UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON

CORUS REALTY HOLDINGS, INC. Plaintiff, v. ZILLOW GROUP, INC.; ZILLOW, INC.; and TRULIA, LLC Defendants.	)	C.A. No. 2:18-cv-00847 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Corus Realty Holdings, Inc. ("Plaintiff" or "Corus") allege as follows:

NATURE OF ACTION

1. This is an action under the patent laws of the United States, 35 U.S.C. § 1, et seq., for infringement by Defendants Zillow Group, Inc. ("Zillow Group"); Zillow, Inc. ("Zillow"), and Trulia, LLC ("Trulia") (collectively, "Defendants") of U.S. Patent No. 6,636,803 ("the '803 patent") owned by Corus.

THE PARTIES

2. Plaintiff Corus is a corporation organized under the laws of the State of Delaware, with its principal place of business at 1900 North Taylor Street, Arlington, VA 22207.

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3. Upon information and belief, Zillow Group is a corporation organized under the laws of the State of Washington with its principal place of business at 1301 Second Avenue, Seattle, WA 98101.

4. Upon information and belief, Zillow is a corporation organized under the laws of the State of Washington with its principal place of business at 1301 Second Avenue, Seattle, WA 98101. Zillow is a wholly-owned subsidiary of Zillow Group.

5. Upon information and belief, Trulia is a corporation organized under the laws of the State of Delaware with its principal place of business at 535 Mission Street, Suite 700, San Francisco, CA 94105. Trulia is a wholly-owned subsidiary of Zillow and an indirect subsidiary of Zillow Group. Trulia is a successor to Trulia, Inc. Trulia, Inc. was acquired by Zillow Group in February of 2015.

JURISDICTION AND VENUE

6. This action arises under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This court has general and specific personal jurisdiction over the Defendants based on their purposeful, systematic, and continuous contacts with the State of Washington. Defendants regularly transact business in and have committed tortious acts (including the infringement described below) in this district.

8. Venue is proper in this district pursuant to 28 U.S.C. § 1400(b) because Defendants have committed acts of infringement in this district and have a regular and established place of business in this district. Venue over Zillow Group and Zillow is also proper

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in this district because both reside in the district through their incorporation in the State of Washington.

9. Defendant Zillow Group's registered agent in Washington is CT Corporation System, located at 711 Capitol Way S STE 204; Olympia, WA 98501.

10. Defendant Zillow's registered agent in Washington is CT Corporation System, located at 711 Capitol Way S STE 204; Olympia, WA 98501.

11. Defendant Trulia's registered agent in Washington is CT Corporation System, located at 711 Capitol Way S STE 204; Olympia, WA 98501.

12. Defendants conduct substantial business in the State of Washington, including (1) committing at least a portion of the infringing acts alleged herein and (2) regularly transacting business, soliciting business, and deriving revenue from the sale of goods and services, including infringing goods and services, to individuals in the State of Washington. Thus, Defendants have purposefully availed themselves of the benefits of the State of Washington, and the exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice.

13. For example, Defendants operate websites and mobile applications that provide real estate information and services to users within the State of Washington. Zillow Group and Zillow further sell and offer to sell valuable marketing and advertising services on their website and mobile applications to real estate agents in the State of Washington.

14. Upon information and belief, Zillow Group exercises direction and control over its subsidiaries, including Zillow and Trulia, and it operates its subsidiaries and affiliated entities as divisions or agents of a single enterprise. The branding used on the websites associated with Zillow (www.zillow.com) and Trulia (www.trulia.com) reference and describe Zillow Group.

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The Zillow and Trulia websites further identify Zillow and Trulia as brands owned by Zillow Group. Zillow Group also consolidates its financial disclosures for the Zillow and Trulia entities in its SEC filings. Zillow Group also hires employees in its Seattle office to develop and support the products and services operated by its subsidiaries, such as Zillow and Trulia.

15. The terms of service and privacy policies for both Zillow and Trulia are substantially similar and reference Zillow Group and its subsidiaries as providing the applications, operation, data, and other services associated with Zillow and Trulia that include the infringing products. *See* https://www.trulia.com/info/terms/ and https://www.zillow.com/corp/Terms.htm. The Terms of Use for both Zillow and Trulia further indicate that the "user interfaces, design, information, data, code, products, software, graphics, and all other elements" of the services, including its mobile applications and networks, are the property of Zillow Group and Zillow Group grants users licenses to use the Zillow and Trulia products. Defendants further share information and data collected about their products, customers, and users. *See* https://www.zillow.com/corp/Privacy.htm and https://www.trulia.com/info/privacy/.

CORUS AND THE '803 PATENT

16. Corus is the owner of the '803 patent entitled "Real-estate Information Search and Retrieval System" that was filed on November 30, 2001. A true and correct copy of the '803 patent is attached as Exhibit A.

17. Corus was founded in 2001 as a start-up in McLean, Virginia. Corus was founded with the purpose of bringing a new business model to the real estate industry that, among other things, improved the technology that real estate agents used to do their business.

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18. One such technology was the Mobile Navigator that was developed in 2001. The Mobile Navigator product was a mobile device that used location technology to identify and obtain relevant information about real estate near a user's location. Corus provided the Mobile Navigator for use by its clients and agents.

19. Corus was frequently recognized as one of the top real estate firms in the Washington, D.C. area and was specifically recognized by Inc. Magazine in September 2006 for its innovation with technology such as Mobile Navigator.

20. On October 21, 2003, the '803 patent was issued to Corus Realty LLC that was doing business at the time as Corus Home Realty. Corus, as owner of Corus Realty LLC, became owner of the '803 patent through termination of Corus Realty LLC corporation. Corus now has all rights in the '803 patent and standing to sue for patent infringement.

21. In 2013, Corus contacted Zillow and identified the '803 patent and Corus's counsel, Michael O'Shea, attended an in-person meeting with Zillow and its attorneys on February 11, 2013 to discuss Zillow's infringement. At that meeting, Zillow identified a patent to Mr. O'Shea that it believed was relevant prior art to the '803 patent.

22. On August 27, 2013, Corus requested that the U.S. Patent and Trademark Office reexamine the '803 patent based on prior art Zillow had identified. On January 21, 2015, the PTO issued a reexamination certificate that cancelled two claims and allowed 36 new or amended claims as patentable.

23. The '803 patent has three reexamined independent claims that claim as follows:

> 1. A method of generating and displaying a digital map of current market information to prospective buyers about residential real-estate property in a geographical area of interest on a data-enabled mobile phone configured to obtain cellular-based location data, comprising:
>
> obtaining said area of interest from the cellular-based location data;

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generating and displaying the digital map for viewing by said prospective buyer on said data-enabled mobile phone for said area of interest; obtaining current status property information for an item of property in the residential real-estate market for the area of interest, wherein said property information is obtained from a remote data source and a database stored on said data-enabled mobile phone, wherein the current status property information includes multiple listing service (MLS) data comprising a location, a market price and a market status of the item of property;

displaying a property icon on said digital map at the location of the item of property, wherein the property icon refers to the item of property in the residential real-estate market; and

displaying, upon selection of the property icon, MLS data including the market price and the market status of the item of property of the selected property icon.

14. A residential real-estate market information mobile computing device, comprising:

a cellular-based data receiver configured to obtain cellular-based location data;

a map generation unit for generating a digital map covering an area of interest, wherein said area of interest is obtained from the cellular-based location data;

a storage unit for storing property information which includes multiple listing service (MLS) data comprising a location, a market price and a market status of an item of property in said area of interest;

a processor for determining information needed to display a property icon for the item of property at the location of the item of property on said digital map, and for determining information needed to display property information about the item of property of the property icon upon selection of the property icon, and

a display unit for displaying said generated digital map and the property icon, and for displaying the property information for the item of property upon selection of the property icon, wherein the property information comprises MLS data including the market price and the market status of the item of property.

30. A non-transitory computer-readable medium storing a program to be implemented in a processing unit of a mobile computing device, said computer-readable medium including:

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a first code section for controlling a display of a digital map covering an area of interest on the mobile computing device;

a second code section for obtaining residential property information which includes multiple listing service (MLS) data comprising a location, a market price and a market status of an item of property in said area of interest, wherein said property information is obtained from a remote data source and stored in a database on the mobile computing device;

a third code section for displaying a property icon at the location of the item of property on said digital map, wherein the property icon refers to the item of property;

a fourth code section for displaying upon selection of the property icon MLS data including the market price and the market status of the item of property of the selected property icon;

a fifth code section for receiving cellular-based location data of a current location of the mobile computing device in said area of interest; and

a sixth code section for generating said digital map from the current location data received in said sixth code section.

24. The invention described and claimed in the '803 patent is a tangible and unconventional improvement of the technology and methods available to real estate agents before 2001. The inventors sought to improve existing computer technology used by real estate agents (*e.g.*, MLS databases) by integrating it with methods of locating a user and properties on a digital map. The integral combination of technology such as MLS databases, mobile devices, digital maps, and location information allowed users to provide information to clients in real time and more effectively provide their services. The invention improved existing real-estate technology by providing a new way to locate and acquire information about property that was portable, easier to use, and faster for buyers.

25. Prior to the filing date of the '803 patent, real estate agents for a given market engaged in an antiquated process of meeting with clients to identify characteristics of properties

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the buyer was interested in, searching for properties using an MLS database, determining the location of properties, and meeting with their client again to visit those properties. The invention described and claimed in the '803 patent provides a unique method and tool that substantially improves upon then existing technologies and methods of searching for real estate.

26. The invention claimed in the '803 patent combines specific components and types of data (*e.g.*, mobile phones, cellular-based location data, MLS data, remote data sources, digital maps, position icons, and displays) to create a technological solution for the problem of providing real estate information to clients. The resulting invention made the residential real estate process more efficient and even allowed buyers to search and navigate properties with minimal, if any, input from real estate agents.

27. The inventive combination achieves the improved efficiency through multiple means. The invention allows its users to visualize a given area of interest on a digital map and to display icons and property information on that map through one portable unit. The invention transforms raw data such as property information and location from MLS data into a specific user-friendly format displayed on a mobile device in the form of a digital map with icons. Further still, one embodiment of the invention utilizes both remote and local data storage to provide portable information about real estate to users that can be easily updated in real time. The result of the invention allows users to quickly obtain real-estate information, visit properties, and obtain details about properties even if the buyer or agent were not familiar with an area.

GENERAL ALLEGATIONS

28. Zillow Group claims to operate "the leading real estate and home-related information marketplaces on mobile and the web" through "industry-leading mobile applications and websites." Zillow Group, Inc., 2017 ANNUAL REPORT ON FORM 10-K, p. 3 (2018) *available*

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at http://investors.zillowgroup.com/annuals-proxies.cfm ("2017 ZILLOW ANNUAL REPORT"). The Zillow Group through its various applications, including those operated by Zillow and Trulia, claims to have a database of more than 110 million homes across the United States and provide updated information to users on more than 75 million homes that include among other things listing information and sales data.

29. The Zillow Group provides multiple mobile applications through Zillow, Trulia, and its other subsidiaries that provide residential real estate information to its users by displaying a digital map with market information with a particular geographical area of interest to a user. The mobile applications are used by the public extensively. For example, in 2017 two-thirds of the usage of its flagship Zillow Brand came from usage on mobile applications. 2017 ZILLOW ANNUAL REPORT, p. 3.

30. One such mobile application produced and distributed by the Zillow Group and Zillow is the Zillow Real Estate mobile application for various mobile operating systems and its respective server software and interfaces (the "Zillow Accused Product"). The Zillow Accused Product contains software code that is distributed to users through the software download marketplaces for installation on mobile phones. *See* https://www.zillow.com/mobile/. Such mobile phones have a cellular-based data receiver and are configured to receive cellular-based location data from that receiver.

31. When the Zillow Accused Product is installed on a mobile phone and used, it will obtain the location data to identify a geographical area of interest nearby a user. The Zillow Accused Product will generate a digital map of the area and obtain current status property information for residential real estate in the area that is displayed on the mobile phone.

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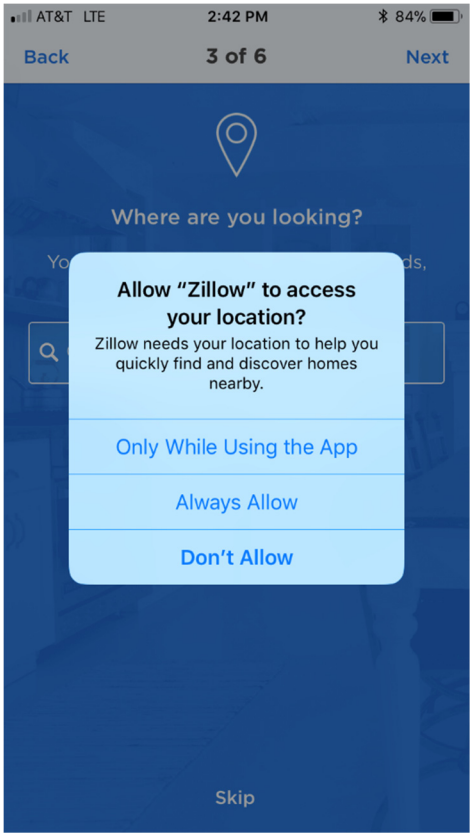

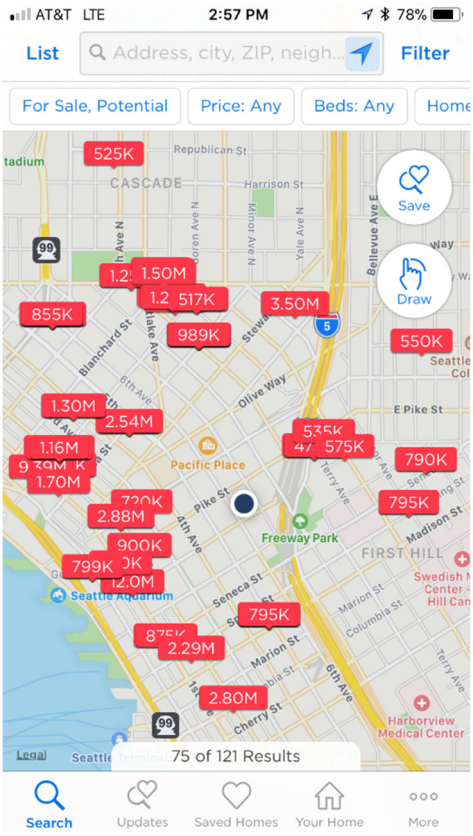

The property information displayed on the mobile phone is obtained over an Internet connection from a remote data source maintained by the Zillow Group and Zillow and maintained in a database of information stored on the mobile phone. At least some of the property information obtained and stored by the Zillow Accused Product includes data from multiple listing services that include property location (e.g., address), market price, and market status (e.g., "for sale").

32. The Zillow Accused Product causes a property icon to be displayed on the mobile phone display screen at the location on the map of the property. Upon selection of a property icon by a user, the Zillow Accused Product will display property information such as price and status from MLS data that is associated with the property selected.

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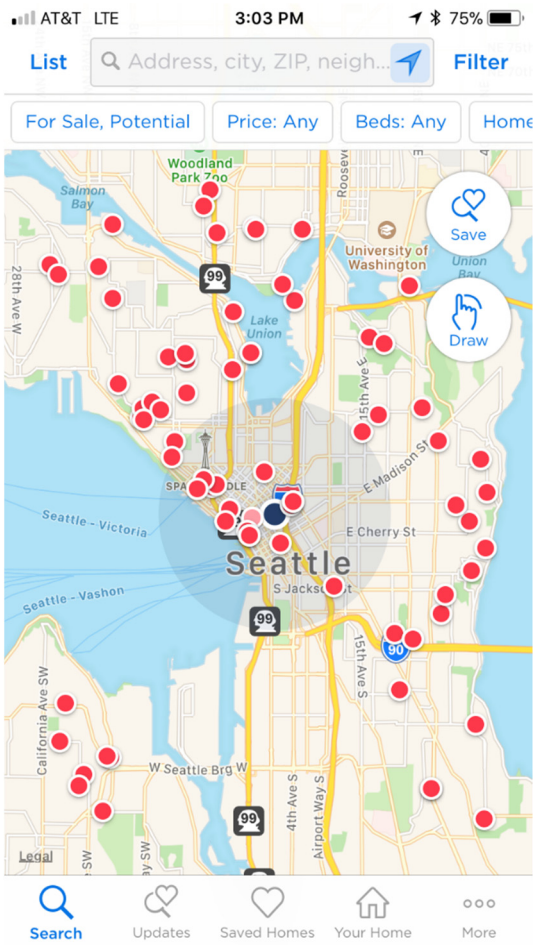

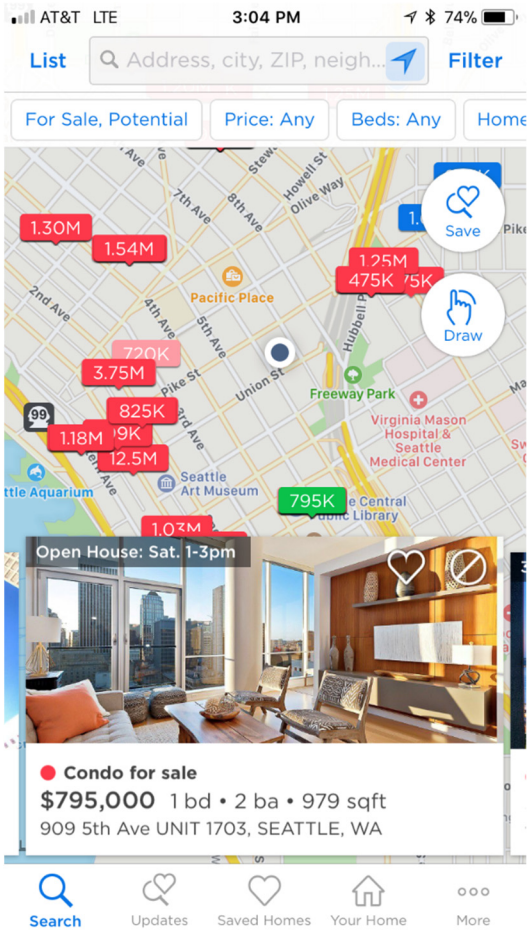

33. Another mobile application produced and distributed by Trulia is the Trulia Real Estate mobile application for various mobile operating systems and its respective server software and interfaces (the "Trulia Accused Product"). The Trulia Accused Product contains software code that is distributed to users through the software download marketplaces for installation on mobile phones. *See* https://www.trulia.com/mobile/. Such mobile phones have a cellular-based data receiver and are configured to receive cellular-based location data from that receiver.

34. When the Trulia Accused Product is installed on a mobile phone and used, it will obtain the location data to identify a geographical area of interest nearby a user when a user searches for properties. The Trulia Accused Product will generate a digital map of the area and obtain current status property information for residential real estate in the area that is displayed

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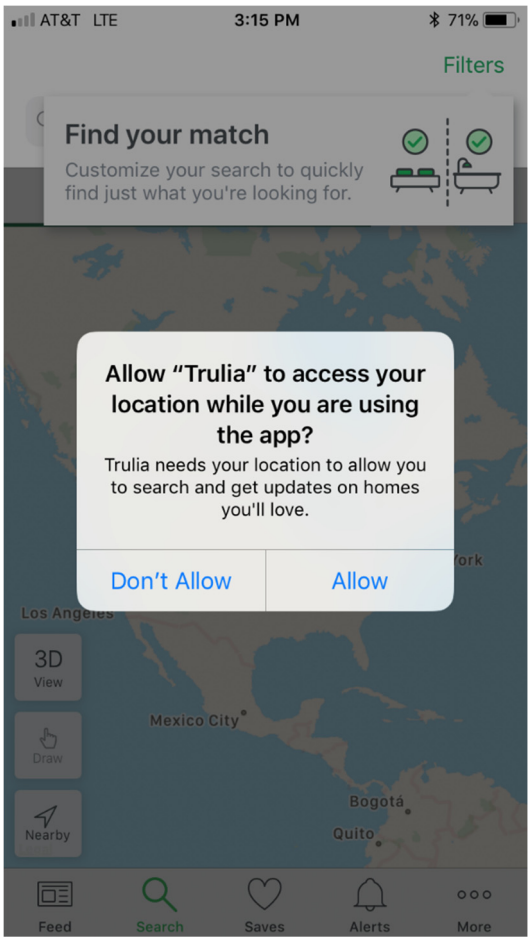
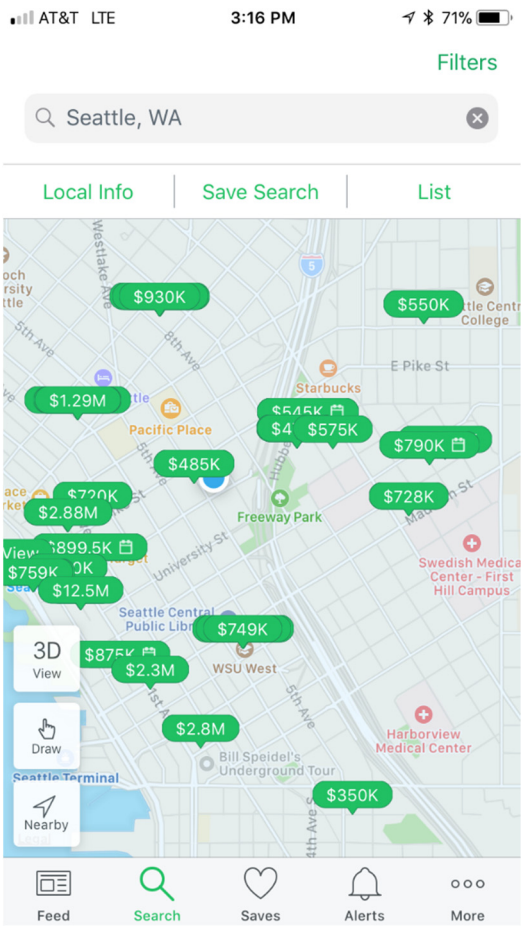
on the mobile phone.





The property information displayed on the mobile phone is obtained over an Internet connection from a remote data source maintained by Trulia and maintained in a database of information stored on the mobile phone. At least some of the property information obtained and stored by the Trulia Accused Product includes data from multiple listing services that include property location (e.g., address), market price, and market status (e.g., "for sale").

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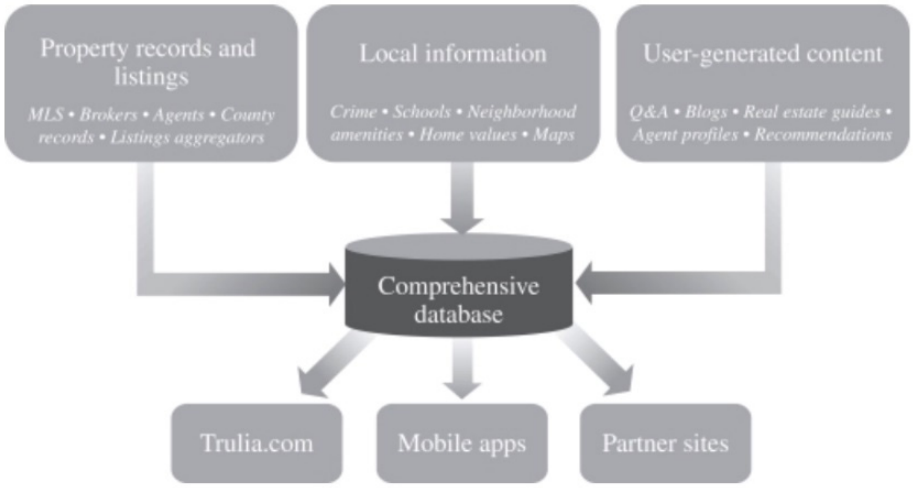

2017 ZILLOW ANNUAL REPORT, p. 7.

35. The Trulia Accused Product causes a property icon to be displayed on the mobile phone display screen at the location on the map of the property. Upon selection of a property icon by a user, the Trulia Accused Product will display property information such as price and status from MLS data that is associated with the property selected.

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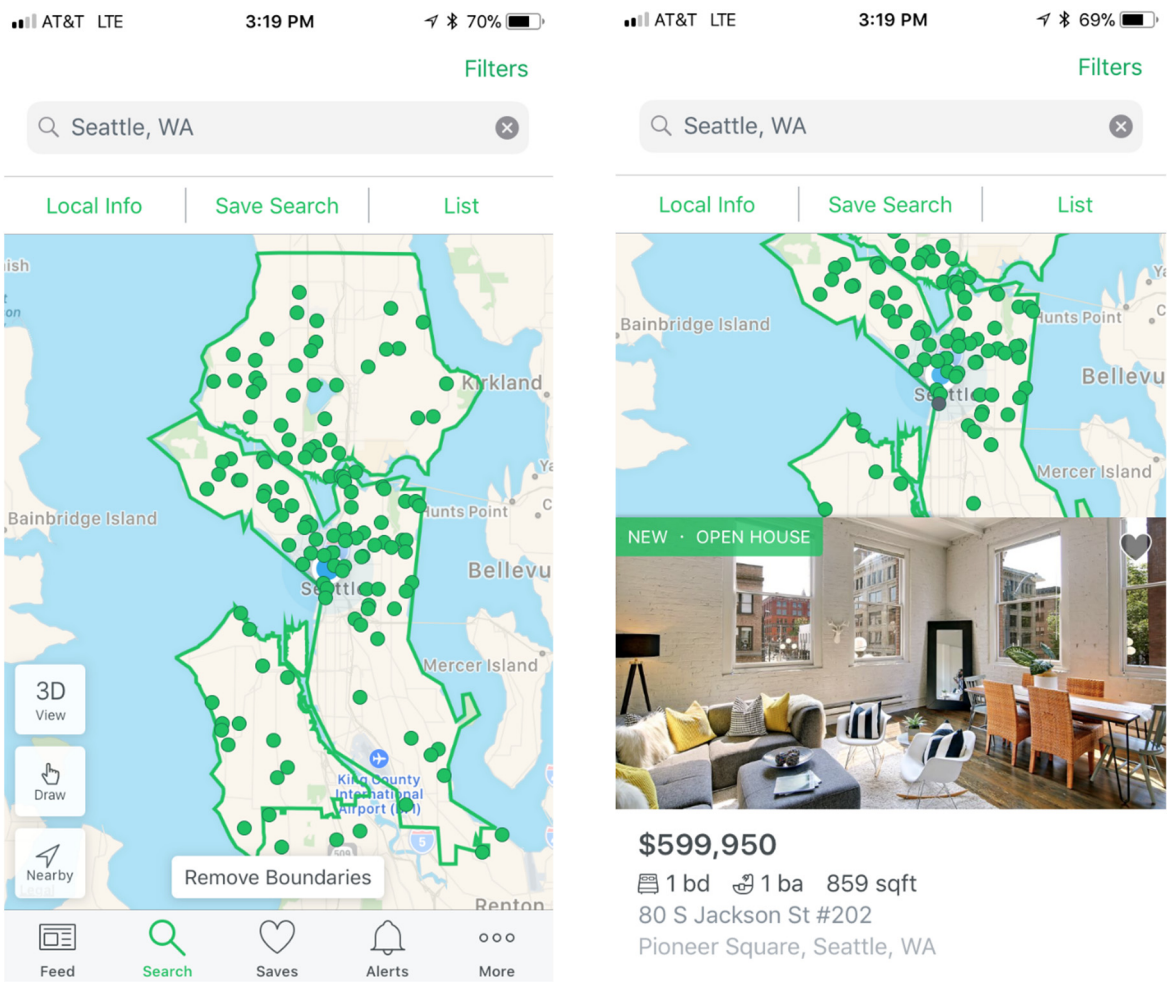

36. Trulia has had knowledge of the '803 patent through its predecessor entity, Trulia, Inc., since at least September 2012 when contacted by Michael O'Shea and Trulia's infringement was identified.

37. Zillow has had knowledge of the '803 patent since at least February 2013 when contacted by Michael O'Shea and Zillow's infringement was identified.

38. Upon information and belief, Zillow Group has had knowledge of the '803 patent since at least 2014 when it was created and Zillow became a subsidiary of Zillow Group.

39. Defendants have also had knowledge of the '803 patent at least no later than the filing and service of this complaint.

40. Defendants encourage their customers through various channels, such as

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marketing, advertisements, and their websites and applications to download and use the features of both the Zillow Accused Product and Trulia Accused Product.

COUNT I

(Infringement of United States Patent No. 6,636,803)

41. Corus re-alleges and incorporates herein by reference the allegations set forth in the preceding paragraphs of this Complaint.

42. Defendants directly infringe, literally or under the doctrine of equivalents, at least claims 1, 14, and 30 of the '803 patent by, without authority, making, using, importing, selling, or offering to sell, for example, the Zillow Accused Product and the Trulia Accused Product (collectively "the Accused Products") within the United States, in violation of 35 U.S.C. § 271(a).

43. Defendants indirectly infringe the '803 patent within the United States by inducement under 35 U.S.C. § 271(b). For example, since learning of the '803 patent and by failing to cease offering the Accused Products, Defendants have knowingly and intentionally induced users of the Accused Products to directly infringe one or more claims of the '803 patent, *inter alia*, by (1) providing instructions, information, and videos, for example on publicly available websites, such as Zillow.com, trulia.com, the Zillow Help Center, and the Trulia Learning Center, to explain how to acquire and use the Accused Products in an infringing manner, including the use of the Accused Products in manners described in the foregoing paragraphs, which are expressly incorporated herein, (2) touting these infringing uses of the Accused Products in advertisements including but not limited to those on their websites and other mobile app marketplace websites, and (3) directing and encouraging the actions of subsidiaries, employees, and agents to directly infringe.

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44. Defendants indirectly infringe the '803 patent by contributing to the direct infringement of end users under 35 U.S.C. § 271(c) by providing the Accused Products, which are especially made for installation on mobile phones and use in a manner infringing one or more claims of the '803 patent as described herein and, further, have no substantial non-infringing uses.

45. Upon information and belief, Defendants' infringement of the '803 patent has been and continues to be intentional, willful, and without regard to Corus's rights.

46. Corus has been and continues to be injured by Defendants' infringement of the '803 patent. Corus is entitled to recover damages adequate to compensate it for Defendants' infringing activities in an amount to be determined at trial but in no event less than a reasonable royalty.

47. Unless enjoined by this Court, Defendants' acts of infringement will continue to damage Corus irreparably.

PRAYER FOR RELIEF

WHEREFORE, Corus respectfully prays that this Court:

a. Enter a judgment that Defendants have infringed the '803 patent;

b. Grant a permanent injunction restraining and enjoining Defendants and their officers, directors, agents, servants, employees, successors, assigns, parents, subsidiaries, affiliated or related companies, and attorneys from directly or indirectly infringing the '803 patent;

c. Award Corus damages in an amount sufficient to compensate Corus for Defendants' infringement of the '803 patent, but not less than a reasonable royalty, together with interests and costs;

d. Award Corus enhanced damages under 35 U.S.C. § 285;

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e. Award treble damages and prejudgment interest to Corus under 35 U.S.C. § 284; and

f. Grant such other and further relief as this Court may deem just and proper.

DEMAND FOR JURY TRIAL

Corus hereby demands a jury trial on all issues appropriately triable by a jury.

DATED: June 11, 2018

Kilpatrick Townsend & Stockton LLP

s/ Dario Machleidt
Dario Machleidt (State Bar No. 41860)
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Mitch Stockwell (*pro hac vice* to be filed)
Wab Kadaba (*pro hac vice* to be filed)
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Attorneys for Plaintiff Corus Realty Holdings, Inc.

EXHIBIT A

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US006636803B1

(12) **United States Patent**
Hartz, Jr. et al.

(10) **Patent No.: US 6,636,803 B1**
(45) **Date of Patent: Oct. 21, 2003**

(54) **REAL-ESTATE INFORMATION SEARCH AND RETRIEVAL SYSTEM**

(75) Inventors: **Daniel K. Hartz, Jr.**, Fairfax, VA (US); **Michael T. Gorman**, Arlington, VA (US); **Eric Rossum**, Annandale, VA (US); **Richard Barney**, Gaithersburg, MD (US)

(73) Assignee: **Corus Home Realty**, McLean, VA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/996,744**

(22) Filed: **Nov. 30, 2001**

(51) **Int. Cl.**[7] **G06F 7/00**
(52) **U.S. Cl.** **701/208**; 705/1; 705/10
(58) **Field of Search** 701/200, 208, 701/213, 300; 340/990, 995; 705/1, 10, 27

(56) **References Cited**

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6,321,158	B1	11/2001	DeLorme et al.	701/201
6,323,885	B1 *	11/2001	Wiese	345/835
6,385,541	B1 *	5/2002	Blumberg et al.	701/213
6,397,208	B1 *	5/2002	Lee	707/3

* cited by examiner

Primary Examiner—William A. Cuchlinski, Jr.
Assistant Examiner—Edward Pipala
(74) *Attorney, Agent, or Firm*—Miles & Stockbridge P.C.; Edward J. Kondracki

(57) **ABSTRACT**

A search and retrieval system includes a data terminal which displays icons representing properties in a given real-estate market on a digital map. The icons are selectable so that, when selected, information derived from an MLS or other database are displayed in association with the map. In one embodiment, the data terminal is equipped with a GPS receiver and data-enabled mobile phone. The GPS receiver receives location data which is used by a processor to display an icon representing a current location of the terminal within the map. The data-enabled phone links the terminal to a remote server or database of property information, which may also be displayed when property icons are selected on the map. The property information may include media (e.g., bitmap) data that provide a visual depiction of the property icons selected. By integrating all of these digital sources of information on one terminal, the efficiency and accuracy of the property buying experience is significantly enhanced.

33 Claims, 5 Drawing Sheets

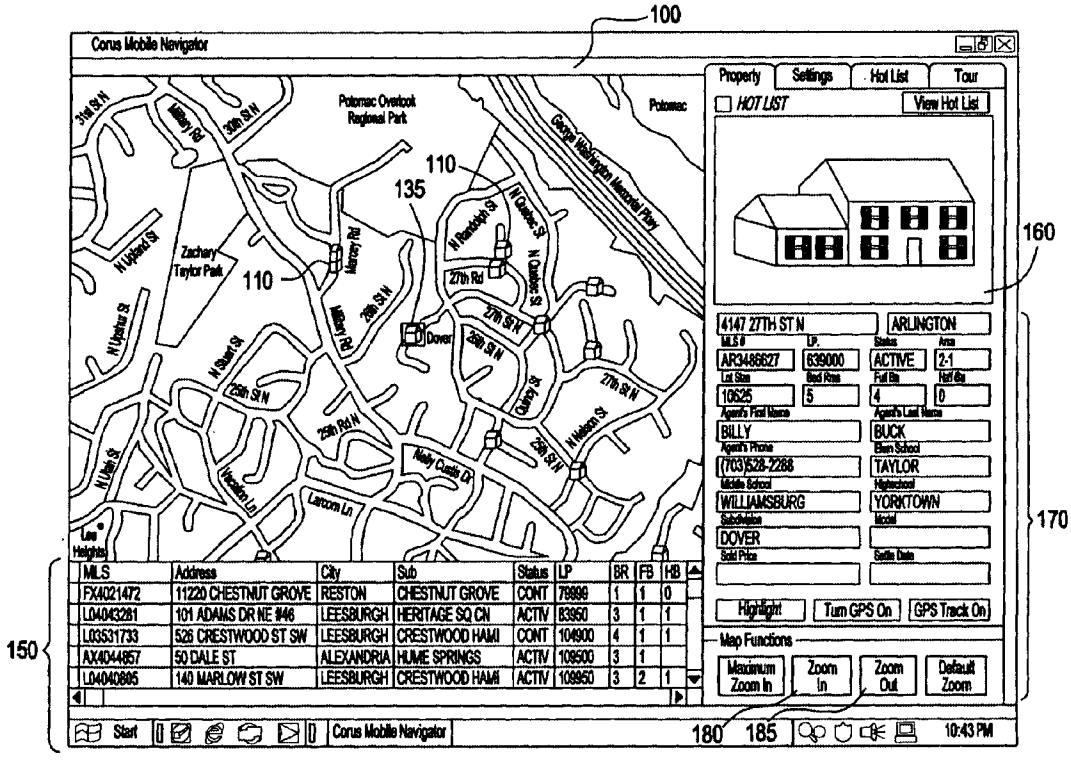


FIG. 1

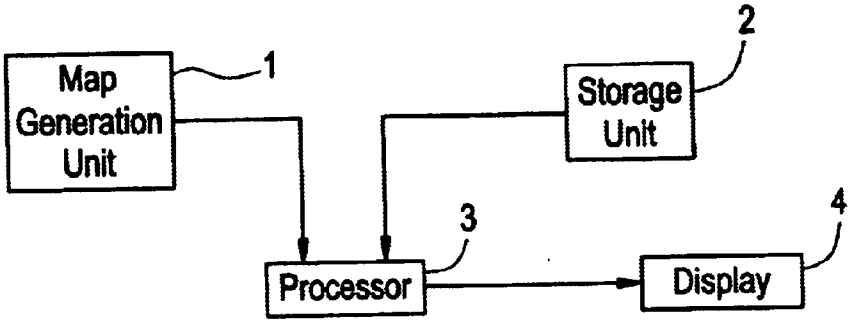
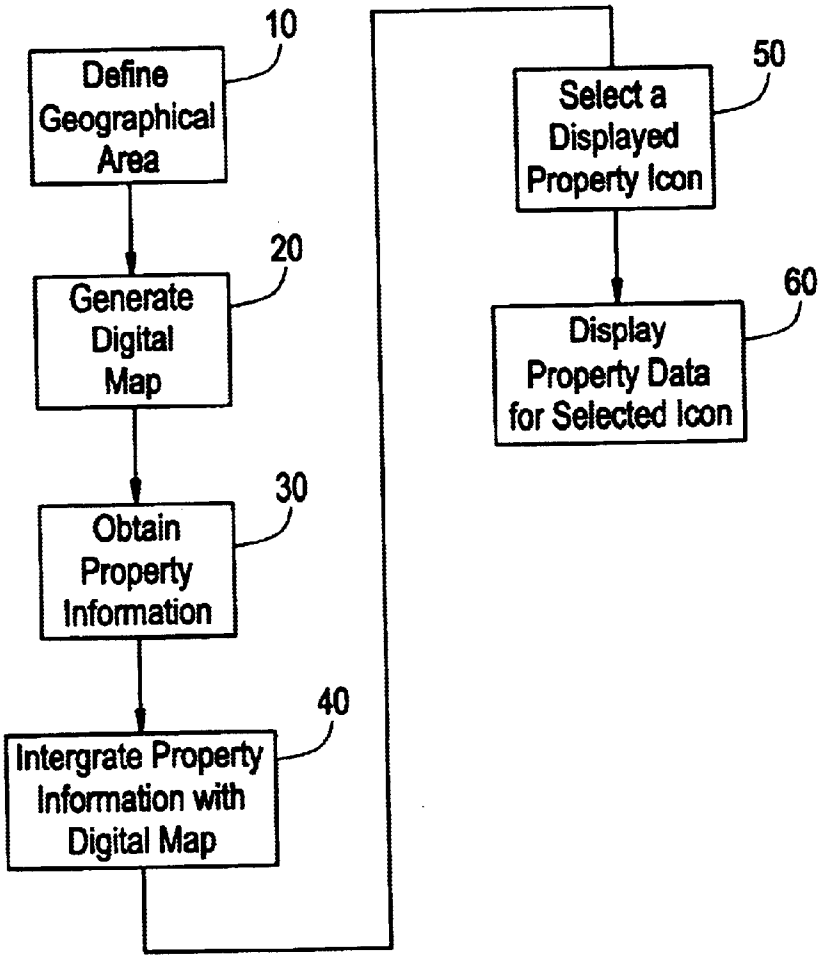

Map Generation Unit
1
Storage Unit
2
Processor
3
Display
4

FIG. 2


Define Geographical Area
10
Generate Digital Map
20
Obtain Property Information
30
Intergrate Property Information with Digital Map
40
Select a Displayed Property Icon
50
Display Property Data for Selected Icon
60

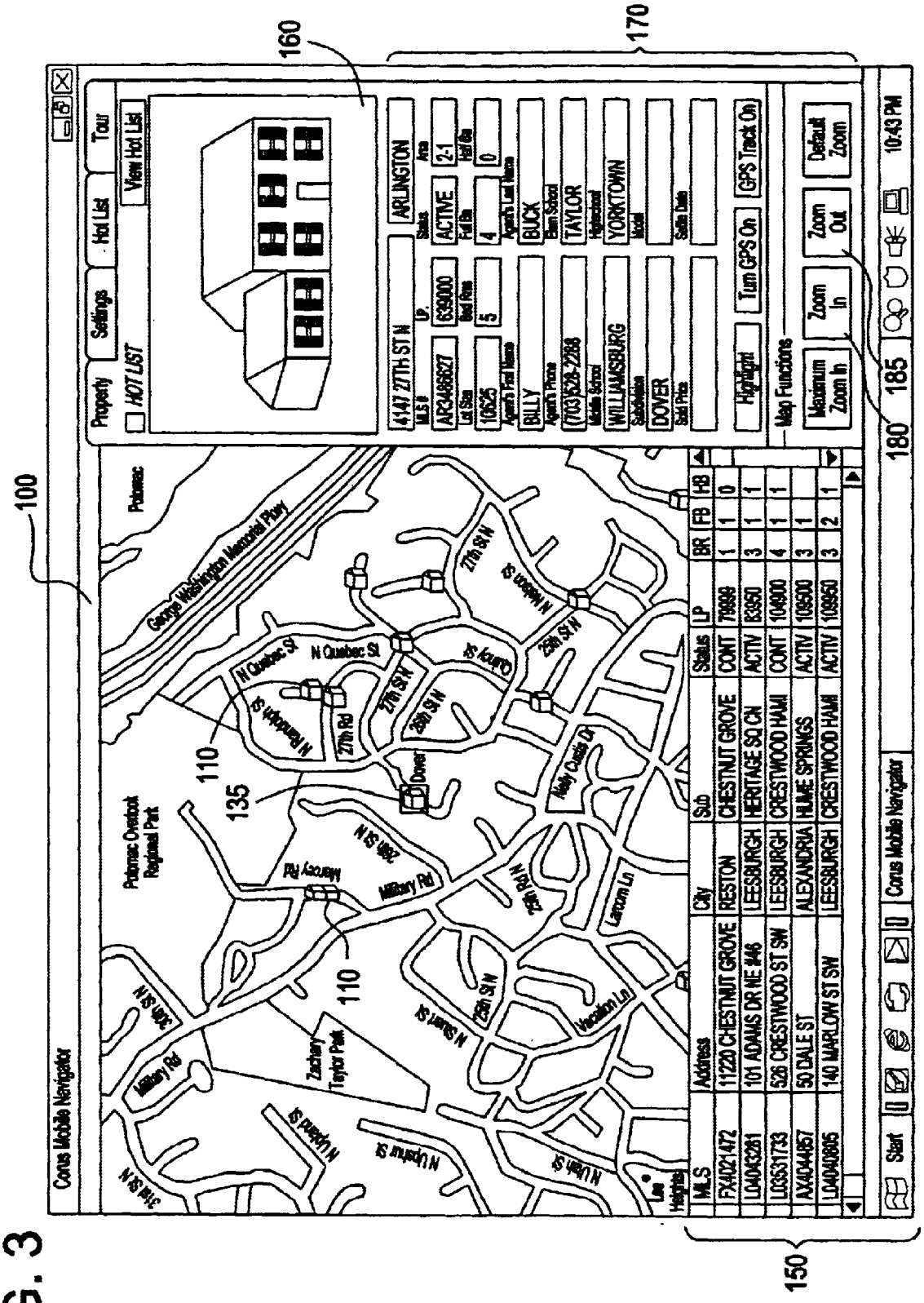

100
110
135
150
160
170
180
185
Property
Settings
Hot List
Tour
View Hot List
HOT LIST
ARLINGTON
ACTIVE
BUCK
TAYLOR
YORKTOWN
WILLIAMSBURG
DOVER
4147 27TH ST N
AR2466627
10625
BILLY
(703)528-2288
639000
Highlight
Turn GPS On
GPS Track On
Map Functions
Maximum Zoom In
Zoom In
Zoom Out
Default Zoom
Conus Mobile Navigator
Start
10:43 PM
MLS
Address
City
Sub
Status
LP
BR
FB
HB
FX4021472
11220 CHESTNUT GROVE
RESTON
CHESTNUT GROVE
CONT
79999
1
1
0
LO4043281
101 ADAMS DR NE #46
LEESBURGH
HERITAGE SQ CN
ACTIV
83950
3
1
1
LO3531733
526 CRESTWOOD ST SW
LEESBURGH
CRESTWOOD HAMI
CONT
104900
4
1
1
AX4044857
50 DALE ST
ALEXANDRIA
HUME SPRINGS
ACTIV
109500
3
1
LO4040805
140 MARLOW ST SW
LEESBURGH
CRESTWOOD HAMI
ACTIV
109950
3
2
1
Potomac
George Washington Memorial Pkwy
Potomac Overlook Regional Park
Military Rd
Zachary Taylor Park
N Quebec St
27th St N
26th St N
Dover
Kelly Custis Ln
Lancom Ln
Vacation Ln
Lee Heights

FIG. 3

FIG. 4

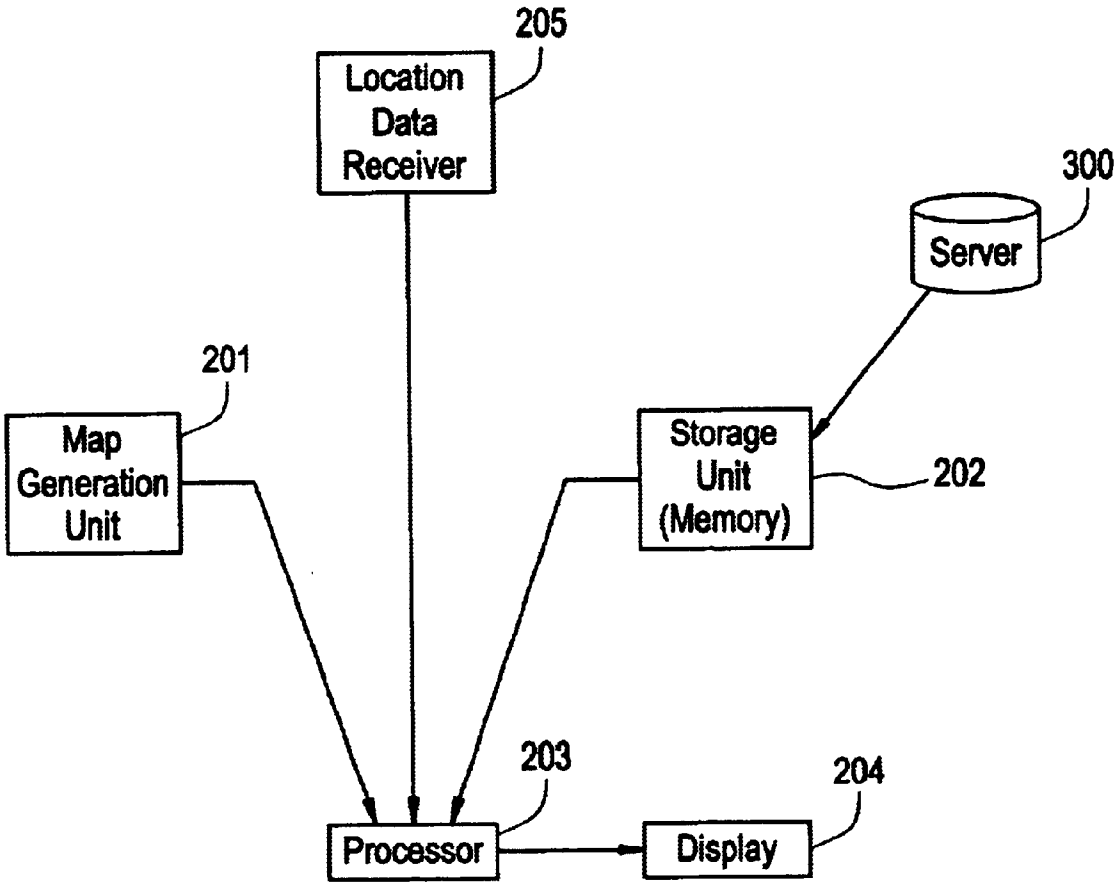
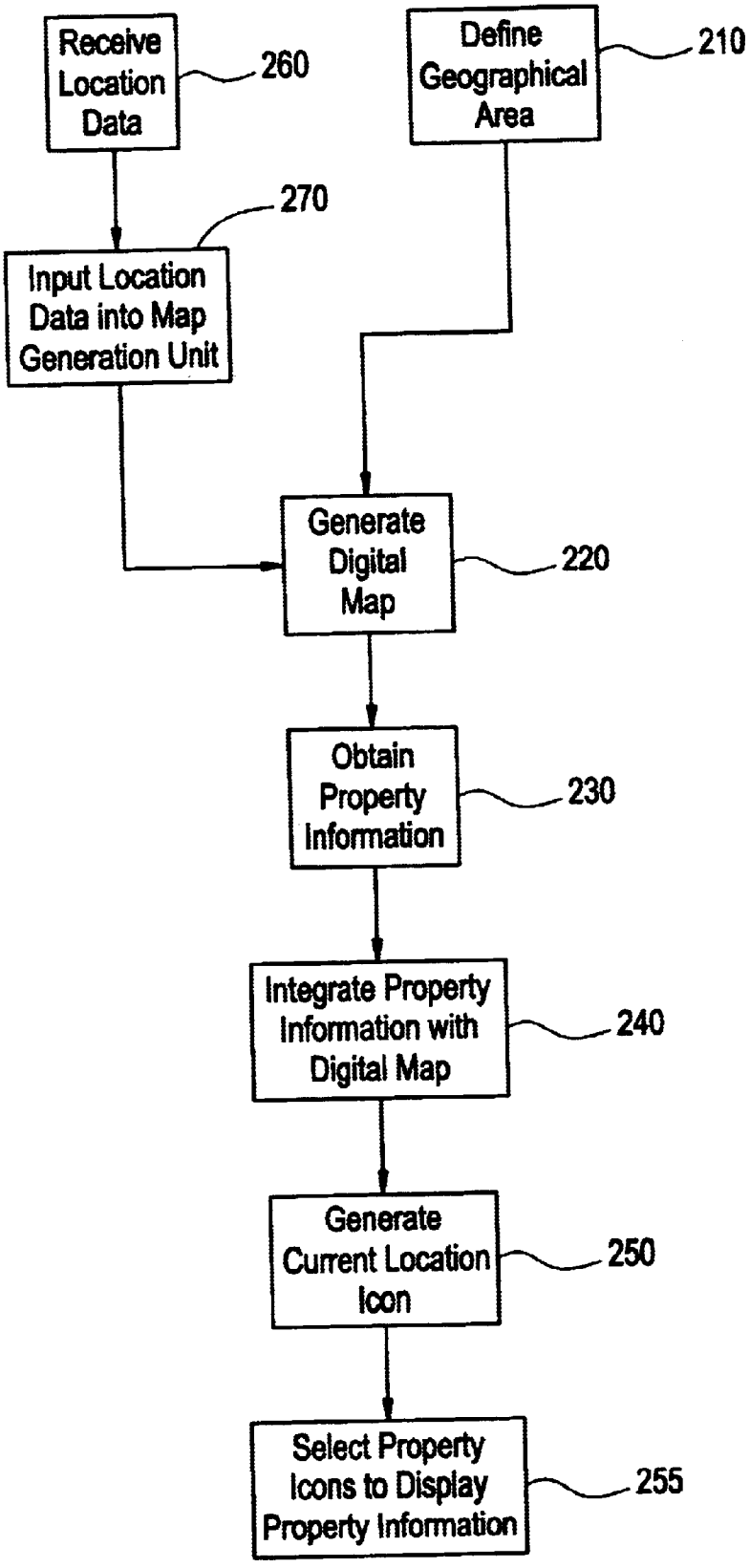

205
Location Data Receiver
300
Server
201
Map Generation Unit
Storage Unit (Memory)
202
203
204
Processor
Display

FIG. 5


Receive Location Data
260
Define Geographical Area
210
270
Input Location Data into Map Generation Unit
Generate Digital Map
220
Obtain Property Information
230
Integrate Property Information with Digital Map
240
Generate Current Location Icon
250
Select Property Icons to Display Property Information
255

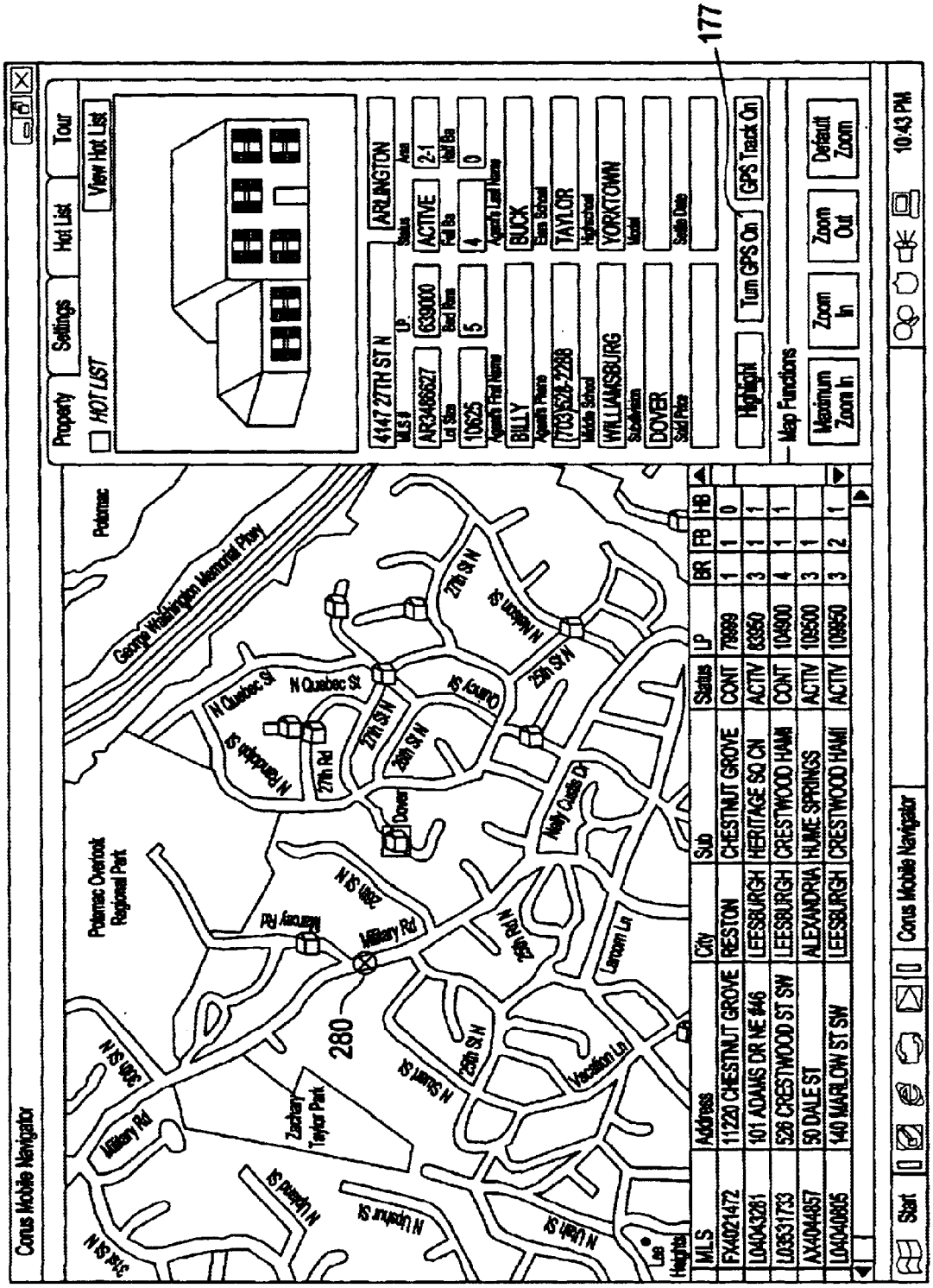

177
Conus Mobile Navigator
Property
Settings
Hot List
Tour
HOT LIST
View Hot List
4147 27TH ST N
ARLINGTON
ACTIVE
AR3486627
639000
10625
15
BILLY
(703)528-7288
WILLIAMSBURG
DOVER
BUCK
TAYLOR
YORKTOWN
Highlight
Turn GPS On
GPS Track On
Map Functions
Maximum Zoom In
Zoom In
Zoom Out
Default Zoom
Potomac
George Washington Memorial Pkwy
N Quebec St
27th St N
26th St N
25th St N
Potomac Overlook Regional Park
Military Rd
Nelly Custis Dr
Lorcom Ln
Vacation Ln
Zachary Taylor Park
280
MLS
Address
City
Sub
Status
LP
BR
FB
HB
FX4021472
11220 CHESTNUT GROVE
RESTON
CHESTNUT GROVE
CONT
79999
1
1
0
LO4043281
101 ADAMS DR NE #46
LEESBURGH
HERITAGE SQ CN
ACTIV
63950
3
1
1
L08631733
526 CRESTWOOD ST SW
LEESBURGH
CRESTWOOD HAMI
CONT
104900
4
1
1
AX4044057
50 DALE ST
ALEXANDRIA
HUME SPRINGS
ACTIV
109500
3
1
LO4040805
140 MARLOW ST SW
LEESBURGH
CRESTWOOD HAMI
ACTIV
109950
3
2
1
Start
Conus Mobile Navigator
10:43 PM

FIG. 6

REAL-ESTATE INFORMATION SEARCH AND RETRIEVAL SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention generally relates to information search and retrieval systems, and more particularly to a system and method for locating property in connection with a real-estate transaction. The invention also relates to an interactive data terminal which provides information for guiding buyers on a tour of property in a real-estate market, and which simultaneously retrieves and displays in an integrated form listing, media, and other data relating to properties included on the tour.

2. Description of the Related Art

Buying a home is one of the most important experiences in a person's life, and one of the most expensive. The home a person buys ultimately depends on the quantity and quality of information he or she is able to obtain about the market place prior to purchase. Locating this information for the buyer is the job of the real estate agent.

The techniques real estate agents currently use are antiquated and largely ineffective. A typical scenario involves assigning a buyer to an agent who has at least a working knowledge of a particular area of the market. During an initial consultation, the buyer gives the agent an idea of property he or she would like to buy or rent and a general idea of where that property should be located. Based on this information, the agent searches the Multiple Listing Service (MLS) database to locate properties that are currently available. A second meeting is then set up with the buyer for the purpose of visiting those properties.

During the second meeting, the agent must figure out exactly where the properties are located. A route must then be plotted for visiting those properties. This is usually done using paper maps and print-outs of MLS listings, which the agent often carries within him in the car. The use of paper maps and MLS listings has proven to be time-consuming, cumbersome, and generally inefficient.

Another drawback of current techniques relates to the need to physically visit properties with the market. Once the agent knows the general area of interest to the buyer, he usually escorts the buyer to each of the properties. Many times, however, the buyer does not even enter the properties because he can tell from just their outward appearance that they are unsuitable. The need to physically visit each and every property in a market to determine whether they are suitable wastes the buyer's and agent's time and, further, adds to the inefficiency of the home-buying experience.

Undoubtedly, there is a need for the real-estate industry to embrace new technologies in meeting buyers' needs. The industry has admittedly done a poor job doing so. Today, nearly two-thirds of all real estate brokers do not have a web presence, and nearly one third do not even use e-mail in their jobs. While this trend is slowly changing, the underlying process remains substantially the same. In the vast majority of cases, real-estate agents still rely on paper resources to develop property tours for buyers and are still required to chauffeur customers to physical property sites.

In view of the foregoing considerations, it is clear that there is a need for an improved system and method for developing property information that can be used by real-estate agents in assisting their customer needs.

SUMMARY OF THE INVENTION

It is one objective of the present invention to provide a system and method which increases the efficiency of the home-buying experience from both the agent's and buyer's perspective.

It is another objective of the present invention to achieve the aforementioned object by using digital technology to substantially reduce or altogether replace the paper resources an agent must rely on to obtain property information in a real-estate market.

It is another objective of the present invention to provide a data terminal equipped with management software which develops a digital guided tour of a particular area of a real-estate market.

It is another objective of the present invention to develop the guided tour by integrating a digital map with property information from a database which is either resident in the terminal or linked to the terminal through a communications network.

It is another objective of the present invention provide a data terminal of the aforementioned type which is portable, so that the terminal may be used by buyers and/or agents during a guided property tour.

It is another objective of the present invention to provide a data terminal of the aforementioned type which has a graphical user interface which allows a buyer to use the terminal without the assistance of an agent during a property tour, and which simultaneously provides the buyer with real-time property information derived from the MLS or other comparable database.

The foregoing and other objects of the invention are achieved by system and method for providing property information to buyers in real estate market place using digital technology. The system and method uses a tool in the form of a data terminal which stores management software that integrates a digital map with information derived, for example, from an MLS database. This information includes the location of properties in the market as well as other attributes. In addition to or in lieu of MLS information, the property information may include media data in the form of a digital image and/or movie clip, as well as other information which each real-estate agent may customize into the system.

In accordance with one embodiment of the invention, the data terminal is a stand-alone system which includes a map generation unit, a storage unit, a processor, and a display. The map generation unit generates a digital map of an area of interest designated by a user. Preferably, the map includes street address labels and/or other symbols of topological and man-made features in the coverage area. The storage unit stores property information derived from an MLS database, media information, and/or other customized information which may be considered important to a customer in purchasing, leasing, or renting property. The processor implements management software which integrates the property information with the digital map.

The integration of this information includes the display of icons which correspond to properties available in the map. Advantageously, the icons are selectable by the user. When selected, property information obtained from the storage unit is displayed in association with the map. The invention, thus, serves as a tool which guides buyers on a digital tour of properties in a market, while simultaneously providing real-time information for each of those properties.

Preferably, the data terminal is mobile in nature, taking the form of a notebook or laptop computer or even a personal digital assistant or so-called pocket PC. If mobile, the terminal of the invention may advantageously replace all the paper sources which real-estate agents traditionally used in assisting buyers in purchasing property. Also, when equipped with an easy-to-use graphical user interface, the

terminal of the invention may be used by the buyer to develop his own guided tour, without the assistance of a real-estate agent. This saves time, relieves the buyer from "sales pressure" from the agent, and increases the overall efficiency of the home-buying experience. If desired, the terminal may be a desktop unit located in a real-estate agent's office.

In accordance with another embodiment of the invention, the data terminal communicates with one or more external sources of information. This embodiment is similar to the previous embodiment in that it includes a map generation unit, storage unit, processor, and display. In addition to these features, the terminal is equipped with a receiver for acquiring location data from an external positioning system, which may be satellite-based, cellular-based, or any other type capable of tracking the position of an object in an area of interest. Preferably, the receiver is a GPS receiver linked to the data terminal processor.

In operation, the location data receiver inputs position information into the processor, which then generates an icon corresponding to the position of the data terminal on the digital map. Advantageously, the processor updates the position of this icon as the terminal moves through the mapped region. If desired, the GPS receiver may be connected to the map generation unit, so that upon start-up the processor and map generation unit cooperate to automatically generate a digital map based on the location of the terminal. This is a particularly advantageous feature of the invention because a digital map of a market area with all the aforementioned icons may be generated without any input from the agent or agent buyer.

According to another aspect of the invention, the storage unit and/or processor may be connected to a remote data source through a communications link. The communication link may be established by a data-enabled mobile phone in the terminal or by another wireless communications device. The link may also be formed by a hard-wired connection, if desired. The remote data source may be a remote server connected to a website which contains MLS and/or other information. The server may also be a database in the real-estate agent's office which has been filled with MLS and non-MLS information customized to meet the agent's perceived needs of his buyers. The non-MLS information may include the media information (e.g., a digital image or movie clip) previously mentioned.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a diagram of a first embodiment of the system of the present invention which includes a stand-alone data terminal for locating property information in a real-estate market.

FIG. **2** is flow diagram showing steps included in a first embodiment of the method of the present invention for locating property information in a real-estate market.

FIG. **3** is a diagram showing an example of a computer screen generated in accordance with the system and method of the present invention.

FIG. **4** is a diagram showing a second embodiment of the system of the present invention which includes a data terminal for locating property in a real-estate market, which data terminal may be mobile or stationary in nature.

FIG. **5** is a flow diagram showing steps included in a second embodiment of the method of the present invention for locating property information in a real-estate market.

FIG. **6** is a diagram showing another example of a computer screen generated in accordance with the system and method of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is a system and method which uses digital technology to acquire and then present in integrated form information relating to one or more properties in a real-estate market. The information may correspond to commercial or residential property which is offered for sale, lease, or rental in a particular area, and when equipped with appropriate interface software may be used by agents and/or buyers alike in pinpointing property that most likely will suit the buyers needs. The present invention is also a mobile data terminal which may be used as a tool by real-estate agents and buyers for displaying information of the aforementioned type.

Referring to FIG. **1**, a first embodiment of the system of the present invention includes a stand-alone data terminal for helping buyers and/or real-estate agents locate property information in a specific geographic area. The terminal is equipped with a map generation unit **1**, a storage unit **2**, a processor **3**, and a display **4**. Preferably, the terminal is mobile in nature, taking the form of a notebook or laptop computer, personal digital assistant, pocket-PC, web-enabled phone, or other portable device having at the very least a processor and memory. Alternatively, the terminal may be a desktop computer located, for example, in a real-estate broker's office, an agent's home, or in any of a variety of other fixed locations. In the case where the terminal is mobile, a real estate office may loan the terminal to buyers for use on their own time.

The map generation unit **1** generates a digital map for presentation on the display of the terminal. The digital map covers areas in a real-estate market which, for example, have been designated by a user using a keyboard or other input device. The areas cover one or more counties, cities, or towns in a state. If memory requirements permit, a map of an entire state or region of the country (e.g., the mid-Atlantic region) may be generated.

Preferably, the maps generated by unit **1** are detailed enough to show streets in at least a portion of the selected geographic area. Other features typically found on paper maps may also be shown, including but not limited to: topological features (e.g., bodies of water, mountains, etc.), parks, military installations, schools, amenities (e.g., shopping areas, food, lodging, etc.), recreational facilities (e.g., golf courses, swimming pools, community centers, etc.), subway and/or train routes, airports, government buildings, and zoning information. For convenience purposes, the streets and other features on the map may be labeled by one or more symbols or icons. Map generation units of this type are known by those skilled in the art and may include, for example, MapPoint offered by Microsoft or those disclosed in U.S. Pat. Nos. 5,844,570 and 5,884,216. A web-accessible map generation program which also may be used in accordance with the present invention goes under the name of MapQuest.®

The storage unit **2** stores information considered to be important by a real-estate agent and/or a buyer in searching for property to buy, lease, or rent. In this stand-alone embodiment, unit **2** preferably contains property information derived from the Multiple Listing Service (MLS). This information includes specific data on the properties available in a given market, including location (e.g., address, apartment number, lot number, etc.) data, price, amenities (e.g., deck, finished basement, hot tub, etc.), numbers and types of bathrooms, bedrooms, lot size, model type, status data such as whether the property is available, been sold, or is under

contract, and MLS listing numbers which may be used for future reference or tracking purposes. Information identifying the real-estate broker and/or his or her contact information may also be included in the storage unit.

Other data not usually found in an MLS database may also be included in the storage unit. According to one particularly advantageous feature of the invention, one or more digital images (e.g., JPEG files) or movie clips (e.g., MPEG files) of properties in the market may be stored in the storage unit. This media information may be considered highly desirable in pinpointing properties which match buyer needs and desires. At the very least, the media information will allow buyers to eliminate properties from their search that might "sound good on paper," but which are undesirable in their appearance. Eliminating these properties expedite the home-buying process, thereby allowing the agent and buyer to concentrate their time on only those properties which have the highest likelihood of satisfying buyer requirements.

In terms of hardware, the storage unit of the present invention may be any type found in a data terminal or computing device. For example, if the terminal is a notebook computer, the storage unit may be a hard-drive, non-volatile memory, or even a removable storage medium such as a floppy disk or CD-ROM. If the terminal is a PDA, the storage unit may take the form of a flash memory. If desired, the storage unit of the present invention may include a combination of the aforementioned storage devices. Those skilled in the art can appreciate that the aforementioned types of devices are mentioned merely by way of example, and that if desired other conventional types of storage devices may be used.

The processor **3** may be any type capable of running a program or script for performing the information search, retrieval, and data integration functions of the invention. If the mobile terminal is a notebook computer, the processor may be a microprocessor running an application program which performs various management functions necessary for implementing the method of the present invention. These management functions include retrieving information from the map generation and storage units based on various data inputs and commands, as well as integrating this information for presentation on the display of the terminal.

Information retrieval is preferably guided by a search function of the management program. In accordance with the present invention, the search function is performed automatically in response to displayed icon selections, to be described in greater detail below, and/or other information input by a user. In this latter case, a user may input one or more characteristics of a property of interest into dedicated fields of a computer screen to initiate a search, e.g., a user may formulate a search statement which indicates a single-family home in the price range of $ 300,000–$ 350,000 having 4 full baths and a brick front. The management software may also control the manner in which information is modified, added, or deleted from the map generation and/or storage units of the invention. Also, where necessary, the program may allow units in the various embodiments of the invention to communicate with one another, in a manner that will become more apparent below.

The management program is preferably adapted to operate with a graphical user interface which allows for easy data entry and search functions. This interface may include, for example, one or more control screens with dedicated data fields for receiving user inputs. These fields advantageously allow users to customize searches for property meeting their specifications. The graphical user interface also organizes the presentation of information output from the map generation and storage units.

The display **4** may be any type conventionally known. For example, if the terminal is a mobile unit, the display may be a TFT-driven liquid crystal display. If the terminal is for desktop use, a standard CRT monitor or flat-panel display may be used. If the terminal is a PDA, a smaller LCD display is preferable.

FIG. **2** is a flow diagram showing steps included in a first embodiment of the method of the present invention, which may be implemented by the stand-alone system previously described. The method begins by having a real-estate agent or other user enter property information into the terminal which identifies a geographical area having one or more properties available on the market. (Block **10**). The property information may be entered into one of the data fields previously mentioned, and may correspond to a city, town, or county or even a specific address.

In a second step, the property information is used as a basis for generating a digital map by the map generation unit. (Block **20**). If the property information is a geographical area, the processor inputs this information directly into the map generation unit, which outputs an appropriate map in response. The digital map may cover all or part of the area specified according to one or more user-specified settings or a default setting. If a specific address is entered, the digital map may cover a predetermined radius centered on that address. Of course, as with many standard map generation programs the coverage area may be changed by the user. These keys may allow a user to zoom the map coverage area in or out, or may allow the map to skew in any desired direction (north, south, east, west).

In a third step, the processor searches the storage unit based on the property information entered by the user, and more specifically to generate a list of properties in the specified area and/or their accompanying attributes. (Block **30**). This property information may be any of the types previously described, including MLS data, media information, and other customized information which may be considered important to a buyer in searching for a home, apartment, lot, etc.

In a fourth step, the processor associates the property information obtained from the third step with the digital map generated in the second step to form an integrated output on the display of the user's terminal. (Block **40**). The integrated output is advantageously arranged in selected areas of a dedicated computer screen which forms all or part of the graphical user interface.

FIG. **3** shows an example of a computer screen generated by the processor which integrates the property information and digital map associated during the fourth step. This computer screen was generated as a result of a user entering location data designating the geographical area of Arlington, Va. Using this data, the map generation unit generated a map **100** covering this area. The processor then controlled the location on the computer screen where the map is to be displayed. The results of the storage unit search were then integrated with the map. In the particular example shown, the integration includes the overlaying of icons **110** on the map, where each icon represents the location of a property available in the region covered. The icons may be in the form of any symbol or mark. In accordance with a preferred embodiment of the invention, the icons resemble the type of property at that location, e.g., houses, apartment buildings, lots, etc. The display of icons on the digital map advantageously give a user a clear indication of the number and location of properties in the area.

The location of each icon on the map is derived, for example, from the MLS information produced from the storage unit as a result of the search. For example, in the area of Arlington shown, the processor search produced ten properties in the area covered by the map. The MLS information corresponding to these properties include addresses which are used by the processor to generate and then overlay the ten house symbols that appear on map **100**. A textual listing of these properties with one or more attendant attributes were then displayed in a separate window **150** adjacent the map. This textual listing included information such as MLS number, street address, city, housing development name, market status (e.g., active, contract, sold, etc.), lot price and/or size, numbers of bedrooms, bathrooms, etc.

In a fifth step of the method, a user selects one of the displayed icons **135** using an input device such as a mouse, trackball, or touch pad. (Block **50**). The selection of an icon causes additional information specific to the selected property to appear in window areas **160** and/or **170** of the display. (Block **60**). In accordance with an especially advantageous feature of the invention, media information corresponding to the selected property is displayed in window **160**. The media information may be any of those previously discussed including one or more digital images or even a movie clip. The digital image may show different views of the property, both inside and out. In FIG. **3**, the front exterior of the property is shown. If desired, views of the backyard and/or selected areas inside the house may be displayed.

In window **170**, textual information specific to the selected property is shown. This information includes, for example, agent, school, lot, and/or price information, all of which may or may not be derived from an MLS database. (At this point, it is important to note that information other than MLS information may be stored in the storage unit. For example, in addition to MLS information the terminal of the invention may store non-MLS information including the names of middle schools or high schools, history information such the age of the property, previous owner names, etc., and tax lien, zoning, and/or covenant information, just to name a few.)

In another step of the method, the user selects the other icons on the map. Each selection causes the processor to automatically output related media and/or textual information in windows **160** and **170**.

In another step of the method, a user may expand or otherwise alter the search by expanding or reducing the coverage area of the map using, for example, the "Zoom In" and "Zoom Out" selection areas **180** and **185**. The processor may be responsive to these zoom functions to automatically update the search for information in the storage unit. For example, if a user selects the Zoom Out button to obtain map showing a larger area surrounding the city of Arlington, the processor automatically searches the storage unit for properties which reside in that expanded area. Icons are then generated in those expanded area which the user can select to obtain additional information. The list in window **150** is also updated. If desired, instead of selecting icons, a user may directly selected one of the properties listed in window **150**.

The system and method of the present invention as described above expedites the home-buying experience in a number of ways. For example, if the terminal of the present invention is mobile, an agent and home buyer may take the terminal with them in the car while driving in the area shown on the digital map. By selecting the various icons, the buyer may eliminate undesirable properties on the basis of the digital image and/or textual data displayed on the terminal, thereby expediting the process. If the buyer would like to consider properties in different geographical locations while out on a trip with an agent, he can do so simply by generating a digital map of those locations. This map may then be used as a convenient and accurate guide for reaching properties in those locations.

If the terminal of the present invention is at a fixed location such as in the agent's office, the invention may be used to allow the buyer to pre-screen properties before venturing out on a trip with the agent. This saves time and makes the search more efficient by targeting only those locations which likely will be most attractive to the buyer.

One variation to the method of the present invention contemplates directly entering information into one of the data fields in window **170**. For example, if an agent or buyer knows the MLS number of a property in which he is interested, he may type this number into the MLS number window **190**. In response to this information, the processor will automatically retrieve and display data from the storage unit which corresponds to this listing. The medial information in window **160** may then be displayed. Additionally, the processor may control the map generation unit to display a map covering a predetermined area surrounding the location of the listing. Like in the previous case, the map may include icons representing available property in the area displayed in the map. A similar set of steps may occur when, for example, price range and/or other information is input in the windows.

Another variation of the method of the present invention is performed in connection with an Internet website or other type of network link. Under these circumstances, the data terminal is equipped with a communications module for connecting to the network. If the data terminal is a mobile one, the communications module may be a data-enabled web phone. Otherwise, the module may be any known type of modem. In operation, after a user connects to the website, a password may be entered to gain access to the system. The user may then be presented with a screen which requests him to enter information which, for example, identifies a specific property or geographical area. Once the user enters this information, the website responds by generating a map including icons identifying property available in the coverage region as well as other information as discussed herein.

Referring to FIG. **4**, a second embodiment of the system of the present invention includes a terminal having a map generation unit **201**, a storage unit **202**, a processor **203**, and a display **204**. Unlike the first embodiment, this terminal is not a stand-alone system but rather is a mobile terminal connected to a location-positioning system via a communications link. The positioning system may be the Global Positioning System (GPS) or any of a variety of other positioning systems which use, for example, satellite data to determine location on a digital map. Accordingly, the terminal of the second embodiment includes a location data receiver **205** which may be a GPS receiver adapted to operate with a digital map. GPS receivers of this type are known to those skilled in the art. See, for example, U.S. Pat. Nos. 6,321,158 and 6,256,582.

FIG. **5** is a flow diagram showing steps included in a second embodiment of the method of the present invention, which may be implemented by the system shown in FIG. **4**. The method begins by having a real-estate agent or other user enter property information into the terminal which identifies a geographical area having one or more properties for available on the market. (Block **210**). The property information may be entered into one of the data fields

previously mentioned, and/or may correspond to a geographical area such as city, town, or county or even a specific address.

In a second step, the property information is used as a basis for generating a digital map by the map generation unit. (Block **220**). The digital map may cover all or a portion of the area specified according to one or more user-specified settings or a default setting. If a specific address is entered, the digital map may cover a predetermined radius centered on that address. Of course, as with many standard map generation programs the coverage area may be changed by the user.

In a third step, the processor searches the storage unit based on the property information entered by the user, and more specifically to determine a list of available properties in the specified area and/or their accompanying attributes. (Block **230**).

In a fourth step, the processor associates the information obtained from the third step with the digital map generated in the second step to form an integrated output on the display of the user's terminal. (Block **240**). This results in the display of selectable icons on the digital map and/or textual information in window **170**. The first through fourth steps may be performed in a manner analogous to those discussed with respect to the first embodiment.

In a fifth step, the GPS receiver in the terminal receives location data from the GPS system. As shown in FIG. **6**, receipt of this data may be initiated by the "Turn GPS On" selection window **177** in FIG. **3**. This location data specifies a current position of the terminal, to within a small error. The GPS receiver inputs the location data into the processor, which then generates an icon **280** on the digital map indicating the current position of the terminal. (Block **250**). Because the GPS receiver is a dynamic device, it continuously or at least periodically receives location data which updates the current location of the terminal as the terminal moves. The processor receives this data and causes the current-position icon **280** to move in a corresponding manner. As a result, a user can observe his location on the digital map relative to the locations of the properties identified by the selectable icons.

Subsequent steps of the method may be performed in a manner analogous to those in the first embodiment. These steps relate to: the selection of property icons and the subsequent display of specific property information associated with those icons, including media information in window **160** and textual information in window **170**; the display of additional property icons when the map is zoomed in and out; as well as the other steps described with respect to the first embodiment.

As an alternative to the first and second steps, the second embodiment of the method of the present invention may begin with activation of the GPS receiver via selection area **208**. (Block **260**). This will cause the GPS receiver of the terminal to receive GPS data indicative of a current location of the terminal. This data is then forwarded to the processor, which then automatically activates the map generation unit to generate a map of an area surrounding the current location of the terminal, as determined by the received GPS data. (Block **270**). Subsequent steps of the method may then proceed as described above.

In another variation of the second embodiment, the GPS receiver may be directly connected to the map generation unit. When location data is received from the receiver, the map generation unit may automatically respond by generating a map of a surrounding area on the display.

In another variation of the second embodiment, the terminal of the present invention is connected to a remote storage device. As shown in FIG. **4**, this device **300** may be a remote server connected to a network such as the Internet, or a database located, for example, in a real-estate agent's office. In the former case, the remote server may be connected to an MLS website. In operation, when property information is input into the mobile terminal by a user the processor will automatically connect to the remote server. A search will then be performed of the MLS data at this website to obtain the information corresponding to a selected property icon. This data is then returned to the terminal for display.

If the remote device is a database in the agent's home office, the database may be loaded with MLS data on a periodic basis so that it is kept up to date. The database may also be furnished with media information and other types of non-MLS data as previously mentioned. When a search is initiated on the terminal, the processor may then acquire information from the database for display on the terminal. The connection between the mobile terminal and remote device may be any type of communications link known. Preferably, the connection is a wireless communications link which is operatively connected to a data modem installed in the mobile terminal. If desired, however, hard-wired connections may be used.

Other modifications and variations to the invention will be apparent to those skilled in the art from the foregoing disclosure. Thus, while only certain embodiments of the invention have been specifically described herein, it will be apparent that numerous modifications may be made thereto without departing from the spirit and scope of the invention.

We claim:

1. A method of displaying current market information to prospective buyers about real-estate property in a geographical area of interest on a mobile computing device, comprising:

generating and displaying a digital map for viewing by said prospective buyer on said mobile computing device for said area of interest;

obtaining current status property information for an item of property in the real-estate market for the area of interest, wherein said property information is obtained from a database stored on said mobile computing device and includes at least a location, market price and a market status of the item of property;

displaying a property icon on said digital map at the location of the item of property, wherein the property icon is associated with the item of property in the real-estate market; and

displaying, in response to the property icon being selected, at least the market price and the market status of the item of property associated with the selected property icon.

2. The method of claim **1**, wherein said digital map shows at least one street within said area of interest.

3. The method of claim **2**, wherein said step of displaying a property icon includes:

displaying said property icon on or adjacent to said street.

4. The method of claim **1**, further comprising:

receiving location data indicative of a current location of the mobile computing device in said area of interest;

wherein said step of generating and displaying said digital map generates and displays a digital map for said area of interest based on the location data received in said receiving step.

5. The method of claim 1, further comprising:

receiving location data indicative of a current location of the mobile computing device in said area of interest; and

displaying, on said digital map, information indicative of the current location of said mobile computing device in said area of interest.

6. The method of claim 1, wherein the digital map is displayed in a first window on said mobile computing device, and wherein said property information includes a digital image of said item of property, and said digital image of said item of property is displayed in a second window in response to the property icon being selected.

7. The method of claim 1, wherein said database is derived from a database of MLS listings.

8. The method of claim 1, wherein said property information additionally includes at least one of demographics information related to said item of property, current owner information for said item of property, property specification information and real-estate broker information.

9. The method of claim 1, wherein said obtaining step includes obtaining property information which includes locations, market price and market status of a plurality of items of property in said area of interest, and wherein said displaying a property icon step includes displaying a property icon for each of said plurality of items of property with said digital map.

10. The method of claim 9, wherein the digital map with the plurality of property icons displayed on the map is displayed in a first window, property information of an item of property is displayed in a second window in response to the property icon associated with the item of property being selected in the first window, and textual information relating to each of the plurality of items of property is displayed in a third window.

11. The method of claim 10, wherein said second window includes at least one user-modifiable field, and wherein if a user enters information in said second window, the database is searched for items of property that match the user-entered information, and items of property that match the user-entered information are displayed in the third window.

12. The method of claim 11, wherein a user-modifiable field in the second window is market price range, and wherein if a user enters a price range in the market price range field, the database is searched for items of property whose market price is in the entered range, and items of property whose market price is in the entered price range are displayed in the third window.

13. The method of claim 1, wherein said market status information is selected from the group consisting of sold, available or under contract.

14. A real-estate market information mobile computing device, comprising:

a map generation unit for generating a digital map covering an area of interest;

a storage unit for storing property information which includes at least a location, a market price and a market status of an item of property in said area of interest;

a processor for determining information needed to display a property icon for the item of property at the location of the item of property on said digital map, and for determining information needed to display property information about the item of property associated with the property icon, in response to the property icon being selected, and

a display unit for displaying said generated digital map and the property icon, and for displaying the associated property information for the item of property when the associated property icon is selected.

15. The real-estate market information mobile computing device of claim 14, wherein said property information about the item of property displayed in response to the property icon associated with the item of property being selected includes at least one of a digital image of said item of property, demographics information related to said item of property, current owner information for said item of property, property specification information, market price information, and market status information.

16. The real-estate market information mobile computing device of claim 14, wherein said digital map shows at least one street within said area of interest.

17. The real-estate market information mobile computing device of claim 16, wherein said property icon is displayed on or adjacent to said street.

18. The real-estate market information mobile computing device of claim 14, further comprising:

a location determining unit which determines a current location of said mobile computing device, said location determining unit inputting information indicative of said current location to said map generation unit, said map generation unit automatically generating said digital map covering said area of interest based on said current location information.

19. The real-estate market information mobile computing device of claim 18, wherein said location determining unit is a GPS receiver.

20. The real-estate market information mobile computing device of claim 14, wherein said property information additionally includes a digital image of said item of property.

21. The real-estate market information mobile computing device of claim 14, wherein said property information additionally includes at least one of demographics information related to said item of property, current owner information for said item of property, property specification information, and real-estate broker information.

22. The real-estate market information mobile computing device of claim 14, wherein said property information stored in the storage unit is comprised of a database of one or more MLS listings.

23. The real-estate market information mobile computing device of claim 14, wherein said storage unit stores MLS listing information, wherein the location of said item of property is included within said MLS listing information.

24. The real-estate market information mobile computing device of claim 14, wherein said market status information is selected from the group consisting of sold, available or under contract.

25. The real-estate market information mobile computing device of claim 14, wherein said display unit displays the generated digital map with the property icon in a first window, and wherein said property information includes a digital image of the item of property, and said digital image of said item of property is displayed in a second window in response to the property icon being selected.

26. The real-estate market information mobile computing device of claim 14, wherein stored property information includes locations of a plurality of items of property in said area of interest, and wherein said processor determines information needed to display a plurality of selectable icons corresponding to locations of each of the plurality of items of property, respectively, said locations included within said property information stored in said storage unit.

27. The real-estate market information mobile computing device of claim 26, wherein said display unit displays the

digital map with the plurality of property icons displayed on the map in a first window, property information of an item of property in a second window in response to the property icon associated with the item of property being selected in the first window, and textual information relating to each of the plurality of items of property in a third window.

28. The real-estate market information mobile computing device of claim **27**, wherein said second window includes at least one user-modifiable field, and wherein if a user enters information in said second window, the processor searches a database stored in the storage unit for items of property that match the user-entered information, and the display unit displays items of property that match the user-entered information in the third window.

29. The real-estate market information mobile computing device of claim **28**, wherein a user-modifiable field in the second window is market price range, and wherein if a user enters a price range in the market price range field, the processor searches the database for items of property whose market price is in the entered range, and the display unit displays items of property whose market price is in the entered price range in the third window.

30. A computer-readable medium storing a program to be implemented in a processing unit of a mobile computing device, said computer-readable medium including:

a first code section for controlling a display of a digital map covering an area of interest on the mobile computing device;

a second code section for obtaining property information which includes at least a location, a market price and a market status of one an item of property in said area of interest, wherein said property information is stored in a database on the mobile computing device;

a third code section for displaying a property icon at the location of the item of property on said digital map, wherein the property icon is associated with the item of property; and

a fourth code section for displaying, in response to the property icon being selected, at least the market price and the market status of the item of property associated with the selected property icon.

31. The computer-readable medium of claim **30**, said method computer-readable medium further comprising:

a fifth code section for additionally displaying, in response to said selection, at least one of a digital image of said item of property, demographics information related to said item of property, current owner information for said item of property, property specification information and real-estate broker information.

32. The computer-readable medium of claim **30**, further comprising:

a sixth code section for receiving location data indicative of a current location of the mobile computing device in said area of interest; and

a seventh code section for automatically generating said digital map based on the current location data received in said sixth code section.

33. The computer-readable medium of claim **30**, further comprising:

a sixth code section for receiving location data indicative of a current location of the mobile computing device in said area of interest; and

a eighth code section for displaying, on said digital map, information indicative of the current location of said mobile computing device in said area of interest.

* * * * *

US006636803C1

(12) EX PARTE REEXAMINATION CERTIFICATE (10479th)

United States Patent

Hartz, Jr. et al.

(10) Number: US 6,636,803 C1

(45) Certificate Issued: Jan. 21, 2015

(54) **REAL-ESTATE INFORMATION SEARCH AND RETRIEVAL SYSTEM**

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Reexamination Request:
No. 90/012,958, Aug. 27, 2013

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Filed:	**Nov. 30, 2001**

(51) **Int. Cl.**
G06Q 10/00 (2012.01)

(52) **U.S. Cl.**
USPC **701/459**; 701/454; 705/313

(58) **Field of Classification Search**
None
See application file for complete search history.

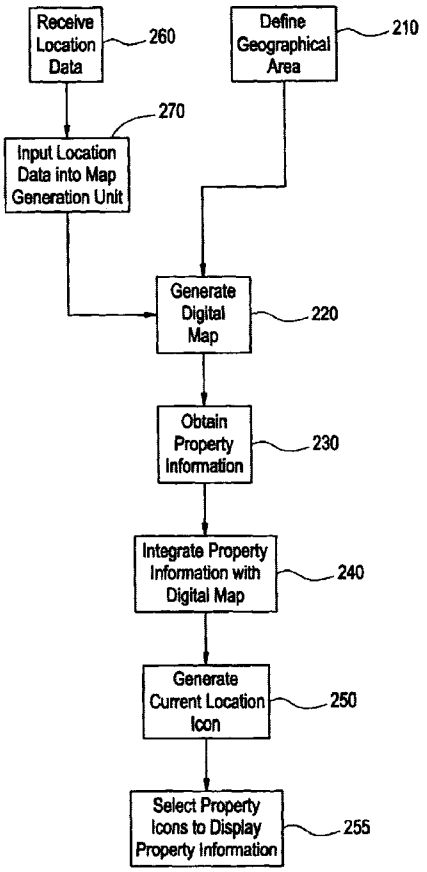
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/012,958, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Deandra Hughes

(57) **ABSTRACT**

A search and retrieval system includes a data terminal which displays icons representing properties in a given real-estate market on a digital map. The icons are selectable so that, when selected, information derived from an MLS or other database are displayed in association with the map. In one embodiment, the data terminal is equipped with a GPS receiver and data-enabled mobile phone. The GPS receiver receives location data which is used by a processor to display an icon representing a current location of the terminal within the map. The data-enabled phone links the terminal to a remote server or database of property information, which may also be displayed when property icons are selected on the map. The property information may include media (e.g., bitmap) data that provide a visual depiction of the property icons selected. By integrating all of these digital sources of information on one terminal, the efficiency and accuracy of the property buying experience is significantly enhanced.



EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims **7** and **32** are cancelled.

Claims **1**, **3-6**, **8**, **10-31** and **33** are determined to be patentable as amended.

Claims **2** and **9**, dependent on an amended claim, are determined to be patentable.

New claims **34-38** are added and determined to be patentable.

1. A method of *generating and* displaying *a digital map of* current market information to prospective buyers about *residential* real-estate property in a geographical area of interest on a [mobile computing device] *data-enabled mobile phone configured to obtain cellular-based location data*, comprising:

obtaining said area of interest from the cellular-based location data;

generating and displaying [a]*the* digital map for viewing by said prospective buyer on said [mobile computing device] *data-enabled mobile phone* for said area of interest; obtaining current status property information for an item of property in the *residential* real-estate market for the area of interest, wherein said property information is obtained from *a remote data source and* a database stored on said [mobile computing device and] *data-enabled mobile phone, wherein the current status property information* includes [at least] *multiple listing service* (*MLS*) *data comprising* a location, *a* market price and a market status of the item of property;

displaying a property icon on said digital map at the location of the item of property, wherein the property icon [is associated with] *refers to* the item of property in the *residential* real-estate market; and

displaying, [in response to] *upon selection of* the property icon[being selected], [at least] *MLS data including* the market price and the market status of the item of property [associated with] *of* the selected property icon.

3. The method of claim **2**, wherein said step of displaying a property icon includes:

displaying said property icon on or [adjacent to] *abutting* said street.

4. The method of claim **1**, further comprising:

receiving location data [indicative] of a current location of the [mobile computing device] *data-enabled mobile phone* in said area of interest;

wherein said step of generating and displaying said digital map generates and displays a digital map for said area of interest [based on] *from* the location data received in said receiving step.

5. The method of claim **1**, further comprising:

receiving location data [indicative] of a current location of the [mobile computing device] *data-enabled mobile phone* in said area of interest; and

displaying, on said digital map, [information indicative] *a position icon* of the current location of said [mobile computing device] *data-enabled mobile phone* in said area of interest.

6. The method of claim **1**, wherein the digital map is displayed in a first window on said [mobile computing device] *data-enabled mobile phone*, and wherein said property information includes a digital image of said item of property, and said digital image of said item of property is displayed in a second window [in response to] *upon selection of* the property icon[being selected].

8. The method of claim **1**, wherein said property information additionally includes at least one of demographics information [related to] *for* said item of property, current owner information for said item of property, property specification information and real-estate broker information.

10. The method of claim **9**, wherein the digital map with the plurality of property icons displayed on the map is displayed in a first window, property information of an item of property is displayed in a second window [in response to] *upon selection of* the property icon [associated with] *of* the item of property [being selected] in the first window, and textual information [relating to]*for* each of the plurality of items of property is displayed in a third window.

11. The method of claim **10**, wherein said second window includes [at least] one *or more* user-modifiable field, and wherein if a user enters information in said second window, the database is searched for items of property *having property information* that [match] *matches* the user-entered information, and items of property *having property information* that [match] *matches* the user-entered information are displayed in [the third] *a fourth* window.

12. The method of claim **11**, wherein a user-modifiable field in the second window is market price range, and wherein if a user enters a price range in the market price range field, the database is searched for items of property whose market price is in the entered range, and items of property whose market price is in the entered price range are displayed in [the third] *a fourth* window.

13. The method of claim **1**, wherein said market status information is selected from the group consisting of sold, available[or], *and* under contract.

14. A *residential* real-estate market information mobile computing device, comprising:

a cellular-based data receiver configured to obtain cellular-based location data;

a map generation unit for generating a digital map covering an area of interest, *wherein said area of interest is obtained from the cellular-based location data*;

a storage unit for storing property information which includes [at least] *multiple listing service* (*MLS*) *data comprising* a location, a market price and a market status of an item of property in said area of interest;

a processor for determining information needed to display a property icon for the item of property at the location of the item of property on said digital map, and for determining information needed to display property information about the item of property [associated with] *of* the property icon[, in response to] *upon selection of* the property icon [being selected], and

a display unit for displaying said generated digital map and the property icon, and for displaying the [associated] property information for the item of property [when the

associated] *upon selection of the* property icon [is selected], *wherein the property information comprises MLS data including the market price and the market status of the item of property*.

15. The *residential* real-estate market information mobile computing device of claim **14**, wherein said property information about the item of property displayed in [response to] *upon selection of* the property icon [associated with] *of* the item of property [being selected] includes at least one of a digital image of said item of property, demographics information related to said item of property, current owner information for said item of property, property specification information, market price information, and market status information.

16. The *residential* real-estate market information mobile computing device of claim **14**, wherein said digital map shows at least one street within said area of interest.

17. The *residential* real-estate market information mobile computing device of claim **16**, wherein said property icon is displayed on or [adjacent to] *abutting* said street.

18. The *residential* real-estate market information mobile computing device of claim **14** [, further comprising:

a location determining unit which determines a current location of said mobile computing device, said location determining unit inputting information indicative of said current location to said map generation unit, said map generation unit automatically generating said digital map covering said area of interest based on said current location information], *wherein said area of interest is from the location data received from the cellular-based location data receiver*.

19. The *residential* real-estate market information mobile computing device of claim **18**, wherein said location determining unit [is]*further comprises* a GPS receiver.

20. The *residential* real-estate market information mobile computing device of claim **14**, wherein said property information additionally includes a digital image of said item of property.

21. The *residential* real-estate market information mobile computing device of claim **14**, wherein said property information additionally includes at least one of demographics information [related to] *of* said item of property, current owner information for said item of property, property specification information, and real-estate broker information.

22. The *residential* real-estate market information mobile computing device of claim **14**, wherein said property information stored in the storage unit is comprised of a database of one or more MLS listings.

23. The *residential* real-estate market information mobile computing device of claim **14**, wherein said storage unit stores MLS listing information, wherein the location of said item of property is included within said MLS listing information.

24. The *residential* real-estate market information mobile computing device of claim **14**, wherein said market status information is selected from the group consisting of sold, available[or], *and* under contract.

25. The *residential* real-estate market information mobile computing device of claim **14**, wherein said display unit displays the generated digital map with the property icon in a first window, and wherein said property information includes a digital image of the item of property, and said digital image of said item of property is displayed in a second window [in response to] *upon selection of* the property icon [being selected].

26. The *residential* real-estate market information mobile computing device of claim **14**, wherein stored property information includes locations of a plurality of items of property in said area of interest, and wherein said processor determines information needed to display a plurality of selectable icons corresponding to locations of each of the plurality of items of property, respectively, said locations included within said property information stored in said storage unit.

27. The *residential* real-estate market information mobile computing device of claim **26**, wherein the display unit displays the digital map with the plurality of property icons displayed on the map in a first window, property information of an item of property in a second window [in response to] *upon selection of* the property icon [associated with] *of* the item of property being selected in the first window, and textual information [relating to] *for* each of the plurality of items of property in a third window.

28. The *residential* real-estate market information mobile computing device of claim **27**, wherein said second window includes at least one user-modifiable field, and wherein if a user enters information in said second window, the processor searches a database stored in the storage unit for items of property *having property information* that [match] *matches* the user-entered information, and the display unit displays items of property *having property information* that [match] *matches* the user-entered information [are displayed in the third] in a fourth window.

29. The *residential* real-estate market information mobile computing device of claim **28**, wherein a user-modifiable field in the second window is market price range, and wherein if a user enters a price range in the market price range field, the processor searches the database for items of property whose market price is in the entered range, and the display unit displays items of property whose market price is in the entered price range in the [third] *fourth* window.

30. A *non-transitory* computer-readable medium storing a program to be implemented in a processing unit of a mobile computing device, said computer-readable medium including:

a first code section for controlling a display of a digital map covering an area of interest on the mobile computing device;

a second code section for obtaining *residential* property information which includes [at least] *multiple listing service (MLS) data comprising* a location, a market price and a market status of [one] an item of property in said area of interest, wherein said property information is *obtained from a remote data source and* stored in a database on the mobile computing device;

a third code section for displaying a property icon at the location of the item of property on said digital map, wherein the property icon [is associated with] *refers to* the item of property; [and]

a fourth code section for displaying [, in response to] *upon selection of* the property icon [being selected, at least] *MLS data including* the market price and the market status of the item of property [associated with] *of* the selected property icon;

a fifth code section for receiving cellular-based location data of a current location of the mobile computing device in said area of interest; and

a sixth code section for generating said digital map from the current location data received in said sixth code section.

31. The computer-readable medium of claim **30**, said [method] computer-readable medium further comprising:

a [fifth] *seventh* code section for additionally displaying[, in response to said] *upon* selection [,] *of the property icon* at least one of a digital image of said item of prop-

erty, demographics information [related to] *of* said item of property, current owner information for said item of property, property specification information and real-estate broker information.

33. The computer-readable medium of claim **30**, further comprising:

a [sixth] *seventh* code section for receiving location data [indicative] of a current location of the mobile computing device in said area of interest; and

[a] *an* eighth code section for displaying, on said digital map, [information indicative of] the current location of said mobile computing device in said area of interest.

34. The method of claim 1, further comprising expanding the coverage area of the map using a zoom feature to obtain a second area of interest;

obtaining current status property information for an item of property in the residential real-estate market for the second area of interest; and

displaying a second property icon on said digital map at the location of the item of property within the second area of interest.

35. The method of claim 1, further comprising obtaining a second area of interest that is user-generated;

obtaining current status property information for an item of property in the residential real-estate market for the second area of interest; and

displaying a second property icon on said digital map at the location of the item of property within the second area of interest.

36. The method of claim 1, wherein the MLS data further comprises an MLS listing number.

37. The residential real-estate market information mobile computing device of claim 14, wherein the MLS data further comprises an MLS listing number.

38. The computer-readable medium of claim 30, wherein the MLS data further comprises an MLS listing number.

* * * * *

JS 44 (Rev. 06/17)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. *(SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)*

I. (a) PLAINTIFFS

CORUS REALTY HOLDINGS, INC.

(b) County of Residence of First Listed Plaintiff _____
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys *(Firm Name, Address, and Telephone Number)*
Kilpatrick Townsend & Stockton LLP
Mitch Stockwell, Wab Kadaba, Charles Pannell:
1100 Peachtree Street NE, Suite 2800 Atlanta, GA 30309 (404)815-6500.
Dario A. Machleidt: 1420 Fifth Avenue, Suite 3700 Seattle, WA 98101 (206)467-9600

DEFENDANTS

ZILLOW GROUP, INC.; ZILLOW, INC.; and TRULIA, LLC

County of Residence of First Listed Defendant KING
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys *(If Known)*

II. BASIS OF JURISDICTION *(Place an "X" in One Box Only)*

- ❒ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question *(U.S. Government Not a Party)*
- ❒ 2 U.S. Government Defendant
- ❒ 4 Diversity *(Indicate Citizenship of Parties in Item III)*

III. CITIZENSHIP OF PRINCIPAL PARTIES *(Place an "X" in One Box for Plaintiff and One Box for Defendant)*

(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	❒ 1	❒ 1	Incorporated *or* Principal Place of Business In This State	❒ 4	❒ 4
Citizen of Another State	❒ 2	❒ 2	Incorporated *and* Principal Place of Business In Another State	❒ 5	❒ 5
Citizen or Subject of a Foreign Country	❒ 3	❒ 3	Foreign Nation	❒ 6	❒ 6

IV. NATURE OF SUIT *(Place an "X" in One Box Only)*

Click here for: Nature of Suit Code Descriptions.

CONTRACT
- ❒ 110 Insurance
- ❒ 120 Marine
- ❒ 130 Miller Act
- ❒ 140 Negotiable Instrument
- ❒ 150 Recovery of Overpayment & Enforcement of Judgment
- ❒ 151 Medicare Act
- ❒ 152 Recovery of Defaulted Student Loans (Excludes Veterans)
- ❒ 153 Recovery of Overpayment of Veteran's Benefits
- ❒ 160 Stockholders' Suits
- ❒ 190 Other Contract
- ❒ 195 Contract Product Liability
- ❒ 196 Franchise

REAL PROPERTY
- ❒ 210 Land Condemnation
- ❒ 220 Foreclosure
- ❒ 230 Rent Lease & Ejectment
- ❒ 240 Torts to Land
- ❒ 245 Tort Product Liability
- ❒ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ❒ 310 Airplane
- ❒ 315 Airplane Product Liability
- ❒ 320 Assault, Libel & Slander
- ❒ 330 Federal Employers' Liability
- ❒ 340 Marine
- ❒ 345 Marine Product Liability
- ❒ 350 Motor Vehicle
- ❒ 355 Motor Vehicle Product Liability
- ❒ 360 Other Personal Injury
- ❒ 362 Personal Injury - Medical Malpractice

PERSONAL INJURY
- ❒ 365 Personal Injury - Product Liability
- ❒ 367 Health Care/ Pharmaceutical Personal Injury Product Liability
- ❒ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ❒ 370 Other Fraud
- ❒ 371 Truth in Lending
- ❒ 380 Other Personal Property Damage
- ❒ 385 Property Damage Product Liability

CIVIL RIGHTS
- ❒ 440 Other Civil Rights
- ❒ 441 Voting
- ❒ 442 Employment
- ❒ 443 Housing/ Accommodations
- ❒ 445 Amer. w/Disabilities - Employment
- ❒ 446 Amer. w/Disabilities - Other
- ❒ 448 Education

PRISONER PETITIONS

Habeas Corpus:
- ❒ 463 Alien Detainee
- ❒ 510 Motions to Vacate Sentence
- ❒ 530 General
- ❒ 535 Death Penalty

Other:
- ❒ 540 Mandamus & Other
- ❒ 550 Civil Rights
- ❒ 555 Prison Condition
- ❒ 560 Civil Detainee - Conditions of Confinement

FORFEITURE/PENALTY
- ❒ 625 Drug Related Seizure of Property 21 USC 881
- ❒ 690 Other

LABOR
- ❒ 710 Fair Labor Standards Act
- ❒ 720 Labor/Management Relations
- ❒ 740 Railway Labor Act
- ❒ 751 Family and Medical Leave Act
- ❒ 790 Other Labor Litigation
- ❒ 791 Employee Retirement Income Security Act

IMMIGRATION
- ❒ 462 Naturalization Application
- ❒ 465 Other Immigration Actions

BANKRUPTCY
- ❒ 422 Appeal 28 USC 158
- ❒ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ❒ 820 Copyrights
- ☒ 830 Patent
- ❒ 835 Patent - Abbreviated New Drug Application
- ❒ 840 Trademark

SOCIAL SECURITY
- ❒ 861 HIA (1395ff)
- ❒ 862 Black Lung (923)
- ❒ 863 DIWC/DIWW (405(g))
- ❒ 864 SSID Title XVI
- ❒ 865 RSI (405(g))

FEDERAL TAX SUITS
- ❒ 870 Taxes (U.S. Plaintiff or Defendant)
- ❒ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ❒ 375 False Claims Act
- ❒ 376 Qui Tam (31 USC 3729(a))
- ❒ 400 State Reapportionment
- ❒ 410 Antitrust
- ❒ 430 Banks and Banking
- ❒ 450 Commerce
- ❒ 460 Deportation
- ❒ 470 Racketeer Influenced and Corrupt Organizations
- ❒ 480 Consumer Credit
- ❒ 490 Cable/Sat TV
- ❒ 850 Securities/Commodities/ Exchange
- ❒ 890 Other Statutory Actions
- ❒ 891 Agricultural Acts
- ❒ 893 Environmental Matters
- ❒ 895 Freedom of Information Act
- ❒ 896 Arbitration
- ❒ 899 Administrative Procedure Act/Review or Appeal of Agency Decision
- ❒ 950 Constitutionality of State Statutes

V. ORIGIN *(Place an "X" in One Box Only)*

☒ 1 Original Proceeding ❒ 2 Removed from State Court ❒ 3 Remanded from Appellate Court ❒ 4 Reinstated or Reopened ❒ 5 Transferred from Another District *(specify)* ❒ 6 Multidistrict Litigation - Transfer ❒ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing ***(Do not cite jurisdictional statutes unless diversity)***:
35 U.S.C. § 271(a); 35 U.S.C. § 271(b); 35 U.S.C. § 271(c)

Brief description of cause:
Patent Infringement

VII. REQUESTED IN COMPLAINT:

❒ CHECK IF THIS IS A **CLASS ACTION** UNDER RULE 23, F.R.Cv.P.

DEMAND $

CHECK YES only if demanded in complaint:
JURY DEMAND: ☒ Yes ❒ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE _____ DOCKET NUMBER _____

DATE
June 11, 2018

SIGNATURE OF ATTORNEY OF RECORD
s/ Dario Machleidt

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____