



- (51) International Patent Classification:
G06F 3/00 (2006.01)
- (21) International Application Number:
PCT/IB2014/000030
- (22) International Filing Date:
13 January 2014 (13.01.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/751,873 13 January 2013 (13.01.2013) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,

HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:
30 October 2014

(54) Title: APPARATUS AND METHODS OF REAL TIME PRESENTING 3D VISUAL EFFECTS WITH STEREOPSIS MORE REALISTICALLY AND SUBSTRACT REALITY WITH EXTERNAL DISPLAY(S)

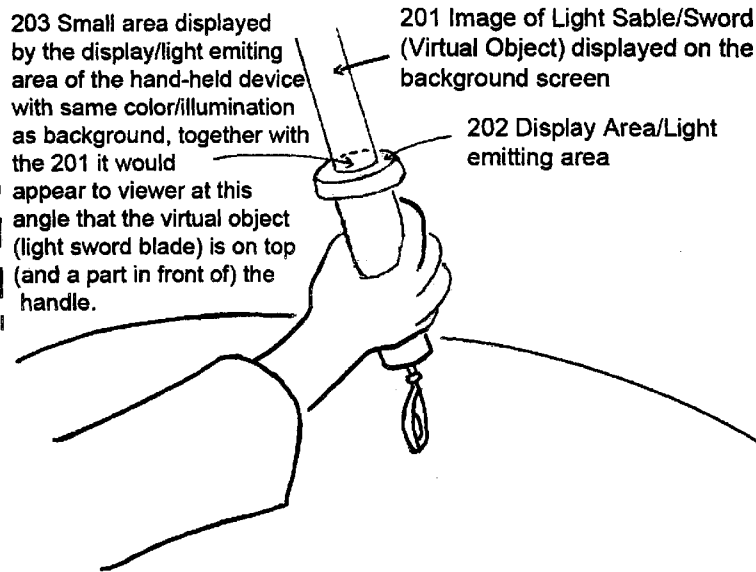
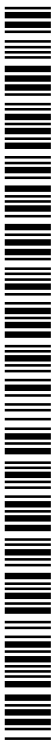


Fig.2(A)

(57) Abstract: A new way of presenting 3D visual effects with stereopsis (or "Binocular Vision") in real time with interacting control device/prop more realistically with accurate depth feeling, this could be done by calculating according to viewing positions and device/prop position. This invention also relating to "subtract reality" which is the reverse of "augmented reality"(AR) in a way that make real world object or a part of it disappear in the virtual reality environment when using external (Non-HMD) display. Fast configuration/calibration methods also being used in the embodiments.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2014/000030

A. CLASSIFICATION OF SUBJECT MATTER		
G06F 3/00 (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)		
G06F		
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 practicable, search terms used)		
CNPAT,WPI,EPODOC 3D, three, dimension??, stereo, stereopsis, present+, display+, binocular, VR, visual, reality, HMD, left, right, eye, position, location,size, adjust+, chang+, distance, converage, subtract, hid+, interpupillary		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 101305401A (MICROSOFT CORP.) 12 November 2008 (2008-11-12) description, page 3, line 17-page 11, line 28 and figures 1, 5, 7, 9, 10	1-4
Y	CN 101305401A (MICROSOFT CORP.) 12 November 2008 (2008-11-12) description, page 3, line 17-page 11, line 28 and figures 1, 5, 7, 9, 10	20
A	CN 101305401A (MICROSOFT CORP.) 12 November 2008 (2008-11-12) description, page 3, line 17-page 11, line 28 and figures 1, 5, 7, 9, 10	5-19, 21, 22
X	EP 2451176A2 (SAMSUNG ELECTRONICS CO., LTD.) 09 May 2012 (2012-05-09) description, paragraphs [0166]-[0188], [0246]-[0250] and figures 4A, 4B, 8C	16-19
Y	EP 2451176A2 (SAMSUNG ELECTRONICS CO., LTD.) 09 May 2012 (2012-05-09) description, paragraphs [0166]-[0188], [0246]-[0250] and figures 4A, 4B, 8C	20
A	EP 2451176A2 (SAMSUNG ELECTRONICS CO., LTD.) 09 May 2012 (2012-05-09) description, paragraphs [0166]-[0188], [0246]-[0250] and figures 4A, 4B, 8C	1-15, 21, 22
A	CN 1746821A (CANON KK.) 15 March 2006 (2006-03-15) the whole document	1-22
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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“P”	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search		Date of mailing of the international search report
15 May 2014		08 July 2014
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/IB2014/000030

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
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