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MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
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SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
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[Continued on next page]

(54) Title: INTEGRATING MAPS AND STREET VIEWS

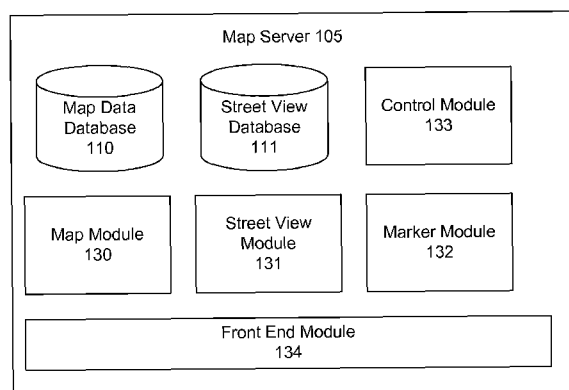
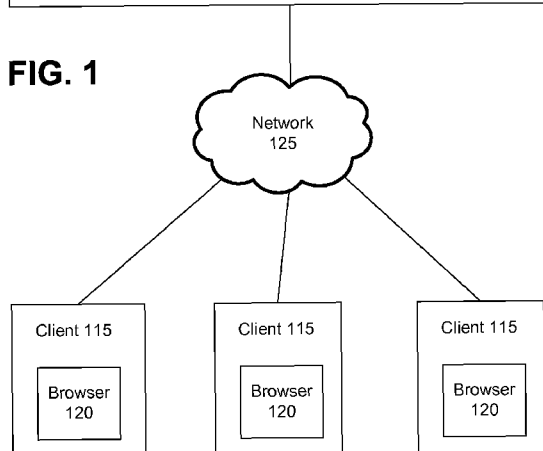


FIG. 1

(57) Abstract: Methods and systems for improved integration of an
overhead representation (e.g., a map) with a street view representation.
A user interface with at least two regions is output for display to a
user. One region includes an overhead representation of an area and an
interactive control overlaid onto the overhead representation. Another
region includes a street view perspective that has a point of view cor-
responding to a position and directional orientation of the interactive
control. Information about a user input that adjusts the interactive con-
trol is received and the street view perspective is updated to track the
control as it is adjusted. The field of view of the street view perspec-
tive may be reflected in the appearance of the interactive control. Addi-
tionally, the street view perspective may follow the location of a mark-
er as it is moved around the overhead representation.



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INTERNATIONAL SEARCH REPORT

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PCT/US2012/032941**A. CLASSIFICATION OF SUBJECT MATTER****G06Q 50/10(2012.01)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)

G06Q 50/10; G06F 3/048; G06F 17/30; G06F 7/00; G01C 21/00

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

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: street view, overhead, direction, position

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010-0293173 A1 (CHAPIN CHARLES et al.) 18 November 2010 See abstract and claim 1.	1-20
A	US 2011-0010674 A1 (KNIZE NICHOLAS W. et al.) 13 January 2011 See abstract and claim 1.	1-20
A	KR 10-2010-0082050 A (SLIM DISC CORP.) 16 July 2010 See abstract, claim 1, and figures 1-2.	1-20
A	US 2005-0216186 A1 (BARNABY DORFMAN et al.) 29 September 2005 See abstract and paragraphs [0068]-[0076].	1-20

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

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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
US 2010-0293173 A1	18.11.2010	CA 2761797 A1 KR 10-2012-0027346 A WO 2010-132653 A1	18.11.2010 21.03.2012 18.11.2010
US 2011-0010674 A1	13.01.2011	WO 2011-008678 A1	20.01.2011
KR 10-2010-0082050 A	16.07.2010	None	
US 2005-0216186 A1	29.09.2005	CA 2559726 A1 US 2005-0216193 A1 US 2006-0271287 A1 US 2007-0043504 A1 US 2007-0136259 A1 US 2008-0189130 A1 US 7155336 B2 US 7272501 B2 US 7359797 B2 US 7587276 B2 US 7756630 B2 WO 2005-094550 A2 WO 2005-094550 A3	13.10.2005 29.09.2005 30.11.2006 22.02.2007 14.06.2007 07.08.2008 26.12.2006 18.09.2007 15.04.2008 08.09.2009 13.07.2010 13.10.2005 13.10.2005