1 US 2006-0146930 A1	15.02.2007 06.07.2006
KR 10-2008-0020314 A	05.03.2008	EP 2057847 A1 KR 10-2008-0044591 A US 2008-0056352 A1 WO 2008-026896 A1	13.05.2009 21.05.2008 06.03.2008 06.03.2008