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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

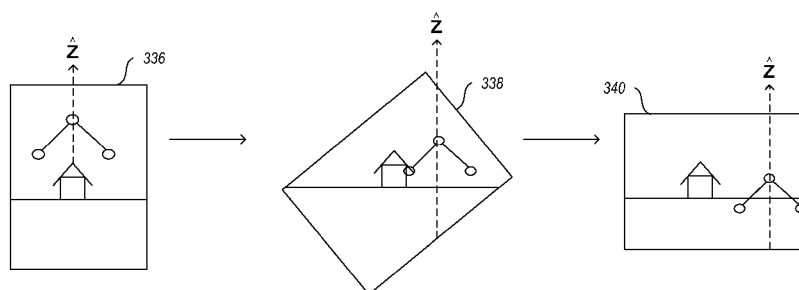
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(88) Date of publication of the international search report:

26 March 2015

(54) Title: PROPERTY MANAGEMENT ON A SMARTPHONE

**Fig. 12**

(57) **Abstract:** Systems and methods are disclosed for a property management system that runs on a smartphone and allows users to identify and track information on one or more properties and to receive property updates from the server. Systems and methods are also disclosed that use the orientation of and images captured by a smartphone camera to identify a facet of an object and to determine its pitch.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/19133

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - G06Q 50/16, G06Q 10/10 (2015.01) CPC - G06Q 50/163, G06Q 10/10 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(8) - G06Q 50/16, G06Q 10/10 (2015.01) CPC - G06Q 50/163, G06Q 10/10 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC(8) - G06Q 50/16, G06Q 10/10 (2015.01); CPC - G06Q 50/163, G06Q 10/10, G06F 17/5004, G06T 2207/10032, G06K 9/00637, G06T 7/0083, G06T 2200/24, G06T 7/0042; USPC - 705/314, 382/106 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Patbase; Google web/patent, FreePatentsonline Search terms used: roof imaging photograph picture smartphone cellular phone iphone app module slope pitch request transmit receive report information metadata server computer																										
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 2012/0035887 A1 (AUGENBRAUN et al.) 09 February 2012 (09.02.2012), para [0007], [0013], [0023], [0075]-[0080], [0051], [0053], [0141], [0203]-[0226], [0185], [0236]</td> <td>1-4</td> </tr> <tr> <td>X --- Y</td> <td>US 2010/0110074 A1 (PERSHING et al.) 06 May 2010 (06.05.2010), para [0027]-[0030], [0040] - [0043]</td> <td>2 ----- 1, 3, 4</td> </tr> <tr> <td>Y</td> <td>US 2012/0179431 A1 (LABRIE et al.) 12 July 2012 (12.07.2012), para [0029]-[0035], [0092]-[0097]</td> <td>1, 3, 4</td> </tr> <tr> <td>Y</td> <td>US 2009/0304227 A1 (KENNEDY et al.) 10 December 2009 (10.12.2009), para [0055]-[0067]</td> <td>1, 3, 4</td> </tr> <tr> <td>Y</td> <td>US 2012/0101783 A1 (STEPHENS et al.) 26 April 2012 (26.04.2012), entire document</td> <td>1, 3, 4</td> </tr> <tr> <td>Y</td> <td>US 2010/0296693 A1 (THORNBERRY et al.) 25 November 2010 (25.11.2010), entire document</td> <td>1, 3, 4</td> </tr> <tr> <td>Y</td> <td>US 2006/0235611 A1 (DEATON et al.) 19 October 2006 (19.10.2006), entire document</td> <td>1, 3, 4</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 2012/0035887 A1 (AUGENBRAUN et al.) 09 February 2012 (09.02.2012), para [0007], [0013], [0023], [0075]-[0080], [0051], [0053], [0141], [0203]-[0226], [0185], [0236]	1-4	X --- Y	US 2010/0110074 A1 (PERSHING et al.) 06 May 2010 (06.05.2010), para [0027]-[0030], [0040] - [0043]	2 ----- 1, 3, 4	Y	US 2012/0179431 A1 (LABRIE et al.) 12 July 2012 (12.07.2012), para [0029]-[0035], [0092]-[0097]	1, 3, 4	Y	US 2009/0304227 A1 (KENNEDY et al.) 10 December 2009 (10.12.2009), para [0055]-[0067]	1, 3, 4	Y	US 2012/0101783 A1 (STEPHENS et al.) 26 April 2012 (26.04.2012), entire document	1, 3, 4	Y	US 2010/0296693 A1 (THORNBERRY et al.) 25 November 2010 (25.11.2010), entire document	1, 3, 4	Y	US 2006/0235611 A1 (DEATON et al.) 19 October 2006 (19.10.2006), entire document	1, 3, 4
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☐ Further documents are listed in the continuation of Box C. ☐																										
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family																										
Date of the actual completion of the international search 20 January 2015 (20.01.2015)		Date of mailing of the international search report 02 FEB 2015																								
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774																								

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/19133

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-2 drawn to a system, comprising: a smartphone device; a server operably connected to the smartphone device; a module on the smartphone device configured to: receive information identifying one or more properties, send an order for a roof report for the one or more properties to the server receive the roof report for the one or more properties from the server; store the roof report for the one or more properties received from the server on the smartphone device.

Group II: Claims 3-4, drawn to a system, comprising: a smartphone device; a module on the smartphone device configured to: receive an image representing a facet of an object for which a pitch is to be determined, wherein the image contains metadata information; receive a scissor marker from a user that identifies the facet of the object for which a pitch is to be determined; determine the pitch of the object using the scissor marker and the metadata information; output the pitch of the facet of the object to the smartphone device.
-- see extra sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/19133

Continuation of Box No. III – Observations where unity of invention is lacking

The inventions listed as Groups I through II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Special Technical Features

Group I includes the special technical feature of send an order for a roof report for the one or more properties to the server receive the roof report for the one or more properties from the server, not included in the other groups.

Group II includes the special technical feature of a determine the pitch of the object using the scissor marker and the metadata information, not included in the other groups.

Common Technical Features:

The only technical features shared by Groups I and II that would otherwise unify the groups, are a smartphone device and a module on the smartphone device to receive information. However, these shared technical features do not represent a contribution over prior art, because the shared technical features are disclosed by US 2011/0279224 A1 (Jang).

Jang discloses a smartphone device and a module on the smartphone device to receive information (abstract; Fig 2, smartphone 100 with input module 122 and transceiver unit 150).

As the technical features were known in the art at the time of the invention, these cannot be considered special technical features that would otherwise unify the groups.

Therefore, Groups I-II lack unity under PCT Rule 13.